

Appendix B – Site Report

B.1 North Wiltshire

B.1.1 Parkgate Farm, Purton (Site Ref N1)

B.1.1.1 Introduction

The site extends to 43.5 ha and is located approximately 1 km to the north of Purton. A railway line runs immediately adjacent to the northern boundary. The site is currently accessed via Mopes Lane utilising an existing accommodation bridge on the north side of the site. Mopes Lane is a single carriageway off Cricklade Road. The surrounding land uses include a restored landfill to the north east. The town of Purton overlooks the site from high ground to the south. To the south of the site the land rises to Paven Hill, with a handful of residential properties and agricultural fields scattered on the overlooking northern hillside. A newly planted woodland shelter belt has been established on the north slope of Paven Hill to screen views to the adjacent landfill.

The site is currently flat pasture land (grade 4) with associated farm buildings some of which are derelict. The site comprises medium scale fields with a strong hedgerow pattern interspersed with mature hedgerow trees including Oak. River Key forms the north western boundary of the site and the Gloucester to Swindon railway line forms the north eastern boundary of the site beyond which is the restored Purton landfill (hazardous, commercial and industrial wastes).

A number of Public Right of Way runs through the site.

The site borders flood zone 2 and 3 areas and is located within a community forest area. A SAM is located approx 700m to the south of the site and Red Lodge Wood Wildlife site is approx 700m to the North West of the site

The site is not allocated in the adopted North Wiltshire Local Plan although there is an existing Employment allocation a short distance to the west of the site, on the north side of the railway line. The emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. These relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use.

B.1.1.2 Landscape and Visual Impact

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales

Key characteristics relevant to the site:

- Gently undulating clay lowland farmland with regular and well-ordered field patterns defined by thick hedgerows, however intensification of agricultural activities have resulted in the removal of hedgerows, enlarged fields and new farm buildings.
- Open floodplain landscapes displaying gravel workings and flooded pits.
- Brick built buildings reflect the widespread use of the local clay as a building material with plain tiled roofs.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Minety Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on clay.
- Medium to large fields, mainly pastoral land use with pasture concentrated around the water courses.
- Variable field pattern with network of hedgerows in good conditions and mature hedgerow trees.
- Presence of streams marked by lines of willows and crossed by modest bridges.

- Scattered settlement of towns, small villages and farmsteads, many using vernacular materials of brick, half timber, stone, tiles and thatch.
- Roads largely minor and rural with a few trunk roads and sections of motorway.
- A largely peaceful, rural landscape.

Generally the condition of the landscape character area is considered by WCC to be 'moderate', with a 'moderate' strength of character.

The strategy for the area is to conserve the elements that contribute to the landscape character and enhance areas that are becoming degraded, such as the urban fringes.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council) Landscape Character Area: Thames Valley Lowland:

Key characteristics relevant to the site:

- Low, level or undulating ground
- Continuous hedges with many mature oak and ash
- Field sizes vary from small and irregular to medium sized and regular shaped, predominantly pasture
- Dispersed or nucleated settlement on higher ground using vernacular materials of stone and local brick
- Generally contained views, but with some longer views and a sense of containment over the Thames floodplain

Landscape Designations and Rights of Way:

- There are public rights of way along the boundaries of the site to the south, east and west, as well as one crossing the centre of the site running north – south

Baseline Landscape Character and Features: Site Survey

The proposed site is well managed, flat pasture land in a rural location within the Rural Buffer. The site comprises medium scale fields with a strong hedgerow pattern interspersed with mature hedgerow trees including Oak. There are however several dead Elm trees within the hedgerows. There are occasion clumps of mature deciduous trees located in the field corners. There is a slight rise to the east of the site and the adjacent landfill is visible over the railway cutting planting.

To the south of the site the land rises to Paven Hill, predominantly wooded with a handful of residential properties and agricultural fields scattered on the overlooking north hillside. A newly planted woodland shelter belt has been established on the north slope of Paven Hill to screen views to the adjacent landfill. The outer edge of Purton also overlooks the site. The River Key runs along the northern edge of the site.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Ordinary

Capacity to Accept Change: Low - Medium

Although the site is in keeping with the wider peaceful, rural landscape setting, the presences of the adjacent railway, and more significantly the existing landfill, have eroded the landscape character within the local area, giving the site a moderate landscape quality. Due to the previous layout of the site, with the location of the former farm buildings and well established screening, the site has a moderate capacity to accommodate change, provided facilities they are sensitively located to reduce intrusion into the existing field pattern and in keeping with the local agricultural style.

Potential Landscape Mitigation Measures

- Sensitive site planning –facilities to be located to utilise the surrounding topography to prevent intrusion into the rural character.
- Facilities to be in keeping with the local vernacular/agricultural style.

- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to strengthen the rural character.
- The following ‘Broad Management Objectives’ for the Rolling Clay Lowlands in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Retaining and managing hedgerow network and nurturing new hedgerow trees
 - Strengthening the enclosed character of the landscape and screening views to urban edges through nurturing existing and planting new woodland.
- The following Enhancement Priorities proposed for the Thames Valley Lowland landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners
 - Encourage planting of new woodland copses
 - Discourage development which would detract from the tranquil rural character

Table B.1.1.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residential Properties on Paven Hill	High	Moderate adverse	Facilities to be in keeping with the local vernacular / agricultural style
Residential Properties on the northwest fringe of Purton	High	Moderate adverse	Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Public Footpath Users	High	Moderate adverse	
Railway Users	Low	Negligible	Structure planting around site boundary
Adjacent Landfill	Low	Negligible	

Summary: Residual Landscape and Visual Impacts

Due to the existing significant landscape and visual detractor of the adjacent landfill, and the relatively visually and physically isolation of the site, sensitive development within the site would minimize the adverse impact on the local and surrounding character and visual receptors. Therefore the site has a moderate ability to accommodate change.

However, the main visual impacts on surrounding residences and farms and from the elevated vantage of Purton would be difficult to fully mitigated through sensitive site planning and screen planting.

Recommended further landscape and visual surveys

- Night-time visual surveys.

B.1.1.3 Air Quality and Odour

Introduction

Parkgate Farm is located to the north of Purton and is currently pasture land (grade 4). The River Key runs along the northern edge of the site. The site is adjacent to the restored Purton landfill (hazardous, commercial and industrial wastes).

Potential uses include materials recovery facility, local recycling, treatment and inert waste recycling and transfer.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 11.2µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 8.6µg/m3 NO2 (standard 40µg/m3);
- 13.5µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are a total of 15 properties within 500 metres of the sites boundary. These are mainly residential housing including scattered farms. No sensitive ecological sites have been identified within the study area.

Air pollutant sources within 500 metres of the site: road traffic from minor roads; gas/oil/solid fuel space heating for scattered buildings; Purton landfill (potential additional pollutants including dust, odour and NH3). Agricultural activities in the area are also potential sources of dust, bioaerosols, NH3 and odour.

Table B.1.1.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
Total residential within 100m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500 m (15 properties)	1(1)	1(1)	N/A	N/A	N/A	1(1)	1(1)
Residential within 250 m only (2 properties)	N/A	N/A	N/A	N/A	2 (2)	N/A	N/A
Ecological designation within 500 m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol risks are limited to within 250 m of the site

Mitigation

Control measures for dust, odour and bio-aerosols are recommended. See 'Air Emissions Mitigation Options' in Appendix C.

Recommendation

Air quality risks for the intended use are low to moderate without mitigation. Mitigation for dust, odour and bio-aerosols is recommended. Detailed assessment is recommended if residential premises remain within 250 m the assessment should account for the influence of Paven Hill (to the south) on local air flows. In any case, further assessment is recommended for bioaerosols and odour at receptors within 500 m.

B.1.1.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

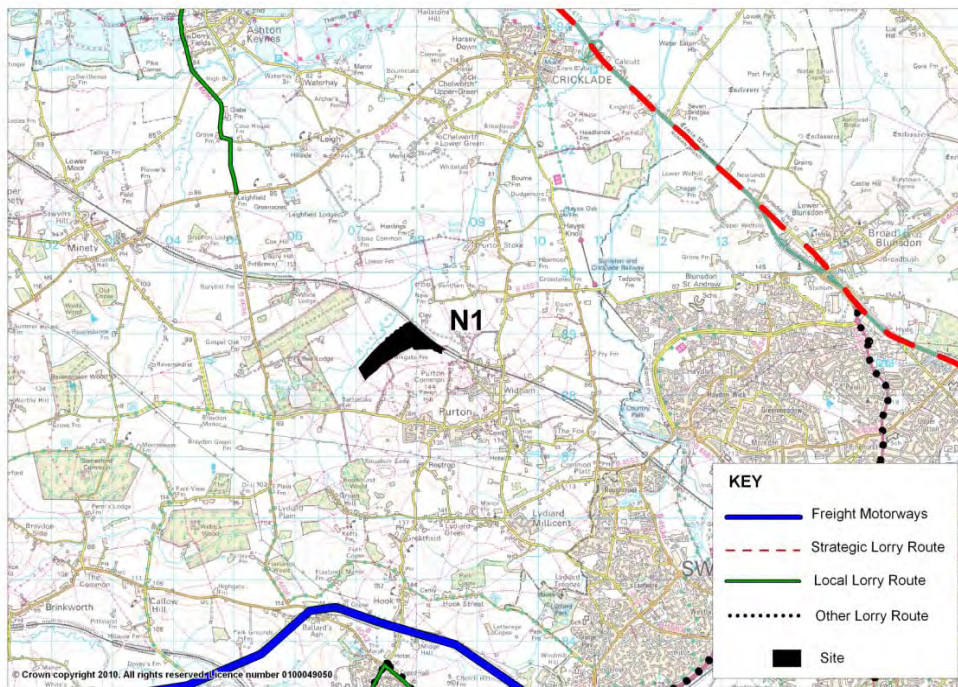
This proposed waste site has been identified for strategic use. The site is located to the north west of the village of Purton, which is located to the west of Swindon. Access to the site would be required through the former brickworks site. The site is an operational hazardous / non-hazardous landfill. Permission has also been granted for composting and tyre shredding facilities. A HRC is located on the adjacent Purton Brickworks Employment Allocation (Site N2).

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.1.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.1.4.1 shows that the nearest strategic lorry route is the A419 to the north of the site. Vehicles would be required to travel through the village of Cricklade on the B4553 and B4040 to access the A419. The B4553 and B4040 are not designated as recommended routes for HGVs on the Wiltshire HGV Route Network.

Figure B.1.1.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Treatment (T);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.1.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.1.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Existing/Potential Access Junctions

The only access to the site at present is via an existing brickworks site located at the end of Mopes Lane which links to Cricklade Road to the east of the proposed site. In order to gain access to the site vehicles would have to travel through the brickworks site and over an existing rail bridge. The brickworks site is accessed via Mopes Lane.

Mopes Lane is subject to a 20mph speed limit. Road humps are located along the length of the road which is approximately 6.3m wide. Mopes Lane forms a priority junction with Cricklade Road to the east of the site and the geometry of the junction is considered suitable to accommodate HGV movements. Visibility to the south is good; however, to the north the visibility is hindered slightly by the residential properties located to the north of the access. The achievable visibility to the north equates to 2.4m x 90m approximately. However, as Cricklade Road has a 60mph speed limit this may need to be improved. DMRB5 states that for a 60mph road a visibility splay of 4.5m x 215m would be required and in exceptional circumstances 2.4m x 215m. However, this guidance is used for trunk roads; therefore relaxations on this distance may be accepted. Figure B.1.1.5.2. highlights the visibility achieved to the north of the junction.

⁵ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Figure B.1.1.4.1 - Visibility Splay to the North at the Mopes Lane / Cricklade Road Junction

New Road is narrow in width and has a residential frontage however at present there is no through route onto New Road from Mopes Lane. The junction of New Road / Cricklade Road is not suitable for HGVs in terms of layout or visibility. For reason outlined above, access to the site via New Road is not recommended.

Witts Lane is located to the south of the existing rail line on the same side of the site. However, access onto Witts Lane would require use of third party land. The western section of Witts Lane is also very narrow and passes a dense residential area. Therefore access via Witts Lane would not be recommended, as major infrastructure work would be required.

The most suitable access to the site would be via Mopes Lane which would require access via the existing brickworks. If access to the site is to be gained via the existing brickworks site then a more detailed study would be required to determine the suitability of the existing bridge across the rail track.

Mitigation

The best location for access into the site is via Mopes Lane. The Mopes Lane / Cricklade Road junction is suitable for HGV access into the site in terms of geometry. HGVs currently use this junction to access the brickworks site. However, visibility to the north at the junction is slightly hindered due to residential properties located approximately 90m away.

According to DMRB visibility on a 60mph road should be 215m. However, this guidance is designated for trunk roads therefore a reduction in these requirements may be accepted. A speed survey in the vicinity of the site would be recommended to determine the actual speeds of vehicles passing the site.

Mitigation work in the form of a ghost island right turn may be required at the Cricklade Road / B4553 Packhorse Lane junction due to poor visibility and safety issues.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- Cricklade Road / B4553 Packhorse Lane ghost island right turn - £125k

Recommendation

The site offers the following advantages:

- Access junction of Mopes Lane / Cricklade Road is suitable for HGV use.

The following issues/constraints have been identified:

- Access to Strategic Lorry Route is required through Cricklade Village;

- Restricted access for HGVs to south of Mopes Lane;
- Further investigation required for existing bridge across rail track leading into site; and
- Mitigation work may be required at the Cricklade Road / B4553 Packhorse Lane junction due to poor visibility and safety issues.

Access to the strategic freight network is poor and would require access through the village of Cricklade. Access to the site is limited to Mopes Lane, however, further investigation of the existing bridge structure of the rail track would be needed. Mitigation may also be required at the Cricklade Road / B4553 Packhorse Lane junction to improve safety. Therefore the site has a number of issues that would need to be considered in more detail before it would be considered suitable for a proposed waste facility.

B.1.1.5 Water Quality / Environment

NGR: 408720, 188600

Location: Purton

Site Area: 43.5 hectares

Data Source: Landmark Envirocheck Report 30095127_1_1 (8th Feb 2010) unless otherwise referenced

Data Source: Landmark Envirocheck Report 30095127_1_1 (8th Feb 2010) unless otherwise referenced.

Table B.1.1.5.1 - Parkgate Farm Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The River Key (GQA Grade C) tracks the north-western edge of the site, at times within 10m. The EA identify that the river has a chemical and biological quality of Good and Moderate and very high nutrient levels⁶. The WFD ecological and current overall status is Moderate.</p> <p>A stream or drain that joins the River Key forms the south-western limit of the site; there are two small ponds marked within the site; and there is a pond across the railway line that forms the north-eastern boundary, about 20m away.</p>	<p>Impact on flow or quality of the River Key and local drains.</p>	<p>Surface water drainage scheme including runoff collection system and use of Sustainable Drainage Systems (SuDS) and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hard-standing, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) including good working practices and following Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Treatment Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS map⁷ indicates that alluvium deposits are</p>	<p>-</p>	<p>-</p>	<p>-</p>

⁶ http://maps.environment-agency.gov.uk/wiyby/wiybyController?extraClause=RIVER_NAME-'Key'

⁷ 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	underlain by the Upper Jurassic Oxford Clay formation.			
Hydrogeology: Groundwater – Hydrogeological Units	The majority of the site is over unproductive strata (non-aquifer). There is an area of Secondary (Minor) Aquifer on the western side, probably River Key alluvium. There is also a Secondary Aquifer 300m south-east of the site.	Contamination of aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	Surface water drainage scheme including runoff collection system and use of Sustainable Drainage Systems (SuDS) and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements.
Hydrogeology: Groundwater – Source Protection Zone	The site is not in or near a Source Protection Zone	No risk posed to public water supply; but local private abstractions may exist (<20m ³).	Design of the scheme to limit the potential for risk to surface water in terms of hard-standing, bunding, landscaping and ground levels.	Surface Water Treatment Plan. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Vulnerability	The Secondary Aquifer associated with the River Key deposits is considered to be of low vulnerability; and the one to the south-east has areas of low, intermediate and high vulnerability.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is likely to be flowing north-west toward the River Key.	Not applicable.	Pollution Incident and Control Plan to be implemented by contractors (e.g, bunded storage areas, designated liquid handling areas etc) including good working practices and following Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.	
Discharges: Surface Water – Discharge Consents	Surface water to stream, 548m to south-west, 616m to south-west.	Not applicable.	-	To be considered during further assessment.

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	<p>Trade effluent to Bentham Ditch, 92m to north-west.</p> <p>Trade discharge to tributary of River Key, 268m to north-west.</p> <p>Other matter to tributary of River Key, 350m to south, 423m to north-east.</p> <p>Storm sewage overflow to River Key, 563m to north.</p> <p>Final / treated effluent to tributary of River Key, 615m to south, 648m to north, 919m to east.</p> <p>Pumping station sewage discharges to Purton Brook, 704m to south-east.</p>			
Discharges: Groundwater – Discharge Consents	<p>Final / treated effluent to groundwater via soakway 727m to south-east, to irrigation area 745m to south-east and 753m to south-east, 748m to east.</p>	Not applicable.	-	To be considered during further assessment.
Discharges: Pollution Incidents	<p>Pollution Incidents to Controlled Waters; 357m north, minor incident; 536m east, minor incident (oils); 605m south-east, minor incident (sewage); 678m south-east, minor incident (sewage); 726m south-east,</p>	Not applicable.	-	To be considered as potential source of pollution if any found during monitoring.

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	minor incident (sewage).			
<p>Abstractions: Surface Water – Abstractions</p> <p>Abstractions: Groundwater – Abstractions</p>	<p>There are no registered abstractions within 1km of the site, although as abstractions of less than 20m³ / day do not need to be registered these may be present in the area.</p>	<p>Contamination of potable water supply.</p>	<p>SuDS, surface water management scheme, infiltration devices.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and including good working practices and EA PPGs during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p>
<p>Flood Risk</p>	<p>The site is in Flood Zone 1 but there is a Flood Zone 3 associated with the River Key, the extent of which appears to precisely follow the north-western boundary of the site.</p> <p>The site is larger than 1ha and the aquifer is shallow.</p>	<p>There is a risk from fluvial flooding and also risk of changing surface water runoff causing pluvial flooding. The shallow aquifer means there is a risk of groundwater flooding.</p> <p>Flooding could interrupt site operations and cause pollution to spread from the site.</p>	<p>Surface water drainage scheme and SuDS design to control runoff.</p>	<p>A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Land Uses	<p>The northern portion of the site is listed as Parkgate Farm Landfill Site, for “Household, Commercial And Industrial Waste”.</p> <p>Immediately across the railway from the site is Purton Landfill Site, for “Special Waste”, c. 20m away.</p>	<p>There is a risk that waste material will be encountered during construction works, which would lead to a higher risk that run-off during construction would lead to contamination of local water courses and the Secondary Aquifer.</p>	<p>Site Waste Management Plan to specify how excavated material will be handled, stored and disposed of.</p>	<p>Geotechnical Investigation and consultation to determine extent and nature of waste.</p>
Conservation Designations	<p>There are no designated sensitive sites within 1km of the site.</p>	<p>No risk posed.</p>	<p>-</p>	<p>-</p>
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	<p>The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.</p>	<p>-</p>	<p>-</p>	<p>-</p>

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Materials Recovery Facility / Waste Transfer Station, Local Recycling point, Inert Waste Recycling and Transfer station, or Waste Treatment site at **Parkgate Farm, Purton** falls within the following category:

- Several potentially significant issues identified – review further assessment requirements of site

The initial screening indicates that:

- There is a surface water course adjacent to the site and therefore there is the potential for changes to its flow and quality
- The site is on a Secondary Aquifer and therefore there are potential groundwater contamination issues
- There is fluvial, pluvial and groundwater flood risk
- There have been potentially contaminating past land uses on the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include a flood risk assessment, surface water management plan, contamination assessment, and liaison with the Environment Agency.

B.1.2 Purton Brickworks Employment Allocation, Purton (Site Ref N2)

B.1.2.1 Introduction

The site extends to 5 ha and is located approximately 1 km north of Purton, North Wiltshire. The site comprises several industrial and commercial compounds, with a mix of building style from large industrial sheds and temporary cabins to brick construction offices, and includes Purton Household Recycling Centre. The employment allocation site can be accessed from either Mopes Lane or New Road. However, New Road is a mainly residential road and its junction with Cricklade Road is not suitable for HGV use. Therefore, access to the site is essentially via Mopes Lane, off an unclassified road, Cricklade Road, which links from Swindon to Purton, up to the B4553.

To the northern boundary of the site is formed by hedgerows and a field beyond which lies a waste water treatment work. The eastern extent of the site is defined by Mopes lane and a footpath running south to New Road. The Gloucester to Swindon railway line forms the southern boundary of the site. Immediately to the west of the site is Purton Landfill a former brickworks and clay pit used for landfilling. There are several residential property located to the south east of the site on New Road and to the south of the Railway on The Common. There is a Public Rights of Way running north – south through the site, with several side routes leading offsite in various directions, in addition a public Bridal Way runs east – west across the site

The site is allocated for employment in the North Wiltshire Local Plan. The emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. These relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use. Others of particular note include:

Reference: 09/01365 Change of use of car park to children's play area on land situated at SN6 6NX

B.1.2.2 Landscape and Visual Impact

Introduction

The site is located to the north of Purton, North Wiltshire. The Gloucester to Swindon railway line runs immediately adjacent to the south. Access to the site is via Mopes Lane, off an unclassified road, Cricklade Road, which links from Swindon to Purton, up to the B4553. The site currently comprises land in industrial uses, including a former brickworks and clay pit used for landfilling. There are several residential properties within the vicinity of the site along Cricklade Road.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales

Key characteristics relevant to the site:

- Gently undulating clay lowland farmland with regular and well-ordered field patterns defined by thick hedgerows, however intensification of agricultural activities have resulted in the removal of hedgerows, enlarged fields and new farm buildings
- Open floodplain landscapes displaying gravel workings and flooded pits
- Brick built buildings reflect the widespread use of the local clay as a building material with plain tiled roofs

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Minety Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on clay
- Medium to large fields, mainly pastoral land use with pasture concentrated around the water courses
- Variable field pattern with network of hedgerows in good conditions and mature hedgerow trees
- Presence of streams marked by lines of willows and crossed by modest bridges
- Scattered settlement of towns, small villages and farmsteads, many using vernacular materials of brick, half timber, stone, tiles and thatch
- Roads largely minor and rural with a few trunk roads and sections of motorway
- A largely peaceful, rural landscape

Generally the condition of the landscape character area is considered by WCC to be 'moderate', with a 'moderate' strength of character.

The strategy for the area is to conserve the elements that contribute to the landscape character and enhance areas that are becoming degraded, such as the urban fringes

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Thames Valley Lowland

Key characteristics relevant to the site:

- Low, level or undulating ground
- Continuous hedges with many mature oak and ash
- Field sizes vary from small and irregular to medium sized and regular shaped, predominantly pasture
- Dispersed or nucleated settlement on higher ground using vernacular materials of stone and local brick
- Generally contained views, but with some longer views and a sense of containment over the Thames floodplain

Landscape Designations and Rights of Way:

- The Withy Bed County Wildlife Site to the east
- There is a public right of way running north – south through the site, with several side routes leading offsite in various directions
- A public Bridal Way runs east – west across the site

Baseline Landscape Character and Features: Site Survey

The proposed site is flat industrial land in a rural location, the characteristic of which is protected by a Rural Buffer, on the outer fringe of the village of Purton. The site comprises various industrial uses, including the Purton Household Recycling Centre.

The site is parcelled into several industrial and commercial compounds, with a mix of building style from large industrial sheds and temporary cabins to brick construction offices. The site is cluttered with signage, active and disused utility poles, lighting columns including spot lights and CCTV columns, skips as well as a telecoms tower; wiremesh and palisade security fencing enclose most of the compounds. Unoccupied space is predominantly rough grassland and scrub, littered with construction waste.

The site is extremely active; there is a high potential for conflict between public and business users with the industrial traffic including HGVs. Road surfaces are generally poor; minimal landscaping has been undertaken. The site is partially enclosed by unmanaged hedgerows; Dutch Elm disease has resulted in several dead trees within these.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor
Capacity to Accept Change: Moderate

The site is entirely incongruous with the wider rural / suburban fringe landscape setting. The unpleasant industrial atmosphere and degraded landscape within the site gives it a poor landscape quality. The site is currently a significant landscape detractor, uncontrolled expansion or intensification of which should be restricted. Sensitive site planning with facilities in keeping with the rural style, as well as restatement and enhancement of hedgerows and woodland planting would counter balance any adverse impact on the local landscape character. Therefore the site has a moderate ability to accommodate change.

Potential Landscape Impacts

- Further erosion of the rural character

Potential Landscape Mitigation Measures

- Sensitive site planning – facilities to be located to prevent intrusion into the rural character
- Facilities to be in keeping with the local vernacular/agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to strengthen the rural character
- The following 'Broad Management Objectives' for the Open Clay Vale in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Retain and manage the hedgerow network and nurture new hedgerow trees
 - Promote appropriate management of arable land including retaining area of fallow land and maintaining an unploughed margin around fields
 - Minimise small scale incremental change such as signage or fencing which could change the rural peaceful character of the landscape
 - Ensure both future construction and changes to existing buildings are designed to integrate with the existing character and structure of settlements
 - Screen views to intrusive urban edges through planting new woodland
- The following Enhancement Priorities proposed for the Thames Valley Lowland landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners

- Encourage planting of new woodland copses
- Discourage development which would detract from the tranquil rural character

Table B.1.2.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Hansell's Farm Residents	High	Slight adverse	Facilities to be low, single or double storey in keeping with the local vernacular / agricultural style Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Pound Farm Residents	High	Slight adverse	
Residential Properties along Cricklade Road	High	Negligible	
Residential Properties to the northwest fringe of Purton including Widham	High	Negligible	
A419 Road Users	Low	Negligible	Structure planting around site boundary
Adjacent Landfill	Medium	Negligible	

Summary: Residual Landscape and Visual Impacts

The site is currently a significant landscape detractor, sensitive site planning with low, single or double storey facilities in keeping with the rural style would have a minimal adverse impact. Therefore the site has a moderate ability to accommodate change.

The main visual impacts, on surrounding residences and farms, could be almost entirely mitigated through sensitive site planning and screen planting.

Recommended further Landscape and Visual Surveys

Night-time visual surveys

B.1.2.3 Noise

The Site at Purton Brickworks Employment Allocation, Purton has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Treatment.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On the footpath to the west of properties on New Road, located on the eastern boundary of the allocation site; and
- The northern garden of the residential properties adjacent to the railway on Witts Lane, located approximately 18m to the south of the site boundary.

The proposed site is located within land that is currently industrial units and a household recycling centre. Given the current usage, background noise levels were made with site activities occurring. The site at Purton Brickworks is bounded to the south with a railway line, and residential properties to the east. The remaining boundaries of the site are surrounded by open/farm land.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions being overcast with light westerly winds. The current noise environment around the allocated site is dominated by noise from the industrial units and reversing beepers, with trains on the railway providing regular significant transient noise.

Consecutive background noise measurements were taken on the footpath to the east of the allocated site and the residential property on Witts Lane. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.2.3.1- Footpath - Background Noise Levels (AU1_0004)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
13:29:00	00:05:00	61.5	80.0	42.6	52.4	47.1	44.4
13:34:00	00:05:00	48.5	61.4	43.4	50.6	46.5	44.9
13:39:00	00:05:00	52.6	67.9	42.7	51.9	47.4	44.3
13:29:00	00:15:00	57.4	80.0	42.6	51.7	46.9	44.5

Table B.1.2.3.2- Witts Lane - Background Noise Levels (#60)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
13:35:19	00:05:00	47.7	61.5	39.3	48.5	45.4	43.0
13:40:19	00:04:00	67.1	85.6	40.6	54.2	47.3	44.6
13:35:19	00:09:00	63.7	85.6	39.3	51.0	46.2	43.7

The average background noise levels (LA90) at the Footpath and Witts Lane are taken as being 44.5 dB and 43.7 dB, respectively.

Assessment Suitability

The site is on a partially developed site. The site borders residential properties in the south east corner. With careful siting and use of mitigation measures the site is considered suitable for limited intensification of use, i.e. only one of the possible uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required on the eastern and southern boundaries. The facilities should be sited as far away from the residential properties as practical and at least 125m away. By careful siting and placing activities in buildings a greater area can be utilised.

Recommendation

Based on current calculations the site is not deemed suitable to support all three uses simultaneously. With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.2.4 Air Quality and Odour

Purton Brickworks comprises land in industrial uses, the former brickworks and the former clay pit used for landfilling. It is within a rural location with the southern boundary formed by the Gloucester to Swindon railway line. It is currently the existing Purton household recycling centre.

Potential uses include Materials Recycling Facility, Waste Transfer Site, Local Recycling and Treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 11.8µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 9.0µg/m3 NO2 (standard 40µg/m3);
- 13.5µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are a total of 237 properties within 500 metres of the sites boundary. These are mainly residential housing within the north east of Purton. No sensitive ecological sites have been identified within the study area.

Air pollutant sources within 500 metres of the site: road traffic from minor roads; gas/oil/solid fuel space heating for scattered buildings; Purton landfill (potential additional pollutants including dust, odour and NH3). Agricultural activities in the area are also potential sources of dust, bioaerosols, NH3 and odour.

Table B.1.2.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
Total residential within 100m of site (17 properties)	2 (2)	2 (2)	N/A	N/A	3 (3)	2 (2)	3 (3)
Total residential between 100 and 500m (220 properties)	1 (1)	1 (1)	N/A	N/A	3 (3)	1 (1)	3 (3)
Residential within 250m only (65 properties)	N/A	N/A	N/A	N/A	1 (1)	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

2 = moderate risk, further assessment is recommended, mitigation should be required

3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated

Values in brackets denote potential 'in-combination' or cumulative effects

N/A = risk is not applicable in these circumstances

* Bioaerosol risks are limited to within 250m of the site

Mitigation

Control measures for dust, odour and bio-aerosols are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are moderate to high without mitigation. Measures to control emissions dust, odour and bioaerosols should be required. Detailed assessment at properties surrounding site is recommended.

B.1.2.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

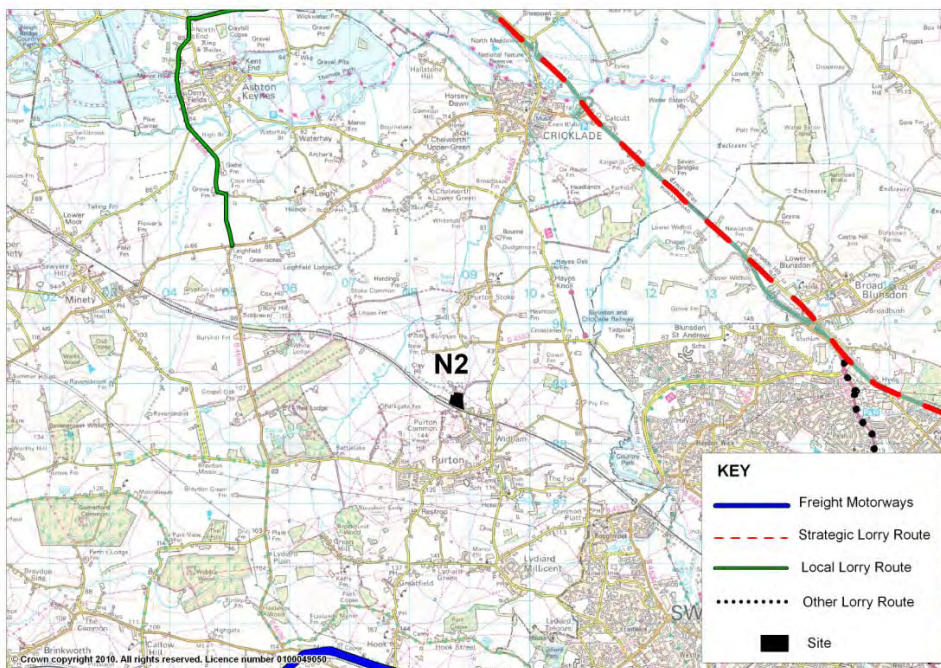
This proposed waste site has been identified for strategic use. The site is located to the north west of the village of Purton, which is located to the west of Swindon. The site has access onto Mopes Lane and New Road. The site currently has existing B2 employment use on site and there is an existing HRC on the site

Baseline

The location of the site in relation to the strategic and local freight routes is shown in Figure 2.1. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.2.5.1 shows that the nearest strategic lorry route is the A419 to the north of the site. Vehicles would be required to travel through the village of Cricklade on the B4553 and B4040 to access the A419. The B4553 and B4040 are not designated as recommended routes for HGVs on the Wiltshire HGV Route Network.

Figure B.1.2.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Treatment (T);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.2.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.2.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Existing/Potential Access Junctions

The existing site is currently accessed via Mopes Lane. Access to the site is also available off New Road to the south east corner of the site; however this is currently gated off.

Mopes Lane is subject to a 20mph speed limit. Road humps are located along the length of the road which is approximately 6.3m wide. Mopes Lane forms a priority junction with Cricklade Road to the east of the site and the geometry of the junction is considered suitable to accommodate HGV movements. Visibility to the south is good, however, to the north the visibility is hindered slightly by the residential properties located to the north of the access. The achievable visibility to the north equates to 2.4m x 90m approximately. However, as Cricklade Road is has a 60mph speed limit this may need to be improved. DMRB8states that for a 60mph road a visibility splay of 4.5m x 215m would be required or in exceptional circumstances 2.4m x 215m. However, this guidance is used for trunk roads; therefore relaxations on this distance may be accepted. **Figure B.1.2.5.2** highlights the visibility achieved to the north of the junction.

⁸ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Figure B.1.2.5.2 - Visibility Splay to the North at the Mopes Lane / Cricklade Road Junction



Access to New Road can be gained from Mopes Lane through the site. However, New Road is narrow in width and has residential dwellings fronting onto it. In addition, on street parking is present along New Road which further narrows the width of the road. The junction of New Road / Cricklade Road is not considered suitable for HGVs in terms of layout or visibility, as demonstrated in **Figure B.1.2.5.3** and therefore, access to the site via New Road is not recommended.

Figure B.1.2.5.3 - New Road / Cricklade Road Junction



Access to Witts Lane is unavailable due to the existing rail track which bounds the southern edge of the site.

Transport Environmental Impacts

To the north of Mopes Lane there are a small number of residential dwellings fronting onto Cricklade Road, the nearest being 90m north of the Mopes Lane junction. The village of Purton is accessed to the south of Mopes Lane, however, a 7.5 tonne weight restriction to the south of the junction restricts large HGVs travelling through the village except for access.

No footways are located along Mopes Lane or Cricklade Road, therefore no pedestrians would use these roads and the impact on pedestrians would be minimal.

Access to the A419 is gained through the village of Cricklade approximately 4.5km to the north of the site. This means vehicles have to pass through the centre of the village, which has significant pedestrian movement, on street parking and is traffic calmed. The impact of increased traffic on the village, in particularly HGVs, cannot be ignored and it is considered that for a facility of this

size, there is likely to be an adverse impact on noise, vibration, severance or fear and intimidation for pedestrians.

Off Site Highway Network

Access to the freight network is gained to the north of the site as access to the south is prohibited by the 7.5 tonne weight restriction located to the south of the Mopes Lane junction. The junction of Cricklade Road / B4553 Packhorse Lane takes the form of a priority junction which is suitable to accommodate HGVs. The junction is located on the outside of a bend so visibility is restricted. Mitigation in the form of a ghost island right turn lane may be required due to poor visibility approaching the junction for right turning vehicles into Cricklade Road. This would remove the right turning vehicle from the path of east bound vehicles, potentially improving safety.

It is possible the site will generate a number of staff trips during the highway peak periods, however, as the site is located in a rural area no capacity issues are envisaged on the highway network. Capacity assessments will be required to confirm this.

Accessibility by Sustainable Modes

Pedestrian accessibility to the site is poor with no footways located along Mopes Lane or Cricklade Road. No on road cycle lanes or footpaths are signed in the area. No bus stops are located in the area so links to public transport are limited.

Pedestrian access via New Road is not ideal either as no footways are available for pedestrian use.

Constraints

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N1/001 in Appendix D**. The main transport constraints to the development of the site are as follows:

- No access for through traffic is allowed through the village of Purton due to 7.5 tonne weight limit;
- Adverse impact on the residential amenity of Cricklade;
- Access to the site not suitable via New Road;
- Poor visibility at the Cricklade Road / Packhorse Road priority junction; and
- Poor access by sustainable modes.

Mitigation

The best location for access into the site is via Mopes Lane. The Mopes Lane / Cricklade Road junction is suitable for HGV access into the site in terms of geometry. HGVs currently use this junction to access the brickworks site. However, visibility to the north at the junction is slightly hindered due to residential properties located approximately 90m away.

According to DMRB visibility on a 60mph road should be 215m. However, this guidance is designated for trunk roads therefore a reduction in these requirements may be accepted. A speed survey in the vicinity of the site would be recommended to determine the actual speeds of vehicles passing the site.

Mitigation work in the form of a ghost island right turn may also be required at the Cricklade Road / B4553 Packhorse Lane junction due to poor visibility and safety issues.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£125k** - Cricklade Road / B4553 Packhorse Lane ghost island right turn

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- Access junction of Mopes Lane / Cricklade Road is suitable for HGV use.
- The following issues/constraints have been identified:
- Poor access to strategic freight network through Cricklade Village;
- Restricted access for HGVs to south of Mopes Lane;
- Mitigation work may be required at the Cricklade Road / B4553 Packhorse Lane junction due to poor visibility and safety issues; and
- HGV access is not suitable from New Road.

Access to the strategic freight network is poor and would require access through the village of Cricklade. Access to the site via New Road is not recommended as New Road and the New Road / Cricklade Road junction is considered unsuitable for HGV use. Therefore, access to the site is limited to Mopes Lane. Mitigation may also be required at the Cricklade Road / B4553 Packhorse Lane junction to improve safety. Therefore the site has a number of issues that would need to be considered in more detail before it would be regarded suitable for a proposed waste facility.

B.1.2.6 Contaminated Land

NGR: 408800, 188710

Location: Purton

Area: 5 hectares

Data Source: Landmark Envirocheck Report 30095259_1_1 (8th Feb 2010) unless otherwise referenced

Table B.1.2.6.1 – Purton Brickworks – Contamination

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water</p>	<p>There is a ditch that runs adjacent to the eastern edge of the site.</p> <p>There are a number of isolated small ponds and drains within 1km of the site, including a pond adjacent to the site to the north-west.</p>	<p>Runoff of contaminated material to ditch and adjacent pond during construction and operation.</p>	<p>Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design.</p> <p>Consider limiting types of waste handled at the site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc), including reference to Environment Agency (EA) Pollution Prevention Guidelines (PPGs).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Geology: Stratigraphy	The geology map ⁹ indicates that the site is underlain by the Upper Jurassic Oxford Clay formation. There is a small fault trending NW-SE directly west of the site, the downthrown side is north. There is likely to be infill as the site is shown on historic maps to be an old landfill.	Not applicable.	-	To be considered during further assessment.
Hydrogeology: Groundwater – Hydrogeological Units	The site is on unproductive strata (non-aquifer).	No risk posed.	Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design.	Environmental Management during construction. Produce working plan for site.
Hydrogeology: Groundwater – Source Protection Zone (SPZ)	The site is not on or near a SPZ.	No risk posed to public water supply; but local private abstractions may exist (<20m ³ /day).	Consider limiting types of waste handled at the site e.g. only solid waste, only inert waste.	Review run off treatment requirements. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Vulnerability	The site is on unproductive strata so a vulnerability classification is not relevant.		Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas, etc). Good working practices and EA guidance during construction.	Surface Water Management Plan.
Hydrogeology: Groundwater – Direction of Flow	No information available on direction of flow	No risk posed	-	-

⁹ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Discharges: Pollution Incidents	There are no records of pollution incidents to land within 1km of the site.	No risk posed.	-	-
Abstractions: Surface Water - Abstractions	There are no surface water abstractions within 1km of the site.	No risk posed	-	-
Abstractions: Groundwater – Abstractions	There are no groundwater abstractions within 1km of the site.	No risk posed	-	-
Flood Risk	The site is in Flood Zone 1.	No risk of fluvial flooding but the potential for pluvial flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Landuses: Historical landuse	<p>1877: The railway is present along the southern edge of the site.</p> <p>1900: The site is marked as Purton Brickworks, including a pit and a kiln.</p> <p>1923: The pit has expanded and there are now several buildings on the site.</p> <p>1970: Tanks and an electrical substation are shown on the site; and a sewage works is c. 100m north.</p> <p>1978-90: The site is now Purton Industrial Estate, with two buildings marked</p>	<p>There is a significant risk that past and present landuses will have led to contamination of the ground, in particular the landfilling of the old clay pit on site.</p> <p>The risk this presents is the excavation and exposure of contaminated material during construction which could open pathway to site staff via direct contact, or controlled waters via runoff to the ditch near the site.</p>	A Site Waste Management Plan and a Pollution Incident and Control Plan should specify how excavated material is to be handled, stored, and disposed of.	Geoenvironmental investigation is required to determine the nature and extent of any contamination that may be present at the site.

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	as depots and an electrical substation.			
Landuses: Waste sites	Purton Landfill is present on the site and a large area, Parkgate Farm Landfill, is present 184m west.			
Landuses: Trade directory	The site is currently an industrial estate and includes a gas supplier, with other potentially contaminative industries (e.g. paint and varnish stripping) within 250m of the site.			
Conservation Designations	There are no statutory conservation designations within 1km of the site	No risk posed	-	-

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Materials Recovery Facility / Waste Transfer Station, Local Recycling centre, or Waste Treatment site at Purton Brickworks Employment Allocation falls within the following category:

- Several potentially significant issues identified – review further assessment requirements for site
- The initial screening indicates that:
- There are surface water features close to the site and therefore there is the potential for changes to their quality
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include a flood risk assessment, surface water management plan and a contamination assessment.

B.1.3 Hill Resource Recovery Centre, Compton Bassett (Site Ref N3)

B.1.3.1 Introduction

The site extends to 7 ha and is located approximately 1.25 km east of Calne, North Wiltshire. The site is located off the unclassified road, Spreckley Road, which links Compton Bassett and the A4. The site is located within an operational Waste Management Facility which includes landfill, landfill gas electricity generation, Household Recycling Centre, consolidated composting operations, Materials Recovery Facility and a skip waste recycling operation. Site buildings are large scale industrial sheds, temporary site offices and landfill associated plant and machinery.

The proposed area comprises a flat site with the domed topography of a landfill to the immediate west and screening bunds to the north and east with immature deciduous trees beyond which the site is enclosed along Spreckley Road by hedgerows. To the south of the site a well established deciduous planting screen fully contains the site. A small cluster of residential properties are located to the south of the site off Spreckley Road, as well as a few scattered residential properties to the east along Spreckley Road including the residential Old Camp Farm to the northeast corner of the proposed site.

The site is approximately 1 km north of the A4 and accessed via single two lane carriageway road which forms the minor arm of a ghost island priority junction with the A4. The existing site access itself, from the mini-roundabout to the site, is traffic calmed by means of speed humps with a 20 mph speed limit.

A historic farm track, now a public bridleway runs along the northern boundary of the site leading from Spreckley Road to the Sands Farm Quarry and Landfill offsite to the west, edged by hedgerows and native hedgerow trees, many of which are diseased or dead. The site is enclosed to the east along Spreckley road by hedgerows. The site is located in proximity to a number of designated sites. The site lies adjacent to the North Wiltshire Downs AONB.

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. Some of these relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use. Others of particular note include:

Reference: 09/00832 Change of use to permit temporary soil and compost operations without compliance with conditions 2 and 9 of permissions 06/07034 to land at Lower Compton Resources Recovery centre SN11 8 RB

Reference: 09/01497 Extension to a sand quarry and infilling with waste without compliance with condition 8 of planning permission 06/07008 (hours of operation) to land at Lower Compton Waste Management facility.

Reference: 09/01498 Extension to a sand quarry and infilling with waste without compliance with condition 4 of planning permission 06/07008 to land at Lower Compton Waste Management facility.

Reference: 09/01499 to continue the use of the weighbridge complex and portacabin office without compliance with condition 1 of planning permission 06/07020 to land at Lower Compton Resources Recovery centre SN11 8 RB

B.1.3.2 Landscape and Visual Impact

Introduction

The site is located to the east of Calne off an unclassified road, Spreckley Road, which links Compton Bassett and the A4. To the north and west of the site is an operational Waste Management Facility with a landfill and a Household Recycling Centre. To the south is a small residential community. A handful of residential properties are scattered within the vicinity to the east, however most are screened by existing topography and vegetation. The site is currently compost and landfill to the north and south respectively.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales, on the cusp of Berkshire and Marlborough Downs

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Large historic parks and mansions
- Uses, such as landfill, are widespread, with more substantial urban fringe areas than in neighbouring landscapes. The 'land in between' is often neglected.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Calne Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on clay
- Largely rural, tranquil landscape
- Variable field pattern of arable and pasture with hedgerows, though often replaced by fences and hedgerow trees are sparse
- Sparsely scattered settlement of towns, small villages and farmsteads, many using vernacular materials of local clay brick, stone and red roof tiles.
- Criss cross of rural roads

Generally the condition of the landscape character area is considered by WCC to be 'good', with a 'moderate' strength of character.

The strategy for the area is to conserve its peaceful rural landscape and strengthen its character through minimising urban influence.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Hilmarton Rolling Lowland

Key characteristics relevant to the site:

- Low lying mixed agriculture based on clay
- Scattered dwellings and small settlements away from Calne; mix of stone and brick
- Patchworks of small to medium sized fields, mainly pasture with arable on lighter soils
- Hedged boundaries predominantly well managed, but becoming discontinuous

- Peaceful rural character

Landscape Designations and Rights of Way:

- The land to the east of the site is designated an Area of Outstanding Natural Beauty (AONB).
- A public bridleway runs immediately adjacent to the south of the site, along the Waste Management Facilities' northern boundary.

Baseline Landscape Character and Features: Site Survey

The proposed area comprises a gently rolling site falling to a shallow valley offsite to the north. A screening bund to the landfill has been established to the south and is planted with immature deciduous trees. Compton Bassett hill is to the west, with Compton Bassett Park overlooking the site. Penn Hill is to the north-west; the outer edge of Calne is to the northern slope with no views of the site. The White Horse of Uffington is in the distance to the south. Views of the site from the White Horse are screened by existing planting and intervening topography.

There are few structures on the site; however there are a small number of farm buildings and detached residential properties visible at a distance on the higher ground to the north and east. A line of utility poles runs through the centre of the site. The adjacent Waste Management site is highly active and landfill machinery can be seen above the screen bunding. Landscape remediation has begun to the northern sections of the landfill, now used for grazing sheep. The site is peaceful with a comfortable atmosphere.

A historic farm track, now a public bridleway runs along the southern boundary of the site leading from Spreckley Road to the Sands Farm Quarry and Landfill offsite to the west. The site is enclosed to the south, west and east by hedgerows and native hedgerow trees, many of which are diseased or dead elm. There are arable fields to the north of the site, with clumps of woodland, hedgerows and isolated mature deciduous trees.

Assessment Suitability

Landscape Quality and Condition of site: Poor
Capacity to Accept Change: Medium

The site comprises an active compost and landfill, with a larger waste site immediately to the west out of harmony with the wider tranquil and rural landscape character, giving it a poor landscape quality. Though relatively exposed to distant views from the north, there are limited visual receptors and the existing on and off site uses reduces the importance of the site to the wider overall landscape character. The existing bunds to the north and east of the site screen the site itself as well as the adjacent Waste Management Facility, although higher landfill peaks and larger vehicles on site are visible from the surrounding area. Therefore the site has a medium capacity to accommodate change.

Potential Landscape Mitigation Measures

- Site planning – development to be kept low and in keeping with the local vernacular style. Facilities to be located to the southwest to have minimal encroachment on the open field pattern
- Native woodland planting around site boundaries to the south, west and north. Hedgerow enhancements to the east along Spreckley Road frontage to strengthen the rural character
- The following 'Broad Management Objectives' for the Rolling Clay Lowlands in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Retaining and managing hedgerow network and nurturing new hedgerow trees
 - Strengthening the enclosed character of the landscape and screening views to urban edges through nurturing existing and planting new woodland.
- The following Enhancement Priorities proposed for the Hilmarton Rolling Lowland landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Encourage repair, replanting, widespread extension of hedgerow network, and development of hedgerow trees where hedgerows are in poor condition.

- Conserve mature trees, woodland clumps and shelterbelts
- Discourage development in rural areas
- Encourage less intensive farming on arable land introducing headlands and margins
- Identify and seek opportunities to create new woodland belts and copses, in particular to help screen and contain development

Table B.1.3.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Freeth Farm Residents	High	Moderate – High adverse	Development to be kept low and in keeping with the local vernacular style Facilities to be located to the southwest to have minimal encroachment on the open field pattern
Manor Farm Residents	High	Moderate – High adverse	
Compton Bassett House Residents	High	Negligible	
Users of Speckley Road	Low	Slight adverse	Hedgerow enhancement planting along site boundary
Speckley Road residents	Low	Slight adverse	Hedgerow enhancement planting along site boundary
Users of Cherhill Down bridleway	High	High adverse	Native woodland planting along southern, western and northern boundaries of the site
Users of Penn Hill footpath	High	Negligible	

Summary: Residual Landscape and Visual Impacts

Though occupying a semi-open setting, the existing condition of the site and immediate neighbouring uses and mitigation works already established it is likely that development here would have a minimal impact on the surrounding rural character; therefore the site has a medium ability to accommodate change. The main visual impacts, on residences to the south and the adjacent bridleway could largely be mitigated through sensitive site planning and screen planting.

Recommendation

Recommended further landscape and visual surveys

- Night-time visual surveys.

B.1.3.3 Noise

The Site at Hills Resource Recovery, Compton Bassett has been allocated the following use, and as such has been assessed in regard to noise from the following:

- Treatment

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated use of the site.

In order to assess the site’s suitability for the above use in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- Old Camp Farm, which is located on the north eastern boundary of the allocation site; and
- The driveway of a residential property to the south east of the allocated site, located approximately 40m to the south of the site boundary.

The proposed site is located within land that is currently occupied by a household recycling centre, materials recovery centre and landfill. Given the current usage, background noise levels were made with landfill activities occurring. A significant number of residential properties are located to the south of the site and the remaining boundaries of the site are surrounded by open/farm land.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions being overcast with light westerly winds. The current noise environment around the allocated site is dominated by noise from the current waste operations, such as reversing beepers, glass being emptied and truck movements.

Consecutive background noise measurements were taken at Old Camp Farm and the residential property to the south. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.3.3.1 - Old Camp Farm - Background Noise Levels (AU1_0019)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
13:01:00	00:05:00	54.9	70.5	39.5	57.6	45.6	41.7
13:06:00	00:05:00	46.6	55.8	40.2	49.5	45.1	41.9
13:11:00	00:05:00	44.8	52.6	39.5	47.2	43.5	41.1
13:16:00	00:05:00	47.4	55.8	40.1	50.1	46.4	41.8
13:21:00	00:05:00	47.5	55.3	40.5	50.3	46.4	43.3
13:26:00	00:05:00	46.3	52.8	41.2	49.0	45.1	43.1
13:01:00	00:30:00	49.5	70.5	39.5	49.9	45.2	42.0

Table B.1.3.3.2 - Southern Residential Property - Background Noise Levels (#64)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
13:06:15	00:05:00	59.9	79.6	38.7	57.1	45.2	41.8
13:11:15	00:05:00	59.9	77.2	38.8	54.8	45.8	42.3
13:16:15	00:05:00	57.5	76.8	38.8	53.2	45.4	42.6
13:06:15	00:15:00	59.2	79.6	38.7	55.1	45.5	42.2

The average background noise levels (LA90) at Old Camp Farm and the southern residential properties are taken as being 42.0 dB and 42.2 dB, respectively.

Assessment Suitability

The site is an existing household recycling centre, materials recovery centre and landfill with residential properties located south east and north east of the site boundaries.

The site within select areas is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required on the north east and southern boundaries and the facility should be sited as far away from the residential properties as practical and by at least 150m. By careful siting and placing activities in buildings a greater area can be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.3.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

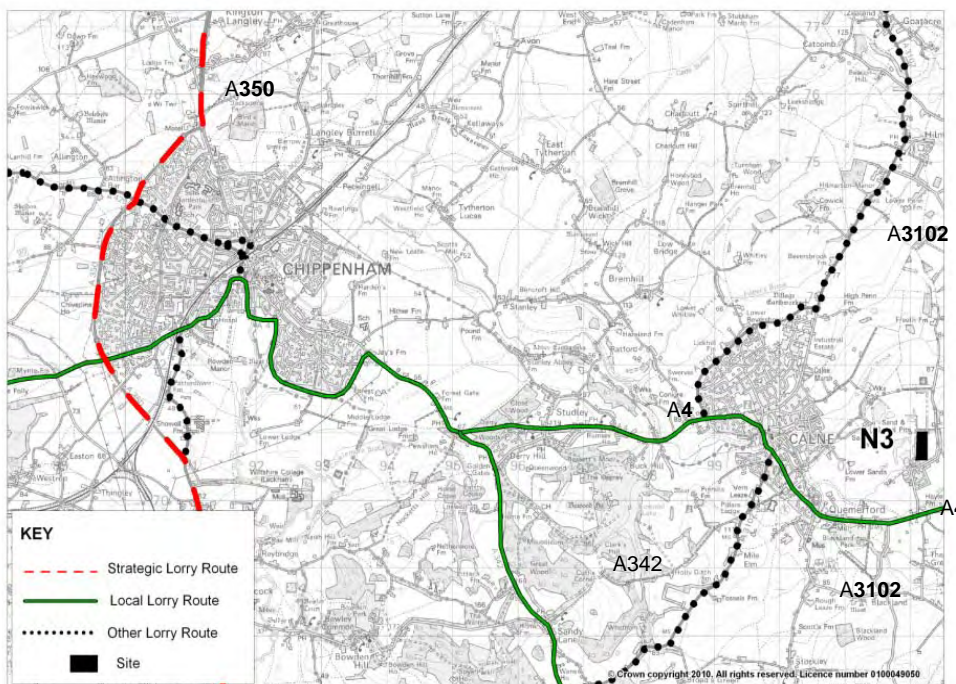
This 7ha site is located 1km north of the A4 and 2.3km east of Calne town centre. The site is allocated for a strategic scale waste facility. The site is the location of an existing Household Recycling Centre as well as a Resource Recovery Centre.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in Figure 2.1. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure 2.1 shows that access to the site is gained via the A4 (local lorry route), which links Marlborough to the east with Chippenham in the west. The A4 provides links to Devizes (via the A3102 and the A342 – both “other” lorry routes) and to the M4 at Junction 16 via the A3102 from Calne. ‘Other’ lorry routes are only to be used where it is essential to gain access. The access road to the site from the A4 is not currently designated as a lorry route.

Figure B.1.3.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for Treatment (T) use only

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours,

etc. Table B.1.3.4.1 provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.3.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
T	EfW 60,000	220	Staffs usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed off an unnamed road which links to the A4 1km to the south. The site access is located off a three arm roundabout. The speed limit on the A4 is the national speed limit.

The access road is 5.5m wide and subject to a 10mph speed limit

It has an information sign stating “single track road with passing places” and a warning sign giving vehicles entering the site priority over oncoming vehicles. A speed bump is also in place to reduce the speed of vehicles.

The unnamed road to the A4 has a width of 7.3m and is subject to the national speed limit, with several residential side streets taking access off it, and a reduced speed limit of 10mph in the residential areas. A small residential development takes access off the site access road.

DMRB10 recommendations for visibility at roundabouts require that full visibility is achieved at the junction for a roundabout of this size, which is achieved

Figure B.1.3.4.2 - Site Access



Transport Environmental Impacts

The site was the location of the former RAF Compton Bassett and had associated residential dwellings located both on and off site. Some of the original service homes are still inhabited near to the access road today, lying on both sides of the unnamed road linking the site with the A4. A portion of this development takes its access from the proposed site’s access road. The residences are largely set back from the road and have their own minor access roads away from the main road. However, the screening of the road lacks height and sufficient volume, and the speeds and noise, particularly caused by the speed bump on the access road are likely to have a detrimental impact on the quality of life of residents. On the other hand, the existing level of HGV traffic, as observed during the site visit, was already high, with approximately 30 HGVs an hour using the

¹⁰ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 16/07)

site. With an improvement to the screening and removal of the speed bump, there is likely to be minimal impact on the existing situation for nearby residents.

A 7.5T environmental weight restriction is in place on the unnamed road, but only east of the site access, impacting on traffic through Cherhill, whilst Compton Bassett cannot be used for through traffic of this nature due to inadequate widths and the likely negative impacts on the rural character of the village.

There is no cycle infrastructure in the vicinity of the site. A footway of 1.6m is provided on the west side of the unnamed road. The width of this footway, the lack of a verge, and the nature of the traffic routing along this road mean that pedestrians will encounter high levels of intimidation and discomfort when walking in the area.

Off Site Highway Network

The A4 forms a priority T-junction where it meets the unnamed road to the site. A right turn ghost island is provided along with a deceleration lane for vehicles exiting the A4 eastbound. The A4 is subject to the national speed limit at this location, whilst the achieved visibility exceeds 300m in both directions, which is greater than the recommendation of 215m. Observed flows were low at this junction, although a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes.

In the wider area, the A4 links to Chippenham via Calne to the west and Marlborough to the east. The A3102 (other lorry route) in Calne links to Devizes (via the A342) to the south and continues north through Lyneham and Wootton Bassett before reaching the M4 at junction 16. North of Lyneham it becomes part of the local lorry network.

Accessibility by Sustainable Modes

There is no cycle infrastructure in the vicinity of the site. A footway of 1.6m is provided on the west side of the unnamed road. Bus stops are provided 85m east of the site access, with further stops located on the A4. A solitary bus stop is also provided to the south of the residential development, 300m south of the site access junction.

Constraints

The main constraints identified at this site are:

- The noise implications due to the speed bump on the access road;
- The impact of further traffic on residential areas; and
- The lack of width on the access road.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N3/001** in **Appendix D**.

Mitigation

It is recommended that improvements be made to the site access road in the form of increased width if possible, or a more sufficient access management plan for the access road. Alternatively an additional site access to the east of the existing access road could be implemented. This could be located through the Community Centre which appeared disused during site observations. This already has an existing access road and the two accesses could be used separately with one as the entrance and the other as an exit. This level of mitigation is dependent upon an anticipated increase in traffic using the site and planning/third party land constraints.

It is also recommended that the speed bump be removed so as to minimise the impact of noise and vibration on local residents.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£75k** to widen the existing access road;
- **£125k** for the new site access at the Community Centre; and
- **£10k** to remove the speed bump on the access road.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- It is located close to the lorry network;
- The site is accessible by sustainable modes;
- The site is already in use for similar waste operations; and
- The local highway network appears suitable for the proposed uses.

The following issues/constraints have been identified:

- The site is located near to a large residential development;
- The existing site access road is not wide enough for two vehicles to pass unopposed and can therefore result in queuing back onto the site access junction (roundabout); and
- There is a speed bump on the access road which increase the level of noise and vibration for nearby residents.

In conclusion, the proposed site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report. Once more accurate traffic generation is known, consideration of an alternative access/widened access road may be required.

B.1.3.5 Air Quality and Odour

Introduction

Hill Resource recovery centre is an existing strategic materials recovery centre and centralised composting facility. Located to the north of Lower Compton and surrounded by area of outstanding natural beauty (AONB).

The potential use identified as extension to the existing site to include treatment facilities.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 10.3µg/m³ NO_x (standard for protection of vegetation 30µg/m³);
- 7.9µg/m³ NO₂ (standard 40µg/m³);
- 13.7µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are a total of 223 properties within 500 metres of the sites boundary. These are mainly residential housing within the north of Lower Compton. No sensitive ecological sites have been identified within the study area.

Air pollutant sources within 500 metres of the site: road traffic from minor roads; gas/oil/solid fuel space heating for scattered buildings. The existing landfill will contribute to pollutants including dust, odour and NH₃.

Table B.1.3.5.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (3 properties)	2 (2)	2 (2)	N/A	N/A	3 (3)	2 (2)	3 (3)
Total residential between 100 and 500m (220 properties)	2 (2)	2 (2)	N/A	N/A	3 (3)	1 (1)	3 (3)
Residential within 250m only (110 properties)	N/A	N/A	N/A	N/A	3 (3)	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol risks are limited to within 250m of the site</p>							

Mitigation

Control measures for dust, odour and bio-aerosols are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are moderate to high. Treatment extension to existing landfill may increase odour and bioaerosols at properties located in Lower Compton. Mitigation for dust, bioaerosols and odour is recommended. Detailed assessment should be undertaken to examine bioaerosols if treatment works is an open process.

B.1.4 Land East of HRC/WTS at Stanton St Quintin (Site Ref N4)

B.1.4.1 Introduction

The land east of HRC/WTS at Stanton St Quintin is currently agricultural land (arable). It is adjacent to a Highways Agency depot and existing household recycling facility and WTS to the west. The nearest roads are the A350 and M4 (junction 17).

Potential uses include materials recovery facility and waste transfer station, local recycling and treatment.

The site extends to 4 ha and is located approximately 1.5 km south east of Stanton St Quintin, North Wiltshire. The site is located immediately to the south of the M4, off junction 17 on the B4122.

The northern boundary is formed by the M4, the eastern extent is defined by a mature hedgerow. To the south of the site is a hedgerow and the B4122 beyond which the ground slopes away to a small number of scattered farms, private residences and commercial properties. Immediate to the west of the site is a Household Waste Recycling Facility and Transfer Station and Highways Agency depot.

The site is generally flat, comprises a medium scale arable field, fully enclosed to the west, south and east by hedgerows with hedgerow trees. There is a small woodland copse in the northwest

corner of the site. The M4 runs immediately along the northern boundary of the site, with a low hedgerow boundary, only a few mature trees along the site boundary act as screening.

To the immediate south of the site is the B4122, carrying fast moving traffic. The southern boundary of the site follows the curving sweep of the B4122 a busy commuter road. The existing agricultural access to the site is via a small gated access for farm vehicles on the outside of a sweeping bend. There are no Public Rights of Way running through the site.

The site is located in proximity to a number of designated site including Stanton St Quintin Quarry and Mortorway cutting SSSI's to the west and Sutton Lane Meadows SSSI is located to the south east of the site whilst Harries Ground, Rodbourne SSSI is situated to the north of the site. Several Areas of Ancient Woodland are located near the site including sites 2.0km to the west, 1.9km to the south west, 2.7km to the north west, 1.2km to the north east and 2.6km to the north

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. These relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use.

B.1.4.2 Landscape and Visual Impact

Introduction

The site is located immediately to the south of the M4 off junction 17 on the B4122. The site is currently in use as arable field. To the immediate west of the site is a Waste Management Facility and Highways Agency depot. To the south and west of the site are scattered farms, private residences and commercial properties.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Uses, such as landfill, are widespread, with more substantial urban fringe areas than in neighbouring landscapes. The 'land in between' is often neglected.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Limestone Lowland

Landscape Character Area: Malmesbury-Corsham Limestone Lowland

Key characteristics relevant to the site:

- A peaceful and rural landscape
- Mix of permanent pasture and arable farmland with a strong network of hedgerows and hedgerow trees
- Settlements in the form of historic market towns, villages and scattered farmstead distributed through the linked by a network of rural roads

Generally the condition of the landscape character area is considered by WCC to be 'good', with a 'moderate' strength of character.

The strategy for the area is to conserve those elements intrinsic to the landscape character, such as the distinctive stone villages and strengthen locally degraded elements such as flailed hedgerows.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Hullavington Rolling Lowland

Key characteristics relevant to the site:

- Patchwork of irregular, medium sized fields, mainly pasture, and larger more recent enclosures used for arable
- Continuous hedges with many mature oaks
- Fine stone villages with muted colours and dispersed farms
- Detractors of the M4, the edge of Chippenham and Hullavington airfield.

Landscape Designations and Rights of Way:

- There are no known landscape designations or public rights of way within the immediate vicinity of the site

Baseline Landscape Character and Features: Site Survey

The proposed site generally flat, comprises a medium scale arable field, fully enclosed to the west, south and east by hedgerows with hedgerow trees. There is a small woodland copse in the northwest corner of the site. The M4 runs immediately along the northern boundary of the site, with a low hedgerow boundary, only a few mature trees along the site boundary act as screening.

To the immediate south of the site is the B4122, a busy commuter road carrying fast moving traffic. The southern boundary of the site follows the curving sweep of the B4122 so that the entire site is only visible at once from the northern boundary. Opposite the B4122 the ground slopes away, with a mix of residential, commercial and farm buildings.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Low

Capacity to Accept Change: High

Though the site itself is in keeping with the local landscape character, it is entirely isolated by the M4 and B4122 and does not contribute towards the overall character, giving it a low landscape quality. The site is well enclosed from all but the north by mature hedgerows. Speed of travel of users of the M4 and the potential to screen the site gives the site has a high capacity to accommodate change without adversely affecting the local landscape character.

Potential Landscape Impacts

- Deterioration of the rural character as experienced by M4 users
- Reduction in agricultural land

Potential Landscape Mitigation Measures

- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character
- Site buildings to be in keeping with the local building vernacular, using traditional building materials where possible
- The following 'Broad Management Objectives' for the Limestone Lowlands in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Conserve the network of hedgerows, hedgerow trees and woodland copses and take opportunities for new planting where this will strengthen local character
 - Resist urbanisation of the country lanes
- The following Enhancement Priorities proposed for the for the Hullavington Rolling Lowland landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners
 - Ensure development reinforces the locally distinctive character and respects the vernacular. The use of traditional building materials including limestone are important in this area
 - Discourage development in the rural hinterland

Table B.1.4.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Westbrook Farm Storage Compound	Low	Slight adverse	Facilities to be in keeping with the local vernacular/agricultural style Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Farmhouse Residents (adjacent to site - southeast corner)	High	Slight adverse	
Bungalow Residents (adjacent to Westbrook Farm)	High	Substantial adverse	
B4122 Travellers	Low	No change	
M4 Travellers	Low	Slight adverse	Native woodland planting along north boundary of site to enhance M4 screen planting

Summary: Residual Landscape and Visual Impacts

Due to its isolated and enclosed setting the site has a high capacity to accommodate change. The main visual impacts, on users travelling along the M4, could potentially be mitigated through screen planting.

Recommended further landscape and visual surveys

- Night time visual surveys.

B.1.4.3 Noise

Introduction

The site at Land East of HRC/WTS at Stanton St Quinton has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Treatment.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- Residential property to the north of the B4122, located 8m from the south eastern boundary of the allocated site.

The proposed site is located within land that is currently agricultural land (arable) and borders the B4122 to the south and the M4 to the north. Farm land is located to the east of the allocation site.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions of overcast skies and light easterly winds. The current noise environment around the allocated site is dominated by road traffic on the M4 and the B4122.

Consecutive background noise measurements were taken to the west of the rear garden of the residential property. The sound level meter was located in a free-field location and at a height of

1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.1.4.3.1 - Western Residential Property - Background Noise Levels (File AU1_0015)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:14:00	00:05:00	64.6	77.0	48.3	67.6	54.6	51.1
11:19:00	00:05:00	64.4	78.7	48.4	68.1	55.2	50.9
11:24:00	00:05:00	62.2	76.8	50.3	64.3	53.5	51.8
11:14:00	00:15:00	63.8	78.7	48.3	66.8	54.5	51.4

The average background noise level (LA90) at the residential property to the east of the allocated site is taken as being 51.4 dB.

Assessment Suitability

The site is agricultural land (arable) with a residential property located to the south east.

There is little or no screening to the residential property to the south east but with careful siting the site is deemed suitable with respect to noise.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required and the facility should be sited towards the west of the site and at least 100m away from the residential property.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise..

B.1.4.4 Air Quality and Odour

Introduction

The land east of HRC/WTS at Stanton St Quintin is currently agricultural land (arable). It is adjacent to a Highways Agency depot and existing household recycling facility and WTS to the west. The nearest roads are the A350 and M4 (junction 17).

Potential uses include materials recovery facility and waste transfer station, local recycling and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 21.4µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 15.3µg/m3 NO2 (standard 40µg/m3);
- 17.2µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are a total of four residential properties within 500 metres of the sites boundary. No sensitive ecological sites have been identified within the study area.

Air pollutant sources within 500 metres of the site: road traffic on the M4 north of the site, and A429, B4122 and minor roads; gas/oil/solid fuel space heating for scattered buildings. There are no notable industrial sources of air pollutants. The main potential source of dust and odour is the

adjacent household recycling facility and WTS. Surrounding agricultural activities are also a potential source of dust, bioaerosols, NH3 and odour.

Table B.1.4.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (1 receptor)	3 (3)	3 (3)	N/A	N/A	3 (3)	2 (2)	3 (3)
Total residential between 100 and 500m (3 receptors)	3 (3)	3 (3)	N/A	N/A	3 (3)	1 (1)	3 (3)
Residential within 250m only (1 property)	N/A	N/A	N/A	N/A	1 (1)	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol risks are limited to within 250m of the site</p>							

Mitigation

Measures to control emissions of local air pollutants from combustion plant, and of dust, odour and bioaerosols should be required. See 'Air Emissions Mitigation Options' in Appendix C.

Recommendation

Air quality risks for the intended use are moderate to high without mitigation. Measures to control emissions of local air pollutants from combustion plant, and of dust, odour and bioaerosols should be required. Detailed assessment is recommended.

B.1.4.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

This proposed site has been identified for strategic use. The site currently has no existing land use, however it is located adjacent to an existing HRC. The southern edge of the site fronts onto the B4122.

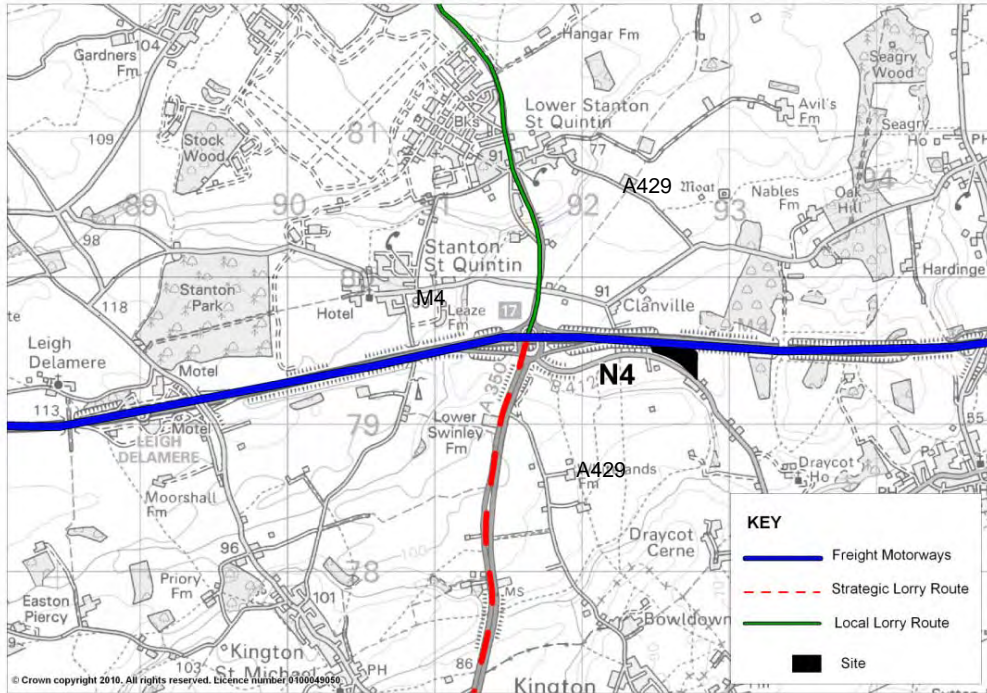
Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.4.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure 2.1 shows that access to the freight network is good. The B4122 provides direct access to junction 17 of the M4, where access to the A429 can also be gained. To the south of the M4 the

A429 is a designated strategic lorry route. However, the B4122 which provides access to the M4 is not a designated lorry route.

Figure B.1.4.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Treatment (T);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.4.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in Appendix D.

Table B.1.4.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Assessment Suitability

Existing/Potential Access Junctions

There is currently no vehicular access into the site. A wooden gate is located along the southern boundary of the site but this does not provide a suitable vehicle access to the proposed development site. The most suitable location for a new site access would be located towards the centre of the site, onto the B4122, which is approximately 6.4m wide and has a speed limit of 60mph. This would provide an ideal location in terms of providing suitable visibility from the access. **Drawing 5044619.017/TP/N4/001 located in Appendix D** highlights the recommended location of the proposed site access. It is recommended that the proposed access takes the form of a priority junction with a ghost island right turn facility to prevent any delays caused by vehicles turning right into the site.

Alternatively there is potential to access the site via the existing HRC located to the west of the site. The existing access into the HRC takes the form of a priority junction with a ghost island right turn lane. Visibility from this access is approximately 2.4m x 180m in both directions. It is unlikely that the new development will produce a large number of trips during the peak periods, therefore, the existing ghost island would provide an appropriate access to the site in terms of junction capacity. However, a capacity assessment would be required. In addition to this a significant infrastructure improvement within the site would be needed to provide access to the proposed development through the existing HRC.

Transport Environmental Impacts

No residential dwellings or sensitive settlements are located in the vicinity of the site. Opposite the existing HRC is a HGV service centre. Due to this development the B4122 already has an existing significant HGV flow and therefore the impact of the proposed waste development would be minimal.

As junction 17 of the M4 is so close to the site, the environmental impacts would be low as HGVs would not pass any sensitive areas before reaching the strategic freight network.

Off Site Highway Network

Junction 17 of the M4 is located approximately 1km west of the site. This is a large motorway junction providing access to the M4 and A429. All entry arms and exit arms are suitable for HGV use. Along the B4122 vehicle activated signs are located in the vicinity of the site. The signs warn of large queues ahead and they are located in both directions of the road. However it is not clear if these signs are referring to the M4 roundabout junction or the existing HRC access. Although no capacity issues were noted whilst on site the presence of the signs suggest that vehicles queue along this road at peak times.

It is unlikely that the proposed development will generate a large number of trips during the AM and PM peak periods or coincide with the peak operations of the existing HRC; therefore it is

unlikely the site will have a significant impact on capacity in the area. However the Highways Agency would undoubtedly require a capacity assessment at junction 17 of the M4 to ensure capacity at this junction was not unduly affected by the proposals

Accessibility by Sustainable Modes

No footways are located along the B4122 therefore pedestrian access to the site is limited. The site is located in a very rural area with the nearest village being approximately 2km away to the North West and as such the demand for pedestrians to access the site by foot would be extremely low.

No public transport links are located in the vicinity of the site. No bus stops are located on the B4122 in the vicinity of the site and the nearest train station is located in Chippenham which is approximately 6km south of the site. Cyclists are unlikely to access the site due to the high speed roads and high HGV composition of traffic on the surrounding highway network. Therefore the only suitable method of gaining access to the site is by personal motor vehicle.

Constraints

No particular constraints have been identified on the highway network in the vicinity of the site. However a detailed Transport Assessment would be required to determine the impact the site would have on junction 17 of the M4 and the local highway network.

A plan showing the relevant information regarding the site is presented as drawing no. **5044619.017/TP/N4/001 in Appendix D.**

Mitigation

As mentioned previously a new priority access junction with a ghost island right turn lane is recommended to provide access to the site. An indicative access design is presented as drawing number **5044619.017/TP/N4/002 in Appendix D.** It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. Also highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

In order to obtain suitable visibility at the access point the hedgerow along the southern boundary of the site would need to be trimmed and maintained.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£125k** - Implementing proposed priority access junction with ghost island right turn facility

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- Excellent access to the strategic freight network via junction 17 of the M4;
- Suitable potential location for a new point of access that provides suitable visibility;
- The site is located away from residential areas, therefore, the environmental impacts are likely to be negligible; and
- The B4122 already has a significant HGV flow therefore the impact of the proposed waste site would be minimal.

The following issues/constraints have been identified:

- Possible capacity issues at junction 17 of the M4 and the local highway network;
- Poor accessibility by sustainable modes; and
- A new access junction would be required.

As stated above the site has excellent access to the strategic freight network. There is potential to provide a suitable access into the site which would give adequate visibility. However, as capacity issues may be an issue, a ghost island right turn would be recommended to reduce any delays. The site is located away from any residential areas which would mean the environmental impact would be minimal. Accessibility for pedestrians is poor; however the need for pedestrians to access the site would also be low. Therefore it is concluded that this site would provide a suitable location for the proposed waste uses with consideration of the mitigation measures as set out in this report.

B.1.4.6 Water Quality / Environment

NGR: 392650, 179450

Location: Nr Stanton St Quintin, Wiltshire

Site Area: 3.7hectares

Data Source: Landmark Envirocheck Report 30173198_1_1 (15th Feb 2010) unless otherwise referenced

Table B.1.4.6.1 - Land East of HRC/WTS at Stanton St Quintin Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Hydrology: Surface Water – Flow and Quality	<p>The nearest surface water feature is an unnamed tributary of Sutton Benger Brook 96m to the south east, the Sutton Benger Brook is 442m to the south, the River Avon is 2,097m to the East.</p> <p>The EA identify that the Sutton Benger watercourse has a chemical and biological quality of Very Good.</p>	<p>Impact on Sutton Benger Brook flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the Sutton Benger Brook quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.), to include good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
Geology: Stratigraphy	<p>The BGS map¹¹ indicates that the site is underlain by the Upper Jurassic Kellways Clay (silty clay with sand lenticles), which overlies the Cornbrash Rubbly Limestone, the formation dips to the south west.</p> <p>There are a series of faults trending ENE-WSW to the directly east and south of the site.¹</p>	<p>Potential for the creation of pathways for the contamination of groundwater.</p>	-	<p>Consideration of geology within impact assessment.</p>
Hydrogeology: Groundwater – Hydrogeological Units	<p>Site and surroundings are underlain by Secondary (Minor) Aquifer.</p>	<p>Contamination of aquifer.</p> <p>Changes to the groundwater flow regime of primarily shallow aquifers during</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p>

¹¹ The BGS 1:50 000 Drift geological map (Sheet No. 265, Bath)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
		construction if foundations intercept groundwater or if pumping required for excavations.	Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.), including good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.	Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		
Hydrogeology: Groundwater – Vulnerability	Aquifer is moderately vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a south easterly direction towards both the Sutton Benger Brook and the River Avon.	Not applicable.	-	To be considered during further assessment.
Discharges: Surface water – Discharge Consents	1 trade discharge to a tributary of the Sutton Benger Brook, 37m north west. 1 discharge of final treated effluent to the River Avon, 729m south west. 1 trade discharge of agricultural and surface water to a tributary of River Avon 514m from the site.	Not applicable.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	1 discharge of final treated effluent to soakaway, 101m south west.	Not applicable.	-	To be considered during further assessment.
Discharges: Land	Oils – diesel including	Not applicable	-	To be considered as possible

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
– Pollution Incidents	agricultural (2008); Category. 4 (no impact) to water; Category.3 (minor incident), Category. 2 (significant incident) to land; 776m west.			source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	No abstractions within 1km of site.	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	1 abstraction for general farming & domestic use 359m to the north west.	No risk posed to local public abstractions Contamination of drinking water supply	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.), including good working practices and EA PPGs during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	Low risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Land Uses	Household, commercial and industrial transfer stations, located 71m to the west. Closed landfill, accepting soil/sub soil waste, 53m South east.	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	Stanton St Quintin Quarry and motorway cutting has been designated an SSSI, it is located 526m west of the site.	No risk posed as no pathway to the SSSI.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility or a Waste Treatment site at Land East of HRC/WTS at Stanton St Quintin falls within the below category.

- Several potentially significant issues identified – progress waste site to next stage of assessment

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- There is a Secondary Aquifer beneath the site and therefore there are potential groundwater contamination issues
- Pluvial and groundwater flooding are a risk
- There are some potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

Further assessment and work that will be required include a flood risk assessment, surface water management plan, and liaison with the Environment Agency.

B.1.5 Land West of HRC & WTS, Stanton St Quinton (Site Ref N5)

B.1.5.1 Introduction

The site extends to 6 ha and is located approximately 0.9 km south east of Stanton St Quintin, North Wiltshire. The site is located immediately to the south of the M4, off junction 17 on the B4122. The site is currently in use as pasture. The northern boundary of the proposed site is formed by the slip road of the M4 with a Household Waste Recycling Facility and Transfer Station and Highways Agency depot immediately to the east. The southern boundary is defined by a semi mature hedgerow and the B4122 beyond which the ground slopes away to a small number of scattered farms approximately 1 km distant. The western extent of the site is defined by the motorway junction and an immature hedgerow.

The site a medium scale field is domed which at its highest point shares a similar elevation to the adjacent motorway junction. The ground falls away to the south of the site to meet the B4122. The road forms a sweeping curve round the southern boundary; the B4122 straightens to the eastern end of the site. The existing agricultural access to the site is via a small gated access for farm vehicles. There are no Public Rights of Way running through the site although there are some in proximity.

The site is located in proximity to a number of designated sites including Stanton St Quintin Quarry and Mortorway cutting SSSI's neighbours the site to the north and Sutton Lane Meadows SSSI is located to the south east of the site whilst Harries Ground, Rodbourne SSSI is located 2.7km to the north of the site. Several Areas of Ancient Woodland are located near the site including sites 1.8km to the west, 1.7km to the south west, 2.5km to the north west, 1.4km to the north east and 2.6km to the north

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. However these relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use.

B.1.5.2 Landscape and Visual Impact

Introduction

The site is located immediately to the south of the M4 off junction 17 on the B4122. To the immediate east of the site there is an existing Waste Management Facility. The site is currently in use as a pasture field, with sheep currently grazing. To the south and east of the site are scattered farms, private residences and commercial properties.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Uses, such as landfill, are widespread, with more substantial urban fringe areas than in neighbouring landscapes. The 'land in between' is often neglected.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Limestone Lowland

Landscape Character Area: Malmesbury-Corsham Limestone Lowland

Key characteristics relevant to the site:

- A peaceful and rural landscape
- Mix of permanent pasture and arable farmland with a strong network of hedgerows and hedgerow trees
- Settlements in the form of historic market towns, villages and scattered farmstead distributed through the linked by a network of rural roads

Generally the condition of the landscape character area is considered by WCC to be 'good', with a 'moderate' strength of character.

The strategy for the area is to conserve those elements intrinsic to the landscape character, such as the distinctive stone villages and strengthen locally degraded elements such as flailed hedgerows.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Hullavington Rolling Lowland

Key characteristics relevant to the site:

- Patchwork of irregular, medium sized fields, mainly pasture, and larger more recent enclosures used for arable
- Continuous hedges with many mature oaks
- Fine stone villages with muted colours and dispersed farms
- Detractors of the M4, the edge of Chippenham and Hullavington airfield.

Landscape Designations and Rights of Way:

- There are no known landscape designations
- Three public footpaths run from the B4122 southwards.

Baseline Landscape Character and Features: Site Survey

The proposed site has some undulation, comprising of a medium scale pasture field, enclosed by hedgerows and hedgerow trees to the boundary along the south with scattered tree planting to the northern boundary. Timber fencing also runs along the boundary. The site is relatively open with views from the higher areas of the M4 and beyond to the north and the undulating landscape with scattered properties to the south.

To the immediate south of the site is the B4122, a busy commuter road carrying fast moving traffic. The southern boundary of the site follows the curving sweep of the B4122 so that the entire site is only visible at once from the northern boundary.

Assessment Suitability

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Low

Capacity to Accept Change: Medium

Though the site itself is in keeping with the local landscape character, it is entirely isolated by the M4 and B4122 and does not contribute towards the overall character, giving it a low landscape quality. The site is well enclosed from all but the north by mature hedgerows. Speed of travel of users of the M4 and the potential to screen the site gives the site has a high capacity to accommodate change without adversely affecting the local landscape character. However, due to the landform within the site, development in the low-lying north-east of the site would only be possible, due to potential views into the site this capacity to accept change has to be downgraded to medium.

Potential Landscape Mitigation Measures

- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character
- Site buildings to be in keeping with the local building vernacular, using traditional building materials where possible
- The following ‘Broad Management Objectives’ for the Limestone Lowlands in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Conserve the network of hedgerows, hedgerow trees and woodland copses and take opportunities for new planting where this will strengthen local character
 - Resist urbanisation of the country lanes
- The following Enhancement Priorities proposed for the for the Hullavington Rolling Lowland landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners
 - Ensure development reinforces the locally distinctive character and respects the vernacular. The use of traditional building materials including limestone are important in this area
 - Discourage development in the rural hinterland

Table B.1.5.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Farm / Residential – White House at Clanville (north)	Moderate / High	Slight / Moderate depending on type and location of development	Facilities to be in keeping with the local vernacular/agricultural style
Farm / Residential – Swinley Farms (south west)	Moderate / High	Slight / Moderate depending on type and location of development	Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Whitelands Farm	Moderate / High	Slight / Moderate depending on type and location of development	Keep development to the east of the site (low end)
Public footpaths to the south	Medium	Slight / Moderate depending on type and location of	

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
		development	
Adjacent Waste Facility	Low	Slight / Moderate depending on type and location of development	
B4122 Travellers	Low	Slight / Moderate depending on type and location of development	
M4 Travellers	Low	Slight / Moderate depending on type and location of development	Native woodland planting along north boundary of site to enhance M4 screen planting

Summary: Residual Landscape and Visual Impacts

Due to its isolated and enclosed setting the site has a medium capacity to accommodate change. The main visual impacts, on users travelling along the M4, could potentially be mitigated through screen planting and the impacts on residential properties to the south could be mitigated through careful site planning.

Recommended further Landscape and Visual Surveys

- Summer-time visual surveys.
- Night time visual surveys.

B.1.5.3 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

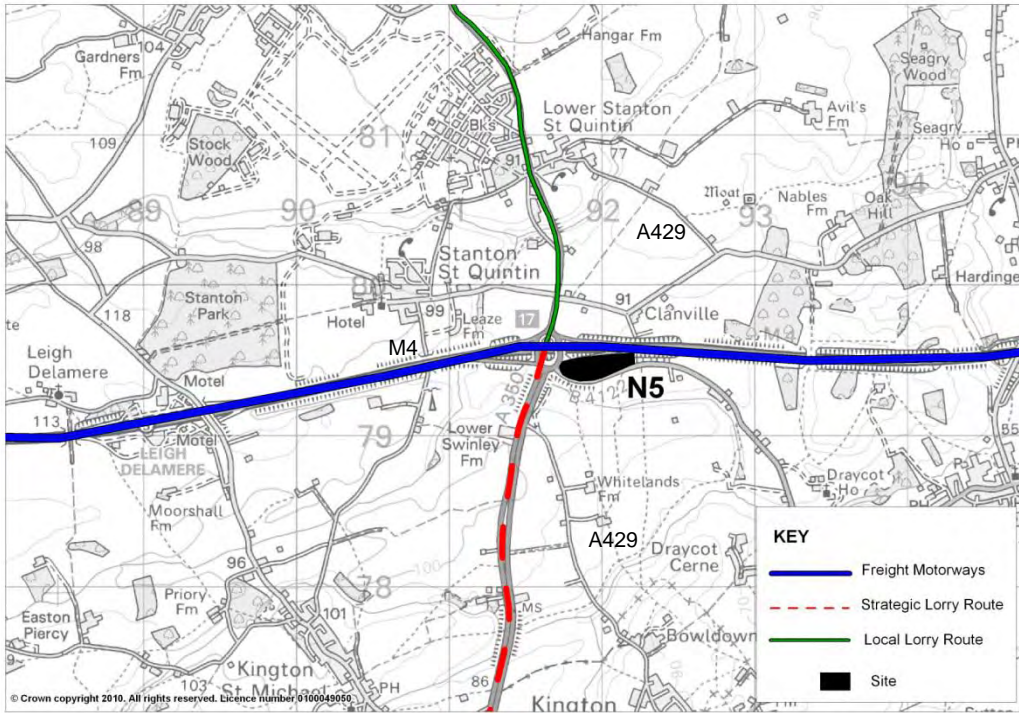
This proposed site has been identified for strategic use. The site currently has no existing land use, however it is located adjacent to an existing HRC. The southern edge of the site fronts onto the B4122, with the western edge of the site abutting junction 17 of the M4.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.5.3.1** For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.5.3.1 shows that access to the freight network is good. The B4122 provides direct access to junction 17 of the M4, where access to the A429 can be gained. To the south of the M4 the A429 is a designated strategic lorry route. However, the B4122 is not part of the Wiltshire HGV Route Network.

Figure B.1.5.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Treatment (T);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Inert Waste Recycling/Transfer (IWR/T).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.5.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.5.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Assessment Suitability

Existing/Potential Access Junctions

There is currently no vehicular access into the site. A steel gate is located along the frontage of the site but this does not provide suitable vehicle access to the proposed development site. The most suitable location for a new site access would be located towards the south eastern side of the site, onto the B4122, which is approximately 6.4m wide and has a speed limit of 60mph. This is approximately 260m west of the existing access into the HRC. This would provide an ideal location in terms of providing suitable visibility from the access. Drawing **5044619.017/TP/N5/001 in Appendix D** highlights the recommended location of the proposed site access. It is recommended that the proposed access takes the form of a ghost island right turn to prevent any delays caused by right turners into the site and improve safety.

Alternatively there is potential to access the site via the existing HRC located to the west of the site. The existing access into the HRC takes the form of a priority junction with a ghost island right turn lane. Visibility from this access is approximately 2.4m x 180m in both directions. It is unlikely that the new development will produce a large number of trips during the peak periods; therefore the existing ghost island would provide an appropriate access to the site in terms of junction capacity. However, a capacity assessment would be required. In addition to this a significant infrastructure improvement within the site would be needed to provide access to the proposed development through the existing HRC.

Transport Environmental Impacts

No residential dwellings or sensitive settlements are located in the vicinity of the site. Opposite the existing HRC is a HGV service centre. Due to this development the B4122 already has a significant number of HGVs along the road and therefore the impact of the proposed waste development would be minimal.

As junction 17 of the M4 is so close to the site the environmental impacts would be low as HGVs would not pass any sensitive areas before reaching the strategic freight network.

Off Site Highway Network

Junction 17 of the M4 is located immediately to the west of the site. This is a large motorway junction providing access to the M4 and A429. All entry arms and exit arms are suitable for HGV use. Vehicle activated signs are located along the B4122 in both directions which warn of large queues ahead. However it is not clear if these signs are referring to the M4 roundabout junction

or the existing HRC access. Although no capacity issues were noted whilst on site the presence of the signs suggest that vehicles queue along this road at peak times.

It is unlikely that the proposed development will generate a large number of trips during the AM and PM peak periods or coincide with the peak operations of the existing HRC, therefore it is unlikely the site will have a significant impact on capacity in the area. However the Highways Agency would undoubtedly require a capacity assessment at junction 17 of the M4 to ensure capacity at this junction was not unduly affected by the proposals.

Accessibility by Sustainable Modes

No footways are located along the B4122, however pedestrian access to these types of facilities would be limited. The site is located in a very rural area with the nearest village being approximately 3km away and as such the demand for pedestrians to access the site by foot would be extremely low.

No public transport links are located in the vicinity of the site. No bus stops are located on the B4122 in the vicinity of the site and the nearest train station is located in Chippenham which is approximately 6km south of the site. Cyclists are unlikely to access the site due to the high speed roads and high HGV composition of traffic on the surrounding highway network. Therefore the only suitable method of gaining access to the site is by personal motor vehicle.

Constraints

No particular constraints have been identified on the highway network in the vicinity of the site. However a detailed Transport Assessment would be required to determine the impact the site would have on junction 17 of the M4 and local highway network.

A plan showing the relevant information regarding the site is presented as drawing no. **5044619.017/TP/N5/001 in Appendix D.**

Mitigation

As mentioned previously a new priority access junction with a ghost island right turn lane is recommended to access the site. An indicative access design is presented as drawing number **5044619.017/TP/N5/002 in Appendix D.** It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. Also highway boundary data would need to be obtained to determine the extent of highway land available. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

In order to obtain suitable visibility at the access point the hedgerow along the southern boundary of the site would need to be trimmed and maintained.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£125k** - Implementing proposed priority access junction with ghost island right turn facility

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- Excellent access to the strategic freight network via junction 17 of the M4;
- Suitable potential location for a new point of access into the site that provides suitable visibility;
- The site is located away from residential areas, therefore, environmental impact are likely to be negligible; and

- The B4122 already has a significant HGV flow therefore the impact of the proposed waste site would be minimal.

The following issues/constraints have been identified:

- Possible capacity issues at junction 17 of the M4 and local highway network;
- Poor accessibility by sustainable modes; and
- An improved access junction would be required.

As stated above the site has excellent access to the strategic freight network. There is potential to provide a suitable access into the site which would give adequate visibility. However, as capacity issues may be an issue, a ghost island right turn would be recommended to reduce any delays. The site is located away from any residential areas which would mean the environmental impact would be minimal. Accessibility for pedestrians is poor; however the need for pedestrians to access the site would also be low. Therefore it is concluded that this site would provide a suitable location for the proposed waste uses with consideration of the mitigation measures as set out in this report.

B.1.5.4 Water Quality / Environment

NGR: 391970, 179470

Location: Stanton St Quintin

Area: 6 hectares

Data Source: Landmark Envirocheck Report 30095459_1_1 (8th Feb 2010) unless otherwise referenced

Table B.1.5.4.1 - Land West of HRC/WTS Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water – Quality and Flow</p>	<p>The nearest surface water feature is a drain in the field to the south of the site, the other side of the B4122, 24m away. This drain joins Sutton Benger Brook (GQA grade B - good). Rodbourne Brook (GQA grade B - good) is to the north and west, approximately 650m away at its closest point to the west.</p>	<p>Runoff of contamination to ditch during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system, Sustainable Drainage Systems (SuDS) and foul drainage.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential risk to surface water flow and quality in terms of hard standing, bunding, landscaping and ground level design.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS¹² map indicates that the site lies between 2 faults trending ENE-WSW and is underlain by the Middle Jurassic Cornbrash Rubbly limestone.</p>	<p>There is potential for a pathway to be created between contamination and the groundwater.</p>	<p>-</p>	<p>To be considered during further assessment.</p>

¹² 1:50 000 Drift geological map (Sheet No. 265, Bath)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrogeology: Groundwater - Hydrogeological Units	Site is on a Secondary (Minor) Aquifer.	Contamination of aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	Surface water drainage scheme including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements.
Hydrogeology: Source Protection Zone	The site is not in or near a SPZ.	No risk posed to public water supply; but local private abstractions may exist (<20m ³).	Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.	Surface Water Management Plan. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater Vulnerability	Aquifer is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	No information available on direction of flow.			
Discharge Consents: Surface Water – Discharge Consents	Site drainage; to tributary of Sutton Benger Brook, 210m east. Final / treated effluent; to River Avon, 305m to south.	Not applicable.	-	To be considered during further assessment.
Discharge Consents: Groundwater - Discharge Consents	Final / treated effluent; to Soakaway, 357m east.	Not applicable.	-	To be considered during further assessment.
Discharge Consents: Pollution Incidents	Substantiated pollution incident; 33m to west, "significant incident" affecting water involving oils and diesel.	Not applicable.	-	To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water Abstractions	No surface water abstractions are recorded within 1km of the site.	No risk posed.	Surface water drainage scheme including runoff collection system and	Environmental management during construction. Determine monitoring

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Abstractions: Groundwater Abstractions	Groundwater abstraction for “general farming and domestic” 249m to north-east.	Potential for works to affect potable water supply.	infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.	requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan. Monitoring boreholes (may be required for obtaining operating permit).
Flood Risk	The site is in Flood Zone 1, is greater than 1 ha and is underlain by an aquifer.	There is no risk from fluvial flooding however there is a risk of changing surface water runoff causing pluvial flooding. The shallow aquifer also means there is a risk of groundwater flooding. Flooding could interrupt site operations and cause pollution to spread from the site.	Surface water drainage scheme and SuDS design to control runoff.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Land Uses	There is a depot adjacent to the site that is recorded as a fuel station. It is also the location of a waste transfer site.	There is a risk that waste material will be encountered during construction works, which would lead to a higher risk that run-off during construction would lead to contamination of local water courses and the Secondary Aquifer.	Site Waste Management Plan to specify how excavated material will be handled, stored and disposed of.	Geotechnical Investigation and consultation to determine extent and nature of waste. To be considered as a possible source of contamination if any found during monitoring.
Conservation Designations	Stanton St Quintin Quarry and	No risk posed.	-	Liaise with Natural England to

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	Motorway Cutting SSSI is adjacent to the site and designated for geological reasons ¹³ .			ensure integrity of site will not be affected.
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

¹³ http://www.sssi.naturalengland.org.uk/citation/citation_photo/1004536.pdf

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Materials Recovery Facility / Waste Transfer Station, Local Recycling point, Inert Waste Recycling and Transfer station, Composting site or Waste Treatment site at **Land west of HRC/WTS at Stanton St Quintin** falls within the following category:

- Several potentially significant issues identified – review further assessment requirements of site

The initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- There is a Secondary Aquifer beneath the site and therefore there are potential groundwater contamination issues
- Pluvial and groundwater flood risk
- Potentially contaminating land use in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required includes flood risk assessment, surface water management plan and liaison with the Environment Agency.

B.1.6 Land North East of J17 M4, Stanton St Quinton (Site Ref N6)

B.1.6.1 Introduction

The site extends to 8 ha and is located approximately 1.3 km east of Stanton St Quintin. The site is located immediately to the North of the M4, off junction 17. A new access has been created between Clanville House and Clanville Farm. The site is a medium scale field which gently fall to the south and the M4 motorway. The northern boundary of the proposed site is formed by a mature hedgerow beyond which is a small number of residential and commercial properties. The eastern boundary abuts long plantation, to the south is the M4 and the western extent of the site is defined by mature gappy hedgerow and trees. The site is screened by bunds which have been formed along the boundaries of the site. There are no PROW running through the site.

The site is located in proximity to a number of designated site including Stanton St Quintin Quarry and Motorway Cutting SSSI 0.3km to the west of the site. The nearest area of Ancient Woodland is located 0.8km to the north east of the site. The eastern third of the site is designated as Woodland and Neutral grassland through the South West Nature map.

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use. Others of particular note include:

Reference: 06/01471 Retention of 5 mobile poultry houses on land at Avils farm, Lower Stanton Street, Quintin SN14 6DA

Reference: 08/01414 Change of use from unauthorised B2 to B1 and B8 uses on land at Nables farm, Upper Seagry, Chippenham SN15 5HB

Reference: 09/02100 Change of use of Agricultural land to residential dwellings on land at Longbarn, Lower Stanton Street, Quintin, Wiltshire SN14 6DB

B.1.6.2 Landscape and Visual Impact

Introduction

The site is located immediately to the north of the M4 off junction 17. To the immediate east of the site there is an existing Highways maintenance depot. The manmade topography of the site suggests some form of excavation has taken place.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Uses, such as landfill, are widespread, with more substantial urban fringe areas than in neighbouring landscapes. The 'land in between' is often neglected.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Limestone Lowland

Landscape Character Area: Malmesbury-Corsham Limestone Lowland

Key characteristics relevant to the site:

- A peaceful and rural landscape
- Mix of permanent pasture and arable farmland with a strong network of hedgerows and hedgerow trees
- Settlements in the form of historic market towns, villages and scattered farmstead distributed through the linked by a network of rural roads

Generally the condition of the landscape character area is considered by WCC to be 'good', with a 'moderate' strength of character.

The strategy for the area is to conserve those elements intrinsic to the landscape character, such as the distinctive stone villages and strengthen locally degraded elements such as flailed hedgerows.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Hullavington Rolling Lowland

Key characteristics relevant to the site:

- Patchwork of irregular, medium sized fields, mainly pasture, and larger more recent enclosures used for arable
- Continuous hedges with many mature oaks
- Fine stone villages with muted colours and dispersed farms
- Detractors of the M4, the edge of Chippenham and Hullavington airfield.

Landscape Designations and Rights of Way:

- There are no known landscape designations or public rights of way within the immediate vicinity of the site.

Baseline Landscape Character and Features: Site Survey

The proposed site is generally flat, with some undulation, caused by the previous use, possibly some form of mineral extraction. There are several bunds / embankments to the site boundary forming screening along the boundaries. Extensive vegetation on the eastern and northern boundaries forms good screening to any potential view into the site. The M4 is clearly visible with views to the other side including the highways depot.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: High

Due to the previous use of the site, its manmade topography and poor quality planting it has a low landscape quality. Boundary planting already exists on one side of the site providing good screening to any potential views in. The size of the site and the limited number of potential visual receptors mean this site has a high capacity to accept change

Mitigation

- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character
- Site buildings to be in keeping with the local building vernacular, using traditional building materials where possible
- The following ‘Broad Management Objectives’ for the Limestone Lowlands in the *Wiltshire Landscape Character Assessment* are relevant to the site:
 - Conserve the network of hedgerows, hedgerow trees and woodland copses and take opportunities for new planting where this will strengthen local character
 - Resist urbanisation of the country lanes
- The following Enhancement Priorities proposed for the for the Hullavington Rolling Lowland landscape character area in the *North Wiltshire Landscape Character Assessment* are relevant to the site:
 - Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners
 - Ensure development reinforces the locally distinctive character and respects the vernacular. The use of traditional building materials including limestone are important in this area
 - Discourage development in the rural hinterland

Table B.1.6.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Clanville - Residential	High	Slight / Moderate	Enhance boundary screening to site and access road.
Highways Depot	Low	Slight	
Waste Facility (south of M4)	Low	Negligible – view only from top of tower (no windows)	
M4 Travellers	Low	Slight / Moderate depending on type and location of development	Native woodland planting along north boundary of site to enhance M4 screen planting

Summary: Residual Landscape and Visual Impacts

Due to its isolated and enclosed setting the site has a high capacity to accommodate change. The main visual impact could be mitigated through boundary planting.

Recommendation

Recommended further Landscape and Visual Surveys

- Summer-time visual surveys.

- Night time visual survey

B.1.6.3 Noise

Introduction

The Site Land North East of J17 of the M4, Stanton St Quinton has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Inert Waste Recycling/Transfer;
- Composting;
- Treatment.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- At the southern boundary of land belonging to the farm, located to the north of the allocated site; and
- The southern boundary of the amenity space of Clanville, which is a residential property located to the north west of the allocated site.

The proposed site is located within land that is currently a Brownfield site. The site at Land the North East of J17 of the M4 is bounded to the south by the M4 and a mixture of amenity and farm land to the north and east.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions being overcast with light westerly winds. The current noise environment around the allocated site is dominated by noise from the M4.

Consecutive background noise measurements were taken at the southern boundaries of the residential properties to the north of the allocated site. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.6.3.1 - Southern Boundary of Farm Land - Background Noise Levels (AU1_0014)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
10:38:00	00:05:00	54.9	57.0	52.5	55.9	54.8	53.8
10:43:00	00:05:00	55.3	56.9	53.3	56.0	55.3	54.5
10:48:00	00:05:00	55.3	57.4	54.0	56.1	55.3	54.6
10:38:00	00:15:00	55.2	57.4	52.5	56.0	55.2	54.2

Table B.1.6.3.2 - Southern Boundary of Clanville - Background Noise Levels (#62)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
10:44:08	00:05:00	56.0	62.2	51.6	57.4	55.5	53.5
10:49:08	00:05:00	55.2	61.5	50.4	56.4	54.7	53.2

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
10:54:08	00:05:00	55.4	61.4	49.8	56.7	54.8	53.1
10:44:08	00:15:00	55.5	62.2	49.8	56.9	55.0	53.3

The average background noise levels (LA90) at the southern boundaries of the farms land and Clanville are taken as being 54.2 dB and 53.3 dB, respectively.

Assessment Suitability

The site is a Brownfield site with a residential property on its North West boundary and its north boundary. With appropriate screening and positioning of the facility, the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required on the northern and western boundaries of the proposed facility. The facility needs to be sited towards the east portion of the site and at least 150m from the nearest residential dwelling. By careful siting and placing activities in buildings a greater area can be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.6.4 Air Quality and Odour

Introduction

Land North East of J17 of M4 at Stanton St Quintin is currently Brownfield. It is opposite a Highways Agency depot and existing household recycling facility and WTS to the south. The nearest roads are the A350 and M4 (junction 17).

Potential uses include materials recovery facility, waste transfer station, local recycling, inert waste recycling, transfer composting and treatment

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 21.4µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 15.3µg/m3 NO2 (standard 40µg/m3);
- 17.2µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are a total of four residential properties within 500 metres of the sites boundary. No sensitive ecological sites have been identified within the study area.

Air pollutant sources within 500 metres of the site: road traffic on the M4 north of the site, and A429, B4122 and minor roads; gas/oil/solid fuel space heating for scattered buildings. There are no notable industrial sources of air pollutants. The main potential source of dust and odour is the nearby household recycling facility and WTS. Surrounding agricultural activities are also a potential source of dust, bioaerosols, NH3 and odour.

Table B.1.6.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 receptors)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (4 receptors)	1 (2)	1 (2)	N/A	N/A	3 (3)	1 (1)	3 (3)
Residential within 250m only* (1 property)	N/A	N/A	N/A	N/A	3 (3)	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol risks are limited to within 250m of the site</p>							

Mitigation

Dust, odour and bio-aerosols control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are low to high without mitigation. Measures to control emissions of dust, odour and bioaerosols should be required. Detailed assessment of bioaerosols at property within 250m is recommended.

B.1.6.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

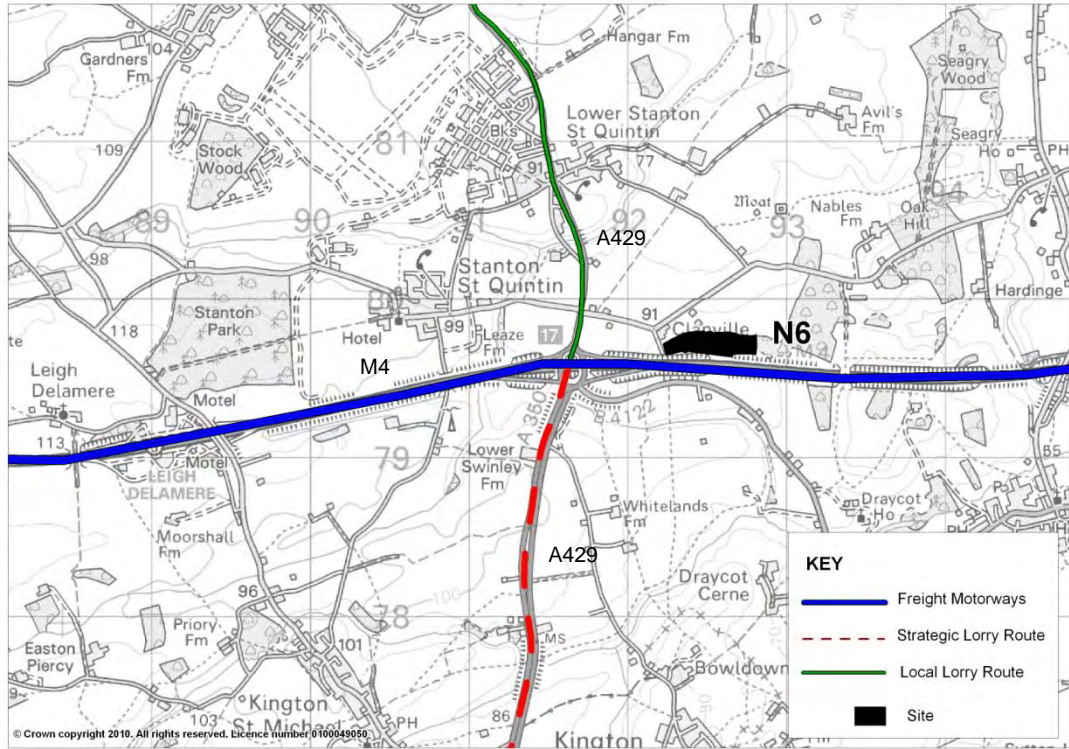
The site has been identified for strategic use. The land currently has no existing use, there are potential access points to the site off Scotland Hill Road.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in Figure 2.1. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.6.5.1 shows the site is located approximately 700m from the A429 which is a designated local lorry route and leads to the strategic freight network. To the south of this junction, access can be gained to junction 17 of the M4.

Figure B.1.6.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Treatment (T);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Composting (C).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. Table 2.1 provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.6.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	45,000	285	AM or PM highway peak period.
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	
Composting	10,000	80	Staff levels at a Composting site are likely to be minimal

Existing/Potential Access Junctions

There are two potential access points into the site, one which enters the site in the south west corner (Access A) and one that enters the site to the north (Access B). Both access points require access off Scotland Hill. Scotland Hill is relatively narrow at 5m and is subject to a 60mph speed limit. The width of the road is insufficient to allow two HGVs to pass unobstructed and therefore carriageway widening would be required which would likely require third party land take. This is considered later in this report.

Access A

The first potential access point off Scotland Hill is from a side road which runs along the western edge of the site. In the south west corner of the site the side road bends to the east into the proposed development. As the road enters the site it is currently blocked by a steel gate and haulage container. The existing side road is only 3m wide with no footways on either side. Where the side road meets Scotland Hill the visibility is poor to the west at only 50m (**Figure B.1.6.5.2**), however to the east the visibility is good.

Figure B.1.6.5.2 - Access A Visibility to the West



Significant infrastructure as well as acquiring third party land would be required in order to provide access at this location using the existing side road from Scotland Hill. Hedgerows would also need to be trimmed to provide adequate visibility splays to the west of the access

Access B

The second potential access point is located at the centre of the northern boundary of the site. An existing access road runs from the north of the site to Scotland Hill where it forms a priority junction. This access road is approximately 7.8m wide, however this narrows slightly as it approaches the site. Visibility at the junction with Scotland Hill is good to the east, however to the west it is obstructed by vegetation which reduces the visibility splay to approximately 40m, see **Figure B.1.6.5.3**. The radii at the junction are unsuitable for HGV use. The width of Scotland Hill is approximately 4.8m in the vicinity of this access road.

Figure B.1.6.5.3 - Access B Visibility to the West



Infrastructure improvements at this location would be required to provide a suitable access. This is likely to include the acquisition of third party land. The vegetation would also have to be trimmed to provide appropriate visibility splays at the junction.

Traffic flows along Scotland Hill are extremely low. When on site, approximately one vehicle every three/four minutes was noted in off peak conditions. Therefore no issues regarding capacity would be expected and simple priority junctions into site would be sufficient.

It is considered that access via Access B would be preferable as less infrastructure improvements would be required compared to access via Access A. Alternatively, a one way system could be implemented which utilises both access points.

Transport Environmental Impacts

Adjacent to the site in the North West corner is a residential dwelling. There is also a residential dwelling located to the north east corner of the site. Both are located next to the potential access points. Apart from these dwellings there are no other sensitive settlements or land uses in the area.

As stated above Scotland Hill is very lightly trafficked, therefore an increase in traffic in this area, especially HGVs, would provide a significant increase in the number of vehicles. No footways are located along Scotland Hill and pedestrian movements in the area are likely to be minimal. As traffic and pedestrian levels in the area are light, the impact on driver and pedestrian delay will be minimal.

Off Site Highway Network

The main access to the site will be gained from the A429 located to the west of the site. Scotland Hill runs in an easterly direction towards the site from which it is proposed the site will be accessed. The junction with the A429 takes the form of a simple priority junction. The junction is suitable to accommodate HGV movements and visibility is good in both directions. However, if an

increased number of vehicles will be turning right into the side road from the A429 as a result of the proposals then a ghost island right turn lane may be needed so as not to delay traffic travelling north bound on the A429. It is likely that during peak periods traffic flows on the A429 will be high and opportunities to turn right into the side road will be limited.

The access road leading from the A429 towards the site is relatively narrow for HGV use, approximately 5m. Manual for Streets (MfS) recommends that a minimum carriageway width of 5.5m is required to allow two HGVs to pass each other unobstructed. However, due to the speed of the road it would be recommended that a width greater than 5.5m be provided to enable safe access to the site that is suitable for the operational needs.

Accessibility by Sustainable Modes

No footways or designated cycle routes are located in the vicinity of the site, in addition no bus stops are located in the vicinity of the development. Accessibility to the site by sustainable modes is poor, however, the nature of the facilities is unlikely to attract a significant number of non motorised uses.

Constraints

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N6/001 in Appendix B**. Both potential access points have constraints that would require mitigation. At present Access A would not be deemed adequate to serve the development as the side road is too narrow. In addition suitable visibility to the west is not achieved as the speed limit at this location is 60mph. Access B also fails to meet visibility standards to the east of the junction.

The access road leading to the site from the A429 is relatively narrow and it may prove difficult for larger HGVs to use this route

Mitigation

It is recommended that access point B is used to provide access to the site. In order to achieve visibility at the recommended access location vegetation will have to be cut back. As radii at the preferred access junction are tight, it is a possibility third party land may be required to provide a suitable access as well as widening Scotland Hill in the vicinity of the site.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£500k** - Widening of Scotland Hill
- **£25k** - Improvements to visibility at access (note: this is likely to have third party land issues)

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is close to the strategic freight network; and
- The access road leading to the site is lightly trafficked; suggesting it is unlikely capacity will be an issue.

The following issues/constraints have been identified:

- Both potential access points have issues regarding poor visibility to the west;
- The westernmost access is only 3m wide meaning significant additional infrastructure would be required;
- Issues regarding third party especially at access A may be prevalent;

- The access road from the A429 is narrow which may make access for large HGVs difficult; and
- There is a potential need to upgrade A429 junction with the access road to provide storage space for right turning vehicles.

The site is located in close vicinity to the strategic freight network, however there are issues concerning how access to the HGV Route Network will be gained due to the narrow road widths from/to the A429. Issues also exist with both potential access points into the site. Access A is too narrow and would require third party land to widen to a suitable width to accommodate two way flows. Access B is also constrained and third party land may be required to widen Scotland Hill and improve the existing kerbed radius into the site.

The opportunity to use both access points which are incorporated into a one way system could be investigated. In general the site has a number of transport issues that would need further investigation before being suitable for a waste facility. The cost of Widening Scotland Hill may be prohibitive.

B.1.6.6 Water Quality / Environment

NGR: 392530, 179710

Location: Stanton St Quintin

Area: 8 hectares

Data Source: Landmark Envirocheck Report 30172636_1_1 (15th Feb 2010) unless otherwise referenced

Table B.1.6.6.1 - Land North-East of J17, M4 Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>There are 4 ponds within 150-250m of the site.</p> <p>There is a drain in the field to the south of the B4122 400m south of the site which joins Sutton Benger Brook (GQA grade B – good; ecological and current overall status good).</p> <p>Rodbourne Brook (GQA grade B – good; ecological and current overall status good) is to the north and west, c. 800m away; and an unnamed brook is 700m to the north.</p>	<p>Limited risk of contamination of ditches and brooks during construction and operation due to distance and connectivity between site and water features.</p>	<p>Surface water drainage system including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) and foul drainage.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS map¹⁴ indicates that the site is underlain by the Upper Jurassic Kellways Clay formation (silty clay with sand lenticles), which overlies</p>	<p>Potential for creating a pathway between contamination and the groundwater.</p>	<p>-</p>	<p>To be considered during further assessment.</p>

¹⁴ 1:50 000 Drift geological map (Sheet No. 265, Bath)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	<p>the Cornbrash Rubbly Limestone. The formations dip to the south west. There are a series of faults trending ENE – WSW directly east and south of the site.</p>			
<p>Hydrogeology: Groundwater - Hydrogeological Units</p>	<p>Just over half of the site, the southern side, is on a Secondary (Minor) Aquifer; the rest is on unproductive strata (non-aquifer).</p>	<p>Possible contamination of aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.</p>	<p>Surface water drainage system including runoff collection system and utilisation of SuDS and foul drainage. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p>	<p>Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site.</p>
<p>Hydrogeology: Groundwater - Source Protection Zone</p>	<p>The site is not on or near a SPZ.</p>	<p>No risk posed to public water supply but there may be small (<20m³ / day) private abstractions of potable water in the area.</p>	<p>Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design.</p>	<p>Review runoff treatment requirements. Surface Water Management Plan.</p>
<p>Hydrogeology: Groundwater - Vulnerability</p>	<p>The Secondary Aquifer is predominantly of intermediate vulnerability, with the western-most tip being high vulnerability.</p>		<p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and EA PPGs during construction.</p>	
<p>Hydrogeology: Groundwater – Direction of Flow</p>	<p>No information available on direction of flow.</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p>Discharges: Surface Water - Discharge Consents</p>	<p>Site drainage; to tributary of Sutton Benger Brook,</p>	<p>Not applicable.</p>	<p>-</p>	<p>To be considered during further assessment.</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	114m south-west and to River Avon ¹⁵ , 686m south-west. Agricultural and surface; to tributary of River Avon, 798m south-east. Final / treated effluent; tributary of River Avon, 1000m south-west.			
Discharges: Groundwater - Discharge Consents	Final / treated effluent; to soakway, 287m south.			
Discharges: Pollution Incidents	Substantiated oil pollution incident with a significant (Category 2) impact on water, 589m west.	Not applicable.	-	To be considered as potential pollution source if contamination found during investigation.
Abstractions: Surface Water Abstractions	No surface water abstractions within 1km of the site.	No risk posed.	-	-
Abstractions: Groundwater Abstractions	Private groundwater abstraction; for “general farming and domestic” use, 77m to west	Potential for works to affect potable water supply	Surface water drainage system including runoff collection system and utilisation of SuDS and foul drainage. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding,	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water

¹⁵ Note that this information is from Envirocheck Datasheet – River Avon was not identified as such on the accompanying maps hence there is no reference to it elsewhere in the table

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
			landscaping and ground level design. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and EA PPGs during construction.	Management Plan.
Flood Risk	The site is in flood risk zone 1; and is larger than 1 ha.	Pluvial flooding could interrupt operations and cause pollution to spread from the site.	Surface water drainage scheme design including SuDS.	A Flood Risk Assessment in line with PPS25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Land uses	There is a depot 100m south of the site that is recorded as a fuel station. It is also the location of a waste transfer site and HRC. Google Maps ¹⁶ aerial photography reveals earthworks at the site which may be related to previous site uses, although no reference is made in the Envirocheck.	There is a risk that waste material will be encountered during construction works, which would lead to a higher risk that run-off during construction would lead to contamination of the Minor Aquifer or local water courses.	Site Waste Management Plan to specify how excavated material will be handled, stored and disposed of. Site Waste Management Plan and Pollution Incident Control Plan to be implemented by contractors.	Geotechnical Investigation and consultation to determine extent and nature of waste. To be considered as a possible source of contamination if any found during monitoring.

¹⁶ <http://maps.google.co.uk/>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Conservation Designations	Stanton St Quintin Quarry and Motorway Cutting SSSI is 304m west of the site and designated for geological reasons ¹⁷ .	No risk posed from development.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

¹⁷ http://www.sssi.naturalengland.org.uk/citation/citation_photo/1004536.pdf

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Materials Recovery Facility / Waste Transfer Station, Local Recycling centre, Inert Waste Recycling and Transfer centre, Composting centre, or Waste Treatment site at land north-east of J17 M4, Stanton St Quintin falls within the following category:

- Several potentially significant issues identified – review further assessment requirements of site

The initial screening indicates:

- Surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The presence of a Secondary Aquifer beneath the site and therefore there are potential groundwater contamination issues
- Pluvial and groundwater flood risk
- Potentially contaminating industrial land use near the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and liaison with the Environment Agency.

B.1.7 Park Grounds Farm, Wootton Bassett (Site Ref N7)

B.1.7.1 Introduction

The site extends to 60 ha and is located approximately 1.5km north west of Wootton Bassett. The proposed site comprises agricultural land with large fields bounded by low hedgerows rising to the north, allowing views throughout the site. There is also an existing landraise within the site. The site is accessed from the north of the site via the B4042. The B4042 forms the northern boundary of the site. Highgate Farm and several properties run along the B4042. To the east of the site is a field and some residential properties. The southern boundary is formed by the M4 and a railway line. To the south of the railway, between the site and the M4 is a former landfill. To the west of the site are agricultural fields.

Directly adjacent to the western boundary of the site is Callow Hill Farm Meadow Wildlife Site. Withered Bed Wildlife Site woodland is located directly adjacent to the north-western boundary of the site. Folly Wood Wildlife Site is located approximately 250m east of the site. The area is classified as community woodland and there are a number of areas of ancient woodland within 1km north east of the site.

There are two Public Rights of Way crossing the site, one loosely following the line of the railway, the second running roughly north to south to the south of Park Grounds Farm house and along the eastern edge of Withered Bed County Wildlife site.

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: 07/01851/FUL Construction of 3 stables and food storage and change of use of land to engine and improvement to access on land at Flaxlands, Wootton Bassett, Wiltshire

Reference: 08/07021/FCM Construction of new building to accommodate a renewable energy generation facility on land at Parkgrounds, Brinkworth Road, Wootton, Bassett.

Reference: 08/02098 Agricultural storage barn on land at Oaklands farm, Braydon SN5 0AN

Reference: 09/02172/FUL Construction and operation of a Waste Transfer Station (WTS), Material Recycling Facility (MRF) and a Green Waste composting facility at Parkground, Brinkworth Road SN4 7SB

Reference: 09/00748 Construction and operation of a WTS, MRF and Green Waste composting facility at Parkground, Brinkworth Road SN4 7SB

Reference: 09/07004 Extension of existing approved landfill at Landfill site at Parkground, Brinkworth Road SN4 7SB

B.1.7.2 Cultural Heritage

Introduction

The Park Ground Farm site lies 1.5km northeast of Wootton Bassett adjacent to the M4 motorway. It is currently in use as a waste management facility, with landraise, composting and recycling facilities operational. There are also areas of farmland, predominantly for livestock (dairy cattle) as well as arable farming, although part of the property east of the farmhouse has already been subject to mineral extraction. Areas of the site where this is so have been used for landfill prior to being returned to agricultural production. The site has been identified for potential landfill and waste treatment use, which will entail ground invasive works that could impact on buried archaeological remains.

Three non-designated heritage assets are recorded within the site (**N7-a**, **N7-b** and **N7-c**). There is one Scheduled Monument, a Late Medieval moated site (**N7-f**) c.400m south of the site on the opposite side of the M4 motorway. A single Grade II Listed Building (**N7-h**) is recorded c.500m to the north of the site.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique Asset Number (i.e. **N7-a**, **b**, **c**, etc).

Designated Heritage Assets within the Site

There are no designated heritage assets within the site

Designated Heritage Assets within or close to the Study Area

There is one Scheduled Monument (**N7-f**) c.400m south of the site

There is one Grade II Listed Building (**N7-h**) c.500m north of the site

Table B.1.7.2.1 - Designated Heritage Assets within or Close to the Study Area

Asset No.	Asset Name & Description	WSMR / LBS No.	Designation	OS Ref
N7-f	<i>Late medieval moated site - A square Medieval moat with slightly raised interior. Probable building foundations in the north-west corner.</i>	SU08SW45 0	Scheduled Monument	SU0480,83 29
N7-h	<i>18th century milestone opposite Highgate Farm</i>	LB 316843	Grade II LB	SU0460,84 70

Heritage Assets within the Site

There are three recorded heritage assets within the site (**N7-a**, **N7-b** and **N7-c**). The entire site lies within the boundary of a former medieval deer park (**N7-c**). A previously unrecorded site of a Post-

medieval building was identified during a study of cartographic sources for this assessment (**N7-d**). Park Ground Farmhouse is also noted (**N7-e**).

Table B.1.7.2.2 - Heritage Assets within the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
N7-a	<i>North East of Doveys Farm - Various features are visible on aerial photographs as vegetation marks also including vague marks in the field to the east.</i>	SU08SW618	None	SU0435,8397
N7-b	<i>Undated circular earthwork visible on aerial photographs.</i>	SU08SW600	None	SU0477,8371
N7-c	<i>Vasterne - Late Medieval deer park A large deer park existed, known as Vastern Great Park. It was created by the Bassett family c1230. The park encompasses the entire study area, but no other related features have been recorded.</i>	SU08SW462	None	SU0520,8329
N7-d	<i>Haines Cottage – Post-medieval cottage noted on 1st edition Ordnance Survey map 1886. A field barn remains in situ.</i>	Not recorded	None	SU0455,8381
N7-e	<i>Park Ground Farmhouse – Post-medieval farmhouse noted on 1st edition Ordnance Survey map 1886 and still extant</i>	Not recorded	None	

Table B.1.7.2.3 - Heritage Assest Recorded within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LBS No.	Designation	OS Ref
N7-f	<i>Late medieval moated site - A square Medieval moat with slightly raised interior. Probable building foundations in NW corner.</i>	SU08SW450	Scheduled Monument	SU0480,8329
N7-g	<i>Undated earthworks, possibly a field system, visible on an aerial photograph.</i>	SU08SW611	None	SU0487,8302
N7-h	<i>18th century milestone opposite Highgate Farm</i>	LBS 316843	Grade II LB	SU0460,8470

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic or Bronze Age heritage assets are recorded on the WSMR within the study area.

The Iron Age (700 BC – AD 43)

Although undated, the cropmark features recorded within the site (**N7-a, N7-b**) could potentially be of Iron Age or Roman date.

The Roman Period (AD 43 – AD 450)

Although undated, the cropmark features recorded within the site (**N7-a, N7-b**) could potentially be of Iron Age or Roman date.

The Early Medieval Period (AD 450 – AD 1066)

No Early Medieval heritage assets are recorded on the WSMR within the study area.

The Medieval Period (AD 1066 – AD 1547)

The entire study area lies within the boundaries of a late medieval deer park (**N7-c**). Documentary sources indicate that Henry III granted permission to Alan Bassett to create a deer park at Vastern in AD 1229. There is no surviving evidence of the pale or boundary of the deer park. The park may be related to the moated site recorded c.450m to the south of the site (**N7-f**) which could have served as hunting lodge to the park.

The Post-medieval Period (AD 1547 – c.1900)

No Post Medieval heritage assets are recorded on the WSMR within the study area.

The 1st Edition Ordnance Survey map (1886) illustrates the location of Park Ground Farmhouse (**N7-e**) surrounded by large and regular field enclosures (the date of enclosure is unknown). The location of Haines Cottage (**N7-d**) is shown to the south of the site. Subsequent post-medieval and modern maps illustrate only minor changes within the landscape.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded within the study area.

Significance of Heritage Assets

The significance (archaeological interest) of any surviving remains is unknown; however, any significance would be associated with the potential that the remains are a source of evidence of former uses of the site and the surrounding area.

The significance of the remaining post-medieval agricultural buildings within the site (**N7-d** and **N7-e**) is low. Although they reflect the post-medieval development of the landscape, they are not of architectural interest.

The significance of the site in relation to the setting of the two designated assets (**N7f** and **N7-h**) is low. Both are screened from the site by topography, vegetation and modern structures.

Assessment Suitability

It is possible that remains associated with the cropmark features exist in the western part of the site (**N7-a** and **N7-b**). Ground disturbing activities associated with extraction work could adversely affect the significance of any surviving remains. Based on current information these potential remains are unlikely to be worthy of designation, would not warrant preservation in situ and should not preclude any potential development within the site. However, further information is required to substantiate this statement. The potential scope for additional investigations is discussed below.

The one Scheduled Monument (**N7-f**) recorded within the Study Area is screened from the site by the line of the railway and M4 motorway. There would be no affect on its setting.

There would be no affect on the setting of the Listed milestone (**N7-h**) c.500m north of the site due to distance and low position in the landscape.

Mitigation

Further archaeological evaluation is proposed at the site in order to ascertain the potential for as yet unknown archaeological deposits to exist, particularly from the medieval period. Depending on the results of this evaluation work, a programme of archaeological works might be required to mitigate the potential adverse affects of development on significant buried remains. A

proportionate and industry standard response to mitigate the potentially adverse impacts on the archaeological interest of the heritage assets could be for an archaeological excavation to take place in advance of ground disturbing works. This excavation would allow for archaeological recording of any discovered remains and the removal and retention of any recovered artefacts to take place. The scope of any programme of archaeological works should be agreed in advance with the Wiltshire County Archaeologist.

No mitigation will be required for the two undesignated post-medieval agricultural buildings (**N7-d, e**). No mitigation will be required for the designated heritage assets (**N7-f** and **N7-g**).

Recommendations

This assessment has identified that potential buried archaeological remains (**N7-a** and **N7-b**) could survive within the site. Further investigations could take the form of a programme of field surveys comprising geophysical survey followed by trial trenching. The results of these investigations could be used to inform a mitigation strategy. This strategy could involve the locating of ground disturbing works away from known areas of significant buried remains. The scope of any programme of archaeological investigations should be agreed in advance with the Wiltshire County Archaeologist.

Conclusions

There are three heritage assets recorded on the WSMR, NMR, historic maps or aerial photographs within the site boundary (**N7-a, N7-b** and **N7-c**). There is one Scheduled Monument within the study area, c.450m to the northeast of the site (**N7-f**). A single Listed Building (18th century milestone) is located 500m to the north of the site (**N7-h**).

Development of the site may impact on currently unrecorded remains associated with known and unknown sites of buried archaeological remains. A programme of archaeological field surveys could be undertaken to assess the nature, extent and significance of any surviving remains. The two archaeological sites recorded in the western part of the site should be subject to archaeological evaluation in advance of any proposed land extraction in this area. Further mitigation may be required depending on the outcome of the evaluation. No mitigation will be required for the extant farmhouse or associated agricultural buildings.

The Scheduled Monument recorded within the Study Area c.400m south of the site is screened by the line of the railway M4 motorway. There would be no affect on its setting. There would be no affect on the setting of the listed milestone c.500m north of the site. No mitigation is therefore required.

B.1.7.3 Landscape and Visual Impact

Introduction

The site is located just to the north of the M4 motorway, on the B4042 approximately 1.5km west of Wootton Bassett. The southern boundary of the site is defined by a railway line. The site lies upon ground with a significant rise to the north. To the southern portion of the site, on the low lying ground to the M4 is an active composting facility. The higher ground to the north is currently in use for agriculture; likely predominantly pasture for livestock (dairy cattle).

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales

Key characteristics relevant to the site:

- Gently undulating clay lowland farmland with regular and well-ordered field patterns defined by thick hedgerows, however intensification of agricultural activities have resulted in the removal of hedgerows, enlarged fields and new farm buildings
- Open floodplain landscapes displaying gravel workings and flooded pits

- Brick built buildings reflect the widespread use of the local clay as a building material with plain tiled roofs

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Open Clay Vale

Landscape Character Area: Avon Open Clay Vale on the cusp of Minety Rolling Clay Lowland

Key characteristics relevant to the site:

- Level land form with wide open skies and views to ridges and downs
- Predominantly intensively managed permanent pasture with some arable
- Hedgerows, gappy or low flailed in places with sparse hedgerow trees enclose fields of varying size.
- Sections of the area remain rural and tranquil despite major routes through (M4).
- Buildings in varied material of brick, render and stone

Generally the condition of the landscape character area is considered by WCC to be 'moderate', with a 'moderate' strength of character.

The strategy for the area is to conserve the elements that contribute to the rural, tranquil landscape and improve elements in decline such as hedgerows and hedgerow trees

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Swindon Fringe

Key characteristics relevant to the site:

- Elevated ground with rolling hills and a steep escarpment to the north and west
- A mix of building ages and styles, from historic village centres to more recent brick and reconstituted stone houses with modern building materials
- Wide views from elevated positions on the scarp slope and high points over floodplain and lowland vales
- Degraded agricultural landscapes, including arable and pasture, with gappy hedgerows in poor conditions and lack of mature trees
- Presence of power lines, service section land uses and communication corridors
- Comprehensive network of public footpaths

Landscape Designations and Rights of Way:

- The Withy Bed County Wildlife site is adjacent to the east
- There are two public rights of way crossing the site, one loosely following the line of the railway, the second running roughly north to south to the south of Park Grounds Farm house and along the eastern edge of Withy Bed County Wildlife site

Baseline Landscape Character and Features: Site Survey

The proposed site comprises a sloping mixed use landscape with large fields bounded by low hedgerows, allowing views throughout the site. Access is from the north of the site off the B4042 at the top of the ridge. There are several residential properties along the B4042 with the community of Callow Hill overlooking the site from the west. At the base of the slope is Park Grounds Farm, located centrally on a relatively flat expanse of farmland. The farm comprises the composting centre with visually prominent composting bunds, several farm sheds and buildings, as well as a traditional farm house.

The site is exposed to the south, with uninterrupted views out over the M4 to the rolling agricultural landscape beyond. The landscape to the south is interlaced with woodland copses.

The landform creates a broad east – west valley, with another rise further to the south. In the distance to the south the control tower and hanger of a Royal Airforce base are visible.

The site is bounded by a mix of hedgerow and woodland copses. The hedgerow trees are predominantly oak, many are in poor condition. To the southwest site boundary and within the wider landscape to the southwest / west of the site are several copses of woodland, including semi-natural and replanted ancient woodland.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor
Capacity to Accept Change: Medium

The rural landscape is cleaved by the M4. The south of the site is an active composting site in full view of the surrounding visual receptors. The site is not a good example of the wider landscape character and therefore has a low landscape quality. The site topography will require careful planning of any development due to the exposure to the south. Locating facilities within the existing Park Grounds Farm cartilage at the base of the ridge, in a style in keeping with the rural agricultural style with minimise adverse impacts. Improvements to the locally characteristic hedgerow field boundaries will enhance the degraded landscape quality. Therefore the site has a moderate capacity to accommodate change.

Potential Landscape Mitigation Measures

- Sensitive site planning –facilities to be located to the base of the ridge adjacent to Park Grounds Farm, development to avoid exposed areas at the top of the slope
- Facilities to be in keeping with the local vernacular/agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character
- The following ‘Broad Management Objectives’ for the Open Clay Vale in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Retain and manage the hedgerow network and nurture new hedgerow trees
 - Promote appropriate management of arable land including retaining area of fallow land and maintaining an unploughed margin around fields
 - Minimise small scale incremental change such as signage or fencing which could change the rural peaceful character of the landscape
 - Ensure both future construction and changes to existing buildings integrate with the existing character and structure of settlements
 - Screen views to intrusive urban edges through planting new woodland
- The following Enhancement Priorities proposed for the Swindon Fringe landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Restore hedgerows and specimen trees especially oak and ash
 - Discourage further ribbon development along roads
 - Discourage change of land use except where visual impact from the realm is minimised
 - Ensure development reinforces the locally distinctive character and respects the vernacular, and incorporates landscape mitigation to minimise adverse effects on the landscape and visual amenity

Table B.1.7.3.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Highgate Cottage Residents	High	Moderate adverse	Facilities to be in keeping with the local vernacular / agricultural style
Highgate Cottages	High	Substantial adverse	

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residents			Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site Low development avoiding the introduction of vertical elements.
Highgate Farm Residents	High	Negligible	
Residential properties in Callow Hill	High	Slight adverse	
Residential Properties south of the M4	High	Slight adverse	
Footpath Users	High	Substantial adverse	
Railway Users	Low	Slight adverse	Facilities to be located to base of the ridge in proximity to the existing Park Gate Farm buildings Structure planting around site boundary
M4 Motorway Users	Low	Moderate adverse (slight if development contained to south of site)	
B4042 Users	Low	Slight adverse	

Summary: Residual Landscape and Visual Impacts

The proximity of the M4 and the composting centre to the south of the site have degraded the landscape character of the area which strongly impacts on the site due to its exposed nature, this gives the site a poor landscape quality. Sensitive site planning and establishment of hedgerows and screen planting will improve the site enclosure allowing the site to accommodate change while minimising adverse landscape and visual impacts of development.

Recommendation

- Night-time visual surveys

B.1.7.4 Noise

Introduction

The site at Parkgrounds Farm, Wootton Bassett has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Landfill;
- Treatment.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- Low Gate Cottage which is located approximately 110m to the north west of the allocated site boundary; and
- The east of the access track to Parkgrounds Farm from the B4042, approximately 20m from the kerb of the B4042. It is deemed that this location is representative of the rear amenity spaces of residential properties on the B4042 to the north east of the allocation area.

The proposed site is located within land that is currently occupied by a landfill and waste processing centre. Given the current usage, background noise levels were made with these

activities occurring. The site is bounded to the south by the M4 and a railway line, the remainder of the boundaries of the site are surrounded by open/farm land.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions being overcast with light westerly winds. The current noise environment around the allocated site is dominated by noise from the M4, with other sources of noises being rail traffic and current operations of the landfill.

Consecutive background noise measurements were taken Low Gate Cottage and to the east of the access track. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.7.4.1 - Low Gate Cottage - Background Noise Levels (AU1_0012)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
09:27:00	00:05:00	54.2	56.6	52.7	55.1	54.0	53.3
09:32:00	00:05:00	54.1	56.5	51.9	55.1	54.1	52.8
09:37:00	00:05:00	54.0	56.6	51.9	55.2	53.8	52.9
09:27:00	00:15:00	54.1	56.6	51.9	55.1	54.0	53.0

Table B.1.7.4.2 - East of the Access Track - Background Noise Levels (AU1_0013)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
09:51:00	00:05:00	60.5	69.2	56.3	62.9	58.9	57.7
09:56:00	00:05:00	59.5	66.5	55.2	62.5	58.0	56.2
10:01:00	00:05:00	60.9	74.9	56.0	62.1	58.5	57.0
09:51:00	00:15:00	60.3	74.9	55.2	62.7	58.5	56.8

The average background noise levels (LA90) at Low Gate Cottage and to the east of the access track are taken as being 53.0 dB and 56.8 dB, respectively.

Assessment Suitability

The site is Brownfield with housing to the north east of the site and one residential property to the north west.

There is little or no screening to the residential properties to north, but due to the size of the site with careful siting the site is deemed to be suitable.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required on all but the southern boundary. The site should be located a minimum of 150m from any residential dwellings.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.7.5 Air Quality and Odour

Introduction

Parkgrounds Farm is located west of Wootton Bassett just north of the M4. It is currently in agricultural use, predominantly for livestock. To the south is a former landfill with ongoing completion and restoration operations, and - to the south of that - the M4.

Potential uses for the site include Landfill and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 19.1µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 14.3µg/m3 NO2 (standard 40µg/m3);
- 15.7µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

Potentially 17 receptors within 500 metres including scattered farms and residential properties. There are no sensitive ecological sites within the study area.

Air pollutant sources within 500 metres of the site: road traffic on the M4, B4696, B4042, and minor roads; gas/oil/solid fuel space heating for scattered buildings; completion and restoration activities at the adjacent landfill (potential additional pollutants including dust, odour and NH3). Agricultural activities in the area are also potential sources of dust, bioaerosols, NH3 and odour.

Table B.1.7.5.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
Total residential within 100m of site (1 receptor)	2 (2)	2 (2)	N/A	N/A	3 (3)	3 (3)	3
Total residential between 100 and 500m (16 receptors)	1 (1)	1 (1)	N/A	N/A	3 (3)	2 (2)	3
Residential within 250m only (7 properties)	N/A	N/A	N/A	N/A	2 (2)	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

2 = moderate risk, further assessment is recommended, mitigation should be required

3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated

Values in brackets denote potential 'in-combination' or cumulative effects

N/A = risk is not applicable in these circumstances

* Bioaerosol risks are limited to within 250m of the site

Mitigation

Dust, odour and bio-aerosols control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are low to high without mitigation. Mitigation for dust, odour and bioaerosols is recommended. Detailed assessment is recommended for bioaerosols and odour if the layout of the site is to include composting facilities within 250m of receptors; given the size of the site, there is potential for these activities to be located beyond 250m.

B.1.7.6 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

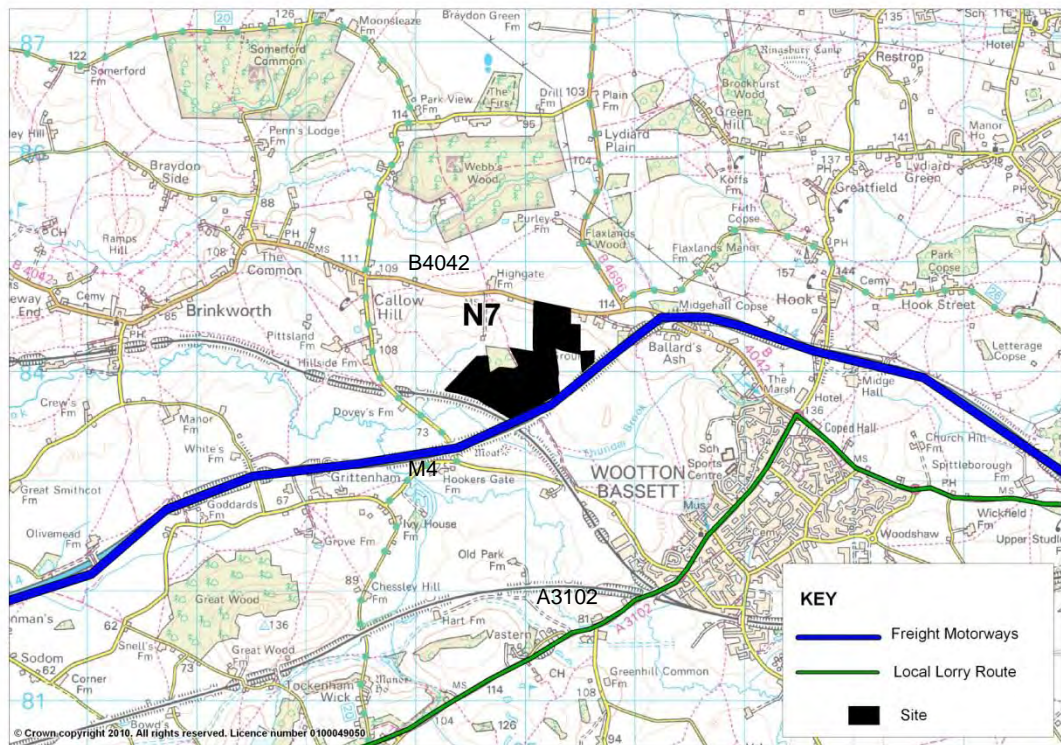
The site has been identified for strategic use. The site is currently used for landfill and therefore operational waste vehicles currently serve the site. The existing access to the site is gained off the B4042.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.7.6.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.7.6.1 shows that the nearest designated lorry route is the A3102 (a local lorry route), which then links to the M4. The A3102 is located to the south east of the site, which is accessed from the B4042. The A3102 is designated as an ‘other lorry route’ and therefore should be used when it is essential to gain access. The B4042 is not part of the Wiltshire HGV Route Network. To the west of the site the B4042 links to the A429 which is also a designated ‘other lorry route’, which, by definition, is only to be used where it is essential to gain access.

Figure B.1.7.6.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Treatment (T); and

- Landfill (L) extension.

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.7.6.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.7.6.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	
Landfill	1.28 trips per hectare during busiest one hour period		Staff levels at a Landfill site are likely to be minimal

Existing/Potential Access Junctions

The site is currently accessed via a priority junction located on the B4042 approximately 2.5km west of Wootton Bassett. The speed of the road in the vicinity of the site is 60mph. Visibility to the east is good; however, to the west visibility is restricted to approximately 40m by vegetation on the northern boundary of the site and is therefore well below the recommended visibility of 215m as set out in DMRB18. However, if the vegetation was properly maintained visibility would be sufficient. HGVs currently serve the site and use this access.

In general the access location is suitable for the proposed uses, however the junction may need upgrading to bring it up to a standard suitable to accommodate the likely number of additional HGV vehicles generated by the proposed development. On site observations suggest that speeds in the vicinity of the site can be above the posted speed limit. It is recommended that a ghost island right turn be provided so as to provide refuge for right turning vehicles and avoid conflict with ongoing vehicles, which may be approaching at high speeds.

Transport Environmental Impacts

A number of residential properties are located in the vicinity of the site. Approximately 250m to the east of the access two residential properties front on to the B4042. Although the A3102 is a designated local lorry route, residential properties do front onto this road. The introduction of a treatment facility may produce up to 320 HGV trips per week. The majority of which would impact on these roads. No footways are located on the B4042 in the vicinity of the site, however the demand for such facilities is minimal due to the number dwellings and facilities in the area.

To the west of the access the B4042 passes through the village of Brinkworth where the speed limit is reduced to 50mph, and in some places 40mph. An increase in HGVs along this route would have an environmental impact on the village and may impact on issues such as pedestrian fear and intimidation, noise and vibration.

Off Site Highway Network

From the site access the B4042 links to the A3102. Where the two roads meet they form a roundabout junction. This junction is suitable for HGV use in terms of geometry. It is unlikely that the proposed development will generate a significant number of trips during the AM and PM peak

¹⁸ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

periods; therefore the impact the site will have on the junction in terms of capacity is likely to be minimal. Nevertheless a full capacity assessment will need to be carried out at the access junction in order to ensure the junction can accommodate the proposed level of additional traffic. To the west the B4042 joins the A429 (a local lorry route) south of Malmesbury. The two roads also meet at a roundabout junction which is again suitable for HGV use.

The B4042 is between 6.5 and 7m wide in the vicinity of the site which is sufficient to for access by HGV vehicles.

Accessibility by Sustainable Modes

Accessibility to the site via sustainable modes is poor. No footways are located on the B4042 in the vicinity of the site. Bus stops are located to the west of the site near Callow Hill. However, as there are no footways in the vicinity of the site the bus stops are difficult and unsafe to access from the site.

Constraints

A plan showing information related to the site is presented as drawing no. **5044619.017/TP/N7/001** in **Appendix D**. No particular constraints exist at the site. Visibility is hindered to the west however this can be addressed by trimming vegetation which fronts the northern edge of the site. The access may need to be upgraded to provide a ghost island right turn to improve safety and reduce the possibility of any capacity issues arising.

Mitigation

Mitigation would need to be implemented for the site access junction. It is recommended that a ghost island right turn be added to improve safety in view of the high speeds on the B4042. In addition it is recommended that the hedgerows at the access are cut back and seasonally maintained to improve visibility.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£125k** - Ghost island right turn being implemented at the existing access junction -

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- Good access to the strategic lorry network; and
- Existing waste development uses on the site.

The following issues/constraints have been identified:

- Existing access may require upgrading to ghost island priority junction along with cutting back vegetation to provide suitable visibility;
- Additional HGV trips may have an environmental impact on surrounding residential properties; and
- Accessibility to the site via sustainable modes is poor.

The site is in a good location for access to the designated lorry routes which lead to the strategic freight network although vehicles will have to pass by a limited number of residential dwellings. The site access junction may require upgrading however the location of the access is suitable to provide good visibility at the access to the site. Overall the site is well placed to accommodate the proposed waste facilities with mitigation measures as set out in this report

B.1.7.7 Water Quality / Environment

Introduction

NGR: 404690, 183760

Location: Wootton Bassett

Site Area: 59.63 hectares

Data Source: Landmark Envirocheck Report 30093118_1_1 (8th Feb 2010) unless otherwise referenced

Table B.1.7.7.1 - Parkgrounds Farm Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is an unnamed tributary of the Brinkworth Brook located approximately 50m west of site. The Thunder Brook is 84m to the south of the site, The Brinkworth Brook converges with the Thunder Brook and the Grittenham Brook 745m south west of the site. The Woodbridge Brook is located 760m to the north east. The Brinkworth, Thunder and Grittenham Brooks are separated from the site by the M4. There are a series of small ponds 935m to south of the site.</p> <p>The Brinkworth Brook (at confluence with the Thunder Brook) has an ecological classification in line with the Water Framework Directive as Good.</p> <p>The Brinkworth Brook has an ecological classification in line with the Water Framework Directive as Fair.</p>	<p>Limited impact on the various brooks in the area flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Limited Impact on the Thunder Brook and Brinkworth Brook quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Geology: Stratigraphy	The site is underlain by the Jurassic Oxford Clay Formation ¹⁹ .	Not applicable.		Consideration of geology within impact assessment.
Hydrogeology: Groundwater – Hydrogeological Units	Site and surroundings are predominantly underlain by unproductive strata (non aquifer).	No risk posed.	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.	Environmental management during construction. Determine monitoring requirements with EA.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³)	Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance during construction.	Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is not vulnerable			
Hydrogeology: Groundwater – Direction of Flow	There is insufficient information to determine groundwater flow direction.	Not applicable.		
Discharges: Surface water – Discharge Consents	Two discharge of final/treated effluent, one to a tributary of the Thunder Brook on site, one to a tributary of the Woodbridge Brook, 553m north.	No risk to works.	-	-
Discharges: Groundwater – Discharge Consents	There are no discharge consents within 1km of the site.	Not applicable.	-	-

¹⁹ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Discharges: Pollution Incidents	Agricultural materials and wastes (slurry & dilute slurry) (2003) Cat.2 (significant incidents) to water, Cat.3 (minor incidents) to land, 808m to the east.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	No abstractions within 1km of the site.	Not applicable.	-	-
Abstractions: Groundwater – Abstractions	There are no abstractions within 1km of the site.	No risk posed to local public abstractions		
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	Historic Landfill: accepting inert and industrial waste, 293m south, accepting inert waste, 702m north west. Local authority recorded landfills: waste special, industrial, commercial (on site), waste: unknown (396m south- now closed), waste: construction, 494m south. Registered landfill: medium (25,000 – 75,000 tonnes) waste inert on site.		-	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Conservation Designations	There are no designated sites within 1km of the site.	Not applicable.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a landfill extension or waste treatment plant at **Parkgrounds Farm, Wootton Bassett** falls within the below category:

- Few significant issues identified – progress waste site to next stage of assessment

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- There is a risk of pluvial flooding
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and contamination assessment.

B.1.8 Studley Grange Waste Management Facility, Wootton Bassett (Site Ref N 8)

B.1.8.1 Introduction

The site extends to 54.5ha and is located approximately 1km to the south east of Wootton Bassett. The site is currently in use as a strategic non-hazardous waste landfill (industrial and commercial waste). The site has an existing access onto the B4005 Hay Lane which lead to Junction 16 of the M4. The Swindon-Bristol railway forms the northern boundary beyond which lies the M4 motorway. Immediately adjacent to the east of the site is a Garden Centre and tree nursery with visitor attractions such as a butterfly garden. The former Wiltshire and Berkshire Canal runs along the southern boundary and to the west an unclassified road. To the south and west of the site are fields with scattered farms and private residences, including Padbrook Farm located immediately adjacent to the site.

The only building on the site is the Red House, a residential property converted into site offices. To the north of the site are a few scattered farms with disused farm outbuildings. Beyond the M4 To the northeast is industrial and commercial urban sprawl from Swindon. The site is open to the south, overlooking a number of farms and detached residential properties within a rolling pasture landscape with fields defined by hedgerows and hedgerow trees.

The site is located within a community woodland / forest area however, although parts of the restored landfill have been replanted, there are no existing woodland areas within the site boundary. Morningside Farm Meadows and Chaddington Lane Verge wildlife sites located adjacent to the site. A number of Public Rights of Way cross the site, including a public footpath that runs adjacent to the Red House.

The site is not allocated in the adopted North Wiltshire Local Plan although it is located in the North Wilts / Swindon rural buffer. The emerging Wiltshire Core Strategy does propose a future employment allocation to the north east of this site, beyond the M4. The site has been granted planning permission (which has not been implemented) for a Waste Transfer Station and composting facility

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: 08/07022 Composting facility and tyre recycling operation without compliance with condition 15 on land at Park farm, Purton SN5 9HG

B.1.8.2 Landscape and Visual Impact

Introduction

The site is located to the east of Wootton Bassett off junction 16 of the M4 on the B4005. The site is currently in use as a Waste Management Facility which is due for completion and restoration commencing in March 2010. A railway lies immediately to the north of the site, with the M4 motorway to the north of that. Immediately adjacent to the east is a Garden Centre and tree nursery with visitor attractions such as a butterfly garden. To the south and west of the site are scattered farms and private residences.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales

Key characteristics relevant to the site:

- Gently undulating clay lowland farmland with regular and well-ordered field patterns defined by thick hedgerows, however intensification of agricultural activities have resulted in the removal of hedgerows, enlarged fields and new farm buildings
- Deterioration of hedgerows due to a combination of under management and neglect
- Brick built buildings reflect the widespread use of the local clay as a building material with plain tiled roofs

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Calne Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on clay
- Largely rural, tranquil landscape
- Variable field pattern of arable and pasture with hedgerows, though often replaced by fences and hedgerow trees are sparse
- Sparsely scattered settlement of towns, small villages and farmsteads, many using vernacular materials of local clay brick, stone and red roof tiles with a few larger population centres including Swindon.

Generally the condition of the landscape character area is considered by WCC to be 'good', with a 'moderate' strength of character.

The strategy for the area is to conserve its peaceful rural landscape and strengthen its character through minimising urban influence.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Hilmarton Rolling Lowland

Key characteristics relevant to the site:

- Low lying mixed agriculture based on clay
- Scattered dwellings and small settlements; mix of stone and brick
- Patchworks of small to medium sized fields, mainly pasture with arable on lighter soils
- Hedged boundaries predominantly well managed, but becoming discontinuous
- Peaceful rural character

Landscape Designations and Rights of Way:

- The site is located within the North Wiltshire / Swindon Rural Buffer
- Close proximity to Morningside Farm Meadow and Chaddington Lane Verge Wildlife sites
- A public footpath runs across the site running adjacent to the Red House.

Baseline Landscape Character and Features: Site Survey

The proposed area comprises a rolling site with non-natural topography including a landfill to the west and a large stock pile of clay capping to the north due to be spread across the site as part of the restoration works. North of the site is a railway line within a deep cutting; the cutting is well screened by deciduous planting in keeping with the local hedgerow field divisions. The M4 runs to the north of this bisecting the landscape. The M4 embankments have been recently planted with blocks of deciduous and coniferous screen planting.

Waste management operations include non hazardous landfill for industrial and commercial waste. The only building on site is the Red House, a residential property converted into site offices. The Waste Management site is highly active with landfill machinery creating a threatening atmosphere. A security weldmesh fence rings the active landfill, safety and directional signage and traffic management has been set out on the access track. Landscape remediation has been completed to the southern sections of the landfill.

To the immediate north of the site, opposite the capping stock pile and railway, are a few scattered farms with disused farm outbuildings. Hedgerows with Elm trees suffering from Dutch Elm disease define the cow and horse pastures. To the northwest Wootton Bassett is visible. Beyond the M4 are motorway associated services facilities, including a multi-storey Travel Inn. To the northeast is industrial and commercial urban sprawl from Swindon. In the distance to the northeast the taller structures of downtown Swindon are visible. The site is open to the south, overlooking a number of farms and detached residential properties within a rolling pasture landscape with fields defined by hedgerows and hedgerow trees. The ground rises to a low wooded escarpment further south.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor
Capacity to Accept Change: Moderate

The landscape setting to the south of the site is tranquil and rural in character; however the existing landfill uses, proximity of the M4 and the encroaching urban sprawl of Swindon have eroded this character within the immediate vicinity and to the north of the site, giving it a poor landscape quality. The site is well enclosed from the north by the temporary stock pile bunds, however these are due to be spread which will reopen views and the site is open and overlooked from the south. Distance and intervening topography offer the potential to provide effective screening to the site. Therefore the site has a moderate capacity to accommodate change without adversely affecting the local landscape character.

Potential Landscape Mitigation Measures

- Sensitive site planning –facilities to be located to maximise natural screening provided by the surrounding topography to prevent intrusion into the rural character
- Facilities to be in keeping with the local vernacular/agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character
- The following 'Broad Management Objectives' for the Rolling Clay Lowlands in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Retaining and managing hedgerow network and nurturing new hedgerow trees
 - Strengthening the enclosed character of the landscape and screening views to urban edges through nurturing existing and planting new woodland.

- The following Enhancement Priorities proposed for the for the Hilmarton Rolling Lowland landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Encourage repair, replanting, widespread extension of hedgerow network, and development of hedgerow trees where hedgerows are in poor condition.
 - Conserve mature trees, woodland clumps and shelterbelts
 - Discourage development in rural areas
 - Encourage less intensive farming on arable land introducing headlands and margins
 - Identify and seek opportunities to create new woodland belts and copses, in particular to help screen and contain development

Table B.1.8.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Upper Studley Farm Residents	High	Moderate adverse	Facilities to be located to maximise natural screening provided by the surrounding topography Facilities to be in keeping with the local vernacular/agricultural style Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site Vegetated bunds to the site boundaries
Wickfield Farm Residents	High	Negligible	
Padbrook Farm Residents	High	Substantial adverse	
Can Court Farm Residents	High	Moderate adverse	
Great Chaddington Farm Residents	High	Negligible	
Lower Salthrop Residents	High	Negligible	
Residential properties on the outskirts of Wootton Bassett	High	Negligible	
Residential properties on the outskirts of Swindon	High	Negligible	
Nursery at site entrance	Low	Slight adverse	Structure planting around site boundary
Railway Travellers	Low	No change	
M4 Travellers	Low	Negligible	Native woodland planting along north boundary of site to enhance M4 screen planting
Tavel Inn Guests	Low	Negligible	
Industrial and Commercial units along the M4	Low	Negligible	

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting and the undulating topography to the south, the site has a moderate ability to accommodate change without harm. The main visual impacts, on surrounding

residences and farms, could be almost entirely mitigated through sensitive site planning and screen planting, as well as the creation of vegetated earth bunds to the site boundaries.

Recommendation

- Night-time visual surveys.

B.1.8.3 Noise

Introduction

The Site at Studley Grange Waste Management Facility, Wootton Bassett has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Inert Waste Recycling/Transfer;
- Treatment;
- Landfill Extension.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- To the west of Padbrook which is located on the west boundary of the allocated site area; and
- At the entrance of the access track to Can Court Farm, east of the allocated site area. It is deemed that this location is representative of the rear amenity spaces of residential properties on the B4005 to the east of the allocation area.

The proposed site is located within land that is currently occupied by a capped landfill site. The site area is bounded to the north by a railway line, and the remainder of the boundaries of the site are surrounded by open/farm land.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions being overcast with light westerly winds. The current noise environment around the allocated site is dominated by noise from the M4, with other sources of noises being rail traffic and local road traffic.

Consecutive background noise measurements were taken at Padbrook and at the access track to Can Court Farm. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.8.3.1 - Padbrook - Background Noise Levels (AU1_0010)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:33:00	00:05:00	51.5	63.6	46.5	53.7	48.3	47.3
16:38:00	00:05:00	52.4	70.0	46.2	50.4	48.2	47.1
16:43:00	00:05:00	49.0	54.6	46.4	51.2	48.0	47.2
16:33:00	00:15:00	51.1	70.0	46.2	51.4	48.1	47.2

Table B.1.8.3.2 - Can Court Farm Access Track - Background Noise Levels (AU1_0011)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:59:00	00:05:00	61.2	71.1	55.2	65.2	58.3	56.7
17:04:00	00:05:00	62.6	74.8	56.0	66.1	59.9	57.7
17:09:00	00:05:00	61.8	70.3	55.7	66.0	58.9	57.2
16:59:00	00:15:00	61.9	74.8	55.2	65.7	59.0	57.1

The average background noise levels (LA90) at Padbrook and at Can Court Farm access track are taken as being 47.2 dB and 57.1 dB, respectively.

Assessment Suitability

The site is a landfill site with a residential dwelling on its western boundary. There is little or no screening from the proposed site but with appropriate screening and careful site location the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required the location of which will be dependent on where it is located and the facility is to be sited away from the western boundary and at least 150m from any residential dwelling.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.8.4 Air Quality and Odour

Introduction

Studley Grange waste management facility is situated off Junction 16 of the M4 on the B4005. The former Wilshire and Berkshire Canal runs along the southern boundary and the Swindon-Bristol railway forms the northern boundary. It is currently in use as a strategic non-hazardous waste landfill (industrial and commercial waste). A WTS and composting facility have also been permitted but are not currently in use.

Potential uses for the site include an extension to the landfill, treatment, materials recycling facility and waste transfer station and inert waste recycling and transfer.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 18.9µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 11.6µg/m3 NO2 (standard 40µg/m3);
- 13.7µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas (AQMA) within 500 metres.

Potentially 44 receptors within 500 metres of the site include a number of isolated residential properties and farms surrounding the site. There are no ecologically sensitive sites within the study area.

Air pollutant sources within 500 metres of the site: road traffic on the M4, A3102, B4005 and other minor roads; gas/oil/solid fuel space heating for buildings; Biffa Waste Services Ltd landfill (potential additional pollutants including dust, bioaerosols, odour and NH3).

Table B.1.8.4.1- Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (1 property)	2(2)	2(2)	N/A	3(3)	3(3)	N/A	3(3)
Total residential between 100 and 500m (44 properties)	1 (1)	1 (1)	N/A	N/A	3 (3)	2 (2)	2(3)
Residential within 250m only (16 properties)	N/A	N/A	N/A	N/A	3 (3)	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol risks are limited to within 250m of the site

Mitigation

Dust and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are low to high (in-combination with existing landfill) without mitigation. Mitigation for dust and odour is recommended. Detailed assessment should be undertaken to examine cumulative odour and bioaerosol effects.

B.1.8.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

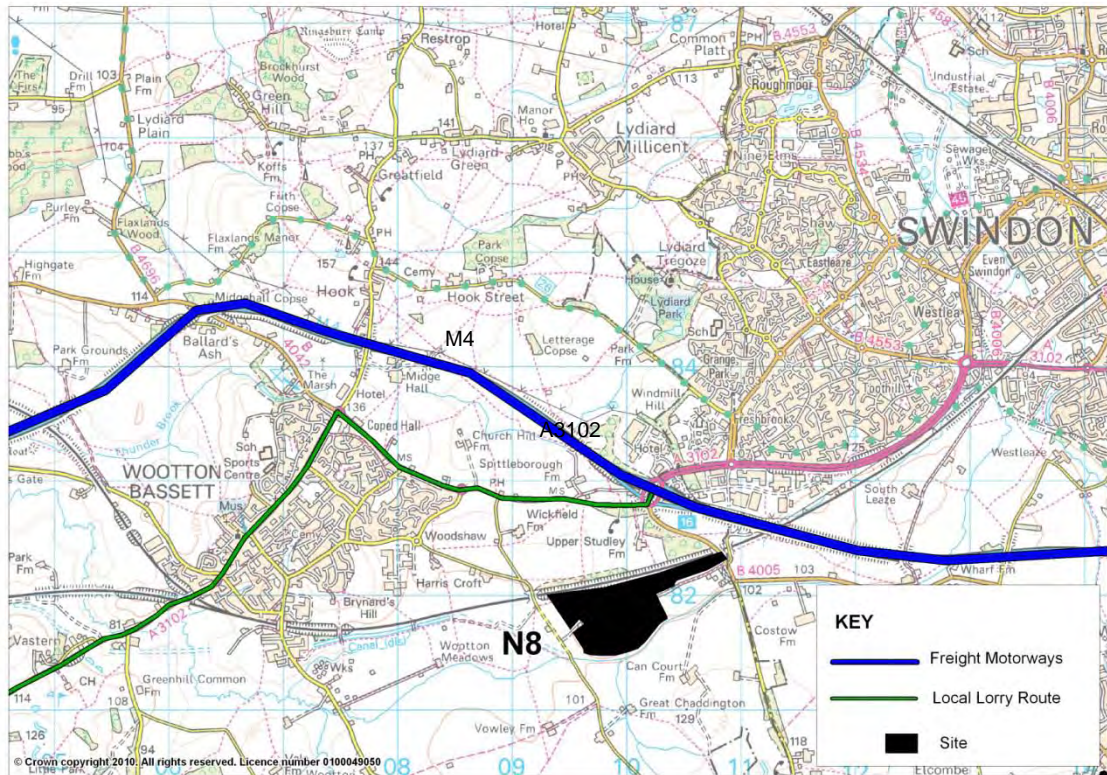
The site has been identified for strategic use. The site is currently owned by Biffa and is used for non hazardous landfill. The site is located to the south of junction 16 of the M4 and accessed off the B4005.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.8.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.8.5.1 shows that the site is located less than 1km from junction 16 of the M4 which also provides access to the A3102 (a local lorry route). Access to junction 16 of the M4 is gained via the B4005 which is not part of the Wiltshire HGV Route Network.

Figure B.1.8.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Inert Waste Recycling/Transfer (IWR/T);
- Treatment (T);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Landfill (L) extension.

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.8.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.8.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	
Landfill	1.28 trips per hectare during busiest one hour period		Staff levels at a Landfill site are likely to be minimal

Existing/Potential Access Junctions

Access is currently gained off Hay Lane (B4005). The access takes the form of a priority junction and is located 100m south of the road bridge over the existing rail track which runs in an east/west direction. The junction was originally a ghost island right turn; however, road markings have worn away over time so the junction acts as a standard priority junction. Hay Lane is approximately 10m wide in the vicinity of the site. The access road into the site is approximately 7.5m wide and flares as it meets Hay Lane. The geometry of the junction is considered suitable for HGV traffic. The existing access into the landfill site is subject to a 10mph speed limit and is shared with a garden centre, located to the south of the development site. Opposite the existing access there is a smaller access road leading to a small development. On site observations showed that this access road is rarely used.

In the vicinity of the junction Hay Lane has a speed limit of 60mph. Visibility at the site access is poor in both directions. To the north the visibility is hindered by vegetation on the corner of the junction and the vertical alignment of the road bridge over the rail track. The visibility in this direction equates to approximately 55m, see **Figure B.1.8.5.2**. To the south visibility is hindered by the bend in the road and vegetation on western side of the carriageway. The visibility achieved in this direction is approximately 85m, which is below the recommended visibility for a 60mph road of 215m as set out in DMRB20.

²⁰ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Figure B.1.8.5.2 - Visibility to the North from Site Access Junction



Transport Environmental Impacts

The site is located in a rural area away from any residential dwellings and sensitive settlements. The B4005 provides direct access to junction 16 of the M4 which means HGV vehicles can access the strategic freight network without having any environmental impact on the surrounding area.

To the south of the site, access can be gained from the A4361 which is designated as an 'other' lorry route on the Wiltshire freight network plan which, by definition, is only to be used where it is essential to gain access. However in order to access this route via the B4005 vehicles would have to pass through the village of Wroughton which has residential dwellings fronting onto the road and significant pedestrian activity. Therefore, it would be recommended that vehicles do not use this route.

Off Site Highway Network

Immediately north of the site the junction meets junction 16 of the M4. This is a major grade separated roundabout which is suitable for HGV use. This roundabout also provides access to the A3102.

The existing on site uses (large garden and aquatic centre) generates more traffic outside of the peak periods and at weekends especially in the spring/summer season. During these periods large numbers of trips are generated. The proposed uses (and existing waste uses) on the site will typically attract HGV traffic in the period 9am to 5pm with employees possibly arriving and leaving in the peak hours. As such, the only peak hour impacts on the wider highway network are likely to be as a result of employee traffic. During the weekday AM and PM peak hours when traffic on the network is greatest the trips to this site will be fewer than at weekends and the impact of the additional trips associated with the new waste sites on the surrounding road network is likely to be negligible. Nevertheless the Highways Agency would likely require comfort that the proposed uses would not unduly impact on the capacity of junction 16 of the M4 and therefore a capacity assessment would be required. To the south of the site Wharf Road (B4005) forms a priority junction with Hay Lane. A 7.5t environmental weight restriction applies at this junction for all vehicles continuing straight along Hay Lane, see **Figure B.1.8.5.2**.

The priority junction of Hay Lane / Wharf Lane large suitable in terms of geometry to cater for HGV vehicle, however it is recommended that vehicles do not use this route as they would have to pass through the village of Wroughton.

Accessibility by Sustainable Modes

Access for pedestrians into the site is limited. No footways are located in the vicinity of the site. There are no designated bus stops in the area, the closest being on the opposite side of the M4 junction. Cyclists may also be discouraged due to the excessive speeds along the B4005 and the

near vicinity of the M4 motorway junction. Therefore the only realistic option for staff accessing the site is by private motor vehicle.

Constraints

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N8/001** in **Appendix D**. The main constraints for the site are regarding insufficient visibility at the access junction. The visibility in both directions is sub standard and would need addressing before the land is developed for further waste facilities.

In addition the 7.5 tonne weight restriction along Hay Lane to the south of the site prevents HGVs using this route.

Mitigation

The layout of the existing access is sufficient to serve the needs of the potential waste facility. However the ghost island markings would need to be re-applied. In addition, in order to improve visibility in both directions from the site access, vegetation would have to be trimmed. If further investigation shows this is not sufficient to improve visibility the junction may need upgrading to a more suitable layout.

It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment and highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£5k** - Improve signing, improve visibility spay through vegetation clearance, re-white line ghost island

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site provides excellent access to the strategic freight network;
- The site has existing waste use and has therefore already be deemed suitable for HGV vehicles; and
- The environmental impact of a waste site at this location would be minimal.

The following issues/constraints have been identified:

- Visibility at the site access junction is poor, therefore mitigation would be required;
- A 7.5t weight restriction is in place to the south of the site access junction meaning large HGVs cannot continue along Hay Lane;
- HGV vehicles routing through Wroughton would potentially have a detrimental environmental impact on the village;
- Accessibility to the site via sustainable modes of travel is limited; and
- Hay Lane is subject to excessive vehicle speeds.

In terms of location the site is ideally placed to provide immediate access to the strategic freight network thus reducing any potential adverse environmental impacts on the surrounding area. However, in order to provide adequate vehicular access to the site mitigation works would be required to provide improved visibility. Should a safety audit deem the visibility at the access unsuitable for the proposed uses, then an improved form of layout may be required.

B.1.8.6 Water Quality / Environment

NGR: 410088, 181926

Location: Wootton Bassett

Site Area: 54.49 hectares

Data Source: Landmark Envirocheck Report 30097073_1_1 (8th Feb 2010) unless otherwise referenced

Table B.1.8.6.1 - Studley Grange Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is the Hancocks Water which forms the southern boundary of the site. There is an unspecified water feature 101m to the north of site. The Hancocks water converges with the Brinkworth Brook 2.4km to the west of the site. The Environment Agency (EA) identify that the Hancocks Water watercourse has an overall chemical and biological quality of Poor with Moderate nutrient levels. The Hancocks Water has an ecological classification in line with the Water Framework Directive as poor. The Brinkworth Brook has an ecological classification in line with the Water Framework Directive as moderate.</p>	<p>Impact on the Hancocks Water flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the Hancocks Water quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site is underlain by the Upper Jurassic Kimmeridge Clay below which is the Lower Corallian formation consisting of Red Down</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>	<p>-</p>	<p>Consideration of geology within impact assessment.</p>

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
	Sand and Clay, the “Coral Rag” and silt and sands ²¹ .			
Hydrogeology: Groundwater – Hydrogeological Units	Site and surroundings are predominantly underlain by unproductive strata (Non Aquifer - negligibly permeable).	Possible contamination of the unproductive strata (non aquifer). Changes to the groundwater flow regime of primarily shallow aquifers during construction if foundations intercept groundwater or if pumping is required for excavations.	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		
Hydrogeology: Groundwater – Vulnerability	Aquifer is moderately vulnerable			
Hydrogeology: Groundwater – Direction of Flow	There is insufficient information to determine groundwater flow direction.	Not applicable.		
Discharges: Surface water – Discharge Consents	Discharges from waste site: industrial landfill tip (discharge to the un-named watercourse) on site. Sewerage discharges of final/treated effluent (to an	No risk to works.	-	-

²¹ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
	un-named ditch), 769m south.			
Discharges: Groundwater – Discharge Consents	Sewerage discharges of final/treated effluent (to soakaway), 446m south east.	No risk to works.	-	-
Discharges: Land – Pollution Incidents	Atmospheric Pollutants & affects, Category 3 (minor incident) to water, Category 2 (significant incident) to land on site.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	No abstractions within 1km of site.	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	1 abstraction for general farming & domestic use: 244m to the north east. There are no other abstractions within 1km of site.	No risk posed to local public abstractions but local private abstractions may exist (<20m ³).	Surface water drainage plan including runoff collection system and design of infiltration devices. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices – EA guidance during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Flood Risk	The site is in Flood Zone 1 with the exception of a small area in the south of the site which is within Flood Zone 2. The site is greater than 1 ha in size.	No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Land Uses	Historical Landfill located on site disposal of inert, Industrial, Commercial, Household wastes Studley Grange Landfill Site located on site, disposal of non hazardous, commercial, industrial wastes.	There is a risk that contamination from these sites has migrated to the waste site – potentially causing contaminated runoff during construction earthworks that will leach through to the aquifer.	Site Waste Management Plan and Pollution Incident and Control Plan to specify how excavated material will be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	Goldborough Farm Meadows has been designated as a SSSI, it is located 1400m south west of the site.	No risk posed as no pathway to the SSSI.	-	-
	Bincknoll Dip Woods has been designated as a SSSI, it is located 1795m south east of the site.		-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, Inert Waste Recycling and Transfer Station, a Waste Treatment site or a landfill extension at **Studley Grange, Wootton Bassett** falls within the below category:

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are surface water courses adjacent to the site and therefore there is the potential for changes to their flow and quality
- The site is at risk of fluvial and pluvial flooding
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

Further assessment will be required for the flood risk to further determine the level of flood risk for the site and the appropriate mitigation measures.

B.1.9 Barnground, South Cerney, Cotswold Water Park (Site Ref N9)

B.1.9.1 Introduction

This section presents a review of the assessment for the individual sites located within the North area, in the following context:

The site extends to 1.5 ha and is located approximately 0.6 km south east of South Cerney. The site is a former mineral processing site bounded by low hedgerows with hedgerow trees currently pasture used for grazing sheep. The site is currently accessed from an unclassified road called Ashton Road which meets the Cotswold Waterpark Spine Road approximately 750m south of the proposed site. To the north and east of the site is a restored former landfill beyond which lies, a school and residential areas to north east and one of the Cotswold Water Park lakes to the east, used for water sports. To the south of the site is a house/office neighbours and a cement manufacturing works. The western boundary is formed by Ashton Road beyond which lies agricultural grazing land and the Cotswold Community sharp sand and gravel quarry. There are no Public Rights of Way running through the site although there are a number in proximity.

The site is located in proximity to a number of designated site including the Cotswold Water Park West which is a Strategic Nature Area and there are several SAMs in the locality the closest of which is located 0.4km to the south west of the site.

The site is located within an area of Source Protection Zone 2 and is located within an area of Minor Aquifer, Intermediate Vulnerability and partially within an area of Minor Aquifer, High Vulnerability.

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use.

B.1.9.2 Cultural Heritage

Introduction

The Barnground site lies approximately 1km to the southeast of South Cerney close to the edge of the Cotswold Water Park. It comprises an area of 1.5ha, most of which has already been disturbed by previous use as cement works and mineral processing. A number of archaeological

features have been identified in the study area on the Wiltshire Council SMR (WSMR) although most have been destroyed by mineral extraction.

The site has been identified for potential use as a Material Recovery Facility/Waste Transfer Station or Local Recycling.

There is one Scheduled Monument c.450m to the southeast of the site (N9-h). There are no Listed Buildings within the study area.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique Asset Number (i.e. N9-a, b, c, etc).

Designated Heritage Assets within the Site

There are no designated heritage assets within the site

Designated Heritage Assets within the Site

There is 1 Scheduled Monument c.450m to the southeast of the site (N9-h)

Table B.1.9.2.1 - Designated Heritage Assets within the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
N9-h	Undated settlement site of Romano-British type east of Cotswold School. The complex features of a settlement site are visible on aerial photographs. It is probably Iron Age/Romano-British in origin.	SU09NW613	Scheduled Monument	SU0381,9543

Heritage Assets within the Site

There are no heritage assets within the site.

Heritage Assets within or close to the Study Area

Many of the features recorded on the WSMR have been destroyed or extensively disturbed by previous mineral extraction and associated industrial activity.

Table B.1.9.2.2 - Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
N9-a	Undated ditched trackway associated with an enclosed settlement north of Cotswold School. Reported in the WSMR as destroyed. Recorded c.50m S of the site.	SU09NW610	None	SU0447,9583
N9-b	Possible Bronze Age Barrow c.20m in diameter, seen as cropmarks on aerial photographs. It has now been destroyed as a result of gravel extraction. Recorded c.150m east of the site.	SU09NW156	None	SU0434,9618
N9-c	A possible trackway of unknown date, running for up to 290m in length, seen as cropmarks on aerial	SU09NW626	None	SU0430,9612

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
	<i>photographs. It has now been destroyed as a result of gravel extraction. Recorded 200m east of the site.</i>			
N9-d	<i>Undated linear earthworks visible on aerial photographs. Recorded c.200m west of the site.</i>	SU09NW614	None	SU0395,9620
N9-e	<i>Series of undated earthworks possibly the remains of a field system seen on aerial photographs. Recorded c.400m east of the site.</i>	SU09NW615	None	SU0455,9620
N9-f	<i>A potential ditch of unknown date, seen as cropmarks on aerial photographs.</i>	SU09NW627	None	SU0397,9563
N9-g	<i>Possible Bronze Age barrows and extensive later Iron Age / Romano-British settlement known through excavation and aerial photography, destroyed by mineral extraction in 1983. Recorded c.350m south of the site.</i>	SU09NW200 SU09NW300 SU09NW600 SU09NW601 SU09NW602 SU09NW603 SU09NW604 SU09NW605 SU09NW607 SU09NW609 SU09NW610 SU09NW617	None	SU0443,9578
N9-h	<i>Undated settlement site of Romano-British type east of Cotswold School. The complex features of a settlement site are visible on aerial photographs. It is probably Iron Age/ Romano-British in origin.</i>	SU09NW613	Scheduled Monument	SU0381,9543

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic heritage assets are recorded on the WSMR within the study area.

A number of potential Bronze Age barrows are recorded on the WSMR (**N9-b** and **N9-g**), all of which have been destroyed by mineral extraction.

The Iron Age (700 BC – AD 43)

The extensive cropmark sites recorded in the study area (**N9-g**, **N9-h**) are thought to be late Iron Age or Romano-British in date. The undated cropmark features (**N9-a**, **N9-c**, **N9-d**, **N9-e** and **N9-f**) may potentially be associated with or of similar date to these settlements.

The Roman Period (AD 43 – AD 450)

The extensive cropmark sites recorded in the study area (**N9-g**, **N9-h**) are thought to be late Iron Age or Romano-British in date. The undated cropmark features (**N9-a**, **N9-c**, **N9-d**, **N9-e** and **N9-f**) may potentially be associated with or of similar date to these settlements.

The Early Medieval Period (AD 450 – AD 1066)

No Early Medieval heritage assets are recorded on the WSMR within the study area.

The Medieval Period (AD 1066 – AD 1547)

No Medieval heritage assets are recorded on the WSMR within the study area.

The Post-medieval Period (AD 1547 – c.1900)

No Post-Medieval heritage assets are recorded on the WSMR within the study area.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded within the study area.

Significance of Heritage Assets

Most of the recorded heritage assets within the study area have been destroyed by previous mineral extraction and related industrial activity.

Scheduled Monument (**N9-g**) is of high significance as it illustrates the character of late Iron Age / Romano-British settlement in the landscape south of Cirencester. However, the site does not form part of its setting.

Assessment Suitability

The site has been previously developed and disturbed, indicating that any previously unrecorded features that may have been present on the site are likely to have been lost. Many of the heritage assets recorded in the study area have also been destroyed by mineral extraction. No further archaeological assessment is recommended. It is unlikely that mitigation for the impact on buried archaeological remains will be required.

Given the distance from the site and extent of existing screening, there would be no affect on the setting of the Scheduled Monument recorded c.450m southeast of the site (**N9-g**).

There are no historic buildings within the study area.

Mitigation

No mitigation will be required.

Recommendations

No further assessment is recommended.

Conclusions

There are no heritage assets recorded on the WSMR, NMR, historic maps or aerial photographs within the site boundary. There is 1 Scheduled Monument (**N9-h**) within the study area, c.450m to the southeast of the site.

The site has already been extensively disturbed by previous extraction and use. Although a number of archaeological features and finds have been identified within the study area, the potential for the presence of currently unrecorded archaeological deposits within the site is negligible. No further archaeological assessment is recommended. It is unlikely that mitigation for the impact on buried archaeological remains will be required.

There would be no affect on the setting of the Scheduled Monument recorded c.450m southeast of the site. There are no historic buildings within the study area.

Cultural heritage is therefore not considered a constraint to development.

B.1.9.3 Landscape and Visual Impact**Introduction**

The site is located to the immediately south of South Cerney off an unclassified road, Ashton Road adjacent to Ashton Down. The Cotswold Water Park Spine Road runs east to west approximately 1km south of the site. The site is a former mineral processing site and former

landfill, currently pasture used for grazing sheep. To the south of the site is a cement manufacturing works, to the east the site overlooks one of the Cotswold Water Park lakes.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales

Key characteristics relevant to the site:

- Gently undulating clay lowland farmland with regular and well-ordered field patterns defined by thick hedgerows, however intensification of agricultural activities have resulted in the removal of hedgerows, enlarged fields and new farm buildings
- Open floodplain landscapes displaying gravel workings and flooded pits
- Brick built buildings reflect the widespread use of the local clay as a building material with plain tiled roofs

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Open Clay Vale

Landscape Character Area: Thames Open Clay Vale

Key characteristics relevant to the site:

- Level land form with wide open skies and views to ridges and downs
- Pastoral land use with some arable
- Large scale geometric fields with hedgerows or open drainage channels defining boundaries
- Presence of rivers, tributaries, drainage channels and open water bodies
- Settlement pattern varies from large towns and small scattered villages to sparse farmsteads linked by a network of minor roads
- Buildings in varied material of brick, render and stone

Generally the condition of the landscape character area is considered by WCC to be 'moderate', with a 'moderate' strength of character.

The strategy for the area is to conserve the elements that contribute to the rural, tranquil landscape and improve elements in decline such as hedgerows and hedgerow trees.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Thames Valley Lowland

Key characteristics relevant to the site:

- Low, level or undulating ground
- Continuous hedges with many mature oak and ash
- Field sizes vary from small and irregular to medium sized and regular shaped, predominantly pasture
- Dispersed or nucleated settlement on higher ground using vernacular materials of stone and local brick
- General absence of woodland

Landscape Designations and Rights of Way:

- The site is located within close proximity to a number of Wildlife Sites: Cotswold Water Park, Pits 25, 26, 27 and 62

Baseline Landscape Character and Features: Site Survey

The proposed site comprises a rolling pastoral field bounded by low hedgerows with hedgerow trees, allowing views out of the site. The site is poor quality grassland; remediated from a former mineral processing site and a former landfill. Adjacent to the south of the site is a cement manufacturing plant with visible industrial buildings and silos, as well as a telecoms tower.

The site overlooks one of the Cotswold Water Park lakes to the east, evidently used for sailing and other water sports. To the west the land rises, restricting views. The landscape character is predominantly pastoral with some arable to the northwest in a irregular field pattern, with a few scattered farms and residential properties.

The site crests to the North, from which views out of the site far further reaching. South Cerney is approximately 600m north from the site; the southern fringe of the village overlooks and is overlooked by the site. Affected properties include residential homes, a school and a sports pitch / playing field.

The wider landscape is characterised by individual, linear belts and woodland blocks of deciduous trees.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Low - Medium

Capacity to Accept Change: Low - Medium

The site is a remediated landscape of poor grassland, immediately adjacent to a cement manufacturing works. The site, though not containing any significant features which detract from its general condition, is not a good example of the wider Cotswold landscape character and therefore has a low-medium landscape quality. The site topography offers the potential to locate site works so as to reduce the impact on overall landscape character, while enhancing the locally characteristic hedgerow field boundaries. Therefore the site has a moderate capacity to accommodate change.

Potential Landscape Mitigation Measures

- Sensitive site planning –facilities to be located to the south adjacent to the cement works to utilise the surrounding topography to prevent intrusion into the rural character
- Facilities to be in keeping with the local vernacular / agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character
- The following ‘Broad Management Objectives’ for the Open Clay Vale in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Retain and manage the hedgerow network and nurture new hedgerow trees
 - Promote appropriate management of arable land including retaining area of fallow land and maintaining an unploughed margin around fields
 - Minimise small scale incremental change such as signage or fencing which could change the rural peaceful character of the landscape
 - Ensure both future construction and changes to existing buildings are designed to integrate with the existing character and structure of settlements
 - Screen views to intrusive urban edges through planting new woodland
- The following Enhancement Priorities proposed for the Thames Valley Lowland landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:
 - Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners
 - Encourage planting of new woodland copses
 - Discourage development which would detract from the tranquil rural character

Table B.1.9.3.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Downs Farm Residents	High	High adverse	Facilities to be located to maximise natural screening provided by the surrounding topography Facilities to be in keeping with the local vernacular / agricultural style Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Downs Farm Cottage Residents	High	No Change	
Crossroads Farm Residents	High	No Change	
Residential properties opposite Downs Farm	High	No Change	
Residential Properties on the southern fringe of South Cerney	High	Moderate adverse	
South Cerney Sports Pitch / Playing Field	Low	Slight adverse	
Ashton Road Users	Low	Slight adverse	Structure planting around site boundary
Cotswold Water Park Users	Medium	Negligible	
Adjacent Cement Manufacturing Works	Low	Negligible	

Summary: Residual Landscape and Visual Impacts

Though a relatively open landscape, the rolling topography of the site with a significant fall away to the south provides for an opportunity to develop the site minimal adverse impact on the local and surround character and visual receptors, therefore the site has a moderate ability to accommodate change. The main visual impacts, on surrounding residences and farms, could potentially be mitigated through sensitive site planning and screen planting.

Recommended further landscape and visual surveys

- Night-time visual surveys

B.1.9.4 Noise

Introduction

The site at Barnground, South Cerney has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- On the footpath within the field located to the north of the allocated site, it is deemed that this location was representative of residential properties to the north of the site.

The proposed site is located within land that is currently a closed landfill site and borders a rural road to the west and farm land to the east and northern boundaries. Aggregates North End Works is located approximately 400m to the south of the allocated site.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions being overcast with westerly winds. The current noise environment around the allocated site is dominated by road traffic on the rural road, which was located approximately 50m to the west of the monitoring location.

Consecutive background noise measurements were taken at the monitoring location. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.1.9.4.1 - Monitoring Location - Background Noise Levels (File AU1_0002)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:44:00	00:05:00	57.8	67.5	44.4	62.3	54.5	46.3
11:49:00	00:05:00	53.5	62.3	43.2	58.4	49.2	44.3
11:54:00	00:05:00	56.8	64.9	43.1	60.8	54.0	45.2
11:44:00	00:15:00	56.4	67.5	43.1	60.7	52.7	44.9

The average background noise level (L_{A90}) at the monitoring location is taken as being 44.9 dB.

Assessment Suitability

The site is a closed landfill, distant from any neighbouring properties.

There is little or no screening from the proposed site but due to the distances to the nearest existing residential, the site is considered suitable with respect to noise for the proposed uses

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required on the southern boundary if the nearest non residential building is converted into residential.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.9.5 Air Quality

Barnground is located on Ashdown Road 600 metres west of South Cerney. There are no AQMAs, properties or ecological sites within 500 metres of this site. Consequently there will be negligible air quality impacts associated with the proposed uses at this site.

B.1.9.6 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

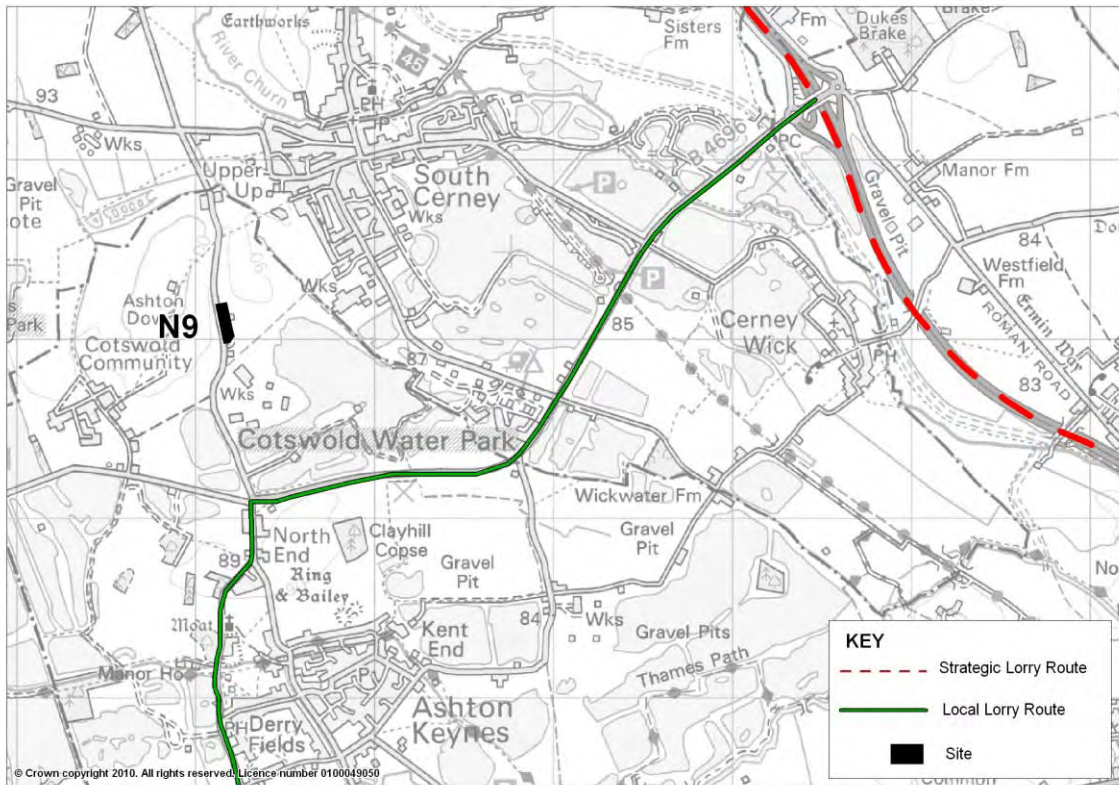
The 1.5 ha site is located off Ashton Road to the south west of South Cerney. The site is allocated for a local scale facility. The Cotswold Water Park Spine Road runs east to west 1 km south of the site. To the south of the site there is an existing cement works.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.9.6.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.1.9.6.1** shows that access to the site is gained via the A419

(strategic lorry route) and then via the B4969 (local lorry route). Ashton Road is not currently designated as a local lorry route but is used as access to the existing cement works.

Figure B.1.9.6.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF)
- Waste Transfer Station (WTS)

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such, traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.9.6.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.9.6.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
LR	500	10	Staff levels at LR centres are generally minimal; however, they are open to the public. They are not expected to generate as many trips as a HRC but the peak periods are likely to be at a weekend.

Existing/Potential Access Junctions

The site is currently accessed from Ashton Road via a priority junction. Ashton Road is single carriageway and is subject to the national speed limit (60mph). Ashton Road at this location is 7.8m wide with no centre line carriageway markings. The access itself is 7.0m wide at its narrowest point. Visibility from the access is restricted to a maximum of approximately 160m to the left and 150m to the right, which is below the recommended visibility of 215m as set out in DMRB²². The reduced visibility to the right is largely due to the mature vegetation in the verge. There is no dedicated right turn facility into the site.

Transport Environmental Impacts

As stated previously, the village of South Cerney is located to the north east of the site. There are no properties on Ashton Road although there are properties associated with the Cotswold Water Park along the B4696. Any impact on the residential amenity of South Cerney would be significant therefore all traffic would need to be signed via the B4969 to the south. The village currently has 7.5T environmental weight restrictions on all approaches to ensure existing HGV traffic (largely associated with the cement works) does not use the village as a through route. This along with appropriate signing would be sufficient to prevent any adverse traffic impacts on this village.

The B4696 has a wide (3m) shared use cycle/footway on its northern side. This is separated from the main carriageway by a narrow gully. The footway/cycleway appears to serve the Cotswold Water Park and other recreational areas in the vicinity of the site and is likely to be used by recreational and inexperienced cyclists. The width and location of the footway/cycleway provides sufficient separation of the users from the traffic and any increase in traffic associated with the proposals is unlikely to lead to increased fear and intimidation for vulnerable road users.

Providing the routing of development traffic is taken from the south via the local lorry route to the A419 the impact on noise, vibration, severance or fear and intimidation for pedestrians would be minimal.

Off Site Highway Network

The junction of Aston Road / B4696 is a priority T-junction with Ashton Road forming the major arm. The junction has high profile kerbs to prevent HGVs mounting the verge when turning from Ashton Road to the B4696. Low traffic flows in the area and on site observations suggest that capacity at this junction will not be adversely affected by the proposed site uses. The B4696 itself is a single carriageway road off which are a number of minor side roads adjoining the B4696 via priority junctions. The road is subject to a 60mph speed limit reducing to 50mph closer to the junction of the A419.

The junction of the B4696 and A419 is a grade separated roundabout with slip roads for access and egress on/off the A419. Low traffic flows in the area and on site observations suggest that capacity at this junction will not be adversely affected by the proposed site uses.

Accessibility

Ashton Road has no footways present on either side of the carriageway. There are no bus stops near to the site and access by public transport is poor given the sites rural location.

²² Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Constraints

The main constraints identified at this site are:

- The visibility at the access junction is below DMRB standards;
- There is no dedicated right turn lane into the site;
- The site is not accessible by sustainable modes however the nature of these facilities limits the need for such sustainable access.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N9/001** in **Appendix D**.

Mitigation

It is recommended that improvements be made to the site access in terms of a ghost island right turn lane. Whilst capacity at the site access is not considered to be an issue it is considered appropriate to provide non blocking storage due to the proximity of the site access to a bend in Ashton Road to the south of the access. This is particularly appropriate should the site be used for local recycling and as such be accessed by the public. It is recommended that signing also be provided on Ashton Road to warn vehicles of the approach to a side road. It may be appropriate to reduce the speed limit from 60mph to 50mph which would bring visibility to within acceptable parameters; however, as a note of caution any reduction in speed limit is not guaranteed to reduce actual speeds and may not be supported by the police or local authority.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£125k** – For ghost island right turn lane (includes improvements to visibility).

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the capital cost of undertaking the construction of the proposals.

Recommendation

The site offers the following advantages:

- The site is located just off an existing local lorry route with good access to the strategic lorry network (A419);
- The access roads are currently used by HGV traffic associated with the cement works and as such much of the appropriate control measures and infrastructure are in place e.g. environmental weight restrictions in South Cerney; and
- There is unlikely to be any capacity issues associated with the proposals however it is recommended that a Transport Assessment be undertaken to assess the peak hour impact of the proposals on the A419 Junction once proposals are finalised;

The following issues/constraints have been identified:

- The access junction is not considered appropriate for the proposed uses and modifications would be required on safety grounds;
- The site is not located in a sustainable location; and
- There will be a slight detrimental impact associated with HGV traffic on the B4696 and the leisure uses that front this road.

In conclusion, the proposed site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report.

B.1.9.7 Water Quality / Environment

NGR: 404160, 196100

Location: South Cerney, Wiltshire

Site Area: 1.42 hectares

Data Source: Landmark Envirocheck Report 30089965_1_1 (8th Feb 2010) unless otherwise referenced

Table B.1.9.7.1 - Barnground - South Cerney Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Hydrology: Surface Water – Flow and Quality	<p>The nearest surface water feature forms part of the Cotswold Water Park 244m east. The water park extends 550m to the south, The Cerney Wick Brook is 366m to the north East. The River Churn is located 962m to the north east and flows in a south easterly direction to the River Thames.</p> <p>The Environment Agency identify that the River Churn watercourse has a chemical and biological quality of Very Good and High nutrient levels.</p> <p>The River Churn has an ecological classification in line with the Water Framework Directive as Good¹.</p>	<p>Impact on Cerney Wick Brook flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on Cerney Wick Brook quality as a result of potentially contaminated runoff during construction and operation.</p>	<p>Surface water drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
Geology: Stratigraphy	<p>The site is underlain by River Terrace deposits comprising mainly of gravel which are underlain by the Kellaways Clay: dark to medium grey clays of Upper Jurassic Age²³.</p>	<p>Potential for the creation of a pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>
Hydrogeology: Groundwater – Hydrogeological Units	<p>Site and surroundings are underlain by secondary Aquifer (Minor Aquifer) (variably permeable).</p>	<p>Contamination of aquifer.</p> <p>Changes to the groundwater flow</p>	<p>Surface drainage plan inc. runoff collection system and infiltration device design, implication for location within the SPZII and SPZIII.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring</p>

²³ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
		regime of primarily shallow aquifers during construction if foundations intercept shallow groundwater or if pumping is required for excavations.	Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance driving construction.	requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site lies within a SPZ II area.	Potential risk posed to public water supply; local private abstractions may also exist (<20m ³)		
Hydrogeology: Groundwater – Vulnerability	Aquifer is moderately vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	The most likely direction of groundwater flow is to the east/north east in the direction of the Cerney Wick Brook and River Churn.	Not applicable.		
Discharges: Surface water – Discharge Consents	Discharges of Sewage – final treated effluent, (discharge to RiverTerraces), 64m to south; (discharge to land), 553m to south, Discharge of trade effluent – site drainage by to Cerney Wick Brook, 494m east. Miscellaneous discharges of mine/groundwater, 383m to the north.	No risk to works.	-	-
Discharges: Groundwater –	1 discharge of Sewage – final treated to River Terraces, 64m	No risk to works.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Discharge Consents	to south. 2 discharges of Sewage – final treated effluent (to groundwater via soakaway), 786m south east and 875m south west. 1 discharge of trade effluent, 760m east.			
Discharges: Pollution Incidents	Oils – Category.3 (minor incident) to land; 346m south east. Unknown sewage Category.3 to land; 438m north east. Unknown sewage – Category.2 (significant incident) to land; 611m east. Chemicals unknown – Category.3 to land; 612m east.	No risk posed.		To be considered as possible source of contamination if any found during monitoring
Abstractions: Surface Water – Abstractions	None.	No risk posed.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Abstractions: Groundwater – Abstractions</p>	<p>2 abstractions for construction and general use, 4m to north west and 496m to south east. 1 abstraction for mineral products/ process water: 962m to north east. 1 abstraction for general agriculture/ spray irrigation: 988m to south east.</p>	<p>Contamination of drinking water supply and aquifer.</p>	<p>Surface water drainage plan including runoff collection system and design of infiltration devices. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p>	<p>Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.</p>
<p>Flood Risk</p>	<p>The site is in Flood Zone 1. The site is greater than 1 ha in size.</p>	<p>No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.</p>	<p>Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.</p>	<p>A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.</p>

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Land Uses	<p>There are 6 historic landfill sites: accepted inert waste, 348m south and 775m south east; accepted inert and industrial wastes, 454m, 757m and 860m to the east, accepted inert and special wastes, 922m east.</p> <p>4 registered landfills within 683m of site accepting household commercial inert and industrial wastes.</p> <p>4 local authority landfills registered within 626m of site accepting soil, subsoil, inert, commercial and industrial waste.</p> <p>3 licensed waste management facilities within 753m including an industrial waste landfill, a landfill taking non biodegradable wastes and a metal recycling facility.</p> <p>2 Licensed Waste Management facility are closed, 123m north east, and 564m south east, one is inactive at 348m south.</p>	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to be implemented by contractors	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	There are no statutorily designated sites within 1km of the site.	-	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Drainage: Current Surface Water /Foul Drainage Systems – Capacity</p>	<p>The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.</p>	<p>-</p>	<p>-</p>	<p>-</p>

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, or a Local Recycling Facility at **Barnground – South Cerney** falls within the below category.

- Few significant issues identified – progress waste site to next stage of assessment

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is potential for changes to their flow and quality
- The site is underlain by a Secondary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of groundwater and pluvial flooding
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include flood risk assessment, surface water management plan and contamination assessment.

B.1.10 Whitehills Industrial Estate, Wootton Bassett (Site Ref N10)

B.1.10.1 Introduction

The site extends to 13 ha and is located on the south western fringe of Wootton Bassett, North Wiltshire. The site is an existing industrial estate with office, general industrial and warehousing uses. The site is currently accessed from a priority junction with Whitehill Lane. Whitehill Lane itself forms the minor arm of a priority junction with the High Street (A3102). The northern eastern boundary of the site is formed by Whitehill Lane the south eastern boundary is formed by the residential settlement located along Whitehill Lane on the east of the site. The south western boundary is delineated by a railway and to the north west of the site is scrub land and fields. There are no Public Rights of Way running through the site although one runs to the north of the site.

The site is not located in proximity to any designated sites.

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area. The site lies within the Great Western Community Forest area and an allocate area of allotment land is located 0.4km to the north east of the site.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use. Others of particular note include:

Reference: 07/07021 Change of use of existing light industry to recovery, recycling and transfer of specialised waste on land at Unit 12a Whitehill Industrial Estate.

B.1.10.2 Landscape and Visual Impact

Introduction

The site is located to the south of Wootton Bassett on Whitehill Lane of the Bath Road (A3102). The site currently comprises an industrial estate with a range of commercial, storage and light industrial uses. The railway forms the southern boundary of the site, Whitehill Lane the northern boundary, open fields to the west further north and residential to the east.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales

Key characteristics relevant to the site:

- Gently undulating clay lowland farmland with regular and well-ordered field patterns defined by thick hedgerows, however intensification of agricultural activities have resulted in the removal of hedgerows, enlarged fields and new farm buildings
- Deterioration of hedgerows due to a combination of under management and neglect
- Brick built buildings reflect the widespread use of the local clay as a building material with plain tiled roofs

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Calne Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on clay
- Largely rural, tranquil landscape
- Variable field pattern of arable and pasture with hedgerows, though often replaced by fences and hedgerow trees are sparse
- Sparsely scattered settlement of towns, small villages and farmsteads, many using vernacular materials of local clay brick, stone and red roof tiles with a few larger population centres including Swindon.

Generally the condition of the landscape character area is considered by WCC to be 'good', with a 'moderate' strength of character.

The strategy for the area is to conserve its peaceful rural landscape and strengthen its character through minimising urban influence.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Urban Fringe Scarp

Key characteristics relevant to the site:

- Elevated ground with rolling hills and a steep escarpment to the north and west
- A mix of building ages and styles, from historic village centres to more recent brick and reconstituted stone houses with modern building materials
- Wide views from elevated positions on the scarp slope and high points over floodplain and lowland vales
- Degraded agricultural landscapes, including arable and pasture, with gappy hedgerows in poor conditions and lack of mature trees
- Presence of power lines, service section land uses and communication corridors
- Comprehensive network of public footpaths

Landscape Designations and Rights of Way:

- There are no identifiable designated landscapes or public rights of way within the vicinity of the site.

Baseline Landscape Character and Features: Site Survey

The proposed area comprises an existing Industrial Estate with complete land cover of buildings and hardstanding. The northern portion of the site comprises larger, more industrial style units surrounded by poor quality tarmac hardstanding. This area is lower than the surrounding

landscape to the north and east with Whitehill Lane running a near level with the roofline of the units.

The entrance to the site to the southern end slopes quickly down in to the site; however most of the southern units are situated higher up than those to the north, making them more prominent in views for the surrounding residential areas. More modern commercial units with formal car parks and good quality block paving give an improved sense of character to the southern portion of the site. A dense vegetation screen and existing close boarded fences provide a buffer to the adjacent resident development The Willows.

To the north of the site are open fields that offer extensive views towards the site, however due to the lower level of the northern portion of the site this view comprises primary of the roof structure of the industrial units. To the east is the level railway corridor which though exposed to the site is well screened along most of its length. To the west, at a higher level than the site is Whitehill Lane and opposite an area of open, relatively flat field that rises up to the northeast toward the residential urban fringe of Wootton Bassett. Private allotments cover much of the exposed slope overlooking the site below Wootton Bassett.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Moderate

The landscape setting to the northeast of the site is tranquil and semi-rural in character; however the existing Industrial Estate, the roads, railway and frequent bridges as well as various isolated developments have eroded this character within the immediate vicinity and to the north of the site, giving it a poor landscape quality. The site is well enclosed from the south and west by vegetation and neighbouring uses. The characteristic vegetation belts, distance and intervening topography offer the potential to provide effective screening to the site. Therefore the site has a moderate capacity to accommodate change without adversely affecting the local landscape character.

Potential Landscape Mitigation Measures

- Sensitive site planning – facilities to be located to maximise natural screening provided by the surrounding topography to prevent intrusion into the rural character
- Facilities to be in keeping with the local vernacular/agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character

The following 'Broad Management Objectives' for the Rolling Clay Lowlands in the Wiltshire Landscape Character Assessment are relevant to the site:

- Retaining and managing hedgerow network and nurturing new hedgerow trees
- Strengthening the enclosed character of the landscape and screening views to urban edges through nurturing existing and planting new woodland

The following Enhancement Priorities proposed for the Urban Fringe Scarp landscape character area in the North Wiltshire Landscape Character Assessment are relevant to the site:

- Restore hedgerows and specimen trees especially oak and ash
- Discourage further ribbon development along roads
- Discourage change of land use except where visual impact from the realm is minimised
- Ensure development reinforces the locally distinctive character and respects the vernacular, and incorporates landscape mitigation to minimise adverse effects on the landscape and visual amenity

Table B.1.10.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
The Willows Residents	High	Moderate adverse	Facilities to be located and designed (low development) to maximise natural screening provided by the surrounding topography Minimise vertical elements including lighting Facilities to be in keeping with the local vernacular/agricultural style Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Wootton Bassett (southwest edge, primarily Chrch Street) residents	High	Moderate adverse	
Wootton Bassett (southern edge, primarily Milton's Way) residents	High	Moderate adverse	
Allotment users	Medium	Moderate adverse	
Office / Commercial units to the north and west	Low	Negligible	
Railway users	Low	Negligible	
M4 users	Low	No change	
Whitehill Lane users	Low	Negligible	

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting and the cutting in the topography into which the northern portion of the sits, the site has a moderate ability to accommodate change without harm. The main visual impacts, on surrounding residences and users, could be almost entirely mitigated through sensitive site planning and screen planting, as well as the creation of vegetated earth bunds to the north and west site boundaries.

Recommended further landscape and visual surveys

- Summertime surveys
- Night-time visual surveys.

B.1.10.3 Noise

Introduction

The site at Whitehills Industrial Estate, Wootton Bassett has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- Rear of No.2 Salt Spring Drive.

The proposed site is located within land that is currently an operating industrial/business estate and borders a rural road to the east and a railway line to the west. The surrounding area is farm land and residential properties are located on the allocated site’s south east boundary.

Baseline

Background noise measurements were undertaken on 8th February 2010, with meteorological conditions being overcast with light winds. The current noise environment around the allocated site is dominated by road traffic on the rural road to the east of the site.

Consecutive background noise measurements were taken at the monitoring location. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.10.3.1 - Rear of No.2 Salt Spring Drive - Background Noise Levels (File #90)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:16:58	00:05:00	62.1	75.7	51.2	62.7	57.1	54.5
14:21:58	00:05:00	63.2	76.3	50.9	62.3	57.0	54.4
14:26:58	00:05:00	59.1	72.7	51.1	60.2	55.6	53.1
14:16:58	00:15:00	61.8	76.3	50.9	61.7	56.6	54.0

The average background noise level (L_{A90}) at the monitoring location is taken as being 54.0 dB.

Assessment Suitability

The site is on an existing industrial estate with residential properties to the south east.

There is little or no screening to the residential properties but due to the size of the site with careful siting and screening the site is deemed to be suitable from a noise perspective.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required depending on the siting of the facilities. The facilities should be sited as far away from the south eastern boundary as practical and by at least 150m.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.10.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site has been identified for local use. The land currently consists of industrial uses, offices and business units. The site is located towards the south west corner of Wootton Bassett and is accessed off Whitehill Lane.

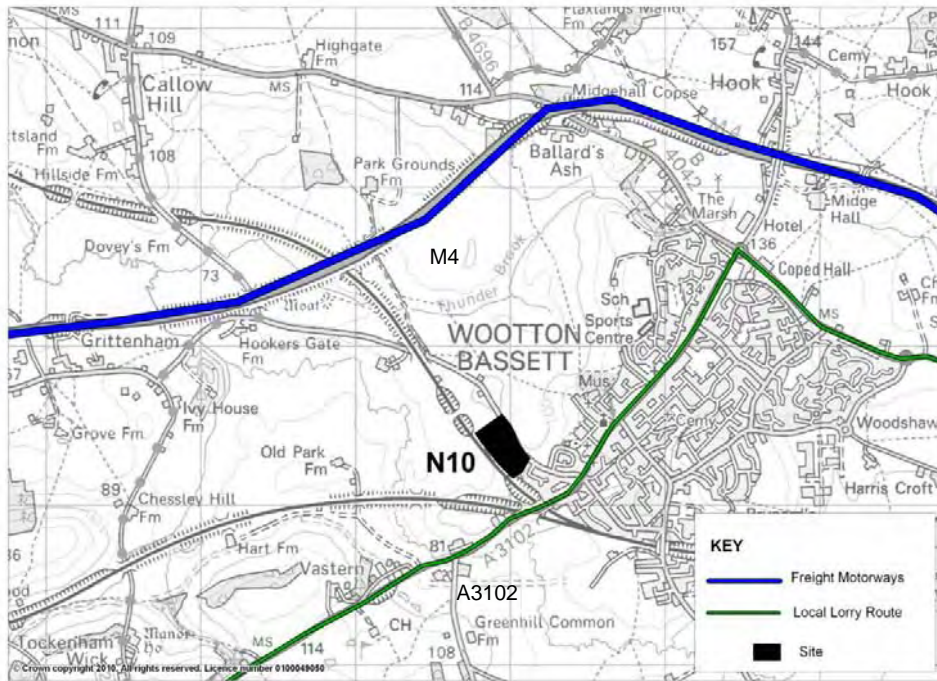
Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.10.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.10.4.1 shows that immediate access to the A3102 can be gained from Whitehill Lane. The A3102 is a designated local lorry route on the Wiltshire HGV Route Network and links to

junction 16 of the M4 to the east. Access to the A3102 is via Whitehill Road which is not part of the Wiltshire HGV Route Network.

Figure B.1.10.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.10.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.10.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Existing/Potential Access Junctions

Access is currently gained to the site via a priority junction onto Whitehill Road. The junction is located approximately 60m north west of Salt Spring Drive on the southern side of the road. The kerbed radii into the site are relatively tight and would require some infrastructure work to increase the size of the junction and make it more suitable for HGVs.

Visibility to the east of the access is good; however visibility to the west is hindered by the bend in the road. Street furniture on the corner of the junction also obstructs visibility as demonstrated in **Figure B.1.10.4.2**. Visibility to the west is approximately 55m which is below the recommended visibility of 90m for a 30mph road as set out in DMRB²⁴. Approximately 20m to the west of the junction the speed limit changes to the national speed limit (60mph). Manual for Streets (MfS) states for a 30mph road a visibility splay of 2.4m x 40m should be sufficient, however, as the speed limit changes immediately west of the access eastbound vehicles may be approaching at higher speeds than 30mph. Therefore, it is recommended that obstructions to the visibility be removed and the 30mph speed limit extended further west of the junction. Although capacity at the junction is unlikely to be unduly affected by the proposals it is recommended that a ghost right turn be provided into the site to allow vehicles to safely wait to turn right without blocking the main traffic flow.

Figure B.1.10.4.2 - Visibility to the West of Access Junction



²⁴ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Transport Environmental Impacts

Residential housing estates are located to the south east of the site. Access to these estates is gained off Whitehill Lane with two priority junctions. One of these junctions is located 60m east of the site access and the other is located approximately 200m east. Residential properties are located along Whitehill Lane and as the proposed waste facility is likely to increase the number of HGV trips from the site, it would potentially have a negative impact on the residential dwellings that front the road.

Footways are located on both sides of Whitehill Lane however with no verge, there would be some impact on levels of 'fear and intimidation' as well as noise and vibration for dwellings on Whitehill Lane. Nevertheless the properties are largely set back from the road thus reducing any potential impact. The site is not likely to produce large amounts of trips during the AM and PM peaks, therefore the effects on pedestrian and driver delay would be minimal.

Vehicles generated by the proposed waste development would join the designated local lorry route, the A3102, approximately 350m to the southeast of the access. Although the A3102 is part of the Wiltshire HGV Route Network it runs through the middle of Wootton Bassett including the High Street and therefore an increase in HGVs may have an environmental impact on the wider area.

Off Site Highway Network

The nearest junction to the site is Whitehill Lane / Bath Road (A3102). This takes the form of a priority cross road junction, with priority given to Bath Road. The speed limit on Bath Road at the point of access is 30mph. Visibility at this junction is extremely poor for vehicles pulling out of Whitehill Lane, especially to the north, as demonstrated in **Figure B.1.10.4.3**, where visibility is restricted by the fence and conifer tree belonging to the adjacent property. The visibility splay achieved is approximately 2.4m x 20m.

Figure B.1.10.4.3 - Visibility Splay to North at the Whitehill Lane / Bath Road Junction



Visibility to the south of the junction is better but is restricted by the bend in the road south of Whitehill Lane. However the visibility splay in this direction would more than meet the 2.4m x 40m standard set out in Manual for Streets (MfS).

Whitehill Lane flares as it approaches the junction with Bath Road. The kerbed radius on the southern side of Whitehill Lane should be sufficient for HGVs turning into the junction. However the kerbed radius on the northern side of the arm is smaller and may cause issues for left turning HGVs.

As Bath Road leads into Wootton Bassett High Street traffic flows passing through the junction are likely to be considerable, therefore it may be difficult for vehicles to pull out of the junction during

the peak periods. However, the facility is not likely to generate large number of trips during the highway peak hour.

However, in order to deal with these safety issues, it may be appropriate to signalise the junction. This would reduce safety concerns regarding lack of visibility as well as manage access and egress from Whitehill Lane to prevent potential any capacity issues occurring.

Accessibility by Sustainable Modes

Narrow footways are located on both sides of Whitehill Lane as it approaches the site from the east. However, once past the existing site access junction the footways cease. Bus stops are located on Bath Road, immediately north of the junction with Whitehill Lane. This is less than 400m from the site. Footways on Bath Road and Whitehill Lane provide sufficient access to the stops and therefore, the site has reasonable accessibility by sustainable modes.

Constraints

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N10/001** in **Appendix D**. The main constraint for the site relate to the poor visibility at the Bath Road/Whitehill Lane junction. In addition a tight radius on the northern side of the road at this junction may cause turning issues for HGVs. It is considered that some workable improvements could be implemented however, available land at the Whitehill Lane / Bath Road junction is constrained by residential dwellings on all four corners of the junction.

Visibility at the site access is slightly hindered due to the bend in the road.

A rail bridge is located to the north west of the site access junction along Whitehill Lane. This bridge has a 14 foot height restriction which may prevent high sided HGVs using this route.

Mitigation

Mitigation to the site access would involve provision of a ghost island right turn lane into the site and extending the 30mph speed limit on Whitehill Lane to the west.

Mitigation would also be required at the Whitehill Lane / Bath Road cross roads. It is recommended that the junction is signalised to formalise traffic movements and remove safety concerns regarding the poor visibility. It would also enable stop lines to be set back so that HGVs can manoeuvre safely out of the side roads.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£125k** - Improving site access junction, and inserting a ghost island right turn facility
- **£250k** - Signalising the Whitehill Lane / Bath Road junction

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is ideally located to provide excellent access to a designated local lorry route; and
- Accessibility to the site via sustainable modes is good.

The following issues/constraints have been identified:

- The site access junction would require some mitigation in order to provide suitable access;
- The visibility at the Whitehill Lane / Bath Road junction is poor and the kerbed radii at the junction for left turners from Whitehill Lane are also tight. Therefore, this would require mitigation works; and

- An increase in HGV trips would have an environmental impact on the dwellings along Whitehill Lane and may also impact on Wootton Bassett.

There are a number of issues which would need to be addressed before the site is considered suitable for a waste facility. In particular, the environmental impact associated with an increased number of HGVs, as well as access to the site via the Whitehill Lane / Bath Road junction are areas for concern. However it is considered that with mitigation measures as set out in this report, the site will be suitable for the proposed uses.

B.1.11 Bumpers Farm Industrial Estate (Site Ref N11)

B.1.11.1 Introduction

The site extends to 13 ha and is located on the western fringe of Chippenham. The site is an existing industrial estate comprising of variety of employment and retail uses. The existing access to the site is via a direct connection to the A350/A420 roundabout which provides good access to the M4. The site is flanked by residential properties to the east on Longstone Road and to the south beyond Frogwell. The western boundary of the site is delineated by the A350 which is screened with a bund and tree planting. Beyond the A350 is Chippenham Rugby Union Football Club. To the south west of the site is St Peters church and school. A Public Right of Way runs through the site.

The site is not allocated in the adopted North Wiltshire Local Plan although a residential allocation is situated adjacent to the north east boundary of the site. The emerging Wiltshire Core Strategy does not designate the site but does identify land approximately 200m to the east of the site for residential development.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use. Others of particular note include:

Reference: 08/02290 Erection of new commercial premises with B1 and B8 uses on land at Southernwood Farm, Sheldon, Chippenham, Wiltshire SN14 0RE

Reference: 09/00895 Change of use from agricultural to storage (B8) – Renewal of 06.00896.COU on land at Southernwood Farm, Sheldon, Chippenham, Wiltshire SN14 0RE

B.1.11.2 Noise

Introduction

The site at Bumpers Farm Industrial Estate, Chippenham has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Household Recycling Centre;
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- At the rear of properties of Frogwell Park, located on the eastern boundary of the allocated site;
- Allington Way, located on the eastern boundary of the allocated site; and
- At the rear of No.3 Cruse Close on Frogwell, which is located to the south of the allocated site.

The proposed site is located within land that is occupied by large industrial units. Background noise levels were made with noise from the industrial estate in operation. The site is bounded to the west by the A350 and residential properties to the east and the south.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions being overcast with light westerly winds. The current noise environment around the allocated site is dominated by noise from the industrial estate and road traffic on the A350.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.11.2.1 - Frogwell Park - Background Noise Levels (AU1_0016)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:42:00	00:05:00	42.8	50.8	38.7	44.9	41.8	40.1
11:47:00	00:05:00	44.7	53.5	39.9	47.3	43.5	41.1
11:52:00	00:05:00	48.6	58.0	42.1	51.7	46.4	44.3
11:42:00	00:15:00	46.1	58.0	38.7	48.3	44.2	40.9

Table B.1.11.2.2 - Allington Way - Background Noise Levels (AU1_0017)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:04:00	00:05:00	42.5	49.5	39.4	43.7	42.0	40.7
12:09:00	00:05:00	42.3	47.3	38.8	44.3	41.6	39.7
12:04:00	00:10:00	42.4	49.5	38.8	44.0	41.9	40.3

Table B.1.11.2.3 - Cruse Close - Background Noise Levels (AU1_0018)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:19:00	00:05:00	49.3	58.2	42.3	53.7	45.1	42.8
12:24:00	00:05:00	49.7	60.0	42.2	53.4	44.4	43.0
12:19:00	00:10:00	49.5	60.0	42.2	53.7	44.8	43.0

The average background noise levels (L_{A90}) at residential properties on Frogwell Park, Allington Way and Cruse Court are taken as being 40.9 dB, 40.3 dB and 43.0 dB, respectively.

Assessment Suitability

The site is on an existing industrial estate with residential dwellings on the eastern and southern boundaries.

There is little or no screening from the proposed site but with appropriate screening and careful site location the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required, the location of which would be dependent on the location of the facility. The facilities should be sited as far away from the southern and eastern boundary as practical, i.e. towards to the mid west, and at a minimum distance of 150m.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.11.3 Air Quality and Odour

Introduction

Bumpers Farm is located on the western edge of Chippenham with direct access from the A350 by pass and the A420. The site is currently in use for a wide range of B class uses including offices, storage, distribution and light industry.

Potential uses include household recycling centre, recycling, waste transfer station and local scale material recovery facility.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 20.3µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 14.2µg/m3 NO2 (standard 40µg/m3);
- 17.5µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are 2010 properties within 500 meters of the site including one school located around the eastern boundary. There are no sensitive ecological sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic from the A350 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. There are no industrial sources of bioaerosols and odour in the area.

Table B.1.11.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
Total residential within 100m of site (340 receptors)	1(1)	2(2)	N/A	N/A	N/A	2(2)	2(2)
Total residential between 100 and 500m (1670 receptors)	1 (1)	1 (1)	N/A	N/A	N/A	1(1)	1(1)
Residential within 250m only (590 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

2 = moderate risk, further assessment is recommended, mitigation should be required

3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated

Values in brackets denote potential 'in-combination' or cumulative effects

N/A = risk is not applicable in these circumstances

* Bioaerosol risks are limited to within 250m of the site

Mitigation

Dust and odour control measures should be required. See ‘Air Emissions Mitigation Options’ in **Appendix C**.

Recommendation

Air quality risks for the intended use are low to moderate without mitigation. Mitigation for dust and odour is recommended. Detailed assessment should not be necessary.

B.1.11.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

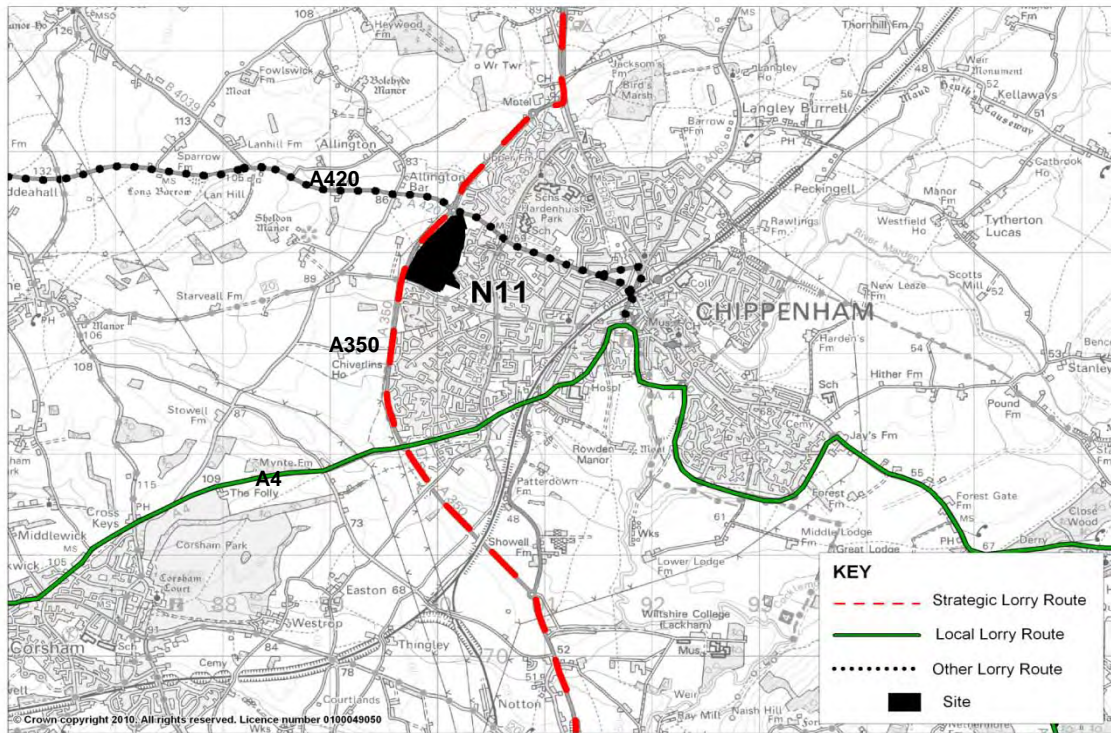
The site is located on the western edge of Chippenham within an established industrial estate. The industrial estate site covers a total area of 16.5ha and has a mix of employment uses including; offices, storage, distribution, and light industry.

It is proposed that the waste facility is located within this industrial estate, however, the exact location and site area of the proposed site is unknown. As such this appraisal has considered the roundabout access to the estate but not the specific site access within the site. The site is allocated for a local scale recycling facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.11.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.1.11.4.1** shows that the site has access to the Strategic Lorry Network via a direct access onto the A350/A420 roundabout.

Figure B.1.11.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);

- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.11.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.11.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
	12,000	70	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Existing/Potential Access Junctions

The site is currently accessed directly from the south-eastern arm of the 5-arm roundabout between A350 & A420. This arm of the roundabout provides two approach lanes via a 12 metre flare. Whilst the access road from the existing industrial estate provides just enough width to allow vehicles to queue side by side on the roundabout approach, site observations showed that vehicles tend to queue in single file.

During a site visit in the PM peak period queues of more than 10 vehicles were observed on the approach to the roundabout. Whilst it is likely that the peak period of trip generation of the proposed site will not coincide with that of the highway network or the peak that of other industrial uses within the estate, a capacity assessment of the access roundabout will need to be carried out as part of a full Transport Assessment for this site.

The site access road runs into the centre of the existing estate with industrial units and branching access roads on either side. All of the units have their own parking area; however, there is

extensive parking present along the main access road. As a result, traffic is forced to give-way at some locations on the access road effectively resulting in one-way operation.

Transport Environmental Impacts

As stated previously, the site lies on the western edge of Chippenham and residential properties are located to the east of the site along the A420. Some vehicles accessing the proposed waste facility are likely to do so via the A420 to the east and thus impact on these residential areas. However, the A350 is a Strategic Lorry Route and provides a direct route to the site that avoids the residential settlement to the east. Whilst the A420 is not part of the Strategic Lorry Route, it is designated as an 'other' lorry route and can therefore be used where it is essential to gain access.

Given the location of the site, the existing nature of the industrial estate, and the direct access onto the A350 (Strategic Lorry Route) the impact on noise, vibration, severance/fear, and intimidation for pedestrians would be minimal.

Off Site Highway Network

The A350, which connects to the 5-arm roundabout is dualled and runs north to south past the site.

Site observations suggest that capacity at off-site junctions will not be unduly affected by the proposals, however, a capacity/impact assessment (as part of a Transport Assessment) would be required at some junctions to ensure all off-site junctions can accommodate the proposed traffic volumes during weekday peaks (WTS & MRF uses) and weekend peaks (HRC & LR uses).

Accessibility by Sustainable Modes

Wide footways are present on both sides of the site access road and extend throughout the estate. A short section of shared cycle/footway is also provided on the eastern side of the access road close to the roundabout.

There are a number of bus stops located within the existing industrial estate, which have an infrequent service to Chippenham Town Centre. A more frequent bus service is provided on the A420 just outside the industrial estate.

Despite these sustainable facilities, it is unlikely that visitors to the proposed site will use sustainable modes of transport given the nature of a waste facility site. However, the good bus and pedestrian facilities offer staff a good alternative to the private car.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/N11/003** in **Appendix D**

Constraints

The main constraints identified at this site are:

- Capacity issues at the roundabout located on the northern boundary of the site; and
- Some on street parking exists along the access road although this road is 6.8m wide parking can narrow the carriageway to 4.8m in places, which is insufficient for two HGVs to pass unopposed.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N11/001** in **Appendix D**.

Mitigation

No off-site (i.e. further afield from the industrial estate roundabout access) mitigation required.

It is recommended that a Traffic Regulation Order (TRO) could be introduced on the access road to eliminate on street parking. This could be in the form of parking restrictions during peak periods or for the entire day.

A capacity assessment of the site access roundabout will be required to confirm that the junction can accommodate proposed traffic volumes. Mitigation measures may then be required at this roundabout if capacity issues become exacerbated.

Off-site capacity/impact assessments will also be required to confirm the surrounding highway network can accommodate the additional traffic volumes. If not then mitigation measures may be required.

In order to ensure a minimal impact on the existing industrial units the site should be located at an appropriate location within the industrial estate.

Cost of Mitigation

The cost of the mitigation proposed, double yellow lines along the access road, would be negligible.

The cost of any further capacity mitigation measures being proposed should be determined following further capacity/impact assessments, as recommended above

Recommendation

The site offers the following advantages:

- Direct access to the Strategic Lorry Route Network;
- The site offers very good accessibility by foot and public transport, although sites of this nature do not generally attract significant numbers of non motorised uses;
- HGVs do not need to pass through residential areas to get to the site from the Strategic Lorry Network; and
- HGVs currently access the existing industrial estate and as such all of the appropriate control measures and infrastructure are in place to accommodate HGVs.

The following issues/constraints have been identified:

- Capacity issues exist on the existing site access roundabout; and
- Some on-street parking exists along the access road, which narrows the carriageway down to 4.8m in places.

The site is ideally located, in transport terms, for local residents to use the site, whilst providing very good links for HGVs to access the wider strategic highway network without impacting on local settlements.

In conclusion, the proposed site is considered appropriate, in transport terms, for the proposed uses with consideration of the mitigation measures as set out in this report.

Capacity/impact assessments of the local highway network will be required as part of a Transport Assessment to confirm no other mitigation measures are required.

B.1.11.5 Air Quality and Odour

Introduction

Bumpers Farm is located on the western edge of Chippenham with direct access from the A350 by pass and the A420. The site is currently in use for a wide range of B class uses including offices, storage, distribution and light industry.

Potential uses include household recycling centre, recycling, waste transfer station and local scale material recovery facility.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 20.3µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 14.2µg/m3 NO2 (standard 40µg/m3);
- 17.5µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are 2010 properties within 500 meters of the site including one school located around the eastern boundary. There are no sensitive ecological sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic from the A350 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. There are no industrial sources of bioaerosols and odour in the area.

Table B.1.11.5.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
Total residential within 100m of site (340 receptors)	1(1)	2(2)	N/A	N/A	N/A	2(2)	2(2)
Total residential between 100 and 500m (1670 receptors)	1 (1)	1 (1)	N/A	N/A	N/A	1(1)	1(1)
Residential within 250m only (590 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

2 = moderate risk, further assessment is recommended, mitigation should be required

3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated

Values in brackets denote potential ‘in-combination’ or cumulative effects

N/A = risk is not applicable in these circumstances

* Bioaerosol risks are limited to within 250m of the site

Mitigation

Dust and odour control measures should be required. See ‘Air Emissions Mitigation Options’ in **Appendix C**.

Recommendation

Air quality risks for the intended use are low to moderate without mitigation. Mitigation for dust and odour is recommended. Detailed assessment should not be necessary.

B.1.12 Thingley Junction, Chippenham (Site Ref N12)

B.1.12.1 Introduction

This section presents a review of the assessment for the individual sites located within the North area, in the following context:

The site extends to 1.5 ha and is located approximately 1.5km south west of Chippenham. The site is a brownfield site comprising former sidings and open storage land used stocking ballast and railway track. The site is located 1 mile from the A4 an unclassified road links to the A4 which provides access to the A350. The northern boundary is formed by a traveller's site the eastern boundary is delineated by a slightly elevated Chippenham-Bath railway line beyond which is restored landfill site. To the south west boundary is formed by the abutment of a railway bridge and the north western boundary is a tree belt adjacent to an unclassified road. There are a number of scattered dwellings and farm building to the west of the site. There are no Public Rights of Way running through the site.

The site is not located in proximity to any designated site. The surrounding agricultural land is Grade 3 designation.

The site is not allocated in the adopted North Wiltshire Local Plan and the emerging Wiltshire Core Strategy does not propose any land use designations in this area. The site falls within an area recognised and designated for its Landscape Character in the North Wiltshire Local Plan

A number of planning consents have been granted within 500m of this site since 2006. These relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use.

B.1.12.2 Landscape and Visual Impact

Introduction

The site is located to the south-west of Chippenham just off the A350 at Thingley railway junction.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Low ridges from which the frequent medium sized towns are viewed
- Wide river corridor with ancient pattern of flood meadows but much influences by modern development
- Undulating clay vale with varied hedgerow pattern
- Small woods.
- Wide views across the area from the higher surrounding chalk downs.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Limestone Lowland

Landscape Character Area: Malmesbury-Corsham Limestone Lowland on the cusp of Avon Open Clay Vale

Key characteristics relevant to the site:

- Level land form with wide open skies and views to ridges and downs.
- Mix of permanent pasture and arable farmland.
- Strong network of hedgerows with hedgerow trees.
- Dry stone walls field boundaries in some areas and around settlements.
- Field pattern predominantly large geometric field typical of eighteenth and nineteenth century enclosure with small scale irregular fields of medieval pattern close to settlement.
- More open areas of higher ground to the west offer panoramic views over the type, elsewhere occasional woodland blocks, copses and frequent hedgerow trees give a greater sense of enclosure, with intermittent views.
- Settlements in the form of historic market towns, villages and scattered farmsteads distributed throughout the type linked by network of rural roads.

Generally the condition of the landscape character area is considered by WCC to be 'good' with intact hedgerows, traditional villages of vernacular stone dwellings, village greens and stone walls. In some sections of the areas there are elements in poorer condition such as gappy and flailed hedgerows, overgrown stone walls and encroaching horse pasture close to some of the larger settlement.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Avon Valley Lowland

Key characteristics relevant to the site:

- Low-lying river landscape, between 70m and 30m AOD on river terrace and alluvial geology with heavy soils, interspersed with light sands.
- Intact and predominantly well managed hedgerows frequently with hedgerow trees.
- Areas of high quality arable agricultural land located throughout the area, on areas of Kellways Sand.
- Shelterbelts of poplar act as significant vertical elements in the horizontal landscape.
- Rural and somewhat isolated feel to remoter parts of character area.
- Scattered settlements and dwellings.
- Strong rural sense of place, which begins to break down around Chippenham and communication corridor.
- Green valley floor through Chippenham.
- Broad expansive skyline, frequently unbroken by development.
- Significance of electricity transmission lines.

Landscape Designations and Rights of Way:

- No landscape designation
- No public rights of way

Baseline Landscape Character and Features: Site Survey

The proposed site is a flat area of industrial land currently housing a rail processing facility at the junction between railway lines. It is located immediately south east of the A350. The site itself is relatively sheltered by vegetation along the boundaries, with some lifting machinery and a single large corrugated shed style building present. To the northern boundary of the site, there is a caravan park, which seems to be used on a permanent basis. Steel palisade fencing runs around the site perimeter along with electricity pylons running through the site.

Due to the position of the site, and the flat topography, clusters of residential buildings can be seen on the higher landform surrounding the area, the view is generally rural with scattered properties visible.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Moderate

Capacity to Accept Change: High

Although the site has a relatively poor landscape character is only has a minor impact on the surrounding landscape. The surrounding area has the character of an open wide valley with undulating landform either side.

Due to its location the site has a good potential to accept change, depending on the scale. There no major visual impacts occur to the visual receptors and through careful planning and screen planting any impacts could be mitigated.

Potential Landscape Impacts

- Further erosion of the rural character and setting

Potential Landscape Mitigation Measures

- Facilities to be small to medium in scale, in keeping with an agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into minimise impact on the surrounding landscape.

The following ‘Broad Management Objectives’ for the Limestone Lowland in the Wiltshire Landscape Character Assessment are relevant to the site:

- Conserve the network of hedgerows, hedgerow trees and woodland copses and take opportunities for new planting where this will strengthen local character (for instance avoiding planting that will affect the open views in the high ground at the west of the area).
- Conserve the remaining areas of ecological interest such as those with statutory designations, areas of ancient woodland, veteran hedgerow trees and chalk grassland.
- Maintain the subtle variations that occur throughout the landscape, encouraging local distinctiveness for instance in the variation in field boundaries from hedgerows to stone walls.
- Resist urbanisation of the country lanes through addition of road markings and concrete kerbs

Table B.1.12.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Thingly Caravan Park	High	Moderate – direct views to site	Facilities to be in keeping with an agricultural style Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Southern edge of Chippenham	Low	Minimal - distant views	
Residential properties at Easton	Low	Minimal - negligible - views due to vegetation screening and topography	
Farm to south	Low	Minimal – limited views due to	

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
		vegetation and railway bridge	
Railway users	High	No impact	
Road users	High	No impact	
Scattered residential on higher ground to the south	Low	Minimal – negligible views due to distance, vegetation and existing use.	

Summary: Residual Landscape and Visual Impacts

Although the site is situated within an open area, there are very few immediate receptors which limit the potential impact to any change in use of the site. Along with mitigation and planning of the site the visual receptors to the site would not suffer any adverse visual impacts. The main visual impacts could be almost entirely mitigated through sensitive facility design and screen planting.

Recommended further landscape and visual surveys

- n/a

B.1.12.3 Noise

Introduction

The site at Thingley Junction, Chippenham has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- On the lane leading to Thingley Caravan Park, this location was selected due to excess noise at the site caused by discharge from power pylons; it is deemed that the monitoring location was comparable to the location of Thingley Caravan Park, situated to the north east of the site.

The proposed site is located within land that is currently utilised as a rail track processing yard. Background noise levels were made with noise from the yard in operation. The allocated site borders a railway line to the south east and rural lanes to the west and north of the site, with Thingley Caravan Park bordering the a northern section of the site.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions being overcast with westerly winds. The current noise environment around the allocated site is dominated by the processing yard with other noise sources in the area being road traffic on the local roads and trains on the railway.

Consecutive background noise measurements were taken at the monitoring location. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.1.12.3.1 - Monitoring Location - Background Noise Levels (File AU1_0020)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:19:00	00:05:00	56.3	74.0	45.0	56.3	49.0	46.5
14:24:00	00:05:00	50.7	63.1	44.8	52.8	48.8	46.0
14:29:00	00:05:00	53.7	69.9	43.9	54.7	48.7	45.7
14:19:00	00:15:00	54.2	74.0	43.9	54.6	48.8	46.1

The average background noise level (L_{A90}) at the monitoring location is taken as being 46.1 dB.

Assessment Suitability

The site is a brown field site with a caravan site on its northern boundary

There is little or no screening from the proposed site but with appropriate screening the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 db(A) reduction is required. The facilities should be sited as far away from the northern boundary as possible and at least 125m. By careful siting and placing activities in buildings a greater area can be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.12.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

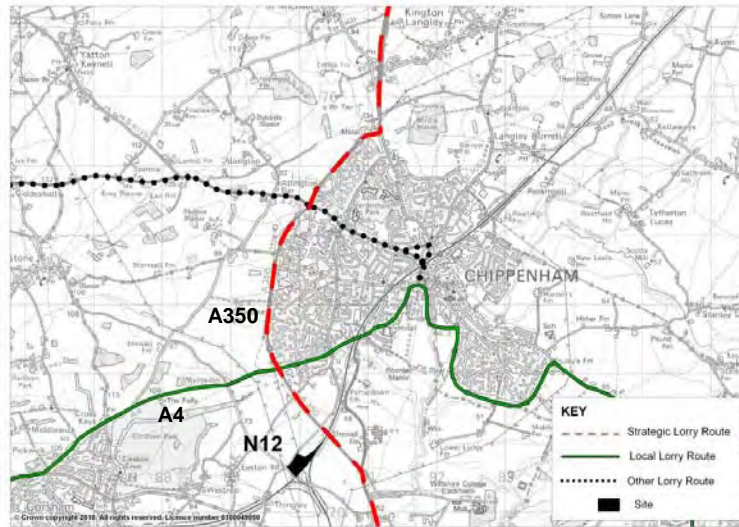
The site is located approximately 2 miles southwest of Chippenham Town Centre and 1 mile from the A4. A relatively narrow road links the site to the A4 to the northwest and a very narrow road links the site to the A350 to the southeast. The site is located immediately adjacent to the Chippenham - Bath railway line.

The site is currently used as a ‘Rail Recovery Depot’ and as such there is the potential for very good direct rail links to the site. However significant infrastructure improvements are likely to be needed and as such this report considers road based transport only. The site is allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.12.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.1.12.4.1** shows that the site is located close to the A350 (Strategic Lorry Route) accessed from the A4 towards the northwest via an unnamed road. The A4 is designated as an ‘other’ lorry route which should only be used where it is essential to gain access.

Figure B.1.12.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.12.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.12.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Existing/Potential Access Junctions

The site is currently accessed from a relatively narrow unnamed road.

The existing site access is very wide but is currently poorly maintained with numerous potholes. The access connects the site to an unnamed road at a very acute angle (**Figure B.1.12.4.2**). Whilst the acute angled access provides for easy manoeuvrability towards the west, the visibility to the east, when exiting the site, is very poor. Nevertheless, the amount of traffic using the local roads surrounding the site is minimal. Manoeuvrability towards the east, from the site access, is not recommended for HGVs.

Figure B.1.12.4.2 - Site Access



Transport Environmental Impacts

The site is 2 miles south west of Chippenham and Corsham lies 2 miles to the east. The preferred route to the site from the strategic highway network does not pass through either of these settlements. The impacts on these settlements are therefore considered negligible.

A number of small residential settlements are located to the south and southeast of the site and can be accessed via narrow roads. In order to limit the impact on these settlements, links to the south and southeast need to be controlled to ensure that the site is serviced only by the A4 to the northwest. This can be achieved through HGV weight/width restrictions and routing agreements.

Off Site Highway Network

The unnamed road, that lies adjacent to the site access, links the site to the A4 towards the northwest and also towards the A350 to the east. Other local roads link the site to the A350 to the southeast, however, these roads are very narrow (less than 5m in places) and pass through small residential settlements. To the east of the site access, a narrow 3.5m wide bridge, links the site to the A350. This bridge provides very poor visibility and would therefore not be deemed appropriate for use by HGVs.

The unnamed road that links the site to the A4 therefore provides the best route to the site from the Strategic Lorry Network via the local lorry network. This unnamed road is, however, only 5.3 metres wide in places. Design Bulletin 32 (Residential Roads and Footpaths), produced by the Department of Transport, states that a carriageway width of 5.5m is required to enable the largest type of vehicles to pass each other unopposed. In its present condition parts of this unnamed road therefore have insufficient width to accommodate two HGVs passing at the same point in the road.

The road width and existing settlements located to the south and east of the site would require any links to the site to be controlled to ensure that the site is serviced only by the A4 to the northwest. As stated above, this can be achieved through HGV weight/width restrictions and routing agreements.

Good visibility is provided for at the junction between the unnamed road and the A4. This junction is currently a simple 4-arm priority junction. No capacity issues were noted at this junction, as very few vehicles currently use the unnamed road leading to the site. In addition, the level of traffic, associated with the type of waste facilities being considered at this site, is not deemed significant enough to cause potential capacity issues at this junction. However, it is recommended that this junction is assessed for future capacity levels as part of a Transport Assessment to determine the potential impact on this junction.

Site observations suggest that capacity at the site access junction and the junctions linking the site to the strategic highway network will not be unduly affected by the proposals. However, a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes.

Accessibility by Sustainable Modes

No footways are provided along any of the local roads surrounding the site, although sites of this nature do not generally attract significant numbers of non-motorised users.

The nearest bus stop to the site is located about 1.5 miles southeast of the site access and is therefore inaccessible by foot given the poor pedestrian facilities.

Despite there being no sustainable access to the site, it is unlikely that visitors to the proposed site will want to use sustainable modes of transport given the nature of a waste facility site. Some staff may wish to use sustainable transport modes, but given the sites location this would be very difficult.

Constraints

The main constraints identified at this site are:

- Access to the site from the east is via very narrow roads (3.5m over the railway bridge) and should be discouraged;
- Access to the site from the south is via very narrow roads (5.0m) where small residential settlements exist and again should be discouraged;
- Accessibility to the site by foot or other sustainable modes is very poor as no footways exist along the local roads leading to the site; and
- The preferred route to the site from the northwest (A4) is quite narrow (5.3m in places) and does not allow two HGVs to pass side by side in some places.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N12/001** in **Appendix D**.

Mitigation

HGV weight/width restrictions, a routing agreement, and advisory notices would need to be considered for the narrow roads located to the east and south of the site.

The carriageway surfacing at the site access and between the site and the A4 would need to be improved and maintained.

The visibility from the site access to the east would need to be improved significantly. Minor improvements could include; maintaining the hedgerows at the site access and providing an access warning sign to the east of the site access to warn other motorists that HGVs will be emerging from the access. The preferred access improvement though would be to realign the site access (and therefore the site layout) to be more perpendicular to the site boundary, to allow improved visibility to the east. This preferred option would require the site access to be located nearer to the existing four-arm cross roads and would therefore not meet the standard junction spacing requirements. A third access option would be to provide access off the minor road leading to the local caravan site. However, this third option introduces potentially tight turning movements for HGVs and potential planning problems/objections from the caravan site.

In order to allow two HGVs to pass, road widths along the unnamed road to the northwest would need to be increased by at least half a metre (to allow for a 6m wide road) along the entire one mile length of road. Alternatively regular passing places could be built into the road. Any such designs would need to be subject to more detailed design.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£50K** - to realign the existing access;
- **£100K** - to provide a new access off the caravan site's local road;
- The cost of just trimming hedgerows and providing access warning signs would be minimal;
- **£75K** - to provide two passing places along the unnamed road leading to the A4; and
- The cost of widening the entire one mile stretch of unnamed road to 6m could be extremely high depending on unknown issues relating to drainage and the condition of the verges.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any), or site supervision.

Note also that access costs only include for the provision of a bell mouth access and therefore additional costs will arise in terms of extending the access into the site.

Recommendation

The site offers the following advantages:

- Relatively direct route to the Strategic Lorry Route Network; and
- The site is not located near to any local settlements and providing routing agreements are in place the impact on residential amenity is likely to be minimal.

The following issues/constraints have been identified:

- Poorly maintained site access surfacing;
- Poor visibility to the left when exiting the site;
- Narrow roads surrounding the site;
- Very narrow bridge (3.5m) located to the east of the site; and
- Residential settlements located along routes to the south and east of the site.

The proposed re-development of the site can be accommodated in traffic terms with little impact on the wider highway network or local residential settlements. However, extensive physical works to the site access will be required. In addition some local widening would be required along the unnamed road linking the site to the A4.

In conclusion, the proposed site is considered appropriate, in transport terms, for the proposed uses with consideration of the mitigation measures as set out in this report

B.1.12.5 Water Quality / Environment and Contaminated Land

NGR: 390090, 170800

Location: Thingley

Area: 7 hectares

Data Source: Landmark Envirocheck Report 30173608_1_1 (15th Feb 2010) unless otherwise referenced

Table B.1.12.5.1 - Thingley Junction - Water Environment and Contaminated Land

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water</p>	<p>There is a pond 34m to the east of the northern tip of the site. A stream runs east-west approximately 400m south of the site and another at a similar distance around the west and north of the site.</p>	<p>Runoff of contamination to pond during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance driving construction.</p>	<p>Environmental management during construction. Determine monitoring requirements with Environment Agency (EA). Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site lies between 2 faults trending ENE-WSW and is underlain by the Middle Jurassic Cornbrash Rubbly limestone²⁵.</p>	<p>There is the potential to create a pathway for contaminants to reach the groundwater.</p>	<p>-</p>	<p>To be considered during further assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>The site overlies a Secondary (Minor) Aquifer.</p>	<p>Contamination of aquifer Changes to the groundwater flow regime of primarily shallow aquifers during</p>	<p>Surface drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid</p>	<p>Environmental Management during construction. Produce working plan</p>

²⁵ BGS 1:50 000 Drift geological map (Sheet No. 265, Bath)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
		construction if pumping required for excavations.	waste, only inert waste.	for site.
Hydrogeology: Groundwater – Source Protection Zone	The site is within a SPZ 2.	Risk to public water supply and unlicensed private water supplies (<20m ³ /day).	Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).	Review runoff treatment requirements. Monitoring boreholes (may be required to obtain operation permit).
Hydrogeology: Groundwater – Direction of Flow	No information available on direction of flow.	-	Good working practices and EA guidance during construction.	Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	The aquifer is designated as highly vulnerable.	Risk to public water supply.		
Discharges: Surface Water - Discharge Consents	Final / treated effluent; on site, to ditch tributary to River Avon (this not apparent on maps); 462m south-west, to tributary of River Avon; 804m west, to Byde Mill Brook; 897m north, to Pudding Brook	No risk posed.	-	-
Discharges: Groundwater – Discharge Consents	Final / treated effluent to soakaway; 564m and 585m east, 617m south.	No risk posed.	-	-
Discharges: Pollution Incidents	No recorded pollution incidents within 1km of the site.	No risk posed.	-	-
Abstractions: Surface Water Abstractions	No surface water abstractions within 1km of the site.	No risk posed.	-	-
Abstractions: Groundwater Abstractions	Spray irrigation, 787m and 845m east.	No risk posed (additional to that regarding public water supply above).	-	-

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Flood Risk	The site is within Flood Zone 1. There is the potential for flood risk from groundwater which needs to be assessed.	Low risk from fluvial flooding. The site is greater than 1ha and as such there is the potential for pluvial flood risk which needs consideration.	Surface Water Management Plan, SuDS design to control runoff. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Landuses: Waste sites	The triangle between the two railway lines and the road that crosses them is marked as a historical landfill site; the cutting for the disused chord is also recorded as historical landfill.	There is a significant risk that past and present landuses will have led to contamination of the ground, in particular the past and present rail use of the site as sidings and the landfill close by.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	Geoenvironmental investigation is required to determine the nature and extent of any contamination that may be present at the site.
Landuses: Historical landuse	1889: The Great Western Railway is present, along with the line that joins it. To the south, the route of a chord joining the two lines is marked as "old railway". 1901: A quarry is shown 100m west. 1925-26: The quarry is no longer shown. 1955: The site has been developed with sidings and some small sheds. 1982-85: Some structures are marked as tanks, although these may have been on the site for some time. 1991-92: Adjacent to the north is a caravan site. 2000: The triangle between the two railway lines and the road that crosses	The risk this presents is the excavation and exposure of contaminated material during construction which could open pathways to site staff via direct contact and controlled waters via leaching to the aquifer.		

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	them is marked as a landfill site. 2008: Anecdotal evidence and photos ²⁶ suggest that there are “derelict burnt-out coaches and rubbish” on the site.			
Landuses: Trade directory	There are no active trade directory entries within 500m of the site.			
Conservation Designations	There are no statutory conservation designations within 1km of the site.	No risk posed.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Materials Recovery Facility / Waste Transfer Station or, Local Recycling centre at **Thingley Junction** falls within the following category:

- Potentially significant issues identified – review further assessment requirements of site

The initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Secondary Aquifer and a SPZ 2 and therefore there are potential groundwater contamination issues
- Extensive past and present industrial use of site including landfilling that could be contaminating
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.

B.1.13 Leaffield Industrial Estate, Corsham (Site Ref N.13)

B.1.13.1 Introduction

The site extends to 17 ha and is located south west of Corsham which is approximately 6.5km south west of Chippenham. The site is an existing industrial estate which generally has a mix of B2 and B8 uses, although there is a leisure centre located on the site. There are two access roads to the industrial estate, the main access to the site is through residential areas via Potley Lane and Valley Road in the north and one from Elley Green in the south. A Public Rights of Way runs along the eastern boundary.

The site is approximately 1.6 km east of the Bath and Bradford-on-Avon Bats SAC. The site is also approximately 1.6 km east of Box Mine SSSI and Corsham Railway Cutting SSSI (geological) 2 parcels approximately 200m north of the site. The site is also approximately 1.6 km east of the Cotswold AONB

The site falls within a level 2 Source Protection Zone and on a Minor Aquifer of Intermediate Vulnerability. A flood zone 3 runs up to the eastern boundary of the site

The site is not allocated in the adopted North Wiltshire Local Plan although land bordering the north east of the site is allocated employment land (Policy BD1). Land adjacent to the western and northern boundary of the site is part of a local rural buffer (Policy NE3). The emerging Wiltshire Core Strategy does not propose any land use designations in this area

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use. Others of particular note include:

Reference: 07/00745 Demolition of Existing Semi Redundant B1, B2, and B8 Units and Replacement with 20 B1, B2, B8 units and associated parking on land at Units 5-9 Leaffield Industrial Estate, Leaffield Way, Corsham, Wiltshire SN13 9SW

Reference: 07/02114 Erection of building at 7 B2 class units in form of 2 New Blocks and car parking on land adjacent to 23 Leaffield Industrial Estate, Corsham, Wiltshire SN13 9SS

Reference: 07/03169 Construction of 8 no. Light Industrial Units and Car Parking (Revision to Planning Permission 07/02114 to include 1 no. Additional Unit) on Land Adjacent to Unit 23, Leaffield Industrial Estate, Corsham, Wiltshire SN13 9SS

Reference: 07/03247 Change of use from Health and Fitness clinic to B1 and B2 use and First Floor Side extension with parking underneath (Revised) to land at Unit 8 Ingoldmells Court, Edinburgh Way, Corsham SN13 9XN

Reference: 07/01991 Demolition of existing dwelling and erection of 2 dwellings and erection of new vehicular access and associated works on land at 21 Elley Green, Corsham SN13 9TX

B.1.13.2 Landscape and Visual Impact

Introduction

The site is located on the southern edge of Corsham forming part of the urban fringe.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Cotswolds

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture.
- Low ridges from which the frequent medium-size towns are viewed.
- Small woods.
- Wide views across the area from the higher surrounding chalk downs.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Limestone Lowland

Landscape Character Area: Malmesbury-Corsham Limestone Lowland

Key characteristics relevant to the site:

- Gently undulating lowland farmland over underlying geology of predominantly mudstone and limestone with some pockets of clay.
- Mix of permanent pasture and arable farmland.
- Strong network of hedgerows with hedgerow trees.
- Field pattern predominantly large geometric field typical of eighteenth and nineteenth century enclosure with small scale irregular fields of medieval pattern close to settlement.
- More open areas of higher ground to the west offer panoramic views over the type, elsewhere occasional woodland blocks, copses and frequent hedgerow trees give a greater sense of enclosure, with intermittent views.
- Settlements in the form of historic market towns, villages and scattered farmsteads distributed throughout the type linked by network of rural roads.

Generally the condition of the landscape character area is considered by WCC to be 'good' with intact hedgerows, traditional villages of vernacular stone dwellings, village greens and stone walls.

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Corsham Rolling Lowland

Key characteristics relevant to the site:

- Gently sloping topography with a small steep valley.
- Traditional core of Corsham.
- Urban fringe character of areas at periphery with Corsham including mosaic housing, military infrastructure, industrial areas, communication corridors, small fields and woodlands.
- Rural character in the southern part of the area with traditional rural settlements.
- Significance of electricity transmission lines.

- Panoramic views out towards north and east in parts.
- Visual influence of electricity transmission lines.

Landscape Designations and Rights of Way:

- No landscape designation
- Public right of running along the eastern boundary of the site.

Baseline Landscape Character and Features: Site Survey

The proposed site is an industrial estate on the southern edge of Corsham. The site follows the undulating landform of the area. The buildings within the site are a mixture of light industrial / commercial units constructed of brick and corrugate iron. Some patchy maintained vegetation does exist within the site along with some vegetation along the boundary of the site.

The site has residential properties to the north and south with open landscape to the west and east. Due to the topography of the site there are several visual receptors in the vicinity.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium

The site itself has a poor level of landscape quality. Although there is patchy vegetation within the site, this does not add to the overall character.

Due to its current use and location the site has a medium capacity to accept change. Views from the surrounding properties are likely due to the landform of the site. By careful site planning and building control along with screen planting these views could be minimised and improve the landscape quality of the site.

Potential Landscape Impacts

- Increase views into the site depending on the scale of the new development.

Potential Landscape Mitigation Measures

- Facilities to be small to medium in scale, below 3 storey.
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into minimise impact on the surrounding landscape as well as increasing the quality of the landscape within the site.

The following 'Broad Management Objectives' for the Limestone Lowland in the Wiltshire Landscape Character Assessment are relevant to the site:

- Conserve the network of hedgerows, hedgerow trees and woodland copses and take opportunities for new planting where this will strengthen local character (for instance avoiding planting that will affect the open views in the high ground at the west of the area).
- Conserve the remaining areas of ecological interest such as those with statutory designations, areas of ancient woodland, veteran hedgerow trees and chalk grassland.
- Maintain the subtle variations that occur throughout the landscape, encouraging local distinctiveness for instance in the variation in field boundaries from hedgerows to stone walls.
- Resist urbanisation of the country lanes through addition of road markings and concrete kerbs.

Table B.1.13.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residential properties to the north (southern edge of Corsham)	High	Minimum / Moderate – depending in type, location of new development	Facilities to be small to medium scale and less than 3 storeys high, therefore limiting potential views. Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Residential properties – South Leaffield	High	Moderate – due to the close proximity and rising ground most of the estate is visible	
Residential properties – Neston	Low	Minimal / moderate – obtuse angle to site means only glimpsed views can be seen	

Summary: Residual Landscape and Visual Impacts

Although the site several visual receptors in close proximity, its ability to accept change remains good due to the current character and use of the site. Through careful site planning and building control, along with screen planting, these views should be mitigated.

Recommended Further Landscape and Visual Surveys

- Summer-time footpath surveys to west of site
- Night time visual survey

B.1.13.3 Noise

Introduction

The site at Leaffield Industrial Estate, Corsham has been allocated for the following uses, and as such has been assessed in regard to noise from the following:

- Household Recycling Centre;
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On the path between the industrial estate and the rear of No.30 Elly Green, which is located on the south eastern boundary of the allocated site; and
- At the residential car park on Curlcroft Road which borders the north western boundary of the allocated site.

The proposed site is located within land that is currently occupied by a current industrial estate. The site is bounded to the north and south by rural roads and to the east and the west by farm land.

Baseline

Background noise measurements were undertaken on 8th February 2010, with meteorological conditions being overcast with light winds. The current noise environment around the allocated site is dominated by noise from the industrial estate and local road traffic.

Consecutive background noise measurements were taken at Elly Green and Curlcroft Road. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.1.13.3.1 - Elly Green - Background Noise Levels (File #88)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:33:48	00:05:00	49.8	64.0	45.8	50.8	49.1	47.6
12:38:48	00:05:00	48.7	54.3	46.0	49.7	48.3	47.5
12:43:48	00:05:00	49.9	68.2	45.8	51.0	48.4	47.4
12:33:48	00:15:00	49.5	68.2	45.8	50.5	48.6	47.5

Table B.1.13.3.2 - Curlcroft Road - Background Noise Levels (File #89)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
13:02:38	00:05:00	45.4	57.4	43.0	46.1	44.9	44.3
13:07:38	00:05:00	48.0	59.7	42.9	49.3	46.5	44.8
13:12:38	00:05:00	48.4	65.0	43.2	48.9	45.9	44.8
13:02:38	00:15:00	47.5	65.0	42.9	48.1	45.8	44.7

The average background noise levels (L_{A90}) at Elly Green and Curlcroft are taken as being 47.5 dB and 44.7 dB, respectively.

Assessment Suitability

The site is on an existing industrial estate with residential properties on the southern and northern boundary.

There is little or no acoustic screening to the residential properties but with careful siting the area is deemed suitable for the intended uses with respect to noise.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required, the location of which would depend on the siting of the facility. The facilities should be sited as far away from the southern and northern boundaries as practical and at least 150m from any residential dwelling.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.1.13.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is located to the southwest of Corsham within an established industrial estate. The Industrial Estate covers an area of approximately 18ha and has a mix of B2 & B8 type employment uses. There are currently two accesses to the existing site.

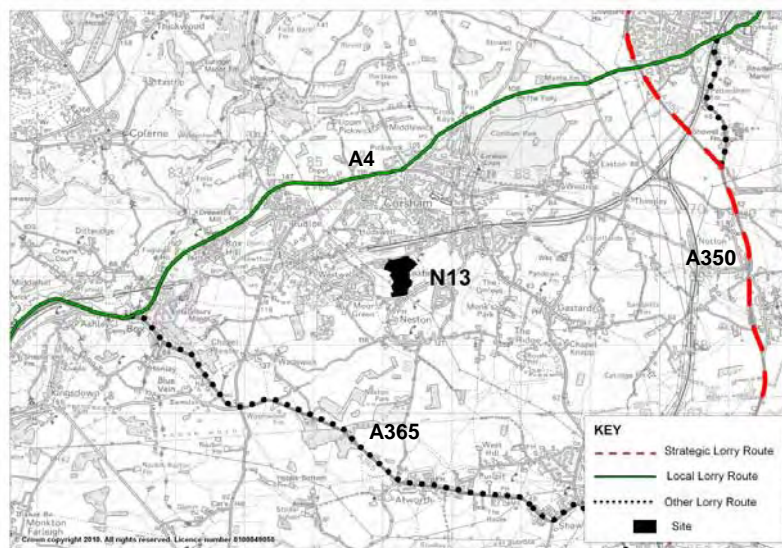
It is proposed that the waste facility is located within this Industrial Estate, however, the exact location and site area of the proposed site is unknown. As such this appraisal has considered the two accesses to the estate but not the specific site access within the site. The site is allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.13.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.1.13.4.1** shows that the site is located approximately 3 miles west of the A350 (Strategic Lorry Route).

There are two routes to the A350. The first is to the north of the site via numerous residential roads and then the A4, which is classed as a Local Lorry Route. The second route is to the south of the site, again via numerous residential roads and then the A365, which is classed as an ‘Other’ Lorry Route and therefore is only to be used where it is essential to gain access. The preferred route to the site is considered to be via the A4 to the north.

Figure B.1.13.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.1.13.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.13.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
	12,000	70	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

There are currently two accesses to the existing site, from Potley Lane to the north and from Elley Green in the south. Both accesses are in the form of priority T junctions. To the west of both access junctions there are 7.5T environmental weight restrictions to protect the residential amenity of the Greenhill area.

Visibility at the Potley Lane access in both directions is good, however, visibility at the Elley Green access is sub standard in both directions. **Figure B.1.13.4.2** below shows the visibility from the site onto Elley Green. Whilst visibility is below standard traffic speeds are low and therefore should be acceptable for a small scale facility, however, a safety audit would be required.

Figure B.1.13.4.2 - Visibility from Site onto Elley Green



Visibility to the left



Visibility to the right

Transport Environmental Impacts

All roads that link the site to the strategic highway network pass through a number of small settlements.

North of Site (for access via A4)

As stated previously the preferred route to the site is via Corsham to the northeast. The impact on Corsham, is likely to be minimal as residential properties are set back from the main carriageway, however, residential properties in the immediate vicinity of the site are more likely to feel adverse impacts associated with the proposed development. These impacts include the effects of noise and vibration associated with the transportation of waste.

South of Site (for access via A365)

Along the secondary routes to the south and southeast, numerous residential properties are located immediately adjacent to the narrow local roads. In addition, a Primary School is located within the village of Whitley. A zebra crossing is located outside this school and the road narrows to just 5.4m. On-street parking was also observed along this southern route, creating sections of narrow carriageway (4m in some places). It is recommended that access to the site for HGVs is restricted to/from the north for reasons set out above.

Off Site Highway Network

Despite the residential settlements, mentioned above, two main routes are currently signed, to the existing estate, from the A4 to the north and the A365 to the south. 7.5 tonne weight limits currently restrict access from the site to the east.

Northern Route

The northern route passes through the western side of Corsham along Potley Lane. Potley Lane is subject to a 30mph speed limit and varies in width between 6 - 6.5m. At the end of Potley Lane the road becomes Valley Road and continues over a railway track via a very narrow bridge. This bridge has a narrow footway (approximately 1.6m wide) and a very narrow carriageway of 3.0 metres. Priority is given to northbound traffic at this bridge and is enforced by give-way markings on both sides of the bridge along with "priority given to oncoming traffic" warning signs.

Valley Road connects the site to the B3353 via a mini roundabout and the B3353 connects to the A4 via another mini roundabout. Both mini roundabouts offer adequate visibility in all directions, however, capacity issues were observed at the A4 / A3353 mini roundabout during an off peak period. Most vehicles at this mini were observed to travel between the two A4 arms, therefore offering very few gaps for vehicles to turn right onto the A4 from the B3353. If the proposed site use is an MRF or WTS then the site may have an impact on this junction during the peak periods when staff arrive at the site. If the proposed site use is a HRC or LR then the impact, will largely

be at weekends and may therefore not be an issue. Nevertheless capacity assessments would be required.

Southern Route

The southern route to the site is signed through numerous residential settlements. Along this route the speed limit varies between 30mph and the national speed limit as the road passes through the small settlements. This route passes through the southern boundary of Corsham, Gastard, and Whitley. The carriageway varies between 5.4m and 6m throughout the route.

After passing through Whitley the B3353 connects the site the A365 via a signalised junction. This junction offers adequate visibility.

This southern route is signed from the B5335 / A365 signalised junction and offers the most direct route to the southern strategic highway network. However, for reasons outlined in the transport environmental impacts section of this report it is recommended that access from the south be restricted to light vehicles only with HGV access restricted to the northern route. The southern route is via the A365, which is classed as an 'other' lorry route and should only be used where it is essential to gain access. In this case it is not essential to gain access via this route as there is a more appropriate route to the north.

Accessibility by Sustainable Modes

There is a bus stop located on southern access to the site and also about 130 metres east of the northern access. These bus stops provide regular half hourly services to Corsham and Moxhams.

Footways are present on both sides of the industrial estate access road. These footways connect to footways located on both Potley Lane and Elley Green.

Despite these sustainable facilities, it is unlikely that visitors to the proposed site will use sustainable modes of transport given the nature of a waste facility site. The good bus and pedestrian facilities do however offer staff a good alternative to the private car.

Constraints

The main constraints identified at this site are:

- Northern route:
 - Narrow bridge (3.0m carriageway) over the railway track with one-way priority; and
 - Potential capacity issues at the A4 / B3353 mini roundabout junctions during peak periods.
- Southern Route:
 - Narrow roads with residential properties fronting onto the carriageway;
 - Numerous residential settlements located along the route;
 - On-street parking is evident at numerous locations along this route, which narrows the road to 3.5m in places (i.e. vehicles have to give-way to oncoming vehicles)
 - A primary school is located along the route; and
 - The visibility at the southern site access is substandard however vehicle speeds are low.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N13/001** in **Appendix D**.

Mitigation

No highway mitigation is proposed, however, appropriate HGV routing is required which includes signing and contractual agreements with the operator to ensure the impact on sensitive land uses is minimised. The preferred routing to the site is via the A4 to the north of the site, although both the north and south routes are currently signed.

In order to ensure a minimal impact on the existing industrial units the site should be located at an appropriate location within the industrial estate.

A capacity assessment will be required at the mini roundabout junction between the A4 and the B3353 to confirm whether existing capacity issues will be exacerbated by the waste facility proposals.

Cost of Mitigation

The only cost associated with the proposal is likely to be that of signing of the most appropriate access route.

Recommendation

The site offers the following advantages:

- Accessibility to the site by foot is very good for people living in the immediate local area;
- Accessibility to the site by public transport is very good for people living in nearby villages;
- The site is currently an existing industrial estate with some existing HGV movements; and
- Visibility in both directions is good at the Potley Lane access (the preferred site access) with no need for mitigation;

The following issues/constraints have been identified:

- Both signed routes to the site pass through residential settlements;
- The southern route to the site passes by a primary school, roads as narrow as 5.3 metres, and residential properties that front directly onto the edge of a narrow carriageway;
- The northern route to the site passes over a very narrow bridge (3.0m carriageway with give-way priority in operation);
- The mini roundabout junction between the A4 and the A3353 along the northern route is likely to be congested during peak periods; and
- Visibility from the southern access is poor.

The site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report. It is recommended that access for HGVs is restricted to the north through signing and routing agreements. Access for light vehicles from the south is deemed acceptable.

A transport Assessment will be required for this site to determine the impact of traffic generated by the various proposed uses on the highway network.

B.1.14 Porte Marsh Industrial Estate, Calne (Site Ref N14)

B.1.14.1 Introduction

This section presents a review of the assessment for the individual sites located within the North area, in the following context:

The site extends to 33 ha and is located on the northern fringe of Calne which is approximately 9.5km east of Chippenham. The site is an existing industrial estate with a number of points of access onto the A3102. The site is delineated to the north by the A3102 Beaverbrook Road and to the east by the A3102 Oxford Road, the southern boundary of the site is formed by the new and expanding areas of residential development and schools in northern Calne. There are no Public Rights of Way running through the site.

The Beverbrook Deserted Medieval Village Scheduled Ancient Monument is located to the north of the site. There are several County Wildlife Sites including Calne Sandpit, High Penn Farm and Whitley Farm Meadow located to the east and north west of the site. The site lies in proximity to the nearby North Wessex Downs AONB

The site is not allocated in the adopted North Wiltshire Local Plan although an employment allocation is located to the north east of the site. The emerging Wiltshire Core Strategy identifies the industrial estate as an area for future employment and also proposes a large residential expansion area to the east of the site beyond Oxford Road.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use. Others of particular note include:

Reference: 08/02438 Outline application for residential development, including infrastructure, ancillary facilities, open space and landscaping. Construction of a new vehicular access on land off Sandpit Road, Clane, Wiltshire.

Reference: 07/01614 Redevelopment of military establishment, involving demolition of buildings, external alterations to retained buildings, erection of new buildings, creation of new vehicular / pedestrian access off Westwells road and associated works including; alterations to existing car parks and creation of new car parks, new internal roads and footways, etc. on land at Basil Hill Barracks, Park Lane, Corsham SN13 9NR.

Reference: 07/01615 Erection of 30 Modular Single-Storey Buildings for Use as offices, to be Arranged in two Storey Blocks, for a Temporary period of three years and creation of temporary car park on land at Basil Hill Barracks, Park Lane, Corsham SN13 9NR.

Reference: 07/01902 Change of Use from Sargents Mess (Sui-Generis) to Pre-School Nursery (Ages 1-5 years) on land at Portway House, Park Lane, Corsham Wiltshire SN13 9NR

B.1.14.2 Cultural Heritage

Introduction

The Porte Marsh site is a modern industrial development comprising 27ha to the northeast of Calne. It has been extensively developed for light industrial use with modern housing to the east. The site has been proposed for the location of a Materials Recovery Facility / Recycling plant.

Previous archaeological evaluation field works within the site has revealed evidence of Roman period and Medieval settlement. The northern boundary of the site lies immediately adjacent to a Scheduled Monument, recorded in two parts (**N14-e** and **N14-f**), comprising the well preserved earthwork remains of a deserted Medieval village and a Medieval hollow way associated with Beversbrook deserted village (SM31656). With the exception of the Porte Marsh Industrial Estate on its southern boundary the setting of this asset comprise predominantly open agricultural and common land. There are five Listed Buildings within the 500m study area (**N14-h, N14-i, N14-j, N14-k and N14-d**), the latter, recorded but now demolished. All are screened from the site by other buildings and their setting would not be adversely affected by development.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique Asset Number (i.e. N14-a, b, c, etc).

Designated heritage assets within the site

- There was one Grade II Listed Building recorded within the site (**N14-d**) – now demolished
- There is one Scheduled Monument (**N14-e and N14-f**) adjacent to the northern boundary of the site and lying partially within it

Table B.1.14.2.1 – Designated Heritage Asset within the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
N14-d	<i>Barn to south east of Lower Beversbrook Farmhouse. Late 17th or early 18th Century, timber-framed clad in weatherboard with corrugated iron roof. Demolished.</i>	436219	Grade II LB	ST9992,472531
N14-e	<i>Well preserved deserted Medieval village (DMV) earthworks. The earthworks are linear in plan, 500m long with a hollow way running almost the whole length on the eastern margin. Flanking this to the north west is a series of long rectilinear platforms. At the north east end of the hollow way, the earthworks broaden into a series of well defined square platforms and enclosures. Forms part of Scheduled Monument SM31656 recorded immediately north of the site.</i>	SU07SW450	Scheduled Monument	SU00417291
N14-f	<i>A Medieval hollow way associated with Beversbrook deserted village was sectioned during an evaluation excavation in 1999, Pottery and animal bone was found. Forms part of Scheduled Monument SM31656 recorded immediately north of the site.</i>	SU07SW466	Scheduled Monument	SU00057263

Designated Heritage Assets within or close to the Study Area

There are four other Grade II Listed Buildings (**N14-h, N14-i, N14-j, N14-k**) recorded within the study area

Table B.1.14.2.2 - Designated Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
N14-h	<i>Lickhill House – 18th Century with 19th Century alterations. Recorded c.450m southwest of the site.</i>	456534	Grade II LB	ST9929,7226
N14-i	<i>Elmfield house and attached rear garden wall and outbuildings. Recorded c.450m southwest of the site.</i>	456533	Grade II LB	ST9938,7213
N14-j	<i>Nos.72 & 74 St Dunstan's. Mid 19th Century, altered late 20th Century. Recorded c.500m south of the site.</i>	456535	Grade II LB	ST9947,7204
N14-k	<i>Bricklayers Arms Public House – Mid to late 19th Century. Recorded</i>	456746	Grade II LB	SU0037,7198

	c.100m south of the site.			
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Heritage Assets within the Site

Three heritage assets are recorded within the site, known through archaeological evaluation.

Table B.1.14.2.3 - Heritage Asset within the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
N14-a	<i>Linear feature - A ditch excavated during an evaluation in 1994 produced Romano-British pottery fragments. Many more sherds found during evaluation in 1999 which promotes the suggestion that a Romano-British settlement site is close by.</i>	SU07SW307	None	SU0049,7280
N14-b	<i>A Medieval pottery fragment was found during an evaluation excavation in 1994.</i>	SU07SW462	None	SU0049,7280
N14-c	<i>Romano-British pottery was found during the evaluation of the medieval hollow way associated with Beversbrook DMV (N14-d). The quantity was enough to suggest a settlement nearby, perhaps even pre-dating the Medieval settlement.</i>	SU07SW309	None	SU0050,7263

Heritage Assets within or close to the Study Area

Table B.1.14.2.4 - Heritage Asset within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
N14-g	<i>Site of geophysical anomalies recorded in advance of existing housing development. They were thought to indicate the site of a Romano-British wooden farmstead. Pottery of this date was found after earthmoving. Recorded c.250m west of the site.</i>	ST97SE316	None	ST9966,7231

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic or Bronze Age heritage assets are recorded on the WSMR within the study area.

The Iron Age (700 BC – AD 43)

No Iron Age heritage assets are recorded on the WSMR within the study area.

The Roman Period (AD 43 – AD 450)

Previous archaeological evaluation within the site (Oxford Archaeology 1994, 1999) has revealed extensive evidence of Romano-British pottery and buried ditch features (**N14-a** and **N14-c**), suggesting the potential of a settlement site within the area. Further Romano-British material (**N14-g**) was revealed during the development of the housing estate c.250m west of the site (GSB Prospection, 2003).

The Early Medieval Period (AD 450 – AD 1066)

No Early Medieval heritage assets are recorded on the WSMR within the study area, although the adjacent Scheduled Monument may have Early Medieval precedents. It was recorded as 'Bevresbroc' in the Domesday Book (AD1086), suggesting it had been established before the 11th Century.

The Medieval Period (AD 1066 – AD 1547)

The Medieval settlement (**N14-e**) adjacent to the site was recorded as 'Bevresbroc' in the Domesday Book of AD1086. The site comprises extensive well-preserved earthworks, linear in plan, 500m long with a hollow way running almost the whole length on the eastern margin (**N14-f**). Flanking this to the northwest is a series of long rectilinear platforms. At the northeast end of the holloway, the earthworks broaden into a series of well defined square platforms and enclosures. Most prominent of these is a square platform 1.5m high surrounded by a moat 1m deep and 4m wide. The village was presented a chapel in 1298. Ridge and furrow abuts the earthworks to the north and east. The site was partially excavated in 1986 (Wiltshire Rescue Archaeology Project) and the holloway evaluated in advance of construction of the existing distributor road in 1999 (Oxford Archaeology). The site was designated a Scheduled Monument in 1979.

A Medieval pottery sherd (**N14-b**) was identified during archaeological evaluation in 1994 (Oxford Archaeology). The hollow way was sectioned during the construction of the distributor road in 1999 (Oxford Archaeology), revealing evidence of pottery and animal bone (**N14-e**).

The Post-medieval Period (AD 1547– c.1900)

A number of Grade II Listed post-medieval buildings are recorded within the study area. These are largely of 18th and 19th century date with 20th century alterations (**N14-h**, **N14-i**, **N14-j** and **N14-k**). All are screened from the site by other buildings. The one Listed Building recorded within the site (**N14-d**) is no longer extant – presumably demolished in advance of the building of the large shed currently on this site.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded within the study area on the WSMR. The site has been extensively developed as a business and industrial park since the mid 20th century. The surrounding area has also been extensively developed for housing in the late 20th / early 21st century.

Significance of Heritage Assets

The heritage assets within the site are significant in that they provide an indication of the potential for the presence of further archaeological deposits.

The significance of the Scheduled Monument adjacent to the northern boundary of the site is high. Its setting is significant in that it currently retains its historic character in an area otherwise extensively developed. Further development immediately adjacent to the Scheduled Monument would erode the significance of the setting.

Assessment Suitability

Previous archaeological evaluation field works within and immediately surrounding the site (**N14-a**, **N14-b**, **N14-c** and **N14-f**) has revealed the presence of deposits and the potential for further discoveries relating to the adjacent Medieval settlement and possible Romano-British activity. The need for further archaeological evaluation is dependent on the nature of the proposed scheme; if the proposed Materials Recovery Facility / Recycling plant is to be housing within an existing

structure no further archaeological evaluation will be required. If a new build structure is required, then further archaeological evaluation is recommended in advance of development.

Development should consider the setting of the Scheduled Monument to the north of the site (**N14-e, N14-f**). Large scale development in the currently vacant plot at the northern end of the site may negatively impact on its setting by interrupting views and further eroding the rural character of the monument. Further tree screening along the boundary may in itself impact on buried archaeological remains.

The Listed Buildings (**N14-h, N14-i, N14-j** and **N14-k**) are all screened from the site by other buildings. There would be no impact on their setting.

Mitigation

Preference should be given to locating waste facilities within – or on the site of - an existing building. This would eliminate the potential for impact on archaeological deposits and the setting of the adjacent Scheduled Monument.

New build should be avoided within the vacant plot to the north of the site so as to limit the impact on potential buried archaeological deposits associated with the adjacent Scheduled Monument. Avoiding development in this plot would also reduce the potential for negative impact on the setting of the Scheduled Monument.

Should no alternative site be feasible, development should be preceded by an archaeological evaluation. This in turn will inform the need for further archaeological evaluation. Depending on the results of any further investigations, a programme of archaeological works might be required to mitigate the potential adverse affects of development on significant buried remains. A proportionate and industry standard response to mitigate the potentially adverse impacts on the archaeological interest of the heritage assets could be for an archaeological excavation to take place in advance of ground disturbing works. This excavation would allow for archaeological recording of any discovered remains and the removal and retention of any recovered artefacts to take place. The scope of any programme of archaeological works should be agreed in advance with the Wiltshire County Archaeologist.

Should screen planting be required it should be located within the plot adjacent to any new build and not along the northern boundary of the site to avoid impact and encroachment on the adjacent Scheduled Monument.

The Listed Buildings recorded within the study area are all screened from the site by other buildings. No mitigation is required.

Recommendations

This assessment has identified that potential buried archaeological remains could survive within the site. Further information is required to better understand the significance and extent (or location within the site) of these remains.

Preference should be given to locating the proposed waste facility within – or on the site of – an existing building. This would exclude the need for any further assessment. If, however, new development is required, preference should be given to locations other than the vacant plot to the north of the site to avoid impact on the setting of the adjacent Scheduled Monument.

Further investigations could take the form of a programme of field surveys comprising geophysical survey followed by trial trenching. The results of these investigations could be used to inform a mitigation strategy. This strategy could involve the locating of ground disturbing works away from known areas of significant buried remains. The scope of any programme of archaeological investigations should be agreed in advance with the Wiltshire County Archaeologist.

Conclusions

The site lies adjacent to a Scheduled Monument, the earthwork remains of a deserted Medieval village. Previous archaeological evaluation within and immediately surrounding the site has

revealed the presence of deposits and the potential for further discoveries relating to the adjacent medieval settlement and possible Romano-British activity.

Preference should be given to locating waste facilities within – or on the site of - an existing building. This would eliminate the potential for impact on archaeological deposits or setting on the adjacent Scheduled Monument. Further archaeological evaluation would be required where new build is required.

Development should be avoided within the existing vacant plot to the north of the site to avoid impacting on the setting of the Scheduled Monument. Should this not be feasible, new build should be screened by new planting located within the plot and not on the site boundary (otherwise this may further impact in buried archaeological deposits).

B.1.14.3 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

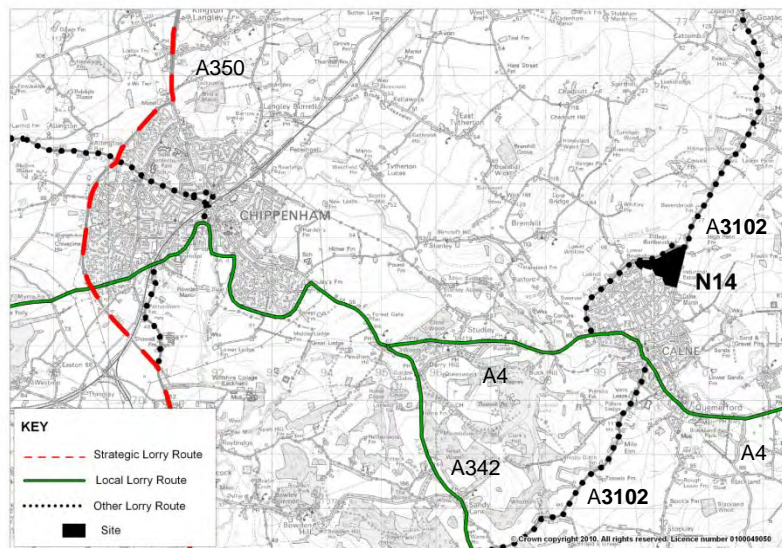
The 33ha site is an established industrial estate enclosed by the A3102 Beversbrook Road and Oxford Road. The estate has a mix of employment uses. It is proposed that the waste facility is located within this estate however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junction to the estate but not the site access within the wider site. The site is allocated for a local scale recycling facility. The site is 1.9km north of Calne town centre and is allocated for a local scale waste facility in the DPD.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.1.14.3.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.1.14.3.1 shows that access to the site is gained via the A3102 Beversbrook Road (an ‘other’ lorry route) and Oxford Road. ‘Other’ lorry routes, by definition, are only to be used where it is essential to gain access. The roads within the industrial estate are not designated as lorry routes, whilst access into the site can be gained from several roads within the estate, as well as those making up its borders.

Figure B.1.14.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B1.14.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.1.14.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

As the site is so large, it is can currently be accessed off Beversbrook Way (A3102) to the west of the site and Oxford Road to the east, with Stanier Road within the site linking these two access roads together. As the site is so large and the precise location of the proposed facility unknown, all major accesses were assessed. These are:

- Beversbrook Road/Stanier Road;
- Oxford Road/Stanier Road; and
- Beversbrook Road/northern vacant plot access.

Beversbrook Road (A3102) is 7.3m wide and is subject to a 50mph speed limit. The Beversbrook Road/Stanier Road junction is a priority T-junction with a right turn ghost island. The speed limit is 50mph on the A3102 here, but 30mph upon entering the industrial estate on Stanier Road. Visibility exceeds 300m in both directions at the junction, which is considerably higher than the recommended visibility of 160m as set out in DMRB²⁷. Stanier Road is over 7m wide.

²⁷ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

The Oxford Road/Stanier Road junction is also a priority T-junction. Oxford Road is approximately 7m wide. A right turn ghost island is also provided at this junction. Visibility exceeds 170m at this junction, which meets the DMRB standards.

The final junction is located 390m northeast of Stanier Road and is accessed off Beversbrook Road. It too has a right turn ghost island. This access road is essentially a 30m 'stub' access to a vacant plot of land within the site which may be the location of the proposed facility; however this is unknown at the time of the writing of this report (**Figure B1.14.3.2**). The access road is also 7.3m wide. Visibility here exceeds 200m to the north (**Figure B1.14.3.2**), and 350m to the south (**Figure B1.14.3.3**), which is higher than the DMRB standard of 160m.

It is considered that all access points discussed above are suitable for the proposed uses.

Figure B.1.14.3.2 - Visibility along A3102 from Access Road to Vacant Plot



Visibility to the South

Visibility to the North

Figure B.1.14.3.3 - Existing Site Access for Vacant Plot to North of Site



Transport Environmental Impacts

The site is located to the north and east of significant residential developments, and lies to the north of Calne town centre. Within the site there are no residential properties however, many properties do overlook the southern half of the site where there is no screening provided. There are no residential properties to the north and west of the site, thereby making the vacant plot to the north of the site the most attractive. There were no weight or height limits observed in the immediate vicinity of the site, although Oxford Road, between Calne town centre and Porte Marsh Road is unsuitable for large vehicles due to the road width and turning movements. As a result, all traffic to/from the site should use the A3102 (an 'other' lorry route) and then A4 (local lorry route) if heading east, west or south. Stanier Road can then be used to access any part of the industrial estate.

A 1.8m footway is provided along the length of the A3102 on the south side of the carriageway. This provision is also available on both sides of the carriageway within the site itself and on the majority of the west side of Oxford Road.

Providing HGVs are appropriately routed the impact on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal.

Off Site Highway Network

The A3102 Beversbrook Road forms a 3 arm roundabout to the north of the site with Oxford Road. The road continues north through Lyneham and Wootton Bassett before reaching the M4 at junction 16. North of Lyneham it becomes part of the local lorry network. The A3102/Oxford Road roundabout has sufficient width to allow HGVs to navigate the junction safely. On site observations demonstrated low traffic flows, which would indicate that capacity at the junction is not likely to be affected by the proposals. However, a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes.

There are also two roundabouts on the A3102 before the junction with the A4. These both provide sufficient geometry for HGVs to make the straight ahead movements along the A3102. The A4/A3102 roundabout to the west of Calne has also been designed to a sufficient standard for HGVs to navigate it. Traffic flows did appear high at this junction during on site observations, and a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes. The A4 links to Chippenham to the west and Marlborough to the east. The A3102 can also be accessed to the south of Calne to provide access to Devizes (via the A342).

Accessibility by Sustainable Modes

A 1.8m footway is provided along the length of the A3102 on the south side of the carriageway. This provision is also available on both sides of the carriageway within the site itself and on the majority of the west side of Oxford Road. No separate cycling facilities are provided. Dropped kerbs, tactile paving and central refuges have been provided where appropriate throughout the site and surrounding area.

The nearest bus stops are located on Oxford Road, near to the junction with Stanier Road, whilst a stop also exists along Stanier Road itself, within the industrial estate.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/N14/003** in **Appendix D**.

Constraints

The main constraints identified at this site are:

- The level of residential properties located close to the industrial estate;
- Some on street parking was observed on Stanier Road and some other minor roads within the industrial estate; and
- Calne town centre may be a pinch point in terms of congestion and needs further investigation as the A4 (local lorry route) routes via the town centre towards Marlborough and Devizes (via the A3102 and A342).

A plan showing the constraints is presented as drawing no. **5044619.017/TP/N14/001** in **Appendix D**.

Mitigation

No mitigation is proposed at this site as the existing access roads are to a suitable standard and so is the local highway network. All vehicles to/from the site should be encouraged to avoid Oxford Road as a shortcut through Calne, and made to route via the A3102 and A4.

Recommendation

The site offers the following advantages:

- It has existing accesses to a suitable standard;
- It is located close to the lorry network with the A3102 (other lorry route) and A4 (local lorry route); and
- There is already a large vacant plot available to the north of the site, furthest from the residential developments and with an existing access junction to a suitable standard.

The following issues/constraints have been identified:

- The site is located adjacent to a large residential development to the south and west;
- Some on street parking was observed within the industrial estate itself; and
- A congestion issue may exist in Calne town centre in peak hours.

In conclusion, the proposed site is considered appropriate for the proposed uses. However, further investigation is required into the impact the traffic will have on Calne town centre on the A4, and to assess capacity on the roundabouts of the A3102 and A4 in the immediate vicinity.

B.2 East Wiltshire

B.2.1 Castledown Business Park, Ludgershall (Site Ref E1)

B.2.1.1 Introduction

The site extends to 14 ha and is located on the A3206 between the village of Ludgershall and the military camp of Tidworth which is approximately 30 km north east of Salisbury. The site consists of a large open meadow, although it is described as a brownfield site and allocated for employment use. Hedgerow runs along the to the north-west and south-west boundaries which respectively provide some screening to a military depot and Castledown School located approximately 115m to the south-west of the site. Access to the site is gained from the A3026 which forms the south-eastern boundary. Beyond the site to the north and west, the land gently rises, forming a wooded backdrop to the site and village of Ludgershall. To the north of the site are railway sidings.

The site is located in proximity to a number of designated sites including Windmill Hill Down County Wildlife Site is located 0.5km to the west of the site and a Priority Habitat area 0.5km to the west, ancient woodland in North Wessex Downs AONB 0.9km to the north. In addition, one SAM is located approximately 0.4 km to north east and one 1.5km to the south of the site. The Salisbury Plain SAC/SPA / SSSI is located 2.4km to the west of the site.

The site is allocated as Employment land designation ED1 and ED6 in the Kennet District Local Plan and the emerging Wiltshire Core Strategy proposes a substantial allocation for Housing / Mixed use immediately to the north of the site. Such an allocation is also proposed to the south east of the site; however this is further away from the site and less likely to be affected by activity at the proposed site.

A number of planning consent have been granted in the area since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, others of particular note include:

Reference: E/09/0361/WCC - Two & three storey new build academy for 11-18 year olds. Refurbished sports building with single and two storey additions. New build three storey boarding house for 100 pupils and support staff. Single storey building for combined cadet force and ener... School to the west of the proposed site. 2006

Reference: E/09/0146/FUL - Extension to existing buildings to link two blocks of small incubation industrial units and change of use of three of the incubation units to form a support and innovation centre (Class D1 use). Relocation of existing bin and cycle stores, additional... Development within the proposed site. 2009

Reference: K/55572/F - 23 residential units, Old Brewery site Tidworth Road Ludgershall Wilts. 2007

Reference: K/54122/F - Erection of 19 dwellings following demolition of existing buildings, The Old Brewery, Simonds Road, Ludgershall. 2006

Reference: K/58386/F - New detached bungalow, Land adjacent 48 Astor Crescent Ludgershall SP11 9RF. 2008

Reference: K/55681/F - New detached dwelling, Land adjacent to 48 Astor Crescent Ludgershall Wilts 2007

B.2.1.2 Landscape and Visual Impact

Introduction

The site is located on the A3206 between the village of Ludgershall and military camp of Tidworth. The site currently consists of a large open ground, partially stripped to bare ground with some sparse vegetation. Earth bunds with self seeded grass run along the adjacent A3026. The site it is described as a brownfield site and allocated for employment use.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Military structures, airfields, tracks and signs.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: High Chalk Plain

Landscape Character Area: Salisbury Plain East

Key characteristics relevant to the site:

- Settlement limited to a scattering of small villages and military installations including camps and abandoned or specially constructed villages used by the army for training operations.

Due to its flat, enclosed character, in close proximity to the Ludgershall and Tidworth and associated MoD barracks, the site is not typically characteristic of the remote, open rural character of the High Chalk Plain landscape type in terms of its visual and vegetative quality. It is, however, strongly influenced by its military setting, a human influence that strongly dominates the Salisbury Plain, making it more intimate in places.

WCC recognises the negative impacts of military activity within the area, but considers that the overall condition of the Chalk High Plain landscape is 'good' and with a 'strong' sense of character.

WCC state that landscape sensitivities in this area typically relate to the open and exposed nature of parts of this landscape type and its management strategy is to conserve its open and isolated character and the vast areas of calcareous grass land and sites of historic interest. This strategy is not directly relevant to this site.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: Chute Forest

Key characteristics relevant to the site:

- Extensive deposits of clay with flints over the chalk, give the area an appearance similar to that of the Hampshire Downs rather than the wide open spaces of Salisbury Plain.
- Rolling, wooded downland dissected by a number of dry valleys, creating a much more intimate landscape than the wide open spaces of other chalk downlands of the District.
- The military presence in the south west corner of the area is significant and associated with the settlements of Ludgershall and Tidworth, the latter of which is a major army garrison.
- Light spill from Tidworth, is a visually intrusive features in the landscape.
- Field systems are generally post-medieval in origin.

Landscape Designations and policies:

- The North Wessex Downs AONB lies to the north of Ludgershall, approximately 1Km away from the site.
- The site lies close to a Special Landscape Area.

Baseline Landscape Character and Features: Site Survey

The site consists of large open flat ground lying at approximately 130m AOD. The surrounding area is underlain by upper chalk, although the typical characteristics associated by this geology have been eroded by the military setting of the site. The site has been partially developed since 2006 and now includes single storey offices and small industrial sheds in grey profiled steel and brick. A feature building has been added to the main entrance comprising of timber beams and PV glazed panels. Internal tarmac roads and landscaping has been carried out. The site is described as brownfield and is allocated for employment use. As such this assessment must assume that the rural character of the site will ultimately be lost, regardless of its potential for waste management.

The site currently consists of large open ground with the military depot to the south east and school to the east. Its boundary to the south-east, along the A3026 is weak, consisting earth bunds. Beyond the site to the north and west, the land gently rises, forming a wooded backdrop to the site and village of Ludgershall. To the south-east of the site, on the other side of the A3026, an MoD barracks gives a strong military setting to the site.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Good

Capacity to Accept Change in Current Site Condition: Low

Capacity to Accept Change Following Construction of Business Park: Medium / High, depending on location within site.

Potential Landscape Impacts

- Erosion of rural landscape character (although this could be lost in any event, with construction of a business park)

Potential Landscape Mitigation Measures

- Sensitive site planning of facilities to minimise impact on views from A3026 and adjacent school
- Use of native and evergreen hedgerows and trees site boundaries to screen views into the site.

The following 'Broad Management Objectives' for the Chalk High Plain landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

The following Enhancement Priorities proposed for the Chute Forest landscape character area in the *Kennet Landscape Conservation Strategy* are relevant to the site:

- Conserve and enhance the woodland matrix as representative of an historic landscape and recognising its importance as a former 'Royal Forest'.
- Maintain existing roadside hedgerows and trees, including avenues, and replace where these have been removed or weakened through neglect.
- Strengthen landscape structure and the quality of boundaries around military areas to reduce the impact of intrusive structures, fencing and land uses.
- Establish strong landscape structure to accommodate existing or new development on the fringes of urban areas and settlements.

Table B.2.1.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor (assuming site to be developed as business park)	Potential Visual Mitigation Measures
Users of A3026	Medium	Slight adverse – no change	Location of waste site away from road. Native and evergreen screen planting.
Employees of MoD depots to north and south of site	Low	Slight adverse – no change	Native and evergreen woodland screen planting.
School Children and employees of school to south-west of site	Medium	Slight adverse– no change	Location of waste site away from school boundary.
Residential properties overlooking site	High	Slight moderate	Location of waste site away from office / business park
Employees of Castledown Business Park	High	Slight moderate	Location of waste site away from office / business park

Summary: Residual Landscape and Visual Impacts

With its current open, semi-rural character, it would be difficult for the site to accommodate works without compromising the rural setting and open chalkland character of the landscape around Ludgershall. However if the site is developed for business use, the residual impact of waste treatment works will be far less. Given the size of the site, with sensitive siting and vegetative screening, the proposals could have a negligible impact on school children, users of the A3026 and employees of the MoD depots to the north and south of the site.

Recommended further landscape and visual surveys

- Further assessment following receipt of business park proposals.
- Night-time visual surveys.

B.2.1.3 Noise

Introduction

The site at Castledown Business Park, Ludgershall has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Household Recycling Centre;
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- West of residential properties on Hei-Lin Way, which are located approximately 160m to the north east of the site boundary; and
- On the corner of Simonds Road and Tidworth Road located approximately 20m to the south of the site boundary.

The proposed site is located within Brownfield land with small industrial/business premises. The site at Castledown Business Park is bounded to the north and east by a railway, and the A3026 (Tidworth Road) to the south.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on the A342, which is located approximately 200m to the north, and the A3026.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.2.1.3.1 - Hei-Lin Way - Background Noise Levels (AU1_0027)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
09:03:00	00:05:00	57.3	68.9	48.6	60.7	54.7	51.1
09:08:00	00:05:00	50.5	59.5	42.3	53.5	49.4	44.9
09:13:00	00:03:00	50.8	57.4	43.4	53.9	49.4	46.0
09:03:00	00:13:00	54.4	68.9	42.3	57.8	51.5	46.2

Table B.2.1.3.2 - Hei-Lin Way - Background Noise Levels (AU1_0028)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
09:22:00	00:05:00	52.1	61.6	45.4	54.7	50.9	47.5
09:27:00	00:05:00	49.0	58.8	42.9	51.8	47.5	45.2

09:22:00	00:10:00	50.8	61.6	42.9	53.8	49.1	45.8
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Table B.2.1.3.3 - Simonds Road - Background Noise Levels (AU1_0029)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
09:36:00	00:05:00	62.5	75.5	36.3	66.5	45.0	38.7
09:41:00	00:05:00	65.3	78.6	40.3	70.2	55.7	43.1
09:36:00	00:10:00	64.1	78.6	36.3	68.9	50.7	40.4

Two measurements were taken at Hei-Lin Way due to interference in the last two minutes of measurement from a dust cart. Therefore the average background noise levels (L_{A90}) at Hei-Lin Way and Simonds Road are taken as being 46.0 dB and 40.4 dB, respectively.

Assessment Suitability

The site is on a partially complete industrial estate.

The site is partially shielded by the railway and existing buildings, and is considered sufficiently large for a facility to be sited away from residential and hence is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required on the eastern and southern boundaries of the facility dependant on its siting. The facilities should be sited as far away from the eastern boundary as practical and at least 150m away from any residential dwelling.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.2.1.4 Water Quality / Environment

Introduction

NGR: 425800, 150580

Location: Ludgershall

Area: 14 hectares

Data Source: Landmark Envirocheck Report 30098199_1_1 (8th Feb 2010) unless otherwise referenced

Table B.2.1.4.1 - Castledown Business Park Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrology: Surface Water – Flow and Quality	The only surface water body within 1km of the site is a very small pond 559m south-east.	No risk posed.	No risk to water feature, however runoff from the site should be controlled with a surface water drainage scheme including runoff collection system and Sustainable Drainage Systems (SuDS).	-
Geology: Stratigraphy	The BGS ²⁸ map indicates that the site is underlain by the Upper Cretaceous Chalk Formation, a soft white chalk with flint nodules. There are no folds or faults in the area.	Potential for a pathway to be created between contamination and the aquifer.	-	To be considered during further assessment.
Hydrogeology: Groundwater – Hydrogeological Units	The site is underlain by a Primary (Major) Aquifer.	Contamination of aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	Surface water drainage scheme including runoff collection system, SuDS and foul drainage. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site.
Hydrogeology: Groundwater – Source Protection Zone	The site itself is not within a SPZ, although a SPZ area 3 is present immediately adjacent to the west of the site.	Risk of contamination of public water supply.	Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design.	Review runoff treatment requirements. Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	The aquifer beneath the site is mostly of intermediate vulnerability, with the westernmost tip being highly vulnerable		Monitoring boreholes (may be required for obtaining operating permit).	
Hydrogeology:	No information on direction of flow		Pollution Incident and Control Plan to be	

²⁸ 1:50 000 Drift geological map (Sheet No. 283, Andover)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Groundwater – Direction of Flow	available.		implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.	
Discharges: Surface Water - Discharge Consents	No surface water discharge consents within 1km of the site.	No risk posed.	-	-
Discharges: Groundwater – Discharge Consents	Site drainage and final / treated effluent; to land, 101m east. Process water and site drainage 880m south-west.	No risk posed.	-	-
Discharges: Pollution Incidents (to controlled waters)	Category 3 (minor) incident to controlled waters – oils, 481m to south and 976m to east.	No risk posed.	-	To be considered as possible source of contamination if any found during investigation.
Abstractions: Surface Water – Abstractions	There are no registered water abstractions within 1km of the site, although private abstractions less than 20m ³ per day may be present.	Risk of contamination of private water supply.	Surface water drainage scheme including runoff collection system, SuDS and foul drainage. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential risk to surface water flow and quality in terms of	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.
Abstractions: Groundwater – Abstractions				

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
			<p>hardstanding, bunding, landscaping and ground level design.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	
Flood Risk	<p>The site is within Flood Zone 1; is greater than 1ha and is underlain by an aquifer.</p>	<p>There is no risk from fluvial flooding however there is a risk of changing surface water runoff causing pluvial flooding. The shallow aquifer also means there is a risk of groundwater flooding.</p> <p>Flooding could interrupt site operations and cause pollution to spread from the site.</p>	<p>Surface water drainage scheme and SuDS design to control runoff.</p>	<p>A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Land Uses	<p>There is a local authority recorded landfill site 800m south-west.</p> <p>There are garage and cleaning services adjacent to the eastern corner of the site, and a variety of trades to the east and south.</p> <p>Railway sidings skirt the site on the west, north and east sides.</p>	<p>Risk that contaminated material could be encountered during works, which would lead to the risk of contaminated run-off leaching down to the aquifer.</p>	<p>Site Waste Management Plan to specify how excavated material is to be handled, stored and disposed of.</p>	<p>Geotechnical investigation and consultation to determine likely contamination issues.</p> <p>To be considered as potential contamination sources if any found during monitoring.</p>
Conservation Designations	<p>North Wessex Downs AONB²⁹ is present 700m north of the site.</p>	<p>No risk posed.</p>	<p>-</p>	<p>-</p>
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	<p>The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.</p>	<p>-</p>	<p>-</p>	<p>-</p>

²⁹ <http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/aonb/northwessex.aspx>

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Household Recycling Centre, Material Recovery Facility / Waste Transfer Station, or Local Recycling centre at **Castledown Business Park, Ludgershall** falls within the following category:

- Few significant issues identified – progress waste site to next stage of assessment

The initial screening indicates that:

- A Primary Aquifer beneath the site, therefore there are potential groundwater contamination issues
- Pluvial and groundwater flood risk
- Potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and a contamination assessment.

B.2.2 Garden Estate, Devizes (Site Ref E2)

B.2.2.1 Introduction

The site extends to 5.6 ha and is located on the north-east fringe of Devizes, to the west of the A361 London Road. The site comprises an existing industrial estate with a mix of B2 and B8 uses. The estate consists of a small number of relatively large units used for distribution and workshop purposes with existing access points on Folly Road and Hopton Road which lead to the A361. A limited amount of mature trees on the site boundaries soften views of the site but do not screen it the site is visible from Folly Road to the west and the residential development to the east.

Housing neighbours the site to the west and a new housing development in the Le Marchant Barracks has significantly altered the use of the area to that of a high density residential area. There is also a Travelodge and food outlet located in close proximity to the proposed site.

The site is located in proximity to a number of designated sites including Roundway Down SSSI and Roundway Battlefield. The North Wessex Downs AONB is also nearby. A SAM is located 1km to the north west of the site but this will not be adversely impacted upon. The site is located on Major Aquifers of both high and also Intermediate Vulnerability.

Potential impacts on nearby residents fronting onto the site, and impacts on a residential home to the east of the site and neighbouring houses directly next to the site boundaries must be considered. Impacts on existing commercial activities must also be considered. A Public Right of Way runs directly through the north of the site

The site is allocated in the Kennet District Local Plan, the site is a Protected Strategic Employment Site (ED7) which is subject to a number of policies including PD1, ED17 and ED25. The emerging Wiltshire Core Strategy does not designate any land uses in the immediate vicinity of the site. There are proposed allocations for Housing/Mixed use to the east and south west of the site, however these proposed allocations are in excess of 500m from the site.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: K/51784/F New Industrial units for B1 (light Industry), B2 (general Industry) & B8 (Storage & distribution) use on land at Hopton Industrial Estate, London Road, Devizes

Reference: K/53963/F Proposed 6 detached houses and garages together with associated drainage and landscaping to land at Le Marchant Barracks, London Road, Devizes

Reference: K/55912/F Proposed redevelopment of existing petrol filling station on land at Roundway Service Station, London road, Devizes Wiltshire SN10 2EP

B.2.2.2 Landscape and Visual Impact

Introduction

The site comprises an existing industrial estate on the north-east edge of Devizes. The estate consists of a small number of relatively large units, some of which are visible from a rural lane to the west (Folly Road) and the A361 (London Road) to the east.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Berkshire and Marlborough Downs

Key characteristics relevant to the site:

- Due to its urban industrial character the site is not typical of this landscape character area, which is generally dominated by open chalk downland.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Greensand Vale

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

Due to its urban, industrial character, the site is not typical of the wider landscape of the area, which generally consists of low-lying chalk foothills with numerous streams, pasture and arable fields. It is, however, flat in character as a result of its vale setting. To the west of the estate, the rural landscape is more typical of this character area, with flat agricultural fields rising up to hillside farmland and woodlands.

WCC judge both the condition and strength of the Greensand Vale Landscape Type to be 'moderate', due to the loss of hedgerows and hedgerow trees and riparian vegetation, urbanisation of rural roads and inappropriate modern development on settlement edges. Views across the open vale landscape are considered sensitive and the overall strategy is to 'conserve' and 'improve' the rural agricultural character of the vale.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

- Due to its urban industrial character the site is not typical of this landscape character area, however the character area is typified by a high number of settlements, of which Devizes is one.

Landscape Designations and Rights of Way:

- The boundary of the North Wessex AONB lies approximately 1 km to the north of the site, north of Roundway.
- The Quakers Walk long distance trail runs within 1 km of the western and northern boundaries of the site (part within AONB)
- The White Horse long distance trail runs approximately 1 km from the northern boundary of the site (within AONB).

Baseline Landscape Character and Features: Site Survey

This is a relatively flat site at approximately 135m AOD, lying on the edge of Devizes. The site appears to date back to at least the 1960s, with a small number of varied 2 storey industrial units, constructed of brick, breeze blocks and metal and used for distribution and workshop purposes; the units are set within wide areas of concrete hardstanding. To the west of the site, the London

Road is similarly urban in character, although recent brownfield residential development appears to be eroding the industrial and military character of the area. A limited amount of mature trees on the site boundaries soften views of the site but do not screen it, even during the summer months. Folly Road, leading to the village of Roundway to the west of the site is rural in character, and the western boundary of the site provides a sharp, urban contrast to this countryside setting.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium

The industrial character of the site and its lack of vegetation and poor scenic quality has eroded its landscape quality. This poor quality combined with the fact that it is generally well screened from the wider public means that it could accommodate change, although this could be limited by the proximity of a number of residential dwellings along the London Road on the eastern boundary of the site.

Potential Landscape Impacts

- Further erosion of rural character of landscape to the west of the site
- Given that the landscape condition of the site is currently poor, there could be opportunities to enhance its landscape character.

Potential Landscape Mitigation Measures

- Planting of strong native and evergreen landscape buffers along all site boundaries, other than to the north-east. These could be on low bunds.
- Sensitive site planning to locate facilities as far away as possible from the London Road and Folly Road.

The following Enhancement Priorities proposed for the Vale of Pewsey landscape character area in the Kennet Landscape Conservation Strategy are relevant to the site:

- Encourage repair, replanting and widespread extension of hedgerow network and development of mature hedgerow trees, using native species typical of this locality.
- Improve landscape structure and land management on the fringes of settlements and along main roads, to mitigate adverse impacts on the landscape.
- Establish strong landscape structure to absorb existing or new development on the fringes of urban areas and settlements.

Table B.2.2.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Housing on London Road	High	Slight adverse – slight beneficial depending on proposals	Screen planting with potential buffer around site boundary Sensitive site planning with large facilities located in centre of site.
House on Folly Road	High	Slight adverse – slight beneficial depending on proposals	
New housing on Folly Road	High	Slight adverse	
Workers on Garden Industrial Estate	Low	Slight adverse	

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Workers on industrial site to south-west of site	Low	No change	
Users of London Road	Low	Slight adverse	
Users of Folly Road	Low	Slight adverse	
Users of Quakers Walk	Medium	Slight adverse – slight beneficial (depending on scale and location of proposals)	
Users of White Horse Trail	Medium	Slight adverse – slight beneficial depending on proposals	

Summary: Residual Landscape and Visual Impacts

Due to its partially enclosed setting and existing industrial character, the site could accommodate some change, although this would need to be managed carefully, due to the presence of residential properties to the east and open countryside to the west. The proposals would need to be located away from these visual receptors and planting screens and bunds used around the boundaries to protect the rural setting.

Recommended further landscape and visual surveys

- Visual survey from AONB
- Survey following completion of business park
- Night time visual survey

B.2.2.3 Noise

Introduction

The site at Garden Estate, Devizes has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- Rear garden of Folly Cottage East on Folly Road located on the northern boundary of the allocation site;
- Grass to the south west of properties on White Horse Way, which is located approximately 55m from the site's south western boundary; and
- To the north of residential properties on the A361 (London Road) which are located on the eastern boundary of the allocated site, this location was deemed representative of the rear gardens of the residential properties on the A361.

The proposed site is located within land currently occupied by large industrial units. Given the current usage, background noise levels were made with current activities occurring. The site at Garden Estate is bounded to the west by Folly Road and to the east by the A361 (London Road).

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on the A361 and noise from the industrial units; the noise levels at the rear garden of Folly Cottage East were significantly influenced by the noise from an extract unit on the industrial estate.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.2.2.3.1 - Folly Cottage East - Background Noise Levels (AU1_0030)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
10:37:00	00:05:00	50.9	63.6	49.2	51.6	50.2	49.5
10:42:00	00:05:00	51.0	57.0	49.2	52.8	50.4	49.6
10:47:00	00:05:00	50.7	56.6	48.5	52.1	50.3	49.1
10:52:00	00:05:00	51.2	58.7	48.7	53.5	50.0	49.3
10:57:00	00:05:00	50.7	59.0	48.6	51.9	49.9	49.2
11:02:00	00:05:00	50.9	57.6	48.5	52.4	50.4	49.3
10:37:00	00:30:00	50.9	63.6	48.5	52.3	50.2	49.3

Table B.2.2.3.2 - White Horse Way - Background Noise Levels (File #66)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
10:44:31	00:05:00	56.5	69.8	46.5	58.9	52.8	50.1
10:49:31	00:06:00	55.4	70.5	45.1	56.6	51.7	49.4
10:44:31	00:11:00	55.9	70.5	45.1	57.7	52.2	49.7

Table B.2.2.3.3 - Rear of Properties on A361 - Background Noise Levels (File #68)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:00:25	00:05:00	57.3	65.3	47.6	58.7	56.5	53.5
11:05:25	00:05:00	58.2	67.0	50.3	59.8	57.4	54.9
11:10:25	00:05:00	57.4	64.9	48.6	59.2	56.2	53.7
11:00:25	00:15:00	57.6	67.0	47.6	59.3	56.7	54.0

The average background noise levels (LA90) at Folly Cottage East, White Horse Way and to the rear of properties on the A361 are taken as being 49.3 dB, 49.7 dB and 54.0 dB, respectively.

Assessment Suitability

The site is an existing industrial estate with residential properties on the southern and eastern boundaries.

Due to the proximity of residential dwellings the site is not considered suitable for the intensification of the uses proposed.

Mitigation

Although placing all the activities inside a building would provide mitigation to this facility, the intensification of use associated with access traffic would make this site unsuitable.

Recommendation

With mitigation the site is not deemed suitable for the intended uses with respect to noise.

B.2.2.4 Air Quality and Odour

Introduction

Garden Estate, Devizes is located to the north of Devizes town centre with access from the A361 London Road onto Folly Road. Site is an industrial estate with mix of B2 and B8 uses.

Potential uses include materials recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 16.8µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 9.5µg/m3 NO2 (standard 40µg/m3);
- 14.7µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are 1185 properties within 500 meters surrounding the site within Devizes town centre. There are no sensitive ecological sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic from the A361 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. There are no industrial sources of bioaerosols and odour in the area.

Table B.2.2.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (160 receptors)	1 (1)	1(1)	N/A	N/A	N/A	1(1)	1(1)
Total residential between 100 and 500m (1025 receptors)	1 (1)	1 (1)	N/A	N/A	N/A	1(1)	1(1)
Residential within 250m only (500 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol risks are limited to within 250m of the site</p>							

Mitigation

Dust and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are low without mitigation. No requirement for further assessment.

B.2.2.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

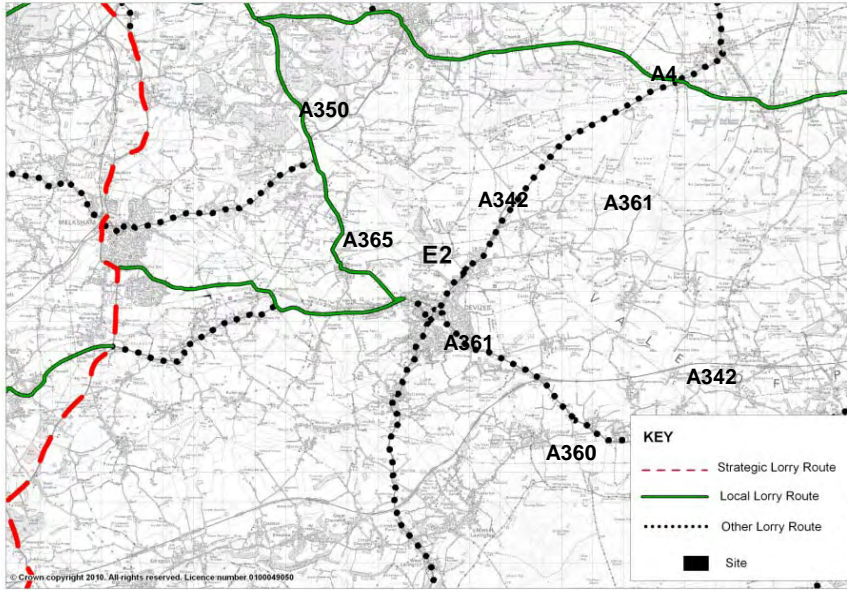
The 5.6 ha industrial estate site is located off the A361 London Road to the northeast of Devizes, near Roundway. It is proposed that the waste facility is located within this estate however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junctions to the estate but not the site access within the wider site. The site has been allocated as a local scale waste facility in the DPD. It is located approximately 1.8km from the town centre.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B2.2.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B2.2.5.1 shows that access to the site is gained via Folly Road and the A361 London Road which designated as an 'other' lorry route which, by definition is only to be used where it is essential to gain access. The A361 leads to the A4 (local lorry route) to the north and Devizes town centre to the south. From the town centre, two local lorry routes can be accessed to the west for Melksham (A361) and Chippenham (A342). Folly Road is not designated as a lorry route, but currently provides access to the existing uses on the site.

Figure B.2.2.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.2.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.2.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile.

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed off Folly Road by way of two priority T-junctions. Folly Road is single carriageway and subject to the national speed limit. At this location, Folly Road is 7.3m wide with no road markings. DMRB³⁰ recommends a visibility of 215m for this type of road. The visibility is restricted to the north to approximately 200m and 170m respectively from both of the existing accesses due to the curvature of Folly Road heading towards the village of Roundway. However, on-site observations indicate that few vehicles use Folly Road, and those that do, appear to be within the speed limit. **Figure B.2.2.5.2** shows the northern access road to the site on Folly Road. **Figure B.2.2.5.3** shows the junction of the A361 and Folly Road, whilst **Figure B.2.2.5.4** shows the left turn storage lane off the A361 for Folly Road.

Figure B.2.2.5.2 - Northern Access to Site on Folly Road



Figure B.2.2.5.3 - Folly Road Junction with A361 London Road



³⁰ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Figure B.2.2.5.4 - Folly Road from the left turn Storage Lane



Transport Environmental Impacts

Folly Road towards Roundway is subject to a 7.5T environmental weight restriction. The site is surrounded by residential properties on three sides, with the Hopton Industrial Estate to the north. The existing use of the site is industrial, whilst significant screening is already in place to minimise the impact of the industrial land uses. As a result, any impact on residential amenity is minimised, providing vehicles do not route via the village of Roundway.

An on-road cycle lane is provided on the A361, but not on Folly Road. The pedestrian footway is 1.4m on Folly Road, and 2m on the A361. Further north, the footway width widens to accommodate shared space, with a width of up to 3m in some places.

Off Site Highway Network

The junction of Folly Road and the A361 London Road is a priority T-junction with a storage lane for vehicles exiting the A361 northbound to join Folly Road due to the tight turning radius of Folly Road itself. The capacity of this lane is one HGV which may be unsuitable for the proposed uses. The speed limit here is 40mph to the north of the junction on the A361 and 30mph at the junction and to the south. It may be that this junction needs improvement by the addition of a right turn ghost island and removing the storage lane with kerbed island to provide the space for this infrastructure. A capacity assessment would be required as part of a Transport Assessment at the planning application stage to confirm this.

The A361 links to Avebury and the A4 (local lorry route) to the north, and to Devizes town centre to the south. To the west of Devizes, the A361 and A342 become local lorry routes towards Melksham and Chippenham respectively.

Devizes town centre is already prone to heavy congestion. For this reason, it is proposed that vehicles are encouraged to use the A361 north towards the A4 at Avebury where appropriate. From there, they can access the local lorry network via the A4 and head to Chippenham or Marlborough.

Accessibility by Sustainable Modes

The site has access to the local cycling network located on the A361 to the east of the site. Footways are provided with varying widths from 1.8m (Folly Road) to 3m (A361 London Road) where the footway is in fact a shared use cycleway/footway.

The nearest bus stops are located 40m north of the A361/Folly Road junction. Two stops are provided on the A361 here, one northbound, the other southbound. Further bus stops are located intermittently on the A361, with a pair located near to the north of the site, between the A361/Hopton Road and A361/Horton Avenue roundabouts.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;

- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/E2/003** in **Appendix D**.

Constraints

The main constraints identified at this site are:

- The site is surrounded by several large residential developments; and
- The junction of Folly Road/A361 London Road is likely to be unsuitable in terms of layout/capacity for the proposed uses.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E2/001** in **Appendix D**.

Mitigation

It is recommended that the Folly Road junction is improved to include a right turn ghost island on the A361 and removal of the left turn storage lane. Visibility would be in excess of 100m and would meet the recommended standards. The existing junction is already subject to high levels of traffic on the A361 and traffic to the village of Roundway and the Garden Industrial Estate, hence there is likely to be a requirement for a right turn storage lane on the A361. If a capacity assessment shows this to be insufficient, then signalisation of the junction may be required to allow vehicles to turn right out of Folly Road onto the A361 as there is no option for large vehicles to turn left then u-turn at the A361/Windsor Drive roundabout due to the geometries of the roundabout being too small to permit this manoeuvre.

Cost of Mitigation

Should capacity assessments demonstrate a need for mitigation at the Folly Road junction the cost of the mitigation proposed is estimated to be:

- **£130k** - for a right turn ghost island at the Folly Road junction; or
- **£210k** - to signalise the junction.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is located adjacent to a lorry route; and
- It is well served by sustainable modes of transport.

The following issues/constraints have been identified:

- Devizes town centre experiences heavy congestion already;
- The site is surrounded by several large residential developments;
- The junction of Folly Road/A361 London Road is likely to be unsuitable in terms of layout/capacity for the proposed uses; and
- There is little opportunity to add a fourth arm to the A361/Windsor Drive roundabout to gain access to the site.

In conclusion, the site is considered appropriate for the proposed uses. However, consideration is required of the mitigation measures as set out in this report, to ensure the site access is fit for purpose.

B.2.3 Hopton Industrial Estate, Devizes (Site Ref E3)

B.2.3.1 Introduction

The site extends to 29 ha and is located on the north-east fringe of Devizes, to the west of the A361 London Road. The site is relatively modern and well maintained an existing industrial estate/business park with a diverse mix of uses including B2 and B8 uses, food factory, a children's indoor play centre and Wiltshire Council offices. A household recycling facility is operational on the site. The estate is connected by wide estate roads with footways which are currently accessed from three junctions on the A361 London Road. The two southern access points are in the form of roundabouts onto the A361 and the northern one is a priority junction. The site northern and western boundaries of the site are defined by hedgerows and trees with fields beyond. The eastern boundary is delineated by the A361 with a combination of agricultural fields, commercial and residential uses beyond the road. The southern extend of the site merges with the adjacent Garden Industrial Estate.

The site is located in proximity to a number of designated site including the North Wessex Downs AONB which is immediately to the north and west of the site. The site is 1.3km east of Roundway Down and Covert SSSI. There are numerous SAMs located to the West of the site. Site is located on a Major Aquifer of intermediate vulnerability.

The site is designated as a Protected Strategic Employment Site and as Land Allocated for Employment Development in the Kennet District Local Plan which is subject to a number of policies including PD1, ED17 and ED25. The emerging Wiltshire Core Strategy proposes a future employment site immediately to the south of the site and beyond this allocation is a further allocation for Housing/Mixed use.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: K/54493/RM Residential development comprising 158 dwellings and associated Public Open Space and Highway Infrastructure. On land at Former Spitalcroft Allotment Site, London Road, Devizes

Reference: E/09/0598/FUL (Appeal Upheld) Development of 40 no. dwellings including 8 no. two, 24 no. three and 8 no. four bedroom dwellings, associated car parking, private amenity space, public open space and landscape works. On land at Former Spitalcroft Allotment Site London Road Devizes Wiltshire

Reference: E/10/0213/FUL (REGISTERED) Development of a care village (Use Class C2) and a primary care centre (use class D1) including access, car parking and landscaping on land at Land adjacent to Quakers Walk London Road Devizes Wiltshire

B.2.3.2 Landscape and Visual Impact

Introduction

Existing industrial and business park on the north-eastern edge of Devizes, with the North Wessex Downs AONB immediately to the north and west.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Berkshire and Marlborough Downs

Key characteristics relevant to the site:

- Due to its urban, industrial character, the site is not typical of the wider landscape of the area (see below)

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):*Landscape Type:* Greensand Vale*Landscape Character Area:* The Vale of Pewsey

Key characteristics relevant to the site:

- Due to its urban, industrial character, the site is not typical of the wider landscape of the area, which generally consists of low-lying chalk foothills with numerous streams, pasture and arable fields. It is however, influenced by the vale topography, being generally flat in character, rising up generally at its northern end towards the North Wessex Downs. To the north of the estate, the rural landscape is more typical of this character area, with open agricultural fields rising up to the downs north of the village of Roundway.

WCC judge both the condition and strength of the Greensand Vale Landscape Type to be 'moderate', due to the loss of hedgerows and hedgerow trees and riparian vegetation, urbanisation of rural roads and inappropriate modern development on settlement edges. Views across the open vale landscape are considered sensitive and the overall strategy is to 'conserve' and 'improve' the rural agricultural character of the vale.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy*Landscape Character Area:* The Vale of Pewsey

Key characteristics relevant to the site:

- Due to its urban industrial character the site is not typical of this landscape character area, however the character area is typified by a high number of settlements, of which Devizes is one.

Landscape Designations and Rights of Way:

- The boundary of the North Wessex AONB lie immediately to the north and west of the site
- A footpath runs from London Road opposite the site in a north-easterly direction to Bishops Cannings.

Baseline Landscape Character and Features: Site Survey

The site is a relatively large, diverse industrial park that is in places still under construction. Units include workshops, a children's indoor play centre and Wiltshire Council offices. There is also a Household Recycling Centre on the site. The estate is well managed and maintained with a series of units connected by wide estate roads with footways. A relatively strong landscape structure including ornamental trees, grass verges and street lighting gives the site a more attractive feel than similar such estates. The site is generally flat, although at its northern end some vacant plots slope gently up towards the North Wessex Downs AONB. To the north the site is set within the rolling rural valley side east of Roundway, whilst to the south, the topography flattens towards the Kennet and Avon Canal, limiting views to those of the urban land uses along the A361 (London Road).

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey**Landscape Quality and Condition of site:** Poor-Ordinary**Capacity to Accept Change:** High

The industrial character of the site has eroded its landscape quality, although to a lesser degree than other industrial estates. This poor quality combined with the fact that the site is generally well screened from the wider public means that it could be well placed to accommodate change.

Potential Landscape Impacts

- Impact on the rural character of the North Wessex Downs AONB to the north and west of the site.

Potential Landscape Mitigation Measures

- Planting of native/evergreen woodland planting belts to the north of the site
- Sensitive site planning to minimise adverse views of the facilities from the AONB
- Sensitive levels design to minimise the impact on the valley-side topography of the northern end of the site and utilise its natural enclosure for screening any development

Table B.2.3.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Visitors to the site (eg users of children’s play centre and recycling centre, shoppers at architectural salvage yard, visitors to council officers)	Low	Slight adverse	Strong native woodland/evergreen planting screens, around facility. Potential for use of earth bunds. Sensitive site planning to locate facility away from majority of visitors
Workers on Hopton Industrial Estate	Low	Negligible	
Residents to western edge of Bishop Canning	Low	Negligible	
Users of London Road	Low	Negligible	Strong native woodland/evergreen planting screen along road boundary. Potential for use of earth bunds.
Walkers on footpath to Bishops Cannings (subject to further survey)	Medium	Slight adverse impact during winter months	Location of facility away from eastern edge of site.
White Horse	Medium	Slight adverse due to topography	

Summary: Residual Landscape and Visual Impacts

Due to its existing industrial character, some parts of this site could accommodate change, although care would need to be taken to avoid harming the rural character of the adjacent AONB. The main visual impacts would be on employees and visitors to the Industrial estate, and new facilities would need to be discretely sited to minimise visual impact. A structure of large trees and hedgerows would help to mitigate visual impact. Consideration will need to be given to the visual impact on local footpaths. To mitigate visual impact on walkers on-site or off-site planting could screen views.

Recommended further landscape and visual surveys

- Visual survey from the Quakers Walk long distance trail and White Horse Trail
- Visual survey from AONB
- Winter-time visual surveys.
- Night-time visual surveys.

B.2.3.3 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

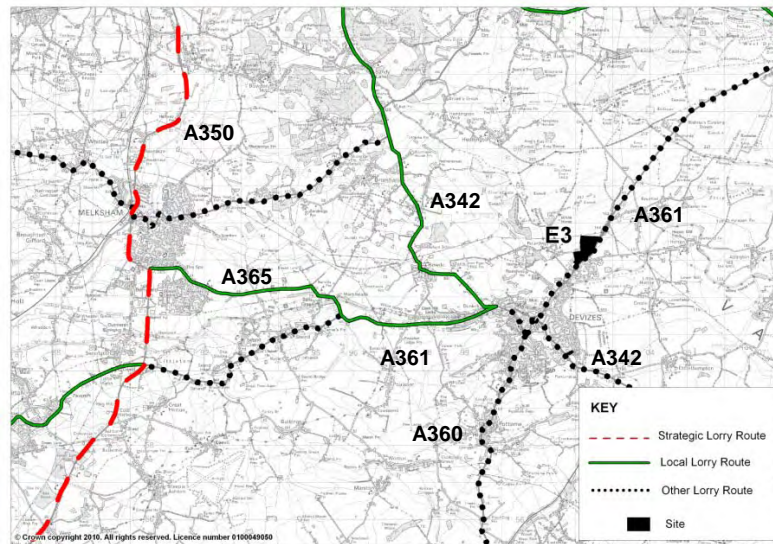
The industrial estate site covers a total area of 29ha and has a mix of employment uses including an existing Household Recycling Centre. It is proposed that the waste facility is located within this estate however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junctions to the estate but not the site access within the wider site. The site is located off the A361 London Road to the northeast of Devizes, near Roundway. The site has been allocated as a local scale waste facility in the DPD. It is located approximately 2.7km from the town centre.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.3.3.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.2.3.3.1 shows that there are two existing access points to the site, both taken from the A361 London Road which runs along the eastern border of the site. The A361 is designated as an ‘other’ lorry route and should therefore only be used where it is essential to gain access. This leads to the A4 (local lorry route) to the north and Devizes town centre to the south. From the town centre, two local lorry routes can be accessed to the west for Melksham (A361) and Chippenham (A342).

Figure B.2.3.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.3.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.3.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed off Hopton Road (southern access) and Waller Road (northern access). The speed limit within the site itself is 30mph, but on the A361 it varies with a 40mph limit from the south up to the A361/Horton Road roundabout, after which increases to the national speed limit. The road width is 7.3m throughout the site. Hopton Road is accessed via a 4 arm roundabout with the A361 London Road and Hambleton Avenue. This junction is already well used by HGVs and is to a sufficient standard for the proposed uses. Roundabout visibilities are much lower than priority junctions. DMRB³¹ recommends that for a roundabout with a diameter of less than 40m, that visibility is required of the entire junction, whilst visibility must also be tested 15m back from the give-way markings. This level of visibility is achieved.

The second access, to the north of the site, is a priority T-junction with the A361 London Road. This is formed of an on and off slip for the A361 and a right turn filter lane for southbound vehicles along the A361. The A361 becomes a single lane dual carriageway 100m south of the site, with an additional lane in the northbound direction from the on slip off the industrial estate. The right turn filter lane is 100m long and provides significant storage capacity for several HGVs. There is a no right turn restriction from Waller Road onto the A361 southbound at the junction. DMRB¹ recommends a visibility of 215m for this type of road, which this achieved at this junction.

The A361 was observed to have high vehicle flows in the vicinity of the south of the site, but experienced low flows north of the A361/Horton Road roundabout

Transport Environmental Impacts

The site is largely surrounded by industry and fields, with a large residential area to the south of the site, off the A361/Horton Road roundabout. The existing properties are well screened from the A361 by a line of trees. Significant tree planting is also in place to screen the village of Roundway from the industrial estate. Roundway Village is subject to a 7.5T environmental weight restriction.

On street parking is rife throughout the site due to the lack of TROs on the main access roads. However, this does not stop HGVs from being able to use these roads, but does often mean that the roads essentially operates as a single lane, which adds delays to all vehicles. This problem could increase should further development within the industrial estate take place without mitigation. Fortunately at the moment there are no locations where vehicles are parked on both sides of the access roads, with an informal arrangement appearing to be that vehicles park on the same side. **Figure B.2.3.3.2** provides an example of the on street parking issues found on the industrial estate, near Sergeant Rogers Way.

Figure B.2.3.3.2 - On Site Parking Issues



³¹ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 16/07)

Off Site Highway Network

Between the two accesses to the site lies the A361/ Horton Road roundabout. This is a 5 arm junction with two arms from the A361, two arms to the south serving the residential area off Horton Road and Horton Avenue, and the fifth to the north serving a small residential street embedded within the site itself. This arm of the roundabout is located between the two A361 arms. There is no deflection on the roundabout between the two A361 arms which means that speeds approaching the junction are often high along the A361.

Both site accesses link to the A361 London Road to the east of the site. This links to Avebury and the A4 (local lorry route) to the north, and to Devizes town centre to the south. To the west of Devizes, the A361 and A342 become local lorry routes towards Melksham and Chippenham respectively.

Devizes town centre is already prone to heavy congestion. For this reason, it is proposed that vehicles are encouraged to use the A361 north towards the A4 at Avebury where appropriate. From there, they can access the local lorry network via the A4 and head to Chippenham (for the A350 strategic lorry route) or Marlborough (for the A346 local lorry route and on to the M4).

Accessibility by Sustainable Modes

An on-road cycle lane is provided intermittently on the A361, including on Hopton Road. The pedestrian footway is 1.8m within the site, and between 2-3m on the A361, south of the A361/Horton Road roundabout. North of this roundabout there is no footway provision.

A bus stop is provided within the industrial estate on Hopton Road. Two additional bus stops are found on the A361 to the east of the site, between the A361/Hopton Road and A361/Horton Road roundabouts. A signal controlled pedestrian crossing is provided between these two bus stops for ease of access.

Constraints

The main constraints identified at this site are:

- The site has high levels of on street parking;
- There is no deflection on the A361/Horton Road roundabout between the two A361 arms when heading north; and
- There are some residential properties located near to the site.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E3/001** in **Appendix D**.

Mitigation

It is felt that no mitigation is required to the junctions for this site. It is recommended that a parking solution be considered for the industrial estate to alleviate the delays caused by on street parking. This could take the form of TRO restrictions along Hopton Road.

Recommendation

The site offers the following advantages:

- It is mainly surrounded by fields, and where it isn't, the industrial estate is well screened from these developments;
- The site is established and has the correct provision of infrastructure to be used by HGVs;
- The site has two existing site accesses which require no mitigation;
- Traffic levels observed at the northern site access were low;
- The site is located adjacent to a lorry route; and
- It is well served by sustainable modes of transport.

The following issues/constraints have been identified:

- Devizes town centre is already heavily congested;
- There is an on-street parking problem along Hopton Road; and
- The junction of A361/Horton Road has an unsuitable northbound deflection for journeys along the A361, at times resulting in higher speeds through the roundabout.

In conclusion, the site is considered appropriate for the proposed uses. However, consideration is required of the possible parking related mitigation measures as set out in this report.

B.2.4 Nursteed Road Employment Allocation, Devizes (Site Ref E4)

B.2.4.1 Introduction

The site extends to 1.4 ha and is located on the south east fringe of Devizes, to the east of the A342 London Road which is approximately 20 km south east of Chippenham. The site forms and extension area to the existing Nursteed Road Employment area, the site is delineate by Nursteed Road, Windsor Drive and Alan Cobham Road. The site has good access onto the A342. There are residential areas in close proximity to the east and west of the site with a wooded area to the south beyond which is a proposed residential/mixed use allocation within the emerging Wiltshire Core Strategy.

The site is located in proximity to a number of designated sites including the Nursteed Farm Woods County Wildlife Site is located 0.8km to the south east and the North Wessex Downs SSSI is located 1km to the east of the site. A Local Nature Reserve at Drews Pond Wood and a Priority habitat (Broadleaved, mixed and yew woodland) is located 1.1km south west of the site. The site sits on a major aquifer of intermediate vulnerability and also over a major aquifer of high vulnerability. A public right of way runs through the site.

The site is designated as an Employment Land Allocation in the Kennet District Local Plan. The emerging Wiltshire Core Strategy does not propose any designation for the site however there are two proposed allocations for Housing/Mixed use located approximately 100m to the south of the site.

A number of planning consent have been granted in the area since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, others of particular note include:

Ref: K53832/WCC New 10 bed adult respite facility at Southbroom CE Jr. School, 2006;

Ref: K/55450/F Full Planning, Erection of two storey centre with associated car parking at Marshall Road Devizes, 2007;

Ref: K/58599/F, Full Planning, Proposed 2 no flats to 20 Nursteed Close, 2008;

Ref: K/51637/O, Outline Planning, Erection of 10 no dwellings on land at Nursteed Close, 2008;

Ref: E/09/1513/FUL, Full Planning, Development of 2no flats at 54 Nursteed Close, Registered 20/11/2009;

B.2.4.2 Landscape and Visual Impact

Introduction

The site is located in the south-east of Devizes, on the A342. It is currently flat open grassed landscape with residential and industrial units enclosing it.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Uses such as landfill are widespread.

Generally, due to the disturbance of the land resulting from its existing usage, including extensive earthworks, the site does not reflect the general character of the area.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Greensand Vale

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

- Due to its urban, industrial character, the site is not typical of the wider landscape of the area, which generally consists of low-lying chalk foothills with numerous streams, pasture and arable fields. It is, however, set within a gently undulating valley side, setting its vale setting. To the north, south and east of the estate, the rural landscape is more typical of this character area, with agricultural fields rising up the side of Etchilhampton Hill to the north-east and down to the Stert Valley to the south.

WCC judge both the condition and strength of the Greensand Vale Landscape Type to be 'moderate', due to the loss of hedgerows and hedgerow trees and riparian vegetation, urbanisation of rural roads and inappropriate modern development on settlement edges. Views across the open vale landscape are considered sensitive and the overall strategy is to 'conserve' and 'improve' the rural agricultural character of the vale.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

- Due to its disturbed, waste-dominated character the site is not typical of this landscape character area; however the setting of the site, with its agricultural fields and belts of riparian vegetation reflect the wider character.

Landscape Designations and Rights of Way:

- The boundary of the North Wessex Downs AONB lies approximately 1 Km to the east of the site.
- A bridleway connects the A342 opposite the site entrance with Etchington Hill to the north-east of the site and beyond.
- The Wessex Ridgeway trail runs to the north-east of the site
- A number of bridleways and footpaths run around the Stert valley and Sleight Farm to the south of the site
- Nursteed Farm Woods Wildlife Site lies to the south of the site.

Baseline Landscape Character and Features: Site Survey

The site character is currently dominated by the industrial units to the industrial estate to the north. The new residential housing the north east detracts from the dominance of the industrial units. The A342 runs along the western boundary of the site leading into Devizes.

To the south of the site, there are more scattered residential properties screened by vegetation.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Low to Medium

Although there are currently industrial units to the north of site they dominate the landscape. With residential properties surrounding the other three sides of the site combined with the openness of the site make its capacity to accept change low to medium.

Potential Landscape Impacts

- Loss of open space within the surrounding area.
- Further domination of the character of the area through industrial / large facilities.

Potential Landscape Mitigation Measures

The following ‘Broad Management Objectives’ for the Greensand Vale landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Introduce new tree planting along watercourses using typical riparian species such as alder and willow.
- Encourage repair, replanting and extension of the hedgerow network, improved maintenance of the existing hedgerows
- Restore hedgerow treescape by nurturing new hedgerow trees.

The following Enhancement Priorities proposed for the Vale of Pewsey landscape character area in the *Kennet Landscape Conservation Strategy* are relevant to the site:

- Encourage repair, replanting and widespread extension of hedgerow network and development of mature hedgerow trees, using native species typical of this locality.
- Reinstate and restore wet meadows, wetland and riverine habitats.
- Improve landscape structure and land management on the fringes of settlements and along main roads, to mitigate adverse impacts on the landscape.
- Establish strong landscape structure to absorb existing or new development on the fringes of urban areas and settlements.

Table B.2.4.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Users of the A342	Low	No change – Slight adverse (depending on site entrance design)	Conserve and enhance existing hedge boundary.
Residents of Nursteed	High	Slight adverse – slight beneficial (depending on site access design)	Ensure site entrance is appropriately designed to minimise views into site. Retention of existing vegetation. Planting of additional vegetation around site boundaries and within site.
Residential properties to the east and west	High	Adverse – increase of industrial character within the area.	Enhance access and working layout within site

Summary: Residual Landscape and Visual Impacts

Due to the proximity of the site to surrounding residential properties and its urban fringe character the potential views into the site from the surrounding receptors, careful site planning and buffer planting will be required to ensure that potential views of the development are prevented.

Recommended further landscape and visual surveys

- Summer-time survey
- Night-time visual surveys.

B.2.4.3 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

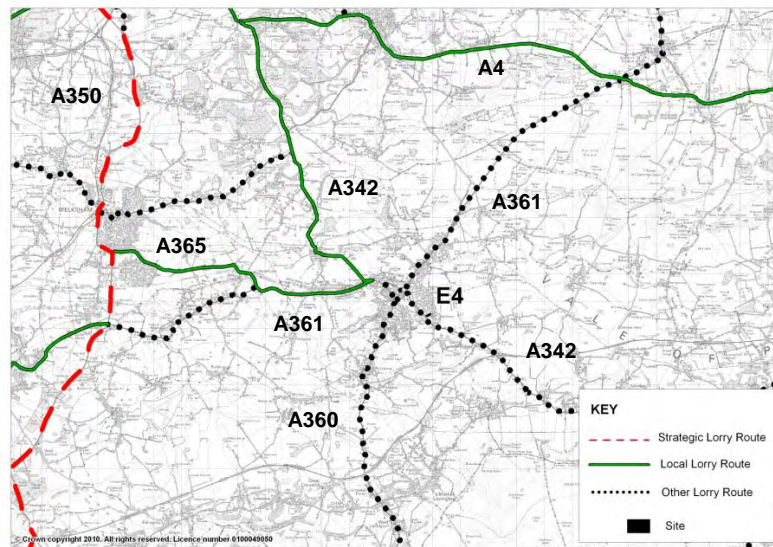
The 1.4 ha site is located off the A342 to the east of Devizes. The site has been allocated as a local scale waste facility in the DPD. It is located approximately 1.7km southeast of the town centre. The site is adjacent to the Nursteed Trading Estate and a large residential estate. A 3 arm roundabout is located in the south corner of the site.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.4.3.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.2.4.3.1 shows that there is an existing access to the site, albeit it appears to provide access to an electricity substation in the northern corner of the plot off Alan Cobham Road. However, the site could be accessed from this service road, subject to agreement with SSE Power Distribution. Access from the site is via Alan Cobham Road and Brickley Lane which are not designated as lorry routes. The A342 is designated as an ‘other’ lorry route, which by definition, can be used only where it is essential to gain access. The A342 abuts the western boundary of the site and is single carriageway. This provides access to Devizes town centre to the west, and to Upavon in the east. The A342 becomes a local lorry route to the west of Devizes towards Chippenham.

Figure B.2.4.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.4.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.4.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed to the north via a priority T-junction with a short strip of surfaced road towards an electricity substation located in the northeast corner of the site (**Figure B.2.4.3.3**). This access road adjoins Alan Cobham Road (**Figure B.2.4.3.2**) where the speed limit is 20mph due to the residential nature of the area. This leads southeast towards a 4 arm roundabout with Brickley Lane, where the speed limit increases to 40mph. To the south, this links to the A342 (an 'other' lorry route) via a 3 arm roundabout.

Alan Cobham Road is 5.6m wide, whilst Brickley Lane is 6.7m wide. The access road off Alan Cobham Road is 6m wide. Due to the width of Alan Cobham Road, the radius at the 4 arm roundabout of Alan Cobham Road/Brickley Lane and the residential nature of the area, a new access is proposed on Brickley Lane.

It is proposed that a new access is provided located towards the south of the site between the A342 roundabout and Alan Cobham Road/Brickley Lane roundabout (see **Figure B.2.4.3.3**). The proposed access would take the form of a priority T-junction. DMRB³² requires a minimum visibility of 90m for this type of road which will be achieved by the approximate location of the proposed access. On site observations indicated that the Brickley Lane is a relatively lightly trafficked road.

³² Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Figure B.2.4.3.2 - Alan Cobham Road towards Brickley Lane Roundabout



Figure B.2.4.3.3 - Existing Site Access with Electricity Substation



Figure B.2.4.3.4 - Proposed Site Access on Brickley Lane (site to left)



Transport Environmental Impacts

The site is located to the southeast of Devizes. To the east and west are large housing estates, whilst an industrial estate lies to the north. Land to the south of the site is largely rural and is screened from the site by a line of trees.

Brickley Lane and Alan Cobham Road have a shared use cycleway/footway of 3m (see **Figure B.2.4.3.3 above**). This appears to be a relatively new provision and is in an excellent condition. There are no formal crossings in the vicinity of the site, although dropped kerbs and tactile paving are provided at regular intervals and on all arms of all junctions. The shared use infrastructure is

also separated from the carriageway by a grassed highway verge, reducing the chance of fear or intimidation for pedestrians and cyclists.

Off Site Highway Network

Brickley Lane is connected to the A342 Nursted Road to the southwest. Although Brickley Lane is not designated as a lorry route, the A342 is an “other lorry route” and forms the western boundary of the site. The northern arm off the Brickley Lane/Alan Cobham Road roundabout forms a bypass of the new residential development facing the existing site access. This links to the industrial estates to the north of Devizes, and to the A361 (other lorry route). It is possible that this road could be used to bypass Devizes town centre. Whilst this route passes the residential area, the properties are screened from the road and do not face it. The road is to a suitable standard for HGVs and the only sensitive land use is Nursted Primary School located off Brickley Lane.

In the wider area, the A342 links to the A361 in Devizes town centre, with the A342 continuing northwest towards Chippenham and the A361 bisecting it in a west to northeast direction linking to Avebury and Melksham. Both the A342 and A361 become local lorry routes on the western outskirts of Devizes town centre. At Melksham and Chippenham, both roads join the strategic lorry network (A350).

From on site observations, traffic flows appeared to be relatively low in the area, particularly on Brickley Lane and on the A342. Therefore, it is felt that capacity will not be an issue. Notwithstanding this, a junction capacity assessment would be required if/when development plans are finalised, to ensure the local highway network can accommodate the proposed traffic volumes. Devizes town centre however, is already prone to heavy congestion. Therefore, where possible, the routings of HGVs should be designed to avoid the town centre at peak times, whilst continuing to use suitable roads.

Accessibility by Sustainable Modes

Brickley Lane has a shared use footway/cycleway of 3m. This links to the A342 roundabout to the southwest and to both residential developments to the east and west of the site.

Bus stops are provided to the south of the site in the vicinity of a second roundabout of the A342, which is 100m further south than the A342/Brickley Lane roundabout.

Constraints

The main constraints identified at this site are:

- The proximity of the two residential areas to the east and west of the site;
- The tight radius on the Alan Cobham/Brickley Lane roundabout, potentially preventing HGV access via the existing access; and
- The impact of the location of the electricity substation and any potential land ownership issues arising from this.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E4/001** in **Appendix D**.

Mitigation

It is recommended that a new site access is constructed to the south of the site, taking access off Brickley Lane. The proposed access would be in the form of a priority T-junction and will replace the existing access to the electricity substation due to the tight turning radius at the Alan Cobham Road/Brickley Lane roundabout, the location of the access being opposite residential properties, and the road width of Alan Cobham Road. A fourth arm to the A342/Brickley Lane roundabout was considered but dismissed due to a lack of space between the A342 and Brickley Lane arms.

An indicative access design is presented as drawing number **5044619.017/TP/E4/002** in **Appendix D**. It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. Also

highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£30k** - for the new access junction only.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- It is located in close proximity to the 'other' lorry route network;
- The site is accessible by sustainable modes;
- Brickley Lane/Windsor Drive, heading north from the Alan Cobham Road/Brickley Lane roundabout, offers a bypass of Devizes town centre and links to A361 near Garden Estate;
- The local highway network appears to have low levels of traffic; and
- The site is allocated as employment land.

The following issues/constraints have been identified:

- Devizes town centre already experiences high levels of traffic;
- It is located adjacent to two residential estates; and
- The existing access is not accessible to HGVs.

In conclusion, the site is considered appropriate for the proposed uses. However, consideration is required of the mitigation measures as set out in this report, to ensure the site access is fit for purpose.

B.2.4.4 Water Quality / Environment

NGR: 401830, 160500

Location: Devizes

Area: 1.4 hectares

Data Source: Landmark Envirocheck Report 30098364_1_1 (8th Feb 2010) unless otherwise referenced

Table B.2.4.4.1 - Nursteed Road Employment Allocation, Devizes Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrology: Surface Water – Flow and Quality	<p>There are several small ponds between 35 and 100m from the site, and a stream running north-south 250m to the east.</p> <p>Stert watercourse 800m to south-east.</p>	Contaminated runoff entering ponds or stream during construction or operation.	<p>Surface water drainage system including runoff collection system, Sustainable Drainage Systems (SuDS) and foul drainage.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
Geology: Stratigraphy	<p>The BGS map³³ indicates that the site is underlain by the Lower Cretaceous Upper Greensand Formation (sandstones passing into micaceous siltstones with depth). There is a fault trending ENE-WSW directly east of the site.</p>	-	-	-
Hydrogeology: Groundwater –	The site is on a Primary (Major) Aquifer.	Contamination of aquifer. Changes to the	Surface water drainage system including runoff collection system,	Environmental management during

³³ 1:50 000 Drift geological map (Sheet No. 282, Devizes)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrogeological Units		groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	SuDS and foul drainage. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.	construction. Determine monitoring requirements with EA. Produce working plan for site.
Hydrogeology: Groundwater – Source Protection Zone	The site is not in or near a SPZ.	No risk to public water supply; however local private abstractions may exist (<20m ³ /day).	Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design. Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices and EA PPGs during construction.	Review runoff treatment requirements. Surface Water Management Plan. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Vulnerability	The aquifer beneath the site is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	No information available on the direction of flow.	Not applicable.	-	-
Discharges: Surface Water - Discharge Consents	Emergency overflow; to Stert watercourse, 864m south-east.	Not applicable.	-	To be considered as part of further assessment.
Discharges: Groundwater – Discharge Consents	Final / treated effluent; to Soakaway, 935m north.	Not applicable.	-	To be considered as part of further assessment.
Discharges: Pollution Incidents	Minor incident (Cat. 3) to controlled water of several pollutants including waste oils, metal wastes, tarry wastes 640m to south-east.	Not applicable.	-	To be considered as contaminant source if contamination is found during investigation.
Abstractions: Surface Water Abstractions	No surface water abstractions within 1km of the site.	No risk posed.	-	-

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Abstractions: Groundwater Abstractions</p>	<p>General farming and domestic; 267m to east, 294m south east, 549m south, 700m south east, 904m south east.</p>	<p>Potential for works to affect potable water supply.</p>	<p>Surface water drainage system including runoff collection system, SuDS and foul drainage.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc) and to include good working practices and EA PPGs during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p>
<p>Flood Risk</p>	<p>The site is in Flood Zone 1, but is larger than 1ha and underlain by a shallow aquifer.</p>	<p>Pluvial or groundwater flooding could interrupt operations and cause pollution to spread from the site. The site could increase the flood risk to surrounding sites.</p>	<p>SuDS design to control runoff; surface water management plan.</p>	<p>A Flood Risk Assessment in line with PPS25 is required to determine level of flood risk for the site and appropriate mitigation measures.</p>
<p>Land Uses</p>	<p>There are landfill sites 345m south-west; 424m south-west a number of sites from 400m to the south-east; two sites around 800m to the west.</p> <p>The site is adjacent to an industrial area which includes a variety of industries.</p>	<p>Risk during construction of contaminated ground at site with contamination of aquifer and runoff to surface waters.</p>	<p>Site Waste Management Plan and Pollution Incident and Control Plan to specify how excavated material will be handled, stored, and disposed of.</p>	<p>Geotechnical investigation and consultation to determine extent and nature of waste.</p> <p>To be considered as a source of contaminants if contamination is found during</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
				monitoring.
Conservation Designations	North Wessex Downs AONB ³⁴ is present 1000m to the east.	No risk posed.	-	-
	Drews Pond Wood Local Nature Reserve is present 970m south-west of the site.	No risk posed.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

³⁴ <http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/aonb/northwessex.aspx>

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Material Recovery Facility / Waste Transfer Station, or Local Recycling centre at **Nursted Road Employment Allocation, Devizes** falls within the following category:

- Several potentially significant issues identified

The initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Primary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of pluvial and groundwater flooding
- There is potentially contaminating land use in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include a flood risk assessment, surface water management plan and a contamination assessment of the site.

B.2.5 Wiltshire Waste Tinkersfield Farm, Devizes (Site Ref E5)

B.2.5.1 Introduction

The site extends to 4.8 ha and is located on the south east fringe of Devizes, to the south of the A342 Monument Hill which is approximately 21 km south east of Chippenham. The site is a former landfill site currently in use as a skip hire service, including a waste transfer station and inert recycling. The site is situated in a rural setting surrounded by fields containing small farms. The site is flanked to the north by the A342 along which a combination of mature hedgerow and bunds screen the site. The embankments of a dismantled railway line running parallel to the A342 adjoin the southern end of the site on each side. There are several residential properties in the area including Ridgcroft, in an elevated position to the north of the site on the A342. At a further distance, Parklands Farm and Tinkersfield Farm lie to the west and east respectively.

The site is located in proximity to a number of designated sites including the Nursted Farm Woods Non statutory County Wildlife Site which sit within the site boundary to the south. The Etchilhampton Hill County Wildlife Site is approximately 700m to the east and the North Wessex Downs is approximately 720 meters to the south west.

The site overlies a major aquifer of intermediate vulnerability and partly within a Flood Zone.

The site is not allocated in the adopted Kennet District Local Plan. The emerging Wiltshire Core Strategy does not propose any designation for the site however there is a proposed area of housing/mixed use 100m to the north-west for the site

In 2008 a planning consent (reference K/58573/F) was been granted for the erection of a holiday let unit at Hope Cottages (formerly Turnpike Farm) Sleight Lane Devizes (to the east of the proposed site). There have been no other relevant consents.

B.2.5.2 Landscape and Visual Impact

Introduction

The site is located to the south-east of Devizes, just outside the town on the A342. It is currently in use as a skip hire service, including a waste transfer station and inert recycling. Bunds have been constructed to screen the site and a significant amount of earthworks have affected the topography of the site.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Uses such as landfill are widespread.

Generally, due to the disturbance of the land resulting from its existing usage, including extensive earthworks, the site does not reflect the general character of the area.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Greensand Vale

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

- Due to its urban, industrial character, the site is not typical of the wider landscape of the area, which generally consists of low-lying chalk foothills with numerous streams, pasture and arable fields. It is, however, set within a gently undulating valleyside, setting its vale setting. To the north, south and east of the estate, the rural landscape is more typical of this character area, with agricultural fields rising up the side of Etchilhampton Hill to the north-east and down to the Stert Valley to the south.

WCC judge both the condition and strength of the Greensand Vale Landscape Type to be 'moderate', due to the loss of hedgerows and hedgerow trees and riparian vegetation, urbanisation of rural roads and inappropriate modern development on settlement edges. Views across the open vale landscape are considered sensitive and the overall strategy is to 'conserve' and 'improve' the rural agricultural character of the vale.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

- Due to its disturbed, waste-dominated character the site is not typical of this landscape character area; however the setting of the site, with its agricultural fields and belts of riparian vegetation reflect the wider character.

Landscape Designations and Rights of Way:

- The boundary of the North Wessex Downs AONB lies approximately 1 Km to the east of the site.
- A bridleway connects the A342 opposite the site entrance with Etchington Hill to the north-east of the site and beyond.
- The Wessex Ridgeway trail runs to the north-east of the site
- A number of bridleways and footpaths run around the Stert valley and Sleight Farm to the south of the site
- Nursteed Farm Woods Wildlife Site lies to the south of the site.

Baseline Landscape Character and Features: Site Survey

The site character is currently dominated by its use as a skip hire service, with earth bunds around the boundaries providing visual screening. A mature hedgerow along the A342 screens the site and reinforces the rural character of the wider setting. This includes species such as willow, together with non-native coniferous evergreens. Within the site, earthworks, containers, vehicles and a brick building associated with the waste transfer facility have eroded the rural character of

the site, although a number of mature trees remain, including a group of oak, ash and sycamore within the centre of the site. The earth bunds have not been planted but have colonised with herbaceous plants.

The site entrance is relatively well-concealed, with a dog-leg turn into the site screening wider views from the A342.

The only residential property in the area is a 20th century, detached property, Ridgcroft, in an elevated position to the north of the site on the A342. At a further distance, Parklands Farm and Tinksfield Farm lie to the west and east respectively. To the south of the site, the Nursteed Farm Woods Wildlife Site focuses on the Steer Valley watercourse and associated woodland vegetation. The embankments of a dismantled railway line running parallel to the A342 adjoin the southern end of the site on each side.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: High

Due to the erosion of its rural character and existing use as a waste management facility, including the presence of screening bunds, this site would be able to accommodate change and may even benefit from the process.

Potential Landscape Impacts

- Loss of existing site vegetation, including mature trees within centre of site and mature hedgerow boundary along A342 boundary
- Creation of new, wider site entrance on the A342 could open up views into the site, eroding the rural character of the road.

Potential Landscape Mitigation Measures

The following 'Broad Management Objectives' for the Greensand Vale landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Introduce new tree planting along watercourses using typical riparian species such as alder and willow.
- Encourage repair, replanting and extension of the hedgerow network, improved maintenance of the existing hedgerows
- Restore hedgerow treescape by nurturing new hedgerow trees.

The following Enhancement Priorities proposed for the Vale of Pewsey landscape character area in the *Kennet Landscape Conservation Strategy* are relevant to the site:

- Encourage repair, replanting and widespread extension of hedgerow network and development of mature hedgerow trees, using native species typical of this locality.
- Reinststate and restore wet meadows, wetland and riverine habitats.
- Improve landscape structure and land management on the fringes of settlements and along main roads, to mitigate adverse impacts on the landscape.
- Establish strong landscape structure to absorb existing or new development on the fringes of urban areas and settlements.

Table B.2.5.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Users of the A342	Low	No change – Slight adverse (depending on site entrance design)	Conserve and enhance existing hedge boundary. Ensure site entrance is appropriately designed to minimise views into site.
Residents of Ridgcroft	High	Slight adverse – slight beneficial (depending on site access design)	
Users of adjacent footpaths and bridleways (potential impact – confirmation required subject to path walkover)	Medium (views distant and limited/ screened by bunds and intervening vegetation)	Slight adverse – slight beneficial (depending on scale of proposals and site access design)	
Workers in the site	Low	No change – slight beneficial (depending on site layout)	Retention of existing vegetation. Planting of additional vegetation around site boundaries and within site. Enhance access and working layout within site

Summary: Residual Landscape and Visual Impacts

Due to its enclosed setting and existing waste-dominated character, the site is well placed to accommodate change. Site planning should avoid the loss of mature hedgerows and trees around and within the site, but make use of the existing earth bunds to continue screening views. Care will need to be taken when designing the site entrance to ensure that views into the site from the A342 and Ridgcroft are not opened up.

Recommended further landscape and visual surveys

- Visual survey from the surrounding footpaths and bridleways
- Visual survey from AONB
- Night-time visual surveys.

B.2.5.3 Noise

Introduction

The site at Wiltshire Waste, Tinkersfield Farm, Monument Hill, Devizes has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Treatment

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- Rear garden of Port Cottage on Sleight Road, which is located approximately 50m to the western boundary of the allocation site; and
- On the footpath to the east of Ridgcroft Farm, this location is deemed representative of Ridgcroft Farm which is located approximately 12m from the site’s northern boundary.

The proposed site is located within land currently occupied by a waste site and given the current usage, background noise levels were made with current activities occurring. The site at Tinkersfield Farm is bounded to the north by the A342 (Monument Hill), and is surrounded by farm land with interspersed residential dwellings.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on the A342 and noise from the waste site. The noise levels at Ridgcroft Farm were significantly affected by road traffic noise on the A342.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.2.5.3.1 - Port Cottage - Background Noise Levels (AU1_0031)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:42:00	00:05:00	51.6	62.4	43.0	54.3	48.4	45.7
11:47:00	00:05:00	46.9	57.4	39.9	48.8	45.9	42.8
11:52:00	00:05:00	50.8	62.1	41.2	53.9	47.8	44.3
11:42:00	00:15:00	50.2	62.4	39.9	52.2	47.2	44.0

Table B.2.5.3.2 - Ridgcroft Farm - Background Noise Levels (File #69)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:47:47	00:05:00	64.8	76.5	47.5	67.0	61.0	55.5
11:52:47	00:05:00	63.0	69.5	51.1	65.1	61.0	56.4
11:57:47	00:05:00	64.7	74.5	52.7	67.2	62.9	59.1
11:47:47	00:15:00	64.2	76.5	47.5	66.4	61.6	57.0

The average background noise levels (L_{A90}) at Port Cottage and Ridgcroft Farm are taken as being 44.0 dB and 57.0 dB, respectively.

Assessment Suitability

The site is currently occupied by a waste site and is partially shielded from residential properties by the A342 and existing bunding.

It is considered that due to the ability to increase the separation distance, the site is suitable for its intended uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction on the northern, western and eastern boundaries of the facility is required and the facility should be sited towards the south of the site area, with a minimum of 100m to the nearest residential dwelling.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.2.5.4 Air Quality and Odour

Introduction

Wiltshire waste is located on southeast of Devizes at Monument Hill on the A342. The site is currently used as a skip hire service, involving a WTS and inert recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 10.5µg/m³ NO_x (standard for protection of vegetation 30µg/m³);
- 7.7µg/m³ NO₂ (standard 40µg/m³);
- 13.9µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate very good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

Potentially 84 residential receptors within 500 metres of the site boundary mainly located to the north east. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: A342 and minor roads. Agricultural activities in the area are potential sources of dust, bioaerosols, NH₃ and odour.

Table B.2.5.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Residential within 100m of site (4 receptors)	1 (1)	2 (2)	N/A	N/A	3 (3)	2 (2)	3 (3)
Residential between 100 and 500m (80 receptors)	1 (1)	1 (1)	N/A	N/A	3 (3)	1 (1)	3 (3)
Residential within 250m (16 properties)	1 (1)	1 (2)	N/A	N/A	2 (2)	1 (1)	2 (2)
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol risks are limited to within 250m of the site

Mitigation

Dust, bioaerosol and odour control measures are recommended. See ‘Air Emissions Mitigation Options’ in **Appendix C**.

Recommendation

All air quality risks for the intended use are low to high without mitigation. Mitigation for dust, bioaerosols and odour is recommended. Detailed assessment should be undertaken.

B.2.5.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

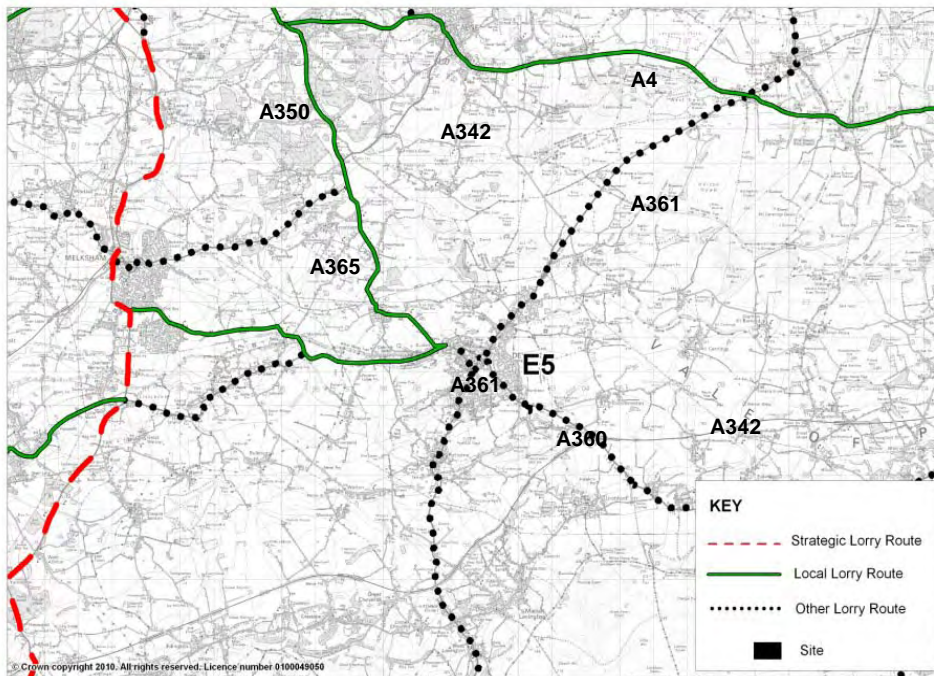
The 4.8 ha site is located off the A342 to the southeast of Devizes. The site has been allocated as a local scale waste facility in the DPD. It is located approximately 2.5km southeast of the town centre. The site is located in a rural area, accessed directly off the A342 Monument Hill.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.5.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.2.5.5.1 shows that access to the site is from the A342 which is designated as an ‘other’ lorry route and therefore should be used only where it is essential to gain access. The A342 is a single carriageway and provides access to Devizes town centre to the west, and to Upavon in the east. The A342 becomes a local lorry route to the west of Devizes towards Chippenham.

Figure B.2.5.5.1 - Location in Relation to Freight Network



Potential Uses

This site has been identified for Treatment (T) use only.

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.5.5.1** provides an estimate of the trip generation for the proposed site use. Further details of traffic generation for the potential site use are contained in **Appendix D**.

Table B.2.5.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed to the north by way of a priority T-junction onto the A342 Monument Hill. The speed limit in the vicinity of the site is the national speed limit, and the A342 is a single carriageway road. The A342 is 6.6m wide adjacent to the site access. The site access itself is in a poor condition and requires resurfacing.

DMRB³⁵ requires a minimum visibility of 215m for this type and speed of road which is achieved to the west at the location of the existing access. However, to the east the vertical alignment of the A342 restricts visibility to approximately 120m (**Figure B.2.5.5.2**). To the west, there is some overgrown vegetation partially restricting the visibility however this can be easily managed and maintained. On site observations indicated that the A342 was a relatively well used road with speeds appearing to exceed the speed limit near to the site, this would need to be confirmed with a spot speed survey when considering the suitability of the access.

Figure B.2.5.5.2 - A342 to East, with HGV Emerging from Hidden Dip



³⁵ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Transport Environmental Impacts

The site is located to the southeast of Devizes. The existing site access is located opposite an access to a large residential property. To the east and west of the site there are agricultural buildings including farmhouses. These are located away from the site access, but within 150m of the site boundary. The area is largely rural in nature, whilst the existing use of the site is a waste facility.

The site has no dedicated cycle infrastructure in the vicinity. A footway is provided on the south of the A342, with a width of 1m. However, due to the speed of vehicles on the A342 and the lack of any separation between pedestrians and traffic, the levels of intimidation and fear are high.

Off Site Highway Network

In the wider area, the A342 links to the A361 in Devizes town centre, with the A342 continuing northwest towards Chippenham and the A361 bisecting it in a west to northeast direction linking to Avebury and Melksham. Both the A342 and A361 become local lorry routes on the western outskirts of Devizes town centre. At Melksham and Chippenham, both roads join the strategic lorry network (A350).

From on-site observations, traffic flows appeared to be relatively high in the area. However, it is felt that capacity will not be an issue. Notwithstanding this, a junction capacity assessment would be required if/when development plans are finalised, to ensure the local highway network can accommodate the proposed traffic volumes.

Devizes town centre however, is already prone to heavy congestion. Therefore, where possible, the routings of HGVs should be designed to avoid the town centre at peak times, whilst maintaining access via suitable roads.

Accessibility by Sustainable Modes

There is no dedicated infrastructure for cyclists provided in the vicinity of the site. A pedestrian footway is provided on the south side of the A342, but the rural character of the area and on site observations suggests there is no demand for an improvement in facilities. The footway is approximately 1m in width.

The nearest bus stops are located 420m west of the existing site access on the A342. These are located at the Fox and Hounds public house.

Constraints

The main constraints identified at this site are:

- The proximity of the large residential property to the north of the site;
- The proximity of the agricultural buildings to the east and west of the site;
- The site is not accessible by sustainable modes; and
- The overgrown vegetation partially restricting the visibility to the west at the site access.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E5/001** in **Appendix D**.

Mitigation

It is recommended that a few adjustments are made to the existing site access. Primarily, all cars should be required to park within the site itself, not near the access point. The area around the site access also requires some minor surface treatment to avoid further deterioration of the surface. Finally, vegetation will require seasonal trimming to reduce the impact this has on visibility to the west.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£20k** - for surfacing and modifications to site access.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- It is located in close proximity to the other lorry route network;
- Brickley Lane/Windsor Drive, off the A342 southeast of Devizes, offers a bypass of Devizes town centre and links to the A361 northbound towards Avebury; and
- The site is already in use as a waste facility.

The following issues/constraints have been identified:

- Devizes town centre already experiences issues with congestion;
- Overgrown vegetation partially restricts the visibility to the west at the site access;
- A large residential property is located opposite the site access;
- The site is not accessible by sustainable modes; and
- The existing access is currently partially obstructed by parked vehicles.

In conclusion, the site is considered appropriate for the proposed uses. However, consideration is required of the mitigation measures as set out in this report, to ensure the site access is fit for purpose.

B.2.5.6 Water Quality / Environment and Contaminated Land

NGR: 402270, 159950

Location: Monument Hill, Devizes

Area: 4.8 hectares

Data Source: Landmark Envirocheck Report 30098426_1_1 (8th Feb 2010) unless otherwise referenced

Table B.2.5.6.1 - Wiltshire Waste Tinkersfield Farm - Water Environment and Contaminated Land

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
<p>Hydrology: Surface Water</p>	<p>There are two streams that enter the site, one to the north and one to the south, the latter connected to several other streams in the Stert Valley.</p>	<p>Impact on the stream flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on streams quality and surface water downstream of the site as a result of potential runoff contamination during construction and operation.</p>	<p>Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design.</p> <p>Consider limiting types of waste handled at the site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas, etc).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review run off treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>There is a thin outcrop of alluvium to the west of the site, this and the remaining area of the site is underlain by the Lower Cretaceous Upper Greensand Formation (sandstones</p>	<p>There is the potential for the creation of a pathway for contaminants to reach the groundwater.</p>	<p>-</p>	<p>To be considered during further assessment.</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
	passing into micaceous siltstones with depth). There is a fault trending ENE - WSW directly north of the site ³⁶ .			
Hydrogeology: Groundwater – Hydrogeological Units	The site is on a Primary (Major) Aquifer.	Contamination of aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design. Consider limiting types of waste handled at the site e.g. only solid waste, only inert waste.	Environmental Management during construction. Produce working plan for site. Review run off treatment requirements.
Hydrogeology: Groundwater – Source Protection Zone	The site is not in or near a Source Protection Zone (SPZ).	No risk posed to public water supply, but local private abstractions may exist (<20m ³ / day).	Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas, etc).	Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Vulnerability	The aquifer is designated as being of intermediate vulnerability.	Contamination of aquifer.		Surface Water Management Plan.
Hydrogeology: Groundwater – Direction of Flow	No information available on direction of flow.	No risk posed.	Good working practices and EA guidance during construction.	
Discharges: Surface Water - Discharge Consents	Storm overflow; to Stert watercourse, 20m south; Final / treated effluent; to tributary of Semington Brook, 584m south-east; 680m south-west and 697m south-west; to tributary of River Avon,	No risk posed.	-	To be considered during further assessment.

³⁶ BGS 1:50 000 Drift geological map (Sheet No. 282, Devizes)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
	774m south-east; to Semington Brook, 794m south-east,, 834m south-west; to tributary of Worton Brook, 900m south-east.			
Discharges: Groundwater – Discharge Consents	Final / treated effluent; to soakaway, 680m south-east and, 697m south-west.	No risk posed.	-	To be considered during further assessment.
Discharges: Pollution Incidents – To land	Category 2, significant incident; many pollutants, including oils, asbestos, metal wastes, tarry wastes; on site.	Risk that incident will have contaminated ground that needs to be excavated during construction. This could open up pathways to site staff, controlled waters or other receptors.	A Site Waste Management Control Plan and a Pollution Incident and Control Plan should specify how excavated material is to be handled, stored and disposed of.	Geoenvironmental investigation is required to determine the nature and extent of any contamination that may be present on the site.
Discharges: Pollution Incidents – To water	Category 3, minor incident; many pollutants, including oils, asbestos, metal wastes, tarry wastes; on site.	No risk posed.		To be considered as potential source of contamination if contamination is found during site investigation and monitoring.
Abstractions: Surface Water – Abstractions	There are no surface water abstractions within 1km of the site	Not applicable.	-	-
Abstractions: Groundwater – Abstractions	General farming and domestic, 126m north east, 143m north-west, 192m east, 271m west, 419m north, 672m south-east and horticultural watering, 641m south-east	Not applicable.	-	To be considered during impact assessment.
Flood Risk	The southern tip of the site is in an area of flood	Little risk from fluvial	Surface Water	A Flood Risk

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
	risk (zone 2) associated with the Stert Valley. The rest of the site is in zone 1.	flooding but there is a risk of pluvial or groundwater flooding.	Management Plan, SuDS design to control runoff. Infiltration devices. Surface Water Management Plan.	Assessment in line with PPS25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Landuses: Waste sites	The whole site has a history of use as waste sites, including taking industrial, commercial and household waste.	There is a significant risk that past and present landuses will have led to contamination of the ground, in particular the area of the old railway line and landfill site shown on historical maps. The risk this presents is the excavation and exposure of contaminated material during construction which could open pathways to site staff via direct contact or controlled waters via leaching to the aquifer.	A Site Waste Management Plan and a Pollution Incident and Control Plan should specify how excavated material is to be handled, stored and disposed of.	Geoenvironmental investigation is required to determine the nature and extent of any contamination that may be present at the site.
Landuses: Historical landuse	1886: A saw pit is marked near the middle of the site and Berks & Hants GWR extension railway line runs through the southern part of the site. 1970-82: The southern and eastern part of the site is marked as a refuse tip, by which time the railway line has been dismantled.			
Landuses: Trade directory	There are no active trade directory entries within 500m of the site.			
Conservation Designations	North Wessex Downs Area of Outstanding Natural Beauty is just over 500m to the east, but this too far away to be affected by the works.	Not applicable.	-	-
Drainage: Current	The Drainage Authorities have been contacted	-	-	-

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Surface Water /Foul Drainage Systems – Capacity	with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.			

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Waste Treatment site at **Wiltshire Waste Tinkersfield Farm, Monument Hill, Devizes** falls within the following category:

- Potentially significant issues identified – review further assessment requirements of site

The initial screening indicates that:

- There are watercourses that enter the site and therefore there is the potential for changes to their flow and quality
- The site is on a Primary Aquifer and therefore there are potential groundwater contamination issues
- The site is at risk from fluvial, pluvial, and groundwater flooding
- There is a history of potentially contaminating landuse on the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and contamination assessment

B.2.6 Broadway Employment Area, Market Lavington (Site Ref E6)

B.2.6.1 Introduction

The site extends to 4 ha and is located off an unclassified road, Broadway Ledge, which links Market Lavington. The site is a mix of industrial uses including workshops, distribution depots, storage yards and a chicken factory. The site has several established access points onto Broadway which provides access to the A360 located to the north of the site.

This site is located in a rural setting. The north east boundary is formed by Broadway, a railway embankment lies immediately to the south-east of the site. The south west and north west boundaries of the site are formed by adjacent agricultural land defined with native hedgerow tree species. There are residential properties in proximity to the site, a small number of detached residential properties along Broadway Ledge, Mowbray House, immediately adjacent to the site boundary and a house located in the centre of the site. A sewage treatment works is located beyond a field to the southwest.

The site lies on a flood plain. A public right of way runs through the field to the south-west of the site, coming under the railway embankment and joining the A360.

The site is allocated as a Rural Employment location in the Kennet District Local Plan. The emerging Wiltshire Core Strategy does not propose any designation in the vicinity of the site.

A search of planning consents since 2006 has revealed that few planning consents have been granted in this area since 2006, none of which are likely to be impacted by proposed uses at this site.

B.2.6.2 Landscape and Visual Impact

Introduction

The site is located off an unclassified road, Broadway Ledge, which links Market Lavington and the A360. A railway embankment lies immediately to the south-east of the site. The site lies on a flood plain, with flat arable fields to the south. A handful of residential properties are scattered along Broadway Ledge around the site. The site is currently used for light industrial, storage and distribution use.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mix of arable and pasture.
- Wide river corridor, cut through by numerous tributaries of the River Avon, with ancient pattern of flood meadows but much influenced by modern development.
- Uses such as landfill are widespread, with more substantial urban fringe areas than in neighbouring landscapes. The 'land in between' is often neglected.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Trowbridge Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on Clay.
- Mixed arable and pastoral, with pasture concentrated around the water courses.
- Variable field pattern with network of full hedgerows and mature hedgerow trees.
- Presence of streams marked by lines of willows and crossed by modest bridges.
- Woodland blocks including some ancient woodland and wet woodland of high ecological value plus scattered mature trees.
- Scattered settlement of towns, small villages and farmsteads, many using vernacular materials of brick, half timber, stone, tiles and thatch.
- Roads largely minor and rural with a few trunk roads and sections of motorway.
- Views vary from semi-enclosed by intact hedgerows, riparian vegetation and woodland blocks to more open with views to the rising scarps of the chalk uplands.
- A largely peaceful, rural landscape.

Generally the condition of the landscape character area is considered by WCC to be 'good', with a 'moderate' strength of character.

The strategy for the area is to conserve its peaceful rural landscape and strengthen its character through minimising urban influence.

Kennet Landscape Conservation Strategy (Kennet Borough Council)

Landscape Character Area: Bristol Avon Clay Vale

Key characteristics relevant to the site:

- Topographically almost flat
- Complex geological mix of greensand, Kimmeridge and Oxford clays, gault, Portland Beds and Calcareous grit.
- The area is dominated by a strong structure of hedgerows and trees. Field sizes vary, with the hedgerow pattern being largely a result of post-medieval enclosures.
- Hedgerow structure gives a feeling of enclosure, with low inter-visibility,

Landscape Designations and Rights of Way:

- A public footpath runs to offsite parallel the site's southwest boundary
- A public footpath runs parallel to the site's eastern boundary, on the other side of the railway embankment

Baseline Landscape Character and Features: Site Survey

The site comprises a flat area with mixed industrial use including workshops, distribution depots, storage yards and a chicken factory. Buildings are industrial in character and generally 1 to 2 storeys in height. The site also includes a large red-brick historic business unit which front onto Broadway Ledge. Adjacent to the site, north and west there are a small number of detached residential properties along Broadway Ledge, including a substantial detached house, Mowbray House, immediately adjacent to the site boundary.

A railway line runs on an embankment to the south-east of the site, enclosing the site. A historic farm track subdivides the site, with mature hedge banks providing screening and reflecting the wider rural landscape character. Arable fields surround the site, with native hedgerow tree species including oak. The western setting of the site is characterised by a minor floodplain, with willows hedgerow trees.

A public right of way runs through the field to the south-west of the site, coming under the railway embankment and joining the A360.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium

Although the wider setting is tranquil and rural in character, the presence of the railway line and the existing industrial site uses have eroded this character within the site itself, giving it a poor landscape quality. Historically the site has been associated with former extraction and disposal uses which has associated land stability and contamination concerns. The railway embankment screens the site from views from the south and one lane with remnant field hedge banks subdivides the site providing additional internal screening which would enable the site to accommodate change.

Potential Landscape Impacts

- Loss/damage to historic lane/track with hedge banks and mature hedgerows within site
- Loss/damage to mature trees on frontage of adjacent road (Broadway Ledge)
- Further erosion of rural character to west and north of site

Potential Landscape Mitigation Measures

- Site planning – facilities to be located so as to utilise existing screens such as the railway embankment and existing hedgerows and trees
- Earth bunds and native woodland planting around site boundaries to west and along Broadway Ledge frontage to screen views into the site and strengthen rural character
- The following ‘Broad Management Objectives’ for the Rolling Clay Lowlands in the Wiltshire Landscape Character Assessment are relevant to the site:
 - Retaining and managing the dense hedgerow network and nurturing new hedgerow trees
 - Strengthening the enclosed character of the landscape and screening views to urban edges through nurturing existing and planting new woodland.
- The following Enhancement Priorities proposed for the Bristol Avon Clay Vale landscape character area in the Kennet Landscape Conservation Strategy are relevant to the site:
 - Encourage repair, replanting, widespread extension of hedgerow network, and development of hedgerow trees using typical native species such as ash and oak.
 - Maintain existing roadside hedgerows and trees and replace where these have been weakened through neglect or Dutch Elm Disease.
 - Improve landscape structure and land management around the fringes of settlements and along main roads to mitigate adverse impacts on the landscape.
 - Encourage better boundary maintenance of fringe land uses

- Small copses and groups of trees can be easily accommodated into the landscape structure, although the scope for large scale planting is somewhat limited.
- New tree planting along hedgerows and roads should be encouraged with oak, field maple and ash dominating the drier land
- The establishment of woodland blocks and smaller tree groups, to mitigate the effects of sporadic settlement development into the countryside, is of importance to retain the intimate, pastoral character of the area.
- Existing woodlands and trees should be managed to maximise ecological and landscape value.

Table B.2.6.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residents of Broadway Ledge in vicinity of site	High	Slight – Moderate adverse	Location of large structures to south of site
Users of Broadway Ledge road	Low	Slight Adverse	Bund/ hedgerow planting/tree planting along site frontage
Workers on industrial estate	Low	No change	Structure planting around site boundary
Rail passengers/employees	Low	No change	
Users of footpath to south of site	High	Slight adverse	Bund/native woodland planting along southern boundary of site

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting and existing industrial character, the site could accommodate change. The main visual impacts, on residences on Broadway Ledge and the footpath to the south of the site, could be almost entirely mitigated through sensitive site planning and screen planting. Site planning should avoid the loss of the lane with hedge banks that runs through the site.

Recommended further Landscape and Visual Surveys

- Visual survey from train on adjacent railway embankment
- Night-time visual surveys.

B.2.6.3 Noise

Introduction

The site at Broadway Employment Allocation, Market Lavington has been allocated the following uses, and as such has been assessed in regard to noise from the following;

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations;

- On the access track to the allocated site opposite Mowbray House on Boardway, the amenity space on Mowbray house borders the allocation site; and
- The front garden of number one Broadway Cottage, located approximately 13m from the northern boundary of the site.

The proposed site is located within land currently occupied by a fencing and landscaping contractor, and business units. Given the current usage, background noise levels were made with these activities occurring. The allocated site is bounded to the north by the Broadway, and a railway to the east. The surrounding area of the site is farm land with interspersed residential dwellings.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on Broadway and the works within the allocation, with occasional transient noise from trains.

Consecutive background noise measurements were taken the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.2.6.3.1 - Mowbray House - Background Noise Levels (AU1_0032)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:28:00	00:05:00	60.7	74.1	40.6	61.2	48.5	43.0
12:33:00	00:05:00	58.3	74.1	41.4	57.1	44.2	42.1
12:38:00	00:05:00	61.9	76.0	40.5	66.2	47.8	42.8
12:28:00	00:15:00	60.5	76.0	40.5	62.1	46.7	42.4

Table B.2.6.3.2 - Broadway Cottage - Background Noise Levels (AU1_0033)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:49:00	00:05:00	57.8	73.2	37.1	57.8	43.3	38.9
12:54:00	00:05:00	60.8	73.9	38.2	63.7	50.3	42.6
12:49:00	00:10:00	59.6	73.9	37.1	62.0	47.7	39.8

The average background noise levels (LA90) at Mowbray House and 1 Broadway Cottage are taken as being 42.4 dB and 39.8 dB respectively

Assessment Suitability

The site is an existing industrial estate with residential properties to the north of the site.

Due to the proximity of residential dwellings the site is highly unlikely to be considered suitable for the intensification of use proposed.

Mitigation

Only placing all the activities inside a building would this facility possibly be considered suitable, but the intensification of use from access traffic may make this site unsuitable.

Recommendation

With mitigation the site is not deemed suitable for the intended uses with respect to noise.

B.2.6.4 Air Quality and Odour

Introduction

Broadway employment allocation, Market Lavington currently accommodates light industrial/ storage/ distribution units. The setting is rural, bounded on the south by the railway line. It is adjacent to a sewage treatment works to the southwest.

Potential uses include materials recycling facility, waste transfer station, local recycling and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 9.6µg/m³ NO_x (standard for protection of vegetation 30µg/m³);
- 7.6µg/m³ NO₂ (standard 40µg/m³);
- 14.0µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate very good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

Potentially 9 sensitive receptors within 500 metres are residential including a dwelling known as Mowbray House at the western entrance to the estate. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic on the A360, B3098 and minor roads; gas/oil/solid fuel space heating for scattered buildings. The sewage works is a potential source of bioaerosols and odour. Agricultural activities in the area are potential sources of dust, bioaerosols, NH₃ and odour.

Table B.2.6.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Residential within 100m of site (4 receptors)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	1 (1)
Residential between 100 and 500m (9 receptors)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	1 (1)
Residential within 250m (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500m of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol risks are limited to within 250m of the site

Mitigation

Dust control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low without mitigation. Mitigation for dust is recommended. Further assessment should not be necessary.

B.2.6.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

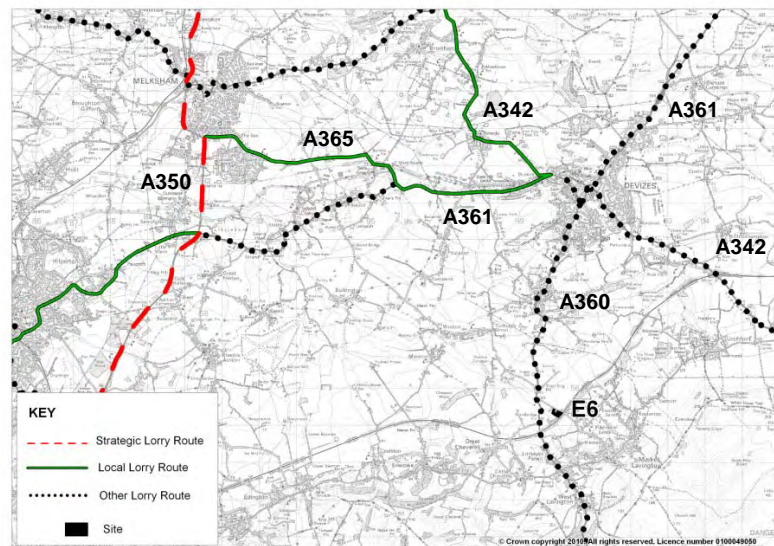
This 4 ha site is allocated as a local scale waste facility in the DPD. It is located approximately 2km northwest of Market Lavington 7km south of Devizes. It is 0.8km southeast of its nearest junction with the A360. The site is adjacent to the Reading to Plymouth Line, a branch of the Great Western Main Line, which forms the south-eastern boundary of the site. The site covers existing industrial uses and is adjacent to a poultry farm.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.6.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Access to the site can be gained from Broadway which leads northwest to the A360, an 'other' lorry route which, by definition, can be used only where it is essential to gain access. The A360 leads to Devizes to the north and Amesbury (via Stonehenge) to the south. At Devizes, access is given to the local lorry network towards Melksham (A361) and Chippenham (A342). The strategic lorry network is accessed at Stonehenge with the A303 linking to Andover (and the M3) to the east, and to Exeter (and the M5) to the west.

Figure B.2.6.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.6.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.6.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed from Broadway with four priority T-junctions. The exact location of the proposed site within the wider site is currently unknown. The two central accesses serve an existing industrial unit. It is assumed that this unit will remain and as such access via these two access points has been discounted. The southernmost (nearest railway) serves a hauliers and the northernmost provides access to a residential property. Broadway is 5.5m wide in the vicinity of the site and is therefore narrow but is just able to accommodate two passing HGVs however it is likely that HGVs will need to slow and pass with caution. The road narrows towards Market Lavington and experiences a pinch-point beneath the railway bridge to the southeast of the site. The road is subject to the national speed limit, but site observations showed that this was often exceeded between the site and the A360 junction due to the straight, flat nature of the road and the forward visibility this allows.

The existing accesses are of varying standards and widths, with the southernmost being the widest and most suitable for the proposed uses as it is already used by HGVs and has a width in excess of 8.5m. However, this site access is opposite some residential properties. Visibility is highest at the northernmost and southernmost accesses where the DMRB³⁷ minimum requirement of 215m is achieved. The northern access (near the poultry farm), is adjacent to a residential property. Therefore, based on safety and minimal disruption, the hauliers access is the most

³⁷ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

suitable. However, as it is not known where within the wider site that the proposed waste site will be located, neither of these accesses can be dismissed as options.

Figure B.2.6.5.2 - Visibility along Broadway from Existing Southernmost Site Access



Visibility to the North



Visibility to the South

Transport Environmental Impacts

The site is located near a number of residential properties. One is located adjacent to the northernmost access, whilst others are opposite the southernmost, haulier's access. As the latter access is already used by a haulage company who operate HGVs, the impact on the residents is likely to be minimal as the type of traffic is unlikely to change. Nevertheless the amount of traffic will undoubtedly increase.

There are no cycleways or footways in the vicinity of the site.

Off Site Highway Network

To the southeast of the site lies Market Lavington. The highways in the settlement are unsuitable for HGVs with narrow roads, some one way operation with tight turning radii and on street parking. Market Lavington also does not provide access to the lorry network. The railway bridge on Broadway is subject to a 15ft. 9in. height restriction. For reasons outlined above it is recommended that access to the site is restricted to Broadway and the A360 (other lorry route).

The A360/Broadway junction is a priority T-junction located on the inside of a bend in the A360. Visibility at this junction is restricted in both directions to 130m to the south and approximately 160m to the north. There is also another priority T-junction 30m to the north on the opposite side of the carriageway with similar visibility restrictions. As the speed limit here is the national limit, the visibility falls some way short of the minimum requirement of 215m. To the south of this junction is another railway bridge, with a lower height limit of 4.1m (13ft. 4in.) and where the road is again narrow. As a result this railway bridge is signalised.

Site observations suggest that capacity at the Broadway/A360 junction will not be unduly affected by the proposals, however a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes. For safety reasons however, mitigation will be required at the junction to address the visibility issue.

Accessibility by Sustainable Modes

There are no pedestrian or cycling facilities provided near the site. The nearest bus stops are located over 1.5km away on the A360 and are not suitably accessible from the site by foot.

Constraints

The main constraints identified at this site were:

- The visibility issue at the A360/Broadway junction;
- The location of residential properties, opposite and adjacent to potential access junctions;
- Narrow road width along Broadway;
- Observed high speeds along Broadway between the A360 and the site;

- The lack of access from the south of the site due to Market Lavington's highway network; and
- The height restrictions on the two railway bridges although it is likely HGVs associated with the proposed uses will be within the limits of the structures.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E6/001** in **Appendix D**.

Mitigation

It is difficult to recommend a suitable access until the location within the wider site and third party land constraints are established. The southernmost access is to standard and will result in the least disruption to residents. However this access is shared with a haulage company and therefore there may be issues relating to third party land and the sharing of the access. The northernmost access has better visibility but access is shared with a residential property and as such the amenity of this property is likely to be severely affected. In purely highway terms both access points are suitable for the proposed uses however planning issues will need to be resolved.

Mitigation is required to the A360/Broadway junction in the form of a right turn ghost island to protect vehicles from collisions when approaching the junction from the south. It is intended that this will address the visibility issues. Additionally, warning signs of "lorries turning" should be installed on the approaches to the junction from beyond the visibility splay to provide sufficient advance warning of possible danger ahead. A speed limit reduction to 40mph or Vehicle Activated Signs (VAS) to increase awareness of the junction and/or reduce speed is recommended. A coloured, high friction surface could also be considered.

Where possible, Broadway may require passing places for HGVs, widening or a speed reduction as the road width is often less than 6m, which is insufficient for two HGVs to pass each other at high speeds.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£500** - per warning sign;
- **£2.5k** - per Vehicle Activated Sign; and
- **£120k** - for the right turn ghost island at the A360/Broadway junction, assuming that there are no issues with the bridge of the A360, 65m south of the junction;

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- It is in a rural location and would be on brownfield land;
- The site is less than one kilometre from the lorry network; and
- There is already an existing site access which satisfies the design standards.

The following issues/constraints have been identified:

- Poor visibility at the A360/Broadway junction;
- Potential planning/third party land issues associated with shared access;
- Devizes town centre is already congested, yet the only lorry route north of the site involves travel via Devizes;
- The location of residential properties, with some opposite an existing access and another adjacent to an access;

- Narrow road width along Broadway;
- The site is not accessible by sustainable modes;
- High speeds were observed along Broadway;
- The lack of access from the south of the site due to Market Lavington's highway network; and
- The height restrictions on the two railway bridges.

In conclusion, the site is considered appropriate for the proposed uses. However, consideration is required of the mitigation measures as set out in this report, to ensure the site access and off-site highway network is fit for purpose.

B.2.6.6 Contaminated Land

NGR: 400000, 155340

Location: Market Lavington

Area: 4 hectares

Data Source: Landmark Envirocheck Report 30172908_1_1 (15th Feb 2010) unless otherwise referenced

Table B.2.6.6.1 - Broadway Employment Allocation Contamination

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrology: Surface Water	There is a drain 171m to the east and a stream/river 200m to the west.	Runoff of contaminated material to surface waters.	<p>Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design.</p> <p>Consider limiting types of waste handled on site.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc), and to include reference to EA Pollution Prevention Guidelines (PPGs).</p>	<p>Environmental Management during construction.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p>
Geology: Stratigraphy	The site is underlain by the quarternary superficial deposits of sandy, silty clay, locally gravelly, chalky and flinty in dry valleys which overlie the Lower Cretaceous Upper Greensand Formation (sandstones passing into micaceous siltstones with depth) and Gault Clay Formation ³⁸ .	Potential for the creation of a pathway for contamination to reach groundwater.	-	To be considered during further assessment.
Hydrogeology:	The site is on unproductive strata (non-	No risk posed.	-	-

³⁸ BGS 1:50 000 Drift geological map (Sheet No. 282, Devizes)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Groundwater – Hydrogeological Units	aquifer).			
Hydrogeology: Groundwater – Source Protection Zone	The site is not on or near a SPZ.			
Hydrogeology: Groundwater – Vulnerability	Not applicable.			
Hydrogeology: Groundwater – Direction of Flow	Not applicable.			
Discharges: Pollution Incidents – to land	There are no recorded pollution incidents within 1km of the site.	No risk posed.	-	-
Abstractions: Surface Water Abstractions	Aquaculture throughflow, 942m south.	Not applicable.	-	To be considered during impact assessment.
Abstractions: Groundwater Abstractions	General farming and domestic, 235m east.	Not applicable.	-	To be considered during impact assessment.
Flood Risk	There is an area of zone 3 flood risk 150m west associated with the stream/river; but the site itself is within zone 1.	The site is greater than 1ha, so there is a risk of pluvial flooding which should be considered.	Surface Water Management Plan, SuDS design to control runoff.	A Flood Risk Assessment in line with PPS25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Landuses: Historical landuse	1886: The site includes a brick & tile works and clay pit.	There is a significant risk that past and	A Site Waste Management Plan and a	Geoenvironmental investigation is required to

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	<p>1900: The clay pit has expanded and construction of the GWR Stert & Westbury Railway has begun along the eastern edge of the site.</p> <p>1924: Parts of the clay pit appear to have been flooded/overgrown with marshy vegetation.</p> <p>1979-82: The site is now labelled as a Works and Poultry Farm; there is a Sewage Works 150m to the south.</p>	<p>present landuses will have led to contamination of the ground.</p> <p>The risk this presents is the excavation and exposure of contaminated material during construction which could open pathway to site staff via direct contact, or controlled waters via runoff to the ditch near the site.</p>	<p>Pollution Control and Incident Plan should specify how excavated material is to be handled, stored, and disposed of.</p>	<p>determine the nature and extent of any contamination that may be present at the site.</p>
Landuses: Waste sites	<p>The site has been used as a landfill for commercial and household waste.</p>			
Landuses: Trade directory	<p>Current trade directory entries on site comprise a distribution services transport depot and a manufacturer of calibration equipment.</p>			
Conservation Designations	<p>There are no protected sites within 1km of the site.</p>	<p>No risk posed.</p>	<p>-</p>	<p>-</p>

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Materials Recovery Facility / Waste Transfer Station or Local Recycling site at **Broadway Employment Allocation, Market Lavington** falls within the following category:

- Potentially significant issues identified – review further assessment requirements of site

The initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- There is a history of potentially contaminative land use on the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.

B.2.7 Salisbury Road Business Park, Marlborough (Site Ref E7)

B.2.7.1 Introduction

The site extends to 6 ha and is located on the south-western edge of Marlborough and to the north of the Savernake Forest on the A346. The site is being developed as a new business and industrial park. The development is partially complete but comprises a series of office blocks and industrial units arranged around an access road with street lighting. The existing access to the site is directly from the A346 Salisbury Road via a purpose built roundabout. The site is bound by to the west by Salisbury Road, to the north by a disused railway (the embankment is covered in dense scrub) and to the south by Savernake Forest SSSI. Ornamental and native species have been planted although this landscaping is immature at present. The main residential areas of Marlborough are located beyond the former railway embankment to the north and north west of the site,

The site is located in the North Wessex Downs AONB and adjacent to the Saversnake SSSI. The site is in proximity to a number of designated sites including an area of ancient woodland (part of the Savernake SSSI) that lies approximately 0.5 km to the south east and the River Kennet Wildlife Site which is approximately 0.5 km to the north.

The site overlies a major aquifer of high vulnerability and near to source protection zone 1. Protected species and trees may be present on the site.

The site is allocated as a Rural Employment location in the Kennet District Local Plan (Policy ED7). The emerging Wiltshire Core Strategy does not propose any designation for the site however there is a proposed area of housing/mixed use immediately to the west of the site.

Views onto the site from nearby Public Rights of Ways and views from residential areas to the north of the site

A number of planning consent have been granted in the area since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, others of particular note include:

Reference: K/57714/O Erection of 18 No. live/work units, 14 No. residential dwellings, and associated works following the demolition of existing buildings. Marlborough Depot site Salisbury Road Marlborough. 2007

Reference: K/57975/F. Use of business unit for business purposes (Classes B1, B2 & B8) or fitness centre (Class D2), Unit 7 (no.8), Hertford Court, Blenheim Road, Marlborough, Wilts, SN8 4AW. 2008

Reference: K/57562/F. Use of site for Class B1 (Business) use, Class B2 (General Industrial) use, Class B8 (Storage or distribution) use, or Class D2 (Assembly and leisure) use. Marlborough Business Park 6 Glympton Court Blenheim Court Marlborough Wiltshire SN8 4AL. 2007

Reference: K/59467/F. Use of business unit for business purposes (Classes B1, B2 & B8) or a gym and fitness centre under Class. Unit 16 Marlborough Business Park Hertford Court Marlborough Wilts SN8 4AW. 2008

B.2.7.2 Landscape and Visual Impact

Introduction

New business and industrial park located on the south-western edge of Marlborough and to the north of the Savernake Forest. The site has yet to be completed and has a number of vacant plots. It is allocated as an employment area in the Kennet District Local Plan.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Berkshire and Marlborough Downs

Key characteristics relevant to the site:

- Well-wooded dip-slope characterised by mixed farming with tree-lined arable fields.
- Wherever clay -with- flints caps the chalklands this creates areas of damp heavy soils which support major areas of woodlands such as Savernake Forest.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Wooded Downland

Landscape Character Area: Savernake Plateau

Key characteristics relevant to the site:

- Rolling downlands with scarp slopes
- Intensive and widespread arable farmland enclosed within a wooded framework including hedgerows with many wooded trees
- Floristically rich chalk grassland, in particular on scarp slopes
- Historic landscape is rich in burial, settlement, agricultural and territorial features dating from the Neolithic to the modern era
- The steep valley sides and scarp slopes and are devoid of settlement although the pattern of paths, tracks and field boundaries tend to reflect past patterns of land use linking the downs with the valleys and plateaus.
- Upper Chalk overlain by drift deposits creating heavier soils that supporting a highly wooded character of this area

WCC judge the condition of the Wooded Downland Landscape Type to be 'good', in part due to its varied woodland cover, full hedgerows and visual interest. It is considered to have a strong landscape character, resulting from its varied chalk geology, including its steep scarps, and its rich history. The overall strategy is to 'conserve' the rural, peaceful character of the area with its varied topography and land cover.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: Savernake Plateau

Key characteristics relevant to the site:

- scarp slopes

This character area is typified by a strong woodland and farmland character and as such, the site does not conform. The scarp slope to the east of the site however, is typical of the geomorphology of the area.

Landscape Designations and policies:

- The site lies within the North Wessex Downs AONB
- The Tottenham House and Savernake Forest Registered Park and Garden lies to the south-east of the site
- A public footpath lies to the south-east of the site along the Postern Hill escarpment

Baseline Landscape Character and Features: Site Survey

The site is relatively flat in character, although it is enclosed to the north, south and east by chalk escarpment topography. These slopes are covered with scrub, together with scattered native trees, including hawthorn, ash and willow.

The site has been partially completed and consists of a series of office blocks and industrial units arranged around an access road with street lighting. A number of plots remain vacant along the southern, A346 frontage and to the north of the site. A new structure of ornamental and native planting has been put in place, although this is currently immature and poorly maintained. A number of offices and units are now occupied, with development land still available and one plot under offer.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Low

Capacity to Accept Change: High

The site has been significantly disturbed through construction and its rural character eroded. It is relatively well enclosed and screened and would therefore be able to accommodate change well.

Potential Landscape Impacts

- Further erosion of rural character of wider area through loss of vegetation and introduction of urban/industrial elements.

Potential Landscape Mitigation Measures

- Planting of native woodland buffer around proposed facility
- Location of facility to northern end of site, away from A346

The following ‘Broad Management Objectives’ for the Wooded Downland landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

The following Enhancement Priorities proposed for the Savernake Plateaux landscape character area in the *Kenet Landscape Conservation Strategy* are relevant to the site:

- Plant blocks and belts of native broadleaved woodland, on arable or cultivated land and within estate farmland, to link with existing woodlands and to restore or reinforce a mosaic of woodland and farmland.

Table B.2.7.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Impact on Receptor	Potential Visual Mitigation Measures
Residents to north of site on Five Stiles Road	High	No change – Slight adverse (depending on scale and	

Visual Receptor	Sensitivity of Receptor	Potential Impact on Receptor	Potential Visual Mitigation Measures
		location of proposals)	
Employees of business park	Low	Slight adverse – No change (given that site is already allocated for industrial use)	Buffer planting/bunds around facility to screen it. Location of facility to northern end of site to minimise number of visual receptors affected, but with 15m + planted buffer between facility and residential boundaries.
Users of footpath to south-east of site (potential)	Medium	Slight adverse – No change (given that site is already allocated for industrial use)	
Users of A346	Low	Slight adverse – No change (given that site is already allocated for industrial use)	
Salisbury Hill Lodge	High	Slight adverse given the current use of the site	Buffer planting/bunds to boundary
Footpath to south of site	High	Slight adverse – glimpsed views through vegetation into site	Increase boundary planting to shield any new development

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting and existing commercial character, the site could accommodate change, especially away from the A346. The main visual impacts, on users of this road, and, during the winter, residents to the north, could be almost entirely mitigated through sensitive site planning and screen planting.

Recommended further landscape and visual surveys

- Night-time survey.

B.2.7.3 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

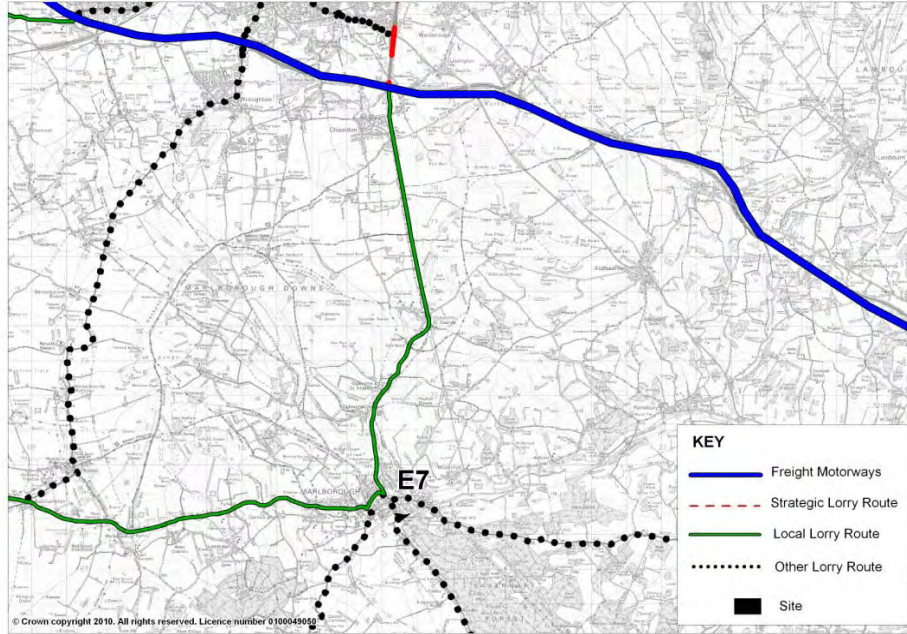
The site is being developed as a Business Park to the south of Marlborough on the A446. The business park site covers a total area of 6ha and has a mix of B1 and B2 employment uses with more being developed. It is proposed that the waste facility is located within this business park however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junction to the business park but not the site access within the wider site. The site is allocated for a local scale recycling facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.7.3.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry

route (where available). **Figure B.2.7.3.1** shows the site is accessed directly off the A346, designated an ‘other’ lorry route at the point of access which, by definition, is only to be used where it is essential to gain access. To the north of Marlborough, the A346 is designated as a local lorry route up to the M4. The site is located some way from the strategic lorry network with the nearest strategic route being M4 (a freight motorway), located 13km to the north.

Figure B.2.7.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.7.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.7.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The access to the business park site is directly from the A346 Salisbury Road via a purpose built roundabout. To the south of the access roundabout the speed limit on the A346 is 60mph, reducing to 30mph on approach to the roundabout from the south. The highway infrastructure at the access junction to the estate is sufficient to accommodate the proposed uses, however although capacity is unlikely to be unduly affected by the proposals, a capacity assessment would be required to ensure no mitigation would be required once the business park was established.

Transport Environmental Impacts

The site is located on the southern fringes of Marlborough. HGV traffic associated with the proposals is highly likely to require access to the M4 to the north of the site and as such HGV traffic will impact on the residential amenity of Marlborough. Nevertheless the routes through Marlborough are designated as ‘other’ lorry routes, categorised as suitable when essential to gain access and local lorry routes and as a result a relatively high number of HGVs use these routes at present. The impact of the HGV traffic on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal although this is highly dependent on the scale of the facility proposed. A larger scale MRF/WTS facility is likely to have a material impact, particularly on the properties on the A346 just to the north of the A346.

If access to the site was gained from the strategic network (A303) to the south thus avoiding the densely populated Marlborough, the impact may be reduced however the distance to the strategic network would be greater and there would be some impact, particularly on the villages of Ludgershall and Collingbourne Kingston.

The nature of these existing uses on the business park is unlikely to generate a significant level of HGV traffic and as such any additional HGV flows associated with the proposals are likely to have a perceived significant amenity impact. The location of the site within the business park is therefore of paramount importance to minimise the amenity impact on the conflicting site uses.

Off Site Highway Network

On street parking outside the properties on the A346 (opposite Priorsfield Road) narrow the road to a level whereby HGVs have to give way to oncoming traffic from Marlborough. Alternatively vehicles were observed encroaching on the mouth of the junction of Priorsfield Road in order to maintain the 2-way flow of traffic (**Figure B.2.7.3.2**). Although not of undue concern at present, should the site result in a considerable increase in HGVs using this route it may be that this will need to be addressed through prohibiting parking along this section of carriageway on weekdays between 08:00 and 18:00. However consideration would need to be made with regard to where the residents would park during these times.

Figure B.2.7.3.2 - On-street Parking Opposite Priorsfield Road



The junction of the A346 and A4 is a double mini roundabout arrangement. The trip generation profile will likely be in peaks, likely between 9:30–10:30am and 2:00-3:00pm, which avoids the peak highway periods. If vehicles arrive from transfer stations the operational trips will be more constant throughout the day, nevertheless site observations suggest that capacity at the junction will not be unduly affected by the proposals however a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes.

Accessibility by Sustainable Modes

Public transport accessibility is good with bus stops located to the north of the site on the A346. Adequate footway provision within the business park and on approach to the business park from Marlborough makes access by non car modes a viable option for local staff.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/E7/003** in **Appendix D**.

Constraints

The main constraints identified at this site are:

- The potential environmental impact on Marlborough should the proposals result in a high number of HGVs associated with large scale MRF/WTS facilities;
- The potential environmental impact on the existing and proposed B1/B2 uses within the business park; and
- The on-street parking on the A346 to the north of the site which reduces road width and results in a requirement for traffic to give way to oncoming vehicles.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E7/001** in **Appendix D**.

Mitigation

No highway mitigation is proposed at present, however the appropriate routing of HGVs will need to be established in order to minimise environmental impacts as much as possible.

Recommendation

The site offers the following advantages:

- Access to the site by sustainable modes is good;
- The purpose built roundabout is of a good standard and is likely to be able to accommodate the proposed traffic volumes;

The following issues/constraints have been identified:

- The site is located a some distance from strategic lorry network;
- The site is being developed as a business park with B1 and B2 uses. Waste uses may not compliment the other existing and proposed developments on the site; and
- There is a potential for adverse environmental impacts on Marlborough, located to the north of the site.

In conclusion, the proposed site is considered appropriate for the proposed uses however consideration of the appropriate location of the site within the business park and HGV routing should be considered.

B.2.8 Salisbury Road Business Park, Pewsey (Site Ref E8)

B.2.8.1 Introduction

The site extends to 3.8 ha and is located on the south-western periphery of Pewsey, a small rural town on the River Avon in the Vale of Pewsey. This site is an existing business park which includes modern two storey units and workshops, a veterinary surgery and a number of vacant plots. The business park situate on a cul-de-sac with an access road which connects to the A345.

The site is bounded by a wide strip of vegetation forms a backdrop to the site to the north to the north beyond which lies the River Avon and a sewage works. Two residential properties lie on the eastern site boundary. The southern extend of the site is the defined by the A345 beyond which are open arable fields and the Pewsey Hill chalk downland. The site is bounded by a hedgerow to the west beyond which lies fields.

The topography of the site is flat, reflecting its flood plain setting, close to the River Avon. There are no Public Rights of present on the site however PROWs run along field boundaries to the north and south of the site.

The site is in proximity to a number of designated sites including There are a number of sensitive designations in the area including, the nearby River Avon SAC, SSSI and wildlife sites located 40m to the north and the North Wessex Downs AONB located at a distance to the south. The site overlies a major aquifer of both intermediate and high vulnerability, proximity to areas of Flood Zone 2 and 3.

The site is allocated as a protected strategic employment in the Kennet District Local Plan (Policy ED7) and the emerging Wiltshire Core Strategy does not propose any designation in the vicinity of the site

A search of planning consents since 2006 has revealed that few planning consents have been granted in this area since 2006, none of which are likely to be impacted by proposed uses at this site.

B.2.8.2 Landscape and Visual Impact

Introduction

Existing Business Park located on the south-western periphery of Pewsey, a small rural town on the River Avon in the Vale of Pewsey.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Scattered copses and shelterbelts.
- Woodland confined mainly to valleys and steep slopes.
- River valleys with common settlements and narrow floodplains, dominated by former floated flood meadows and meandering rivers.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Greensand Vale

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

- Broad, low lying level vale flanking the sides of a series of low undulating foothills of Lower Chalk
- Contained and enclosed by the dramatic escarpments of chalk upland to either side.
- Varied land cover with pasture along tributaries and arable in medium to large fields enclosed by hedgerows.
- Chalk foothills in arable land use with very open large scale fields.
- Threaded by numerous minor streams draining to the headwaters of the River Avon, lined by riparian vegetation with strips of alder and willow and some important wetland habitats - meadow, marsh and wet woodland.
- A settled landscape with compact small towns, clustered villages, hamlets and many dispersed residential and farm buildings.
- Compact nucleated villages (such as Pewsey)
- Network of minor waterways with waterside pastures and riparian woodlands add variety and biodiversity value.
- Localised intrusion of roads, overhead power lines and pylons all of which are highly visible in the flat low lying landscape.
- Intense development pressures, particularly for new housing which impacts on the character of the villages and their edges so that settlements are less assimilated into the landscape.

WCC judge the condition and strength of the Greensand Vale Landscape Type to be 'moderate' due to the loss of hedgerows, hedgerow trees and riparian vegetation and some modern development at settlement edges. The overall strategy is to 'conserve' and 'improve' the rural, agricultural character of the vale, maintaining the pattern of discrete small villages set within a quiet rural landscape.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: The Vale of Pewsey

Key characteristics relevant to the site:

- Predominantly greensand vale running from the County boundary to the east, through the head waters of the Salisbury Avon
- Dominated by intensive agriculture
- The village of Pewsey lies at the centre of the Vale and surrounding it are the largest concentration of villages, hamlets and farms in the District.

Landscape Designations and Rights of Way:

- The site lies within the North Wessex Downs AONB
- Public footpath around fields to south of site
- Public bridleway around field to north of River Avon, connecting Sharcott with Pewsey

Baseline Landscape Character and Features: Site Survey

The site consists of a business park, including workshops and a veterinary surgery. These buildings are functional in their design, consisting of modern two storey units of brick and/or metal. A bungalow falls within the site boundary, and a detached house, Hill View, is to the east of the site. The site includes a number of vacant plots. A cul-de-sac access road runs through the site, connecting it to the A345.

The topography of the site is flat, reflecting its flood plain setting, close to the River Avon. A sewage works is located to the north-west of the site, adjacent to the river, although this is not visible from the site during the summer months. A wide strip of riparian vegetation forms a backdrop to the site to the north, with mature willows and oaks screening views. To the south of the site, the landscape is far more open, with views across open arable fields. In the immediate vicinity of the A345 the topography is relatively flat and includes a public footpath and a series of pylons. Further south, the land rises up to the Pewsey Hill chalk downland.

Within the site there are a number of groups of mature trees, including oak. In the north-eastern area of the site, a series of mature, ornamental trees demarcate the boundary of Hill View. Although some of the trees on site appear to be of a poor condition, they are an important feature in retaining the rural character of the site and minimising visual impact.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor-Ordinary

Capacity to Accept Change: Medium

The quality and condition of the site have been eroded through its existing industrial use. However its relatively leafy setting with mature trees retains a degree of riparian and rural character. With additional screening on the A345, the site could accommodate further change.

Potential Landscape Impacts

- Loss of mature native trees
- Further erosion of rural character of AONB and River Avon

Potential Landscape Mitigation Measures

- Sensitive site planning to avoid the need to remove healthy mature native trees and to minimise visual impact on the residential properties on site, New Farm and East Sharcott (to the west), and the A345 to the south.
- Native woodland, riparian and evergreen screen planting around proposed facility, especially along the A345 frontage and around the residential properties on site.

The following 'Broad Management Objectives' for the Greensand Vale landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Introduce new tree planting along watercourses using typical riparian species such as alder and willow.
- Encourage repair, replanting and extension of the hedgerow network, improved maintenance of the existing hedgerows
- Restore hedgerow treescape by nurturing new hedgerow trees.
- Monitor road engineering to safeguard the rural character of the lanes.

The following Enhancement Priorities proposed for the for the Vale of Pewsey landscape character area in the *Kennet Landscape Conservation Strategy* are relevant to the site:

- In the more open vale floor areas, introduce new tree planting along watercourses and in rows and groups using typical riparian species such as willow and alder.
- Encourage repair, replanting and widespread extension of hedgerow network and development of mature hedgerow trees, using native species typical of this locality.
- Improve landscape structure and land management on the fringes of settlements and along main roads, to mitigate adverse impacts on the landscape.
- Establish strong landscape structure to absorb existing or new development on the fringes of urban areas and settlements.

Table B.2.8.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residents of properties outside	High	Slight adverse	Woodland buffer planting around facility
Workers on industrial estate	Low	Negligible	Native hedge and tree planting along A345 frontage Sensitive location of facility, away from receptors Use of earth bunds with planting if necessary to further mitigate views in
Walkers on footpath to south of site (Potential impact)	Moderate	No change	
Walkers on footpath to north of River Avon (Potential impact: winter only)	Moderate	No change	
Users of A345	Low	No change	
Residents on Sharcott Drove to west of site (Potential impact: winter only)	Moderate	No change	
Residents of Bungalow	High	Slight adverse	

Summary: Residual Landscape and Visual Impacts

Due to its existing commercial character, the site could accommodate change with little change to the visual amenity of the area, although sensitive site planning would have to ensure that existing residential properties on the site would not be adversely affected. It is also likely that additional planting would be needed along the A345 frontage of the site and along the northern boundary to screen views from the river valley.

Recommended further landscape and visual surveys

- Night time visual survey

B.2.8.3 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

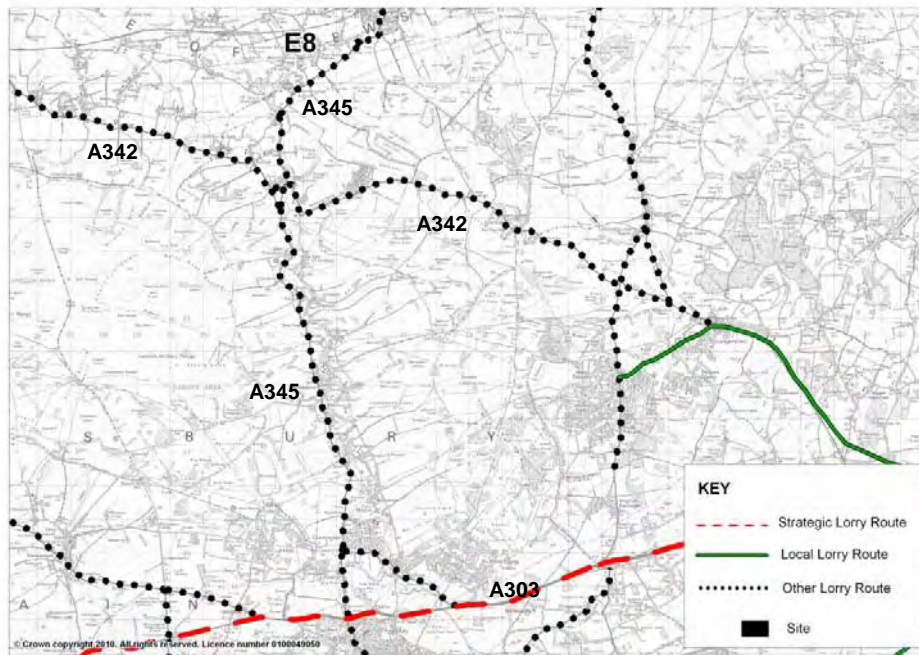
The site is located within an established Business Park. The business park site covers a total area of 3.8ha and has a mix of small scale B1 and B2 employment uses. It is proposed that the waste facility is located within this business park however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junction to the business park but not the site access within the wider site. The site is allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.8.3.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.2.8.3.1 shows that the site is located directly off the A345, designated an ‘other’ lorry route which, by definition, is only to be used where it is essential to gain access. The site is located a considerable distance from the strategic lorry network with the nearest strategic route being the A303, 20km to the south. The M4 (a freight motorway) is located 24km to the north.

Figure B.2.8.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.8.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.8.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The site is accessed directly from the A345 Salisbury Road via a priority junction with ghost island right turn lane. The right turn lane can accommodate 6 Passenger Car Units (PCUs); approximately 2 HGVs. Salisbury Road at the point of access is a single carriageway and is subject to the national speed limit. Visibility in both directions is within acceptable standards for the speed of road. The access junction is deemed suitable for the proposed uses.

Transport Environmental Impacts

The village of Pewsey lies just to the north of the site. The village has residential properties fronting directly onto the carriageway which would be adversely affected by the noise and vibration associated with an increase in HGV traffic. To the south of the site is the village of Upavon and again this is likely to be adversely affected by HGV traffic accessing the A303 (strategic network). To avoid these two settlements it may be appropriate to route HGV traffic to the A303 via Marlborough Road from which the *Everleigh* HRC and municipal WTS take access. As the site is some distance from the strategic lorry network it is essential that the appropriate routing of HGVs is agreed in order to minimise the impacts.

Off Site Highway Network

The proposals are likely to generate traffic outside of the network peak periods. Given the nature of the proposals and the location away from densely populated areas, the impact of the proposals on capacity is likely to be minimal.

Accessibility by Sustainable Modes

There are bus stops located on the A345 directly outside the access junction to the business park. Footways are present on the north side of the A345 providing pedestrian access to Pewsey.

Constraints

The main constraints identified at this site are:

- The distance of the site from the strategic lorry network; and
- The potential impacts on the residential amenity of Pewsey and Upavon.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E8/001** in **Appendix D**.

Mitigation

No highway mitigation is proposed however appropriate HGV routing is required which includes signing and contractual agreements with the operator to ensure the impact on sensitive land uses is minimised. In order to ensure a minimal impact on the existing industrial units the site should be located at an appropriate location within the business park.

Cost of Mitigation

The only cost associated with the proposal is likely to be that of signing of the most appropriate access route, this cost would be negligible.

Recommendation

The site offers the following advantages:

- The site access is of a high standard with no need for mitigation; and
- The capacity of the local junctions is unlikely to be unduly affected by the proposals

The following issues/constraints have been identified:

- The site is a considerable distance from the strategic lorry network;
- There is potential for an adverse impact on the existing B1 and B2 site uses; and
- There is the potential for an adverse impact on the residential amenity of Pewsey and Upavon.

The site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report.

B.2.8.4 Water Quality / Environment

NGR: 415660, 159230

Location: Pewsey

Site Area: 3.8 hectares

Data Source: Landmark Envirocheck Report 30098523_1_1 (8th Feb 2010) unless otherwise referenced

Table B.2.8.4.1 - Salisbury Rd Business Park Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is the River Avon 6m to the north.</p> <p>The EA identify that the River Avon watercourse has a chemical and biological quality of very good and high nutrient levels.</p> <p>The River Avon has an ecological classification in line with the Water Framework Directive as moderate.</p>	<p>Impact on the River Avon flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Avon quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS map³⁹ indicates that River Terrace deposits of undifferentiated clayey sand and gravel are underlain by the Lower Cretaceous Upper Greensand Formation (sandstones</p>	<p>There is a potential pathway for contamination to reach</p>	<p>-</p>	<p>To be considered during further assessment.</p>

³⁹ The BGS 1:50 000 Drift geological map (Sheet No. 282, Devizes)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
	passing into micaceous siltstones with depth).	groundwater.		
Hydrogeology: Groundwater – Hydrogeological Units	Site and surroundings are underlain by a Primary (Major) Aquifer.	Possible contamination of the major aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if foundations intercept shallow groundwater or if pumping is required for excavations.	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³ /day)	Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.	
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a northerly direction towards the River Avon.	Not applicable.	-	-
Discharges: Surface water – Discharge Consents	Discharges of STW Storm Overflow to the River Avon, on site, 55m north, 70m north west and discharges of Final/Treated Effluent to the River Avon, 32m and 36m north. Discharges of site drainage to a stream, 654m and 657m north east. Discharges from a pumping station to the River Avon, 711m north east.	No risk to works	-	To be considered during further assessment.
Discharges:	Discharges of Final/ Treated effluent to a soakaway 437m	No risk to works.	-	To be considered during

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Groundwater – Discharge Consents	north west.			further assessment.
Discharges: Pollution Incidents	Organic chemicals Category.3 (minor incident), 528m north west. Oils - Category.3 961m north east.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	Abstraction for general agriculture: spray irrigation, 628m north east and 872m west.	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	Abstraction for general farming & domestic on site, 149m and 197m west, 561m north west, 896m and 937m east.	Contamination of drinking water supply. No risk posed to public water supply; but local private abstractions may exist (<20m ³).	Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA Pollution	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit).

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
			Prevention Guidelines (PPGs) during construction.	
Flood Risk	The site is within Flood Zone 1, although there is an area of Flood Zone 3 associated with the River Avon adjacent to the site.	Limited risk of fluvial flooding but there is the potential for pluvial and groundwater flooding, these all need to be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	There are several current trade directory entries on the site, including manufacturers, car dealers and a brewer, which have the potential to cause contamination of the ground.	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	The site is within the North Wessex Downs Area of Outstanding Natural Beauty.	Contamination of a protected landscape.	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. banded storage areas, designated liquid handling areas etc.)Surface drainage plan inc. runoff collection	Environmental Management during construction. Determine monitoring requirements with EA. Consult with Natural England regarding how works may affect the SSSI. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
			system Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Good working practices – EA guidance during construction.	obtaining operating permit). Surface Water Management Plan.
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station or Local Recycling Facility at **Salisbury Rd Business Park, Pesey, Wiltshire** falls within the below category:

- Many / serious issues identified – review further assessment requirements of waste site

This initial screening indicates that:

- There is a water course adjacent to the site and therefore there is the potential for changes to its flow and quality
- The site is on a Primary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of flooding from fluvial, pluvial and groundwater sources
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include flood risk assessment, surface water management plan, contamination assessment, and liaison with the Environment Agency.

B.2.9 Everleigh Waste Management Facility (Site Ref E9)

B.2.9.1 Introduction

The site is a linear parcel of land which extends to 1 ha in a remote, rural setting, between Everleigh and Pewsey just north of the A342 which is approximately 34 km north of Salisbury. The site comprises a Household Recycling Centre at its northern end and a municipal Waste Transfer Station at its southern end, the boundary of the facility is defined by weld mesh fence. The site has an existing access onto Everleigh Road.

Situated within a wider landscape characterised by open rolling chalk downs, The site is relatively well-screened from views from the north and east by the presence of conifers and pines, at the southern end the Waste Transfer Station has been set in a cutting, helping to screen it from the wider landscape to the south. The site is adjacent to a former landfill facility that was restored to grassland in 1996.

The site is in proximity to a number of designated sites including the North Wessex Downs AONB and Everleigh Ashes Wildlife site and a SAM is located 350m to the north west of the site. The site is located over a major aquifer with intermediate vulnerability and a Source Protection 2 Zone. A PROW borders the eastern side of the site.

The site is not allocated in the Kennet District Local Plan and the emerging Wiltshire Core Strategy does not propose any designation in the vicinity of the site.

A search of planning consents since 2006 has revealed that few planning consents have been granted in this area since 2006, none of which are likely to be impacted by proposed uses at this site.

B.2.9.2 Cultural Heritage

Introduction

The Everleigh site (E9) is currently managed by Wiltshire Council as a waste management facility. It comprises a narrow strip of land of approximately 1ha extending along a track off the Pewsey/Everleigh road. It lies in a predominantly rural area on the downs north of Salisbury Plain.

There are no known heritage assets recorded within the site on the Wiltshire Council Sites and Monuments Record (WSMR) or National Monuments Record (NMR). A small number of archaeological features are recorded within the 500m study area surrounding the site. There are

no historic buildings within the study area. There is one Scheduled Monument c.450m northwest of the site boundary. Aerial photography suggest that the site has been in use for tipping since at least the 1940s when the surrounding area was used as an airfield.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded assets have been ascribed a unique Asset Number (i.e. E9-a, b, c, etc). A full methodology statement is set out in Chapter 3.

Designated Heritage Assets within the Site

- There are no statutory designated assets within the site

Designated Heritage Assets within or close to the Study Area

- There is one Scheduled Monument 450m north-west of the site

Table B.2.9.2.1 - Designated Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
E9-e	<i>Down Farm Barrow Group – 9 recorded Bronze Age barrows and related finds – recorded c.450m northwest of the site</i>	SU15NE100 SU15NE312 SU15NE622 SU15NE623 SU15NE624 SU15NE625 SU15NE626 SU15NE627 SU15NE628 SU15NE629 SU15NE630	Scheduled Monument SM31192	SU18745 661

Heritage Assets within the Site

- There are no known heritage assets within the site.

Heritage Assets within or close to the Study Area

Table B.2.9.2.2 - Known Heritage Assets within Study Area

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
E9-a	<i>Circular feature - 4 or 5 ring ditches seen from ground level as crop marks – recorded 100m west of the site</i>	SU15NE666	None	SU19056 5
E9-b	<i>Extensive field system, probably Romano-British plotted by the RCHME in 1995 from aerial photographs – recorded 250m southwest and south of the site</i>	SU15NE650	None	SU18635 622
E9-c	<i>Everleigh Ashes - WWII Royal Air Force Satellite Landing Ground for aircraft dispersal. The main grass</i>	SU15NE528	None	SU19855 8

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
	<i>runway running northwest/southeast was c1600 yds x 150 yds long and had been prepared by December 1941 – recorded 200m north of the site</i>			
E9-d	<i>West Everleigh Down - Undated field system known from aerial photographs – recorded 500m south of the site</i>	SU15NE672	None	SU19125 553

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic Heritage Assets are Recorded on the WSMR within the Study Area

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic heritage assets are recorded on the WSMR within the study area.

A group of 9 Bronze Age barrows and related finds are recorded within 450m of the northwest of the site (E9-e).

The Iron Age (700 BC – AD 43)

No Iron Age heritage assets are recorded on the WSMR within the study area.

The Roman Period (AD 43 – AD 450)

Aerial photography illustrates an area of extensive Romano-British field systems to the south and west of the site (E9-b, E9-d).

The Early Medieval Period (AD 450 – AD 1066)

No Early Medieval heritage assets are recorded on the WSMR within the study area.

The Medieval Period (AD 1066 – AD 1547)

No Medieval heritage assets are recorded on the WSMR within the study area.

The Post-medieval Period (AD 1547 – c.1900)

No Post-Medieval heritage assets are recorded on the WSMR within the study area.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded on the WSMR within the study area. However, aerial photographs illustrate the use of the surrounding area as a satellite airfield during WWII (E9-c). Post-war aerial photographs illustrate the area used as a recycling area and as a tip (also shown on Ordnance Survey maps).

Assessment Suitability

There are no heritage assets within the site. Those recorded within the study area mostly relate to the crop marks of field systems known through aerial photography (E9-b and E9-d) to the south and south west of the site. A re-examination of the aerial photographs held in the NMR did not reveal any further evidence. Given the previous level of modern disturbance on the site (particularly the area of the former tip, now recycling area), the potential for the presence of currently-unrecorded buried archaeological remains is low.

There are no designated heritage assets within or immediately adjacent to the site that may be a constraint to development. The Scheduled Monument (E9-e) recorded c.450m to the north east of the site is currently screened from the site by trees. Providing that the screening remains in place, and the development does not exceed the height of the existing tree level, the setting of the Scheduled Monument will not be impacted upon by development within the site boundary.

There are no historic buildings within the study area.

Cultural heritage is therefore not considered a constraint to development.

Mitigation

No mitigation will be required.

Recommendations

No further assessment is recommended.

Conclusions

There are no heritage assets recorded on the WSMR, NMR, historic maps or aerial photographs within the site boundary. There is one Scheduled Monument (**E9-e**) within the study area, c.450m to the northeast of the site.

Although a number of archaeological features and finds have been identified within the study area, the potential for the presence of currently unrecorded archaeological deposits within the site is low. No further archaeological assessment is recommended. It is unlikely that mitigation for the impact on buried archaeological remains will be required.

Providing that the existing screening plantation remains in place, and the development does not exceed the current height of the tree level, the setting of the Scheduled Monument located c.450m northwest of the site will not be impacted upon by development within the site boundary.

B.2.9.3 Landscape and Visual Impact

Introduction

This linear site is located in a remote, rural setting, between Everleigh and Pewsey. It currently comprises a Household Recycling Centre at its northern end and a municipal Waste Transfer Station at its southern end, connected by an access road. The site is adjacent to a former landfill facility that was restored to grassland in 1996. The site is located in close proximity to the North Wessex Downs AONB and Everleigh Ashes Wildlife site, in a setting characterised by open chalk downland with arable fields and scattered woodland.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Scattered copses and shelterbelts.
- Outstanding prehistoric ritual landscape with widespread earthworks and monuments prominent in an open landscape,
- Pressures for development are a potential threat to archaeological features that do not have statutory protection.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: High Chalk Plain

Landscape Character Area: Salisbury Plain East

Key characteristics relevant to the site:

- Very large scale and open, exposed landscape.
- Rolling plateau land form with panoramic views over the surrounding lowlands creating a sense of elevation.
- Large regular arable fields are bounded mainly by ditches or fences with occasional hedgerows.
- Copses and woodland belts, at various stages of growth occur throughout the area with sinuous older plantations contrasting with more recent tree planting in geometrical blocks.
- Archaeological remains and sites of historic importance,
- The majority of the High Chalk Plain Landscape Type sits on a belt of chalk from the Upper Cretaceous period that runs east to west across the county. The majority of the area comprises of Upper Chalk with Middle Chalk and Lower Chalk occurring on the steep slopes and at the base of slopes respectively. Steep scarp slopes rise to form an upstanding plateau, with wide flat areas incised by a complex network of dry valleys forming an expansive rolling landscape. Small isolated areas of Clay with Flint and Sandstone also occur. The underlying chalk geology has led to the predominance of free draining calcareous soils, and a lack of surface water.
- Strong sense of remoteness and isolation accentuated by absence of settlement.
- Wide views across the plain and out over the surrounding lowlands.
- Scattered woodlands and plantations.
- Outstanding sites of archaeological interest; numerous sites.

WCC notes that the non-MOD areas have seen a loss of biodiversity through the intensification of arable farming methods for instance the removal of hedgerows, however the overall condition of the Chalk High Plain Landscape Type is considered to be 'good' with a 'strong' character.

The management strategy for the area is to conserve the open and isolated character of the plain.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: Salisbury Plain

Key characteristics relevant to the site:

- Geology dominated by upper chalk
- gently rolling landscape dissected by dry valleys
- Intensively farmed arable land.
- Large parts of the area are unenclosed and treeless, giving Salisbury Plain a unique, very remote character, with extensive views across the southern half of Wiltshire.
- Around the periphery of the military ranges arable land dominates, mostly in the ownership of the MoD
- The historic landscape and archaeology of Salisbury Plain are particularly well preserved

The Strategy promotes the retention of the open character of the area and its long views and discourages tree or hedgerow planting in areas of traditionally unenclosed chalk downland. It also encourages the removal of inappropriate tree and woodland belts and discourages the intrusion of further signage, structures, tracks or fencing. Essential features should be sited as discretely as possible to minimise visual intrusion. *"The treeless nature of Salisbury Plain is largely the result of prehistoric woodland clearance, and as such should be considered an ancient landscape."*

Landscape Designations and Rights of Way:

- The site is adjacent to a Special Landscape Area on three sides.

- Boundaries to North Wessex Downs AONB lie within 1km of the site to the north, west and east.
- Everleigh Ashes Wildlife Site is within 1Km of the site, to the north of the site
- A public footpath runs along part of the eastern boundary of the site
- A bridleway runs to the north of the site, along the western boundary of Everleigh Ashes woodland

Baseline Landscape Character and Features: Site Survey

This linear site cuts across the historic field pattern, on the side of a dry valley, dropping from approximately 200m AOD at its northern end to 180m at its southern end. The site is currently dominated by its Waste usage, with recycling skips, a weigh bridge, tarmac surfacing, portacabin office and mesh fencing. At its southern end the Waste Transfer Station has been set in a cutting, helping to screen it from the wider landscape to the south.

Although set within a wider landscape characterised by open rolling chalk downs, the site itself is relatively well-integrated with the surrounding landscape which is relatively intimate due to the presence of scattered woodlands such as Everleigh Ashes, Milking Bushes and Wiren Copse. The site is relatively well-screened from views from the north and east by the presence of conifers and pines on site and although not native to the area, these help minimise the visual impact of the existing Household Recycling Centre.

A number of archaeological landscape features lie within close proximity to the site, including tumuli and Everleigh Barrows.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium

To the south of the site a former WCC landfill facility has an appearance of disturbed land, thus reducing the visual quality and condition of the landscape setting. The rural character of the site itself has been eroded by the presence of the current waste uses. The site is relatively well screened by vegetation to the north and east and by its sunken topography to the south.

Potential Landscape Impacts

- Loss/damage to existing mature trees on site, especially evergreens which form an important screening function
- Further erosion of rural character of the site setting

Potential Landscape Mitigation Measures

- Sensitive site planning of facilities to minimise impact on views from AONB, adjacent lane and public footpaths
- Use of bunds and native and evergreen woodland planting around site boundaries to screen views into the site.

The following 'Broad Management Objectives' for the Chalk High Plain landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

The following Enhancement Priorities proposed for the for the Salisbury Plain landscape character area in the *Kennet Landscape Conservation Strategy* are relevant to the site:

- Where historically and ecologically appropriate, encourage the replanting and extension of hedgerows and the planting of hedgerow trees using native species.

- Tree planting should be confined to that absolutely necessary for military training purposes and should primarily comprise native species.
- All new planting should be confined to previously cultivated land or improved grassland.
- Woodland design should take particular care to follow the topography of the land, and be of a scale in keeping with the area.

Table B.2.9.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Users of adjacent lane	Medium	Slight Adverse	Structure planting/ bunds around site boundary
Workers on site	Low	No change	
Users of footpath to south of site	Medium (path currently appears unused)	Slight Adverse	Sensitive location of large structures to minimise visual impact

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting and existing waste-dominated character, the site could accommodate change. The main visual impacts, on users of the lane and the footpath to the south of the site, could be almost entirely mitigated through sensitive site planning and screen planting. Ideally the footpath should be diverted, as regardless of the proposals, it is already in close proximity to the waste works and is unmanaged. Site planning should avoid the loss of the mature vegetation within the site and along its boundaries.

Recommended further landscape and visual surveys

- Visual survey from footpaths to south and north of site
- Winter-time visual surveys.
- Night-time visual surveys.

B.2.9.4 Water Quality / Environment

NGR: 419200, 156320

Location: Everleigh

Site Area: 0.89 hectares

Data Source: Landmark Envirocheck Report 30094180_1_1 (8th Feb 2010) unless otherwise referenced

Table B.2.9.4.1 - Everleigh Waste Management Facility Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is an un-named feature 673m to the north west. There is a covered reservoir 1300m to north west. There is also a pond to the south and a drain to the north east. The nearest stream is the hurly lake a small tributary of the River Avon 3542m to north west.</p>	<p>Impact on the Hurly Lake flow as a result of increases in areas of hard standing and runoff volumes during construction and operation. Impact on the Hurly Lake quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site is underlain by infilled ground (mainly backfilled chalk, sand and clay pits) which is underlain by the Upper Cretaceous Lewes Nodular Chalk Formation)⁴⁰.</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology:</p>	<p>The Envirocheck report shows the site and</p>	<p>Possible contamination of</p>	<p>Surface water drainage plan</p>	<p>Environmental</p>

⁴⁰ BGS 1:50 000 Drift geological map (Sheet No. 282, Devizes)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Groundwater – Hydrogeological Units	surroundings are underlain by a primary aquifer (Major Aquifer) (highly permeable).	the primary aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if foundations intercept groundwater or if pumping is required for excavations.	including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).	management during construction Determine monitoring requirements with EA Produce working plan for site Review runoff treatment requirements Monitoring boreholes (may be required for obtaining operating permit)
Hydrogeology: Groundwater – Source Protection Zone	According to the EA website, the site is not located within a Groundwater Source Protection Zone (SPZ). An SPZ II area extends up to 350m north west of the site.	No risk posed to public water supply; but local private abstractions may exist (<20m ³)	Good working practices and EA guidance during construction.	Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable			
Hydrogeology: Groundwater – Direction of Flow	No inference of groundwater flow direction with the information provided.	Not applicable.		
Discharges: Surface water – Discharge Consents	None within 1km of site.	Not applicable.	-	-
Discharges: Groundwater – Discharge Consents	None within 1km of site.	Not applicable.	-	-
Discharges: Pollution Incidents	None within 1km of site.	No risk posed	-	-
Abstractions: Surface Water – Abstractions	None within 1km of site.	No risk posed.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Abstractions: Groundwater – Abstractions	None within 1km of site.	No risk posed.	-	-
Flood Risk	The site is in Flood Zone 1. The site is less than 1 ha in size.	No risk of flooding posed from pluvial or fluvial sources, but groundwater flooding could occur.	SuDS design to control runoff.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Land Uses	Historical Landfill for: industrial, commercial, household waste on site. Historical Landfill site for inert, industrial, commercial, household & special waste. 45m to south west. Everleigh Transfer Station, 12m to the south east. Everleigh Tip, with no restrictions on waste, 81m and 238m south west.	Risk during construction of contaminated ground at site with possible runoff Risk during construction of contaminated ground at site with contamination of aquifer Risk during construction of contaminated ground at the site	Site Waste Management Plan to specify how excavated material is to be handled, stored and disposed of	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	North Wessex Downs designated an Area of Outstanding Natural Beauty (AONB) is located on site.	Contamination of an area of a protected landscape.	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling	Environmental Management during construction. Determine monitoring requirements with EA. Consult with Natural England regarding how works may affect the AONB Produce working plan for site. Review runoff

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
			areas etc.) Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Good working practices – EA guidance during construction.	treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either an Inert Waste Recycling and Transfer Station or a Composting Facility at **Everleigh Waste Management Facility** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of waste site

This initial screening indicates that:

- There are surface water features within 1km of the site therefore there is the potential for changes to their flow and quality
- The site is underlain by a Primary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of groundwater flooding
- The site is in an Area of Outstanding Natural Beauty
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and contamination assessment.

B.2.10 West Hill Farm, Collingbourne Ducis (Site Ref E10)

B.2.10.1 Introduction

The site extends to 0.4 ha and is located 1.5 km to the west of Collingbourne Ducis. The site comprises a complex of farm building and silos. The site benefits from an existing access onto the unclassified Everleigh Road, this provides access to the A342 to the west and the A338 and A346 to the east. The site is situated in a rural setting, surrounded by fields with no sensitive receptors in the vicinity. There is a PROW which runs directly through the site.

The site is in proximity to a number of designated sites including the Salisbury Plain SSSI, Salisbury Plain SPA and SAC and the North Wessex Downs AONB which are approximately 1.7km from the site.

The site is located within a Source Protection 1 Zone and is located over a major aquifer with high vulnerability. Part of the site is located within Flood Zone 3.

The site is not allocated in the Kennet District Local Plan although the site is located in a Conservation area and a designated as Special Landscape Area. The emerging Wiltshire Core Strategy does not propose any designation in the vicinity of the site.

Two planning consents have been granted at this site since 2006, one in 2006 for a temporary dwelling for agricultural workers, and one in 2009 for the erection of a dwelling for an agricultural worker.

B.2.10.2 Landscape and Visual Impact

Introduction

West Hill Farm is situated in a remote, rural setting to the west of Collingbourne Ducis. Access is provided by a track to several large sized farm buildings.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Scattered copses and shelterbelts.
- Woodland confined mainly to valleys and steep slopes.
- River valleys with frequent settlements and narrow floodplains, dominated by former floated flood meadows and meandering rivers.
- Outstanding prehistoric ritual landscape with widespread earthworks and monuments prominent in an open landscape.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: High Chalk Plain

Landscape Character Area: Salisbury Plain East

Key characteristics relevant to the site:

- Very large scale and open, exposed landscape.
- Rolling plateau land form with panoramic views over the surrounding lowlands creating a sense of elevation.
- Large regular arable fields are bounded mainly by ditches or fences with occasional hedgerows.
- Copses and woodland belts, at various stages of growth occur throughout the area with sinuous older plantations contrasting with more recent tree planting in geometrical blocks.
- The majority of the High Chalk Plain Landscape Type sits on a belt of chalk from the Upper Cretaceous period that runs east to west across the county. The majority of the area comprises of Upper Chalk with Middle Chalk and Lower Chalk occurring on the steep slopes and at the base of slopes respectively. Steep scarp slopes rise to form an upstanding plateau, with wide flat areas incised by a complex network of dry valleys forming an expansive rolling landscape. Small isolated areas of Clay with Flint and Sandstone also occur. The underlying chalk geology has led to the predominance of free draining calcareous soils, and a lack of surface water.
- Strong sense of remoteness and isolation accentuated by absence of settlement.
- Wide views across the plain and out over the surrounding lowlands.
- Scattered woodlands and plantations.

WCC notes that the non-MOD areas have seen a loss of biodiversity through the intensification of arable farming methods for instance the removal of hedgerows, however the overall condition of the Chalk High Plain Landscape Type is considered to be 'good' with a 'strong' character.

The management strategy for the area is to conserve the open and isolated character of the plain.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: Salisbury Plain

Key characteristics relevant to the site:

- Geology dominated by upper chalk
- Gently rolling landscape dissected by dry valleys predominately running from north to south.
- Intensively farmed arable land.
- Large parts of the area are unenclosed and treeless, giving Salisbury Plain a unique, very remote character, with extensive views across the southern half of Wiltshire.

- Around the periphery of the military ranges arable land dominates, mostly in the ownership of the MoD
- The historic landscape and archaeology of Salisbury Plain are particularly well preserved

The Strategy promotes the retention of the open character of the area and its long views and discourages tree or hedgerow planting in areas of traditionally unenclosed chalk downland. It also encourages the removal of inappropriate tree and woodland belts and discourages the intrusion of further signage, structures, tracks or fencing. Essential features should be sited as discretely as possible to minimise visual intrusion. *“The treeless nature of Salisbury Plain is largely the result of prehistoric woodland clearance, and as such should be considered an ancient landscape.”*

Landscape Designations and Rights of Way:

- Boundaries to North Wessex Downs AONB lie within 1km of the site to the north and east.
- A byway runs along the eastern boundary of the site

Baseline Landscape Character and Features: Site Survey

The site sits in a valley so is well screened and gives a sense of remoteness. The site is accessed by a track from an undulating / winding road south of the site which follows the surrounding landform, characteristic of the area. Open and rolling agricultural landscape forms the main character of the area, comprising of both arable and pasture (pig & cattle). Fragmented field boundaries are visible, posts and wire fences, hedgerows and the occasional broadleaved woodland copses.

There is no visible built development other than Hill View Farm itself, views of the West of Collingbourne are visible from higher areas. The site itself comprises of derelict and dilapidated sheds comprising of concrete block walls with corrugated asbestos or steel cladding roofs. Conifer trees and shrub vegetation planting forms a shelter belt, with some self seeding within the farm. Large areas of concrete hardstanding are present.

The site is relatively enclosed due to the landform of the surrounding valley with very few views out of the site. Minimal views into the site can be seen from the higher surrounding areas however the existing buildings blend into the agricultural character of the landscape.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium – Good

The landscape condition within the site is poor, dilapidated haybarns, livestock pens / sheds are set the set amongst a degraded farm yard. The wider area landscape condition is good with managed farmland, rolling open farmland, respective of the local landscape character.

The site itself has medium/good ability to accommodate change due to its location within a fold in the landscape, its setting provides hidden / concealed views, and combined with the fact the site is already developed.

Potential Landscape Impacts

- Further erosion of rural character of the site setting by the addition of new buildings / development.

Potential Landscape Mitigation Measures

- Sensitive site planning of facilities to minimise impact on views from AONB, adjacent road and public byway
- Use of bunds and native and evergreen woodland planting to site boundaries to add to screen planting already present.

The following ‘Broad Management Objectives’ for the Chalk High Plain landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.
- Conserve the areas of chalk grassland, arable biodiversity, Juniper scrub and ancient woodland of high ecological value.
- Explore opportunities to reinstate buffer areas of chalk grassland around the arable fields but ensuring retention of arable interest.

The following Enhancement Priorities proposed for the for the Salisbury Plain landscape character area in the *Kennet Landscape Conservation Strategy* are relevant to the site:

- Where historically and ecologically appropriate, encourage the replanting and extension of hedgerows and the planting of hedgerow trees using native species.
- Tree planting should be confined to that absolutely necessary for military training purposes and should primarily comprise native species.
- All new planting should be confined to previously cultivated land or improved grassland.
- Woodland design should take particular care to follow the topography of the land, and be of a scale in keeping with the area.
- Discourage the intrusion of, structures, tracks or fencing in areas of open chalk upland landscape and site essential features as discreetly as possible to minimise visual intrusion.

Table B.2.10.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Users of adjacent road	Medium - High	Slight Adverse	Structure planting/bunds around site boundary Sensitive location of large structures to minimise visual impact
Workers on site	Low	No change	
Users of byway to east of site	Medium - High	Slight Adverse	
Mill Drove Farm	Low	No change	
Properties on the western edge of Collingbourne	Low	No change	

Summary: Residual Landscape and Visual Impacts

Due to its setting within the surrounding undulating landscape, the site could accommodate change. The main visual impacts, on users of the byway and the road on the edge of the site could be mitigated through site planning and additional screen planting to the shelter planting that is already present.

Recommended further Landscape and Visual Surveys

- Night-time visual surveys.

B.2.10.3 Transport

Introduction

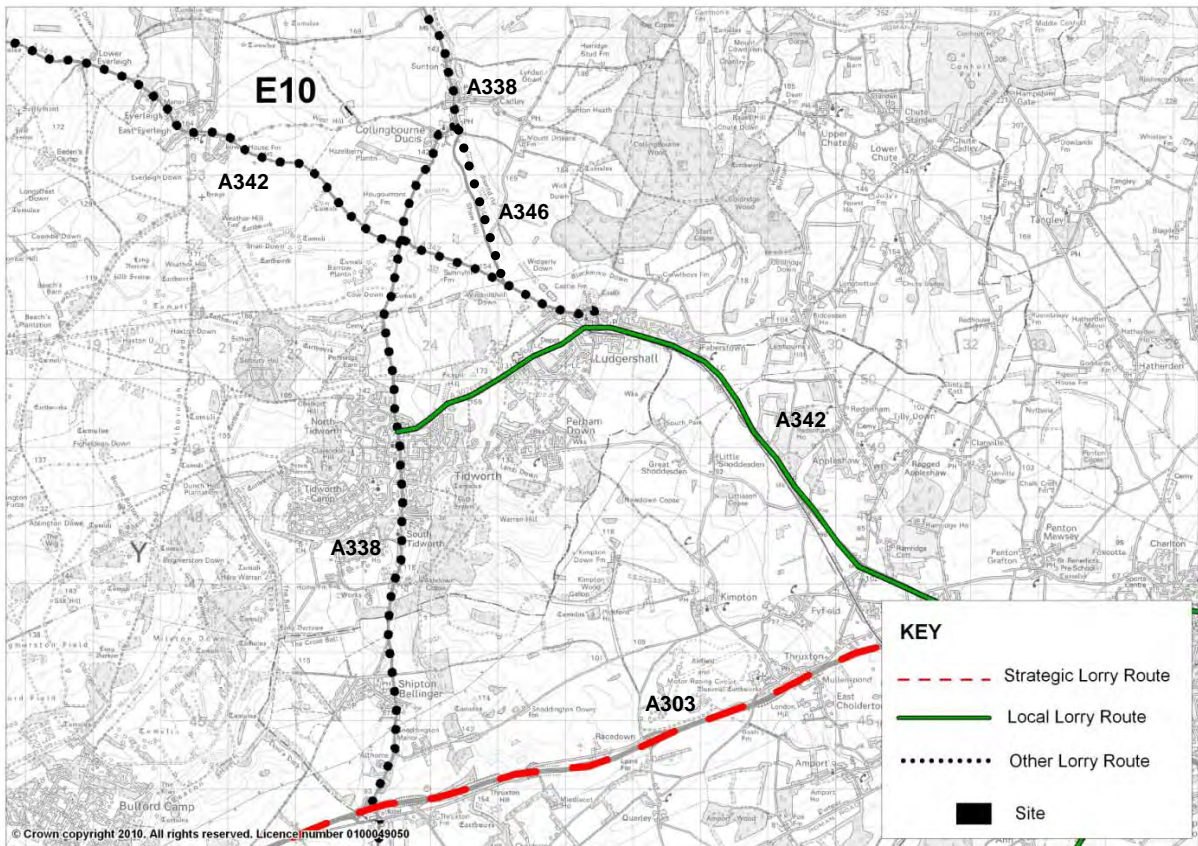
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The 0.4ha site is located in a remote rural location. The site is allocated for use as a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.10.3.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.2.10.3.1** shows that the site is located off a minor route (Everleigh Road). The site is roughly equidistant between the A342 to the west and A338/A346 to the east, all designated as ‘other’ lorry routes, which by definition are only to be used where it is essential to gain access. The nearest strategic route, the A303, is to the south east access via the A342, a local lorry route.

Figure B.2.10.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Composting (C).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.10.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.10.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
Composting	10,000	80	Staff levels at a Composting site are likely to be minimal

Assessment Suitability

Existing/Potential Access Junctions

The site is accessed off a 3.2m wide single carriageway road (Everleigh Road) with intermittent passing places to allow for two way operation. The access into the site itself is via a wide priority access to the existing farm uses. The speed of Everleigh Road at this location is 60mph. Visibility to the left is below standard however it is likely that the access is suitable for the proposed uses given the very low traffic volumes on the route. Nevertheless major works to Chicks Lane would be required as detailed in the offsite highway section of this report.

Transport Environmental Impacts

The village of Collingbourne Ducis lies less than 1.5km to the east of the site. Access to the A338 to the east would require access through this village either via Chick’s Lane or Everleigh Road. The route via Chick’s Lane passes a primary school and community centre and given the narrow road widths the impact of HGV traffic on the fear and intimidation of pedestrians is likely to be significant. The route to the east via Everleigh Road is equally unfavourable given the narrow road width and residential frontage.

To the west of the site the access to the A342 is much more favourable in terms of environmental impacts associated with HGV traffic. The land use is predominantly agricultural up to the point where Everleigh Road meets the A342 which as mentioned previously is a designated ‘other’ lorry route and therefore suitable where it essential to gain access.

Providing traffic to the site is routed via the A342 from the west and given the small size of the site, the impact of increased traffic on the impact of the HGV traffic on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal.

Off Site Highway Network

As mentioned previously the site is accessed via a narrow 3.2m wide minor road. Two-way traffic whilst permitted is only possible where vehicles give way in designated passing places. The road has undulating vertical alignments with blind summits that limit forward visibility. This combined with the single lane operation make the road unsuitable for all but very low volumes of light vehicles. Traffic speeds on the road were observed to be high given the low flows and limited possibility of meeting oncoming traffic.

Figure B.2.10.3.2 - Junction of Minor Everleigh Road/A342



The size of the site would suggest low traffic generation however the speed, width of the road and poor forward visibility suggests the road would be unsafe for the proposed uses, even with low volumes of HGV traffic.

The access road meets the A342 via a priority crossroads with one of the minor arms forming the access to farm buildings (**Figure B.2.10.3.2**). The radii at the junction are not sufficient for HGV use, particularly the left turn from the access road. The speed of the A342 at the access is 50mph increasing to 60mph just to the east of the junction. Visibility to the right at the junction is approximately 110m, limited by the horizontal alignment of the road, and is therefore below the recommended visibility of 160m as set out in DMRB⁴¹ in both directions. The visibility to the left is restricted to approximately 100m by the vertical alignment of the A342 however HGV drivers will have improved visibility given the height at which they sit above the road.

Accessibility by Sustainable Modes

The site is in an extremely rural location where access by sustainable modes is not considered appropriate.

Constraints

The main constraints identified at the site are:

- The remote location of the site;
- The distance of the site from the strategic and local lorry network;
- The poor accessibility by non car modes;
- The poor standard of Everleigh Road with regard to increased use, particularly increased use by HGVs;

⁴¹ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

- The below standard visibility at the A342/Everleigh Road junction;
- The need for improvements to the radii at the A342/Everleigh Road junction to allow for HGV use; and
- The potential impact on the residential amenity of Collingbourne Ducis should appropriate routing not be implemented and enforced.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E10/001** in **Appendix D**.

Mitigation

In order to mitigate the impacts of the proposals it is recommended that the access to the site be restricted to/from the west. This should be achieved through the provision of environmental weight limits on Chick's Lane and Everleigh Road at Collingbourne Ducis and/or routing agreements with the site operator.

It is recommended that the A342/Everleigh Road junction is improved to include larger turning radii suitable to accommodate HGV traffic.

Ideally Everleigh Road would be widened to two lanes between the site access and the A342 however it is recognised that the scale of the facility may not warrant such costly improvements. In addition widening may encourage further use and promote higher speeds which would create its own safety issues. Widening at the location of the blind summits of Everleigh Road and larger passing places are likely to be sufficient to allow for limited HGV use associated with the small scale uses proposed. However, a road safety audit would be required on both improvements to Everleigh Road and the A342/Everleigh Road junction. A more detailed assessment will be required to determine potential construction constraints and therefore a more detailed cost estimate of widening Everleigh Road.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£150k** – To improve A342/Everleigh Road junction; and
- **.Up to £500k** – To widen Everleigh Road at suitable locations.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision. Potential cost to widen Everleigh Road could vary greatly depending on the outcome of a more detailed assessment.

Recommendation

The site offers the following advantages:

- The site access junction off Everleigh Road is unlikely to require modification for the proposed uses.

The following issues/constraints have been identified:

- The site is in remote location and access is restricted to vehicular traffic;
- The site is located away from the strategic and local lorry network;
- Everleigh Road is of a poor standard in terms of width, vertical alignment and speed, particularly when considering the potential for increased use by HGVs;
- The A342/Everleigh Road junction is below standard in terms of visibility and radii (for HGV use); and
- The potential impact on the residential amenity of Collingbourne Ducis should appropriate routing not be implemented and enforced.

In conclusion, the study has identified significant constraints which could be overcome with the mitigation measures set out in the report. Given the scale and nature of the potential uses, the high capital cost of the improvement works required will be a significant impediment to the deliverability of the site. Therefore, it is recommended the site is not considered further.

B.2.10.4 Water Quality / Environment

NGR: 422779, 153933

Location: Collingbourne Ducis

Area: 0.4 hectares

Data Source: Landmark Envirocheck Report 30098364_1_1 (8th Feb 2010) unless otherwise referenced

Table B.2.10.4.1 - West Hill Farm Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
Hydrology: Surface Water	There is an isolated drain immediately adjacent to the site but no other water features within 1 km.	Runoff of contamination to drain during construction or operation.	Surface water drainage system including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.), including reference to good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.	Environmental management during construction. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.
Geology: Stratigraphy	The site is underlain by superficial deposits of Quaternary age consisting of variable deposits of sandy, silty clay, locally gravelly, chalky and flinty in dry valleys. The superficial deposits overlie the Upper Cretaceous Lewes Nodular Chalk Formation ⁴² .	Potential for the creation of a pathway for contaminants to reach groundwater.	-	To be considered during further assessment.
Hydrogeology: Groundwater –	The site overlies a Primary (Major) Aquifer.	Contamination of Primary	Surface water drainage system including runoff	Environmental management during

⁴² BGS 1:50 000 Drift geological map (Sheet No. 282, Devizes)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
Hydrogeological Units		Aquifer. Changes to groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations or foundation intercept groundwater.	collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.	construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements.
Hydrogeology: Groundwater – Source Protection Zone	The site is in a SPZ II.	Risk to public water supply if contamination enters aquifer.	Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA PPGs during construction.	Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	The aquifer is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	No information on direction of flow.	-		
Discharges: Surface Water - Discharge Consents	No surface water discharge consents recorded within 1km of the site.	No risk posed.	-	-
Discharges: Groundwater – Discharge Consents	No groundwater discharge consents recorded within 1km of the site.	No risk posed.	-	-
Discharges: Pollution Incidents	No recorded pollution incidents within 1km of the site.	No risk posed.	-	-
Abstractions: Surface Water Abstractions	No surface water abstractions within 1km of the site.	No risk posed.	-	-
Abstractions: Groundwater Abstractions	General farming and domestic; 40m north.	Contamination of drinking water supply or change to	Surface drainage plan including runoff collection	Environmental Management during

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
		groundwater flow rates.	system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance during construction.	construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit).
Flood Risk	An EA flood zone 3, associated with the River Bourne runs alongside the north-eastern length of the site as a result of the local topography.	Flooding could interrupt operations and cause pollution to spread from the site. The site could increase the flood risk to surrounding sites in terms of fluvial flood risk.	Engineered flood defence, SuDS design to control runoff.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
Landuses	There are no past or present landfill sites or any current trade directory entries within 1km of the site. The site is in a farm with farm buildings, tanks and an electrical substation nearby.	Risk that contaminated material could be encountered during works and leachate would enter aquifer or runoff to surface waters.	Site Waste Management Plan to specify how excavated material is handled, stored and disposed of.	Geotechnical investigation to determine nature and extent of contamination, if any. To be considered as potential source if any contamination is found during monitoring.
Conservation Designations	There are no conservation designations within 1km of the site.	No risk posed.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Material Recovery Facility / Waste Transfer Station, Local Recycling centre, Inert Waste Recycling and Transfer station or Composting centre at **West Hill Farm, Collingbourne Ducis** falls within the following category:

- Several potentially significant issues identified – review further assessment requirements of the site

The initial screening indicates that:

- There are water features within 1km of the site and therefore there is the potential for changes to their flow and quality
- A Primary Aquifer beneath the site and therefore there are potential groundwater contamination issues
- Risk of fluvial and groundwater flooding
- Potentially contaminating farming activities at the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include flood risk assessment, surface water management plan and contamination assessment.

B.2.11 Pickpit Hill, Ludgershall (Site Ref E11)

B.2.11.1 Introduction

The site extends to 2 ha and is located on the A3206 between the village of Ludgershall and the military camp of Tidworth. The site is a former incinerator site which is now vegetated with woodland. The site is accessed by the A3026 which runs along the southern boundary of the site. The site is isolated and well screened by hedgerows and woodland which defines the boundaries. There is a residential area approximately 650 meters south west of the site and Castledown School is approximately 500 meters north east. There are no Public Rights of Way present on site however there are several in proximity to the site.

The site is in proximity to a number of designated sites including the Pickpit Hill Wildlife Site which surrounds the site on three sides (west, north and east) and Windmill Hill Down Wildlife Site is immediately north of that. The North Wessex Downs AONB which is approximately 1.6 km south west of the site. A SAM is approximately 800 meters north of the site. The site is in a Source Protection Zone 2 and above a major aquifer of high vulnerability.

The site is not allocated in the Kennet District Local Plan. The emerging Wiltshire Core Strategy does not propose any designation for the site however, proposes a substantial allocation for Housing / Mixed use approximately 650m to the north east of the site.

A review of the planning register has not identified any planning consents have been granted in the area since 2006.

B.2.11.2 Transport

Introduction

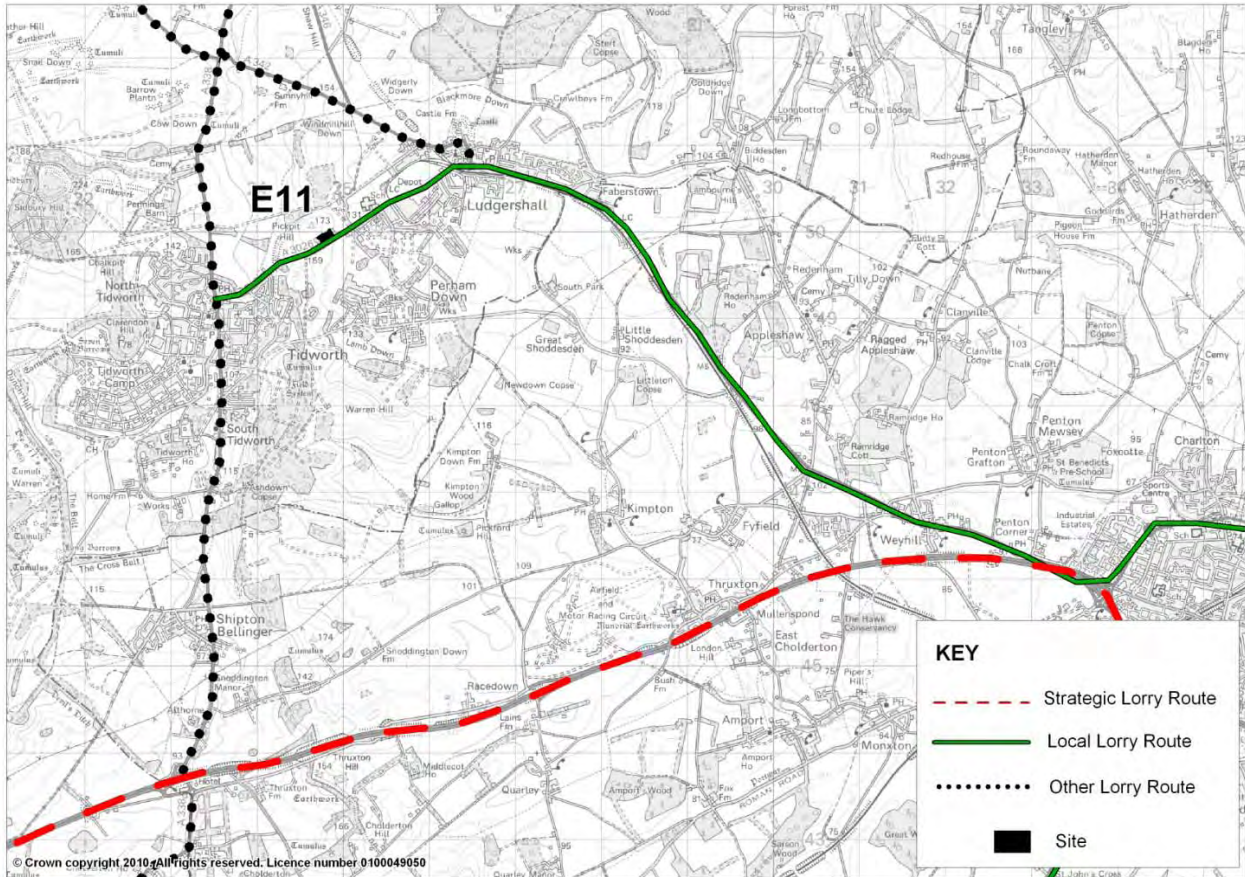
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is located directly off the A3026 which connects to the A342 at Ludgershall and A338 at Tidworth. The site is allocated for a local scale waste facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.211.2.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.211.2.1** shows that the site is accessed directly off the A3026 which is a designated a local lorry route. The nearest strategic route is the A303 to the southeast of the site, accessed through the village of Ludgershall via the A342 also designated a local lorry route.

Figure B.2.11.2.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Composting (C).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours,

etc. **Table B.211.2.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.11.2.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
	12,000	70	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
Composting	10,000	80	Staff levels at a Composting site are likely to be minimal

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed from the A3026 via a priority junction. The A3026 is single carriageway and is subject to the national speed limit (60mph) at the access. Visibility from the access is restricted to a maximum of approximately 40m to the right due to the horizontal and vertical alignment of the road. Visibility to the left is good with visibility of at least 200m. Visibility to the left is well below the recommended visibility of 215m as set out in DMRB⁴³ and as such the location of the existing access is not considered appropriate on safety grounds.

⁴³ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Figure B.2.11.2.2 - Visibility at Existing Access



Visibility to right



Visibility to left

It is considered appropriate to relocate the access to the eastern end of the site. Further details are included in the mitigation section of this report.

Transport Environmental Impacts

The villages of Ludgershall and Tidworth are located at either end of the A3026. Through Tidworth the A3026 has residential frontage and on street parking which reduces road width to one lane with eastbound traffic having to give way to oncoming vehicles. Whilst there are no formal restrictions to access for HGVs through Tidworth it is not considered appropriate to increase the number of HGVs along this narrow residential route.

To the West lies the village of Ludgershall, this route again has residential and retail frontage however this is largely set back from the edge of the carriageway. Whilst the impact of increased traffic on the village, in particularly HGVs, cannot be ignored it is considered that for a facility of this size the impact of the HGV traffic on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal. There is a school off the A3026 to the east of the site and as such the impact on this sensitive land use should also be considered.

Off Site Highway Network

The junction of the A3026/A338 at Tidworth is a priority T-Junction with no dedicated right turn lane. The visibility at the junction is considered to be within acceptable limits given the 30mph limit through the village. Capacity is not considered to be an issue at this junction however a capacity assessment would be required, particularly if the site came forward as a HRC.

To the East of the site there is a new signalled crossroads which is associated with the Castledown Business Park. The business park is currently under construction at this location and an assessment would be required to ensure the junction can accommodate the committed traffic associated with the business park and the proposed waste uses. Notwithstanding this it is considered unlikely that capacity will be a restricting factor at this location given the standard junction, scale and nature of the proposed site uses and the likely arrival and departure profiles which are likely to differ to those of the business park.

Accessibility by Sustainable Modes

The A3026 has a 1m (approx) shared use cycle/footway on its northern side which widens to 2m (approx) towards Ludgershall. There are a number of bus stops on the A3026, the closest being 0.7 km to the east of the site.

Constraints

The main constraints identified at this site are:

- The visibility at the existing access junction is well below DMRB standards and is not acceptable for the proposed uses; and
- The adverse impact of HGV traffic on the villages of Ludgershall and in particular Tidworth.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E11/001** in **Appendix D**.

Mitigation

It is recommended that the access is relocated approximately 180m to the east which improves the visibility to the right whilst remaining within the boundary of the site. This would bring visibility to within acceptable limits. A dedicated right turn lane provides non blocking storage for right turning vehicles. This is considered particularly important should HRC uses be taken forward on the site.

It is recommended that routing of HGV traffic to the site is from/to the east via the A342 and the A303 and not through Tidworth.

An indicative access design is presented as drawing number **5044619.017/TP/E11/002** in **Appendix D**. It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. Also highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£125k** – For new access junction with ghost island right turn lane.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is located within 9km of the strategic lorry network (A303);
- The site has direct access to a designated 'other' lorry route which is suitable for access to the site for HGVs from the east;
- The site is in a sustainable location with relatively good access for pedestrians, cyclists and public transport users.

The following issues/constraints have been identified:

- The existing access has very poor visibility and requires mitigation to achieve acceptable standards; and
- There is the potential for adverse impacts associated with the transport of waste on the villages of Ludgershall and Tidworth.

In conclusion, the proposed site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report.

B.2.11.3 Water Quality / Environment and Contaminated Land

NGR: 424790, 149950

Location: Ludgershall

Area: 2 hectares

Data Source: Landmark Envirocheck Report 30098628_1_1 (8th Feb 2010) unless otherwise referenced

Table B.2.11.3.1 - Pickpit Hill, Ludgershall – Water Environment and Contaminated Land

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water</p>	<p>The nearest surface water feature is a small pond 324m south-east; there is also a stream running north-south 800m west of the site.</p>	<p>Runoff of contaminated material to the pond or stream, although this is unlikely given the distances involved.</p>	<p>Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design.</p> <p>Consider limiting types of waste handled at the site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas, etc).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with Environment Agency (EA).</p> <p>Produce working plan for site.</p> <p>Review run off treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology:</p>	<p>T The BGS 1:50 000 Drift geological map (Sheet No. 283, Andover) indicates that the site is underlain by the Upper</p>	<p>There is the potential for a pathway to be</p>	<p>-</p>	<p>To be considered during further</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Stratigraphy	Cretaceous Chalk Formation, a soft white chalk with flint nodules. There are no folds or faults in the area ⁴⁴ .	created for contamination to reach the groundwater.		assessment.
Hydrogeology: Groundwater – Hydrogeological Units	The site is on a Primary (Major) Aquifer.	Contamination of aquifer and public water supply. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design. Consider limiting types of waste handled at the site e.g. only solid waste, only inert waste. Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas, etc). Good working practices and EA guidance during construction.	Environmental Management during construction. Produce working plan for site. Review run off treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is in a SPZ 2.			
Hydrogeology: Groundwater – Vulnerability	The aquifer is classified as highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	It is inferred that the groundwater will be flowing towards the streams to the west.			
Discharges: Surface Water - Discharge	There are no surface water discharge consents within 1km of the site.	-	-	-

⁴⁴ BGS 1:50 000 Drift geological map (Sheet No. 283, Andover)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Consents				
Discharges: Groundwater – Discharge Consents	Site drainage and process water; into land, 437m south-east.	Not applicable	-	To be considered as part of further assessment.
Discharges: Pollution Incidents – to land	No pollution incidents to land recorded within 1km of the site.	-	-	-
Discharges: Pollution Incidents – to water	Category 3 (minor incident), unknown oils to unspecified water body, 808m east.	Not applicable	-	To be considered as part of further assessment.
Abstractions: Surface Water Abstractions	There are no surface water abstractions within 1km of the site	No risk posed	-	-
Abstractions: Groundwater Abstractions	There are no groundwater abstractions within 1km of the site	No risk posed	-	-
Flood Risk	The site is within zone 1, with the nearest area of zone 2 being associated with the stream 800m west.	There is very little risk of fluvial flooding, but there may be risk of groundwater and pluvial flooding which should be investigated as the	Surface Water Management Plan, SuDS design to control runoff. Infiltration devices. Surface Water Management	A Flood Risk Assessment in line with PPS25 is required to determine level of flood risk for the

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
		site is larger than 1 ha.	Plan.	site and appropriate mitigation measures.
Landuses: Waste sites	The site is recorded as a former landfill site taking “general” waste	There is a significant risk that the use of the site as a waste facility has left a legacy of contaminated ground.	A Site Waste Management Plan and a Pollution Incident and Control Plan should specify how excavated material is to be handled, stored and disposed of.	Geoenvironmental investigation is required to determine the nature and extent of any contamination that may be present at the site.
Landuses: Historical landuse	1911: Midland & South Western Junction Railway is present 200m north of the site. 1924: An isolation hospital is present to the east of the site, with the grounds approaching within 20m and the closest buildings 80m away. 1970: The site is now used as a MoD “Refuse Destructor”. The hospital is no longer present. 1986: The Refuse Destructor structure appears to have gone, but the site tracks are still apparent.	The risk this presents is the excavation and exposure of contaminated material during construction which could open pathways to site staff via direct contact or controlled waters via leaching to the aquifer.		
Landuses: Trade directory	There are no trade directory entries within 500m of the site, and the closest active entry is a garage 900m to the south-west.			
Conservation Designations	There are no statutory designated sites within 1km of the site.	No risk posed.	-	-

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Household Recycling centre, Materials Recovery Facility / Waste Transfer Station, Local Recycling centre, Inert Waste Recycling and Transfer site or Composting site at **Pickpit Hill, Ludgershall** falls within the following category:

- Potentially significant issues identified

The initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is on a Primary Aquifer and SPZ 2 and therefore there are potential groundwater contamination issues
- There is a risk of groundwater and pluvial flooding
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.

B.2.12 G & S Patios, Seend, Melksham (Site Ref E12)

B.2.12.1 Introduction

The site extends to 1 ha and is located off the A365 to the south east of Melksham and approximately 12 km north east of Trowbridge.

This site comprises an area of hard standing currently used for a patio business and waste transfer operation. The site has an existing access and is located in close proximity to the A365 to the north of the site, which is designated as a Local Lorry Route. The site is situated in a rural area surrounded by grade 3 agricultural land. The northern boundary of the site is defined by a disused railway line and the eastern by Bollards Hill. The southern and western boundaries are delineated by field boundaries. There are a number of dwellings of the south of the site and farmsteads in the area, including Pile Farm. There are no Public Rights of Way on the site; however one does border the site to the west.

The site is not allocated in the Kennet District Local Plan although the site falls within a designated as a conservation area. The emerging Wiltshire Core Strategy does not propose any designation in the vicinity of the site

There have been a number of planning consents granted within 500m of the site since 2006, however these relate to intensification of use of existing properties/buildings and include no consents for new properties that may be affected by further development at this proposed site.

B.2.12.2 Landscape and Visual Impact

Introduction

The site is located to the east of Melksham to the south of the A365. The site is set within open countryside and is accessed via a track.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture

- Low ridges from which the frequent medium sized towns are viewed
- Wide river corridor with ancient pattern of flood meadows but much influences by modern development
- Undulating clay vale with varied hedgerow pattern
- Small woods.
- Wide views across the area from the higher surrounding chalk downs.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Open Clay Vale

Landscape Character Area: Avon Open Clay Vale on the cusp of Trowbridge Rolling Clay Lowland

Key characteristics relevant to the site:

- Level land form with wide open skies and views to ridges and downs.
- Pastoral land use with some arable.
- Large scale geometric fields with hedgerows or open drainage channels defining boundaries.
- Watercourses lined with riparian vegetation with prominent lines of willows (some pollarded).
- Settlement pattern varies from large towns and small scattered villages to sparse farmsteads.
- Buildings in varied materials of brick, render and stone.
- Crossed by major transport corridors, and a network of minor roads linking settlements.
- Historic use for transport evident in canals.

Generally the condition of the landscape character area is considered by WCC to be 'moderate', with a 'moderate' strength of character. WCC also notes although there are limited areas still managed as unimproved grassland most of the meadows, a substantial part of the hedgerow network and riparian vegetation has been lost.

The strategy for the area is to conserve the elements that contribute to the rural, tranquil landscape and improve elements in decline such as hedgerows and hedgerow trees

Landscape Designations and Rights of Way:

- Two public rights of way pass the site at the north western corner, one on a north east to south west alignment, the other on a north west to south east alignment.

Baseline Landscape Character and Features: Site Survey

The proposed site is a flat area of greenfield and pasture. It is located immediately south of the A365. The site is situated at the floor of a wide valley with the landform rising to the south. There are several scattered properties within the vicinity, in particular a row of terraced housing to the south with potential views into the site. In addition there is a single residential property to north, again with potential views into the site. An existing track runs along the northern boundary of the site.

The site is fairly open with some boundary planting to the eastern boundary. There is little built form on the site, predominately a corrugate iron shed for materials and machinery to be housed in. A timber shed is also on site, used as an office. Building materials, sand and paving materials are present on site along with old container units and other material at the western end of the site.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Medium

Capacity to Accept Change: Medium / High

The site itself has a poor landscape condition with some boundary planting to the western edge but nothing of any significant value. The surrounding area has the character of an open wide valley with undulating landform either side.

Due to its location with the valley the site has a good potential to accept change, depending on the scale. Although in an open valley, there are no major visual impacts occur to the visual receptors and through careful planning and screen planting any impacts could be mitigated.

Potential Landscape Impacts

- Further erosion of the rural character and setting

Potential Landscape Mitigation Measures

- Facilities to be small to medium in scale, in keeping with an agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and repair rural character

The following ‘Broad Management Objectives’ for the Open Clay Vale in the Wiltshire Landscape Character Assessment are relevant to the site:

- Retain and manage the hedgerow network and nurture new hedgerow trees
- Promote appropriate management of arable land including retaining area of fallow land and maintaining an unploughed margin around fields
- Minimise small scale incremental change such as signage or fencing which could change the rural peaceful character of the landscape
- Ensure both future construction and changes to existing buildings are designed to integrate with the existing character and structure of settlements

Table B.2.12.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residential properties on ridge (South)	High	Minimal impact – winter glimpsed views	Facilities to be in keeping with an agricultural style Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Pile Farm Terrace	High	Moderate adverse	
Residential properties to the south including Seend Cleeve	Medium	Slight adverse	
Bower Hill residential properties	Medium / Low	Minimal due to distance	
Rowde Hill	Low	Minimal due to distance	
Road users (A365)	High	Slight adverse – period screening already present	
Footpaths to west of site	High	Moderate – due to proximity to site	

Summary: Residual Landscape and Visual Impacts

Although the site is situated within a wide valley, through careful mitigation and planning of the site the visual receptors to the site would not suffer any adverse visual impacts. The main visual impacts could be almost entirely mitigated through sensitive facility design and screen planting.

Recommended further landscape and visual surveys

- n/a

B.2.12.3 Noise

Introduction

The site at G&S Patios, Seend, Melksham has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Composting.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- To the east of number 12, New Buildings which is located approximately 180m to the south west of the allocated site boundary.

The proposed site is located within land that is currently utilised by G&S Patios. Background noise levels were made, however no noise was perceptible from the current usage. The site borders onto Bolland’s Hill to the east and is surrounded by farm land.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions being overcast with westerly winds. The current noise environment around the allocated site is dominated by road traffic on the A365, A361 and local roads.

Consecutive background noise measurements were taken at the monitoring location. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.2.12.3.1 - Monitoring Location - Background Noise Levels (File AU1_0026)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
17:02:00	00:05:00	56.1	70.6	41.9	58.0	47.4	43.7
17:07:00	00:05:00	56.2	70.3	41.6	59.1	47.2	44.2
17:12:00	00:05:00	56.9	71.0	42.6	59.2	48.5	44.5
17:02:00	00:15:00	56.4	71.0	41.6	58.8	47.6	44.2

The average background noise level (LA90) at the monitoring location is taken as being 44.2 dB.

Assessment Suitability

The site is an existing storage yard with residential properties to the south and north.

There is little or no screening from the proposed site but with appropriate screening and careful site location the site is considered suitable with respect to noise for some of the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required to the south and the north of the facility.

Recommendation

With mitigation the site is deemed suitable with respect to noise but, depending on the intensification of use, not for all three of the intended uses.

B.2.12.4 Transport

Introduction

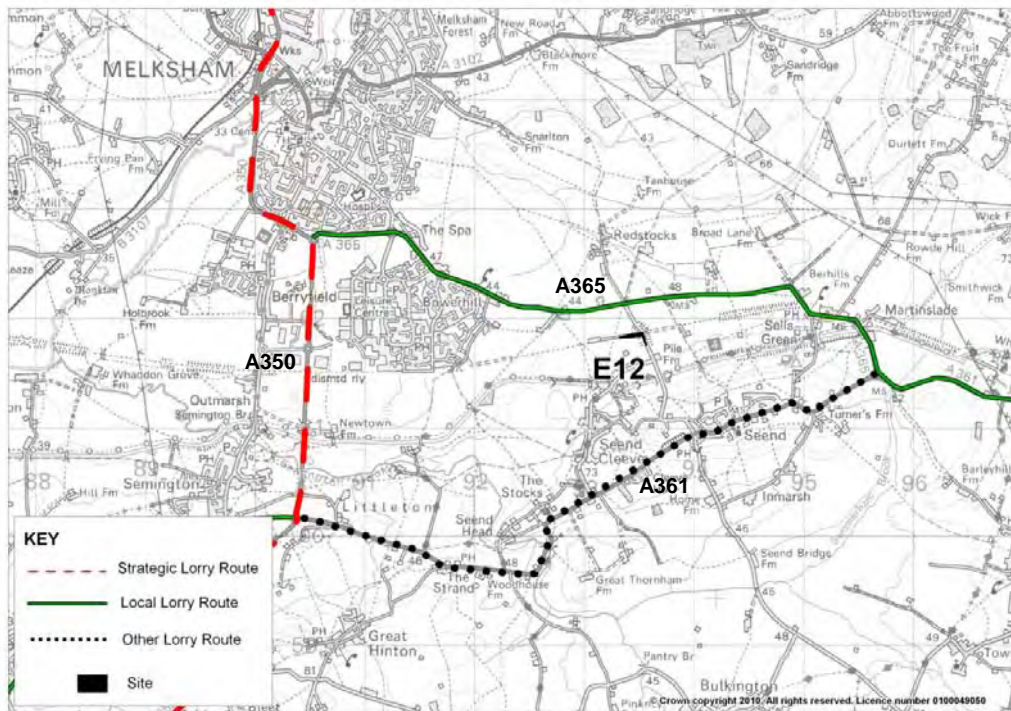
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The 1ha site is located off Bolland’s Hill Road approximately 2.5km east of Bowerhill. The waste uses currently operating on the site include Inert Waste Recycling/Transfer. The site is allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.2.12.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.2.12.4.1** below shows that the site is situated approximately 3km east of the nearest Strategic Lorry Route (A350) and approximately 300 metres south of the nearest Local Lorry Route. Direct access to a lorry route is not possible from this site. The site is accessed off a minor rural road which connects to a local lorry route to the north.

Figure B.2.12.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Composting (C).

Traffic Generation

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.2.12.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.2.12.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
Composting	10,000	80	Staff levels at a Composting site are likely to be minimal

Assessment Suitability

Existing/Potential Access Junctions

The site is accessed off a 5.8m wide rural road. There are currently two access points to the site located within 30 metres of each other. The main access is via a 7.2m wide priority access, which lies perpendicular to Bolland’s Hill. The secondary access is currently gated and lies at an acute angle to Bolland’s Hill. This acute angle will provide very difficult turning manoeuvres for HGVs and poor visibility. **Figure B.2.12.4.2** below shows the main access and the secondary acute angled access.

Figure B.2.12.4.2 - Access to the Site



Main Access (to right)



Secondary Access

Both accesses are currently formed of gravel and will need to be resurfaced. Visibility from both accesses is below standard for the speed of road (60mph), especially from the secondary access to the north. Visibility from the main access to the south could be improved by trimming the hedgerow. Visibility to the left from the access (to the north) is less of an issue as all traffic will be turning left out of the site for access to the HGV network. **Figure B.2.12.4.3** shows the visibility from the main access.

Figure B.2.12.4.3 - Visibility from Main Access



Visibility to left



Visibility to right

Immediately after the mouth of the main access the access road turns sharply to the right at a 90 degree angle. This bend will cause great difficulty for HGVs turning left out or right into the junction, as they will need to cross on to the opposite side of the main carriageway (Bolland's Hill). There is land available to the east of this access, which could allow for the access road to be widened and the bend to be realigned, however this is likely to require the acquisition of third party land.

There is potential for a third access to the site, via a track that runs along the northern boundary of the site, which then connects to Bolland's Hill. However, this track is currently in a poor condition and access from the track onto Bolland's Hill provides very poor visibility to the right (south). As such this access is not considered suitable for the proposed uses.

Transport Environmental Impacts

The residential area of Bowerhill is located approximately 1.5km east of the site. The preferred route from the site to the Strategic Lorry Route Network passes to the north of this settlement. All dwellings within Bowerhill are located on the southern side of the A365, which is classified as a Local Lorry Route. Most dwellings are located away from the A365 and will not be impacted upon by HGVs using this route.

There are no other settlements located near to the site or along the route to the Strategic Lorry Route Network. Therefore, the environmental impact on local settlements is likely to be minimal.

Off Site Highway Network

Bolland's Hill runs along the eastern boundary of the site and connects the site to the A365 to the north of site via a priority T junction with no dedicated right turn facility. The junction between Bolland's Hill and the A365 provides very good visibility and no capacity issues were observed at this junction. Given the size of the proposed site it is unlikely that capacity will be unduly affected by the proposals.

Bolland's Hill is on average 5.8m wide but narrows to approximately 5 metres, over a humped bridge, just north of the site access. Design Bulletin 32 (Residential Roads and Footpaths), produced by the Department of Transport, states that a carriageway width of 5.5m is required to enable the largest type of vehicles to pass each. In its present condition this bridge therefore has insufficient width to accommodate two HGVs or a HGV and a car passing each other. In addition, forward visibility over this bridge is very poor in both directions as demonstrated in **Figure B.2.12.4.4**.

Figure B.2.12.4.4 - Visibility to the North over Humped Bridge along Bolland's Hill



Accessibility by Sustainable Modes

No footways exist along the Bolland's Hill and therefore the site is not accessible by foot. However, it is unlikely that either staff or visitors will walk to the site given the distance from the nearest settlement (Bowerhill) and nature of proposed uses..

The nearest bus stop is located approximately 300m north of the site access at the junction between Bolland's Hill and A365. The site is not accessible from this bus stop by foot as no footways link to the site.

Constraints

The main constraints identified at the site are:

- The very poor forward visibility and limited width over the humped bridge along Bolland's Hill;
- The poor accessibility by non-car modes;
- The poor standard of the site with regard to increased use, particularly increased use by HGVs;
- The below standard visibility at all potential site access points;
- The need for improvements to the curvature of the main site access road to improve access for HGVs; and

- The potential impact on the residential amenity of Bowerhill - mainly the residential properties fronting onto the A365.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/E12/001** in **Appendix D**.

Mitigation

The existing access to the site will need to be resurfaced to accommodate increased traffic levels and specifically increased HGV use.

The visibility to the south of the site access will need to be improved by cutting back the existing hedgerow.

The 90 degree bend located along the main access road within the site will need to be re-aligned to improve access for HGVs. However, 2-way access at this location is not feasible due to the blind bend and limited road width. Adjacent land may need to be acquired to facilitate this mitigation, however this may involve some third party land take.

A preferred alternative access arrangement would be whereby a one-way system could be implemented with access taken from the re-aligned main access with egress from the re-aligned secondary access. Alternatively the potential third access to the north of the bridge could be used as the access to the site with the main access providing the egress.

As part of a Transport Assessment, it is recommended that the manoeuvrability of vehicles, likely to use this site access for the proposed use(s) set out above, should be analysed using vehicle swept path software. This will determine what swept path is required and therefore how much land (if any) is required.

Some form of priority system also needs to be implemented over the rail bridge if traffic levels are to increase, particularly if HGV traffic. Given the very poor forward visibility, over the bridge, it is unlikely that a simple give-way priority over oncoming vehicles would be sufficient. A preferred option would be to provide traffic signals on either side of the bridge and reduce the speed limit to 40mph from a point south of the main access road to the junction of the A365. However, the introduction of traffic signals would introduce the following additional issues:

- Traffic signals can only be implemented on sections of road with a speed limit of 40mph or lower. A 40mph speed is likely to get local objection given the location of the site in a very rural non-residential area;
- Traffic signals would introduce an element of delay for local motorists. This delay may be increased further given the sharp bend located on the northern side of the bridge. This bend may require the stop line to be moved further north of the bridge to provide an adequate stopping sight distance; and
- When vehicles travelling south are given a green light they will not be aware of vehicles on the other side of the bridge waiting to turn right into the site. Vehicles may therefore pass over the bridge at higher speeds than they do currently (i.e. they will be under the perception that they have complete priority rather than cautiously driving over the bridge). Therefore, an additional and potentially more serious safety issue could be established whereby relatively high speed rear end shunts could occur.

Cost of Mitigation

The cost of the indicative mitigation proposed is estimated to be:

- **£100k** - to improve two access points to a reasonable standard to accommodate HGVs (note that third party land may need to be obtained, which may be costly);
- **£60K** - to introduce traffic signals over the nearby bridge (note that this cost may increase if difficulties arise with obtaining power for the signals);

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is not located near to any local settlements and is surrounded by agricultural land; and
- Ignoring the issues of access identified along Bolland's Hill the site provides a very good short link to the Strategic Lorry Route Network.

The following issues/constraints have been identified:

- The poor forward visibility over the humped bridge along Bolland's Hill;
- The limited width over the humped bridge;
- The poor standard of the site access with regard to increased use, particularly increased use by HGVs;
- The below standard visibility at the site access junctions;
- The proposed mitigation to cut back hedgerows will not eliminate the visibility issues as the required visibility for a 50mph would require the removal of a significant proportion of hedge row from third party land;
- The introduction of a 40mph speed limit required to improve visibility and allow for traffic signals to be introduced over the bridge is likely to get local objections and dissatisfaction;
- The proposed mitigation to introduce traffic signals does not resolve all of the safety concerns regarding the bridge and the site access location;
- The need for improvements to the site access road curvature to allow for HGV use. In addition the proposed improvements of two access points does not remove the poor visibility issue over the nearby bridge; and
- The potential impact on the residential amenity of Bowerhill - mainly the residential properties fronting onto the A365.

In conclusion, the proposed site is not considered appropriate for the proposed uses even with consideration of the mitigation measures as set out in this report. The likely cost of the improvements required, the fact that the mitigation measures do not remove all issues and actually introduce further issues (i.e. traffic signals as discussed above), and the potential land constraints to implement some of the improvements suggests alternative sites are considerably more appropriate for the proposed uses. In addition, unless significant improvements are made to the vertical and horizontal alignment of the nearby bridge at a substantial cost, significant safety issues will still be apparent at the site access(es) no matter what other improvements are made.

B.3 South Wiltshire

B.3.1 Solstice Business Park, Amesbury (Site Ref S1)

B.3.1.1 Introduction

The site extends to 14ha site and is located approximately 0.5 km to the north east of Amesbury and some 12 km north of Salisbury. Access to the site can be gained to the A303 via the existing Solstice Park road infrastructure and Porton Road. The northern boundary of the site abuts the A303 dual carriageway. The eastern boundary is an old track bounded on both sides by a hedgerows and long un-managed grassland. The site is visible from the A303 dual carriageway. To the west of the site are agricultural fields and the earlier stages of the Solstice Business Park, including a drive-through fast-food outlet; petrol station/supermarket; restaurant and pub. No Public Right of Ways run through the site, however one does run down the south east border of the site.

The site is located in proximity to a number of designated sites including the Salisbury Plain SAC/SPA 0.8km to the east of the site and the River Avon SAC 1.5km to the west of the site. The Salisbury Plain SSSI County Wildlife site is also located 0.8km to the east of the site. There are several SAMs in proximity including Amesbury Abbey located 1.3km to the west and Wilbury House located 3.4km to the east of the site. The Stonehenge World Heritage Site is located 2km to the west.

The site is allocated in the adopted Salisbury Local Plan for employment development (Policy E8A) and the emerging South Wiltshire Core Strategy does not propose any new land use designations in this area.

A number of planning consent have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing buildings, change of use and others include:

Reference: S/2003/158 Change of use to a household recycling centre and ancillary development including a new access at Wiltshire County council depot.

Reference: S/2008/0572 Revised application s/2007/1865 demolition of all buildings & redevelopment to form a class A1 foodstore with associated parking & landscaping alterations to access installation of wind turbine at 140 London Road & Land & Buildings To Rear, Amesbury, Salisbury SP4 7EQ

Reference: S/2004/1432 Construction of single dwelling at Fairview Park, Porton Road, Amesbury, Salisbury, SP4 7LL

Reference: S/2006/1783 Outline application for the development of 10 residential units with associated parking and landscaping at Land Adjacent To Butterfield Drive & Porton Road, Amesbury, Salisbury SP4 7LL

B.3.1.2 Cultural Heritage

Introduction

Solstice Park (S1) lies within an area of former downland immediately south of the A303. The site has already been subject to extensive archaeological evaluation and excavation in advance of the development of the existing business park and adjacent hotel / service station (Wessex Archaeology, 1992; AC Archaeology 1998, 2002, 2004; Jones Lang LaSalle 2007). The site has subsequently been developed for offices and a distribution centre and the ground levelled and landscaped in readiness for future new build. The site is screened by trees along the eastern edge of the site planted in recent years to protect the setting of the adjacent Scheduled Monument (**S1-k**). A modern art installation was placed on the eastern boundary of the site in 2009.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded assets have been ascribed a unique Asset Number (i.e. **S1-a**, **b**, **c**, etc). A full methodology statement is set out in Chapter 3.

Designated Heritage Assets

There are eight Scheduled Monuments within the 500m study area, one of which (**S1-k**) lies immediately adjacent to the eastern boundary of the site

The site lies within an Area of Special Archaeological Significance

Recorded Heritage Assets within the Site

10 heritage assets are recorded on the WSMR within the site – note that these have subject to previous archaeological evaluation and subsequent development. The current state of their survival is unknown, but it is assumed that all important buried archaeological remains were excavated prior to the landscaping and development on the site.

Table B.3.1.2.1 - Recorded Heritage Asset within the Site

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
S1-a	<i>Neolithic worked flint identified during evaluation in 2002</i>	SU14SE128	Area of Special Archaeological Significance	SU17294206
S1-b	<i>Associated finds - Seven pieces of the rim of a Bronze Age collared urn found in 3m area by Ordnance Survey staff in 1962 – no further record of this site.</i>	SU14SE156	Area of Special Archaeological Significance	SU17424199
S1-c	<i>Evaluation - Late Iron Age or early Romano-British sherds were recovered from an evaluation trench through large boundary ditch SU14SE745</i>	SU14SE212	Area of Special Archaeological Significance	SU17554206
S1-d	<i>Associated finds – Romano-British pottery fragments recovered during 2004 excavation</i>	SU14SE348	Area of Special Archaeological Significance	SU17444211
S1-e	<i>Associated finds - Medieval pottery was recovered from the upper fill of an evaluation excavation trench during 2002. Further medieval pottery, occurring in a distinct band in the north-eastern zone, was collected in 1998.</i>	SU14SE470	Area of Special Archaeological Significance	SU17554206
S1-f	<i>Bronze Age Round Barrow - A ring ditch noted from an aerial photograph confirmed as a barrow by fieldwork and appears as a spread mound under the plough. The barrow site was confirmed by a geophysical survey in 2001 and was excavated 2004, revealing evidence two cremation grave pits, containing human remains</i>	SU14SE670	Area of Special Archaeological Significance	SU17444211
S1-g	<i>Trackway aligned north-northeast / south-southwest – possibly post-medieval farm track – excavated in 2002</i>	SU14SE816	Area of Special Archaeological Significance	SU17284213

S1-h	<i>Linear Feature - An E-W aligned linear feature measuring at least 3m in length x 500mm in width and continuing northwest identified in an evaluation trench in 2002</i>	SU14SE864	Area of Special Archaeological Significance	SU17384208
S1-i	<i>Undated rectangular enclosure revealed during 2002 evaluation</i>	SU14SE866	Area of Special Archaeological Significance	SU17454185
S1-j	<i>Possible ring ditch revealed by geophysical survey in 2001</i>	SU14SE871	Area of Special Archaeological Significance	SU17604180

Recorded Heritage Assets within the Study Area

Table B.3.1.2.2 - Recorded Heritage Assets within the Study Area

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
S1-k	<i>Group of three extant round barrows</i>	SU14SE695 SU14SE696 SU14SE697	<i>Scheduled Monument</i>	SU17824181
S1-l	<i>Extant round barrow, c.250m east of site boundary</i>	SU14SE704	<i>Scheduled Monument</i>	
S1-m	<i>Extant round barrow on northeast boundary of site</i>	SU14SE674	<i>Scheduled Monument</i>	SU17864222
S1-n	<i>Extant round barrow c.450m east of site boundary</i>	SU14SE705	<i>Scheduled Monument</i>	SU18234196
S1-o	<i>Ploughed barrow, c.400m south-southeast of site boundary, excavated 1956</i>	SU14SE699	<i>Scheduled Monument</i>	SU17824148
S1-p	<i>Group of ploughed barrow features and other cropmark features excavated in 2004, revealing human remains, pottery and flint, mostly Bronze Age in date – recorded c.300m southwest of site boundary.</i>	SU14SE213 SU14SE350 SU14SE351 SU14SE352 SU14SE472 SU14SE690 SU14SE691 SU14SE692 SU14SE693 SU14SE826 SU14SE873 SU14SE872 SU14SE874 SU14SE875	<i>Area of Special Archaeological Significance</i>	SU17374160
S1-q	<i>Iron Age / Romano-British field system known through aerial photographic survey</i>	SU14SE753	<i>Area of Special Archaeological Significance</i>	SU18394148
S1-r	<i>Group of Bronze Age barrows recorded north of A303</i>	SU14SE673 SU14SE677	<i>Scheduled Monument</i>	SU17994239

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

Worked flint dating to the Neolithic was revealed within the study area during the 2002 evaluation (**S1-a**; AC Archaeology, 2002).

The area is particularly significant in terms of Bronze Age remains. Eight of the recorded barrows within the study area have been designated Scheduled Monuments (**S1-k, l, m, n, r**). Other Bronze Age remains were excavated in 2002 and 2004 (AC Archaeology), including the remains of ploughed-out barrows containing burials (**S1-f, S1-p**) and other associated artefacts.

The Iron Age (700 BC – AD 43)

Late Iron Age / early Romano-British pottery sherds were recovered in the 2002 evaluation (**S1-c**; AC Archaeology, 2002). An extensive Iron Age / Romano-British field system is recorded to the southeast of the site boundary (**S1-q**).

The Roman Period (AD 43 – AD 450)

A number of Romano-British pottery fragments were recovered during the 2004 excavation (**S1-d**; AC Archaeology, 2004). An extensive Iron Age / Romano-British field system is recorded to the southeast of the site boundary (**S1-q**).

The Early Medieval Period (AD 450 – AD 1066)

No Early Medieval heritage assets are recorded on the WSMR within the study area.

The Medieval Period (AD 1066 – AD 1547)

Medieval pottery was recovered from the upper fill of an evaluation excavation trench during 2002 (**S1-e**; AC Archaeology, 2002). Further Medieval pottery, occurring in a distinct band in the north-eastern part of the site, was collected in 1998 (AC Archaeology, 1998).

The Post-medieval Period (AD 1547 – c. AD 1900)

No post-Medieval heritage assets are recorded on the WSMR within the study area. Ordnance Survey maps (1:10,560 – 1883, 1901) reveal a landscape comprising predominantly unenclosed downland. A group of buildings known as 'the Pennings' is shown immediately southwest of the site boundary. No features are shown within the site boundary.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded on the WSMR within the study area. Ordnance Survey maps (1:10,560 – 1925; 1:10,000 – 1961, 1976, 2000, 2006, 2009) also show the landscape predominately laid out to downland. The most significant event was the dualling of the A303 between 1961 and 1976. The Pennings was demolished between 2000 and 2006 in advance of the existing development.

Since 2006, the site has been extensively developed, levelled and landscaped following a programme of archaeological evaluation and excavation (Wessex Archaeology, 1992; AC Archaeology 1998, 2002, 2004; Jones Lang LaSalle 2007).

Significance of Heritage Assets

All of the heritage assets recorded within the site have been removed following a programme of archaeological assessment, evaluation and excavation. The significance is therefore nil.

The significance of the undesignated heritage assets within the study area is low (again much has already been excavated and recorded).

The significance of the designated heritage assets within the study area is high, although their setting has been compromised by the dualling of the A303 and retail park development.

Assessment Suitability

Previous archaeological evaluation and excavation, and the extent of subsequent ground levelling, landscaping and new build development, has removed all archaeological interest from the site. Archaeology would not be a constraint to development.

The existing development has already been screened to the east to protect the setting of the Scheduled Monuments (**S1-k, l, n**) that lie immediately outside the boundary of the site. Providing the height and mass of the new development does not exceed that of existing structures on the site, it will not affect the setting of the surrounding Scheduled Monuments.

Mitigation

No mitigation will be required.

Recommendations

No further assessment is recommended.

Conclusion

Solstice Park has already been subject to extensive archaeological evaluation and excavation in advance of the development of the existing business and retail park developments. Given the scale of development, the potential for the presence of any archaeological deposits is negligible.

The setting of the Scheduled Monument to the east of the site has already been screened from the existing development. Providing the height and mass of the new development does not exceed that of existing structures on the site, it will not affect the setting of the surrounding Scheduled Monuments.

Cultural Heritage is therefore not considered a constraint to development.

B.3.1.3 Landscape and Visual Impact

Introduction

Flat, vacant site to the north of Amesbury off the A303, with new business and leisure facilities in immediate vicinity.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.

Wiltshire Landscape Character Assessment:

Landscape Type: High Chalk Plain

Landscape Character Area: Salisbury Plain East

Key characteristics relevant to the site:

- Very large scale and open, exposed landscape.
- Rolling plateau land form with panoramic views over the surrounding lowlands creating a sense of elevation.
- Large regular arable fields are bounded mainly by ditches or fences with occasional hedgerows.
- Steep and incised slopes down to the surrounding river valleys.
- The underlying chalk geology of the area has led to the predominance of free draining calcareous soils, and a lack of surface water. The landform undulates between 100m and 230m AOD.

The strong sense of remoteness and isolation accentuated by the absence of settlement is considered by WCC as a positive landscape feature. WCC judge the condition of this landscape type to be 'good' and with a 'strong' character, strongly influenced by its MOD management. The overall management strategy for the landscape type is to 'conserve' the open and isolated character of the plain along with the vast areas of calcareous grass land and sites of historic interest.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- No landscape designations
- Public footpath along eastern boundary of site, connecting eastern Amesbury with Bulford Camp.
- Public bridleway to south-west of site, linking New Barn with the above footpath to Amesbury

Baseline Landscape Character and Features: Site Survey

Open and exposed site, highly visible from the A303 dual carriageway, forming part of a wider panoramic view of gently rolling chalk farmland with large arable fields contrasting sharply with the new business park. The site itself has a flat topography and has been prepared for development. Four identical industrial units and one office building have been recently constructed at the eastern end of the site. All are two-three storeys in height, grey in colour and with gently arching roofs. A Dairy processing facility has also been constructed on the north east of the site. Supporting infrastructure has also been constructed, including pavements, a road, verges and street-lighting.

The site has generally been cleared of vegetation although the eastern boundary is marked by a native hedgerow. Some new hedge and standard tree planting has been implemented along the frontages of the new buildings

To the west of the site, the earlier stages of the Solstice Business Park are now occupied, including a drive-through fast-food outlet; petrol station/supermarket; restaurant and pub. More screen planting has been added to the eastern boundary of the site along with the introduction of additional sculptures.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor (business park) -Ordinary (surrounding farmland)

Capacity to Accept Change in Current Site Condition: Moderate / Good

The site is extremely exposed and highly visible to users of the A303 and visitors/workers at the business park, thus reducing its capacity to accommodate change.

Potential Landscape Impacts

- Erosion of the open, rural character of the wider area
- Erosion of the neat, contemporary style promoted across the rest of the Business Park

Potential Landscape Mitigation Measures

- Planting of 15m woodland buffer around facility
- Strategic tree planting throughout wider area of Business Park to soften views from A303 and integrate the facilities with the wider countryside
- Street tree planting throughout Business Park to soften views from offices and integrate it with the structure of the Business Park.

The following 'Broad Management Objectives' for the Chalk High Plain landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

Table B.3.1.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor <i>(assessment based on assumption that site will be developed for employment uses in any event)</i>	Potential Visual Mitigation Measures
Users of the A303	Low	Slight adverse	Sensitive site planning, with the facilities placed away from offices and the A303 Planting of 15m woodland strip around the facility Strategic tree planting throughout wider area of Business Park to screen from the elevated position of the A303
Workers/visitors to business units on Solstice Business Park	Low	No change – slight adverse	
Visitors to catering facilities	Medium	No change – slight adverse	
Residents on north-eastern periphery of Amesbury	Medium (distant views)	No change – slight adverse <i>(depending on extent of woodland screening)</i>	
Workers at MoD Boscombe Down	Low	No change	
Users of bridleway to west of site	High	No change - slight adverse <i>(depending on extent of woodland screening)</i>	
Users of footpath to east/south of site (Amesbury Road)	High	No change - slight adverse <i>(depending on extent of woodland screening)</i>	

Summary: Residual Landscape and Visual Impacts

This is an extremely open site, forming part of a wider landscape praised for its sense of remoteness and strong rural character. Although not directly overlooked by residential properties, it is highly visible to users of the busy A303. Whilst woodland planting could help to mitigate the impacts of the proposals on landscape character and visual amenity, this would still erode the open, exposed character of the area. In assessing the effects of the proposals however, it is important to recognise that the land is allocated for employment use and will be developed in any event, thus reducing the overall effects. Such uses may be less industrial in character than a waste site however and careful consideration should be given to how such a facility could be suitably accommodated on this site.

Recommended further Landscape and Visual Surveys

- Visual survey from Amesbury Road footpath and MoD Boscombe Down

B.3.2 CB Skip Hire, St Thomas Farm, Amesbury (Site Ref S2)

B.3.2.1 Introduction

The site extends to 1.5ha located to the west of Bishopdown on the north-eastern edge of Salisbury. The site is part Brownfield (existing waste site) and part Greenfield comprising a skip hire service in the northern end of the site that includes an open barn, portacabin offices; breeze-

block sheds and cement silos and a paddock in the southern end of the site. The site has an existing access road off the A30, which is part of the Wiltshire HGV Route Network (local lorry route). The north east boundary is defined by a residential property, the south east and south west boundaries are defined by hedgerow beyond which is a flat area of rough grassland flood meadows which forms the River Bourne floodplain. The north western boundary of the site is defined by the embankment of a railway line and includes a cover of rough scrub.

The site is located in proximity to a number of designated site including the River Avon SAC/SSSI is within 200 meters of the site. The Cocky Down SSSI and Cocky Down Chalk Wildlife Site are approximately 550 meters south east of the site.

The site is not allocated in the adopted Salisbury District Local Plan and the emerging South Wiltshire Core Strategy does not propose any new land use designations in this area. The site is covered by the Landscape Setting of Salisbury and Wilton policy C6 within the Salisbury Local Plan.

A number of planning consent have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/2009/874 Use of land as community farm, Laverstock Nursery, Cow Lane, Salisbury SP1 2SR

Reference: S/2006/807 Erection of two storey office (b1) building a part two / three storey office building (b1) and a three storey 90 bedroom residential care home and associated landscaping works including parking spaces and pedestrian access from London Road, on Land at: London road (A30) Salisbury SP1 3YU

B.3.2.2 Landscape and Visual Impact

Introduction

This is a linear site to the west of a railway embankment, on the north-eastern edge of Salisbury. It is located on the River Bourne floodplain and consists of a grass paddock and a skip hire service.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- River valleys with common settlements and narrow floodplains, dominated by former floated flood meadows and meandering rivers. The chalk grasslands and valley bottom wetlands, particularly the flood meadows, are an important characteristic of the area.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Chalk River Valley

Landscape Character Area: Bourne Chalk River Valley

Key characteristics relevant to the site:

- Strongly enclosed valleys with an intimate scale contrasting with the surrounding open upland landscape.
- Pastoral land use along the valley floor with small scale fields contrasts with arable farmland on the valley sides with medium to large geometric fields.
- Hedgerows and hedgerow trees add to the lush and enclosed feel of the valleys.
- Valleys contain a concentration of settlement in contrast to the adjacent unsettled downs.
- Valley used as transport corridors with major roads and railway lines along valley sides.

- River corridor is characterised by lines of willows
- The presence of the northern fringes of Salisbury is felt in settlement on either side of the valley, which has a more suburban style.

WCC judge the overall condition of the *Chalk River Valley* Landscape Type to be 'good' with its chalk rivers of high water quality and rich biodiversity, its largely intact hedgerow network, riparian woodland and compact well kept villages. However there are some elements of declining condition with some hedgerows in poor condition for example. It has a 'strong' character with its generally narrow, steep sided landform, small scale rural settled and tranquil landscape of pastoral fields. The overall strategy for the area is to 'conserve' the tranquil, intimate and rural character of the landscape. There are opportunities for restoration of waterside pastures, replanting and management of hedgerows and limited native tree planting/regeneration.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- The site is covered by the Landscape Setting of Salisbury and Wilton policy C6 within the Salisbury Local Plan.
- A public footpath runs to the west of the site along the top of Cockey Down, at a distance of approximately 1 Km from the site

Baseline Landscape Character and Features: Site Survey

The site lies within the floodplain of the River Bourne and is consequently flat in nature. It has a strong native hedgerow along its eastern boundary that allows glimpsed views out to the east, towards the linear village of Laverstock during the summer months. During the winter these views are likely to be more open. The site does not directly abut the River Bourne, but lies adjacent to rough grassland flood meadows west of the river. The western boundary of the site is defined by the embankment of a railway line and includes a cover of rough scrub.

The site can be divided into two separate areas. The northern part consists of CB skip hire, and includes an open barn, portacabin offices; breeze-block sheds and cement silos. The site is visually dominated by bare earth surface and numerous yellow skips. Historically the site appears to have been part of a farm yard. To the south of the skip hire yard, a transition area of rough grass and earth includes parked vehicles and three mobile phone masts. The southern end of the site consists of a pony paddock, with improved grass and a mature hedgerow to the east.

Although the site is varied in its use and is strongly influenced by the presence of the skip hire business and railway embankment, it maintains a rural, river valley character, with native vegetation and views to the elevated chalk downs, Cockey Down and Laverstock Down, to the east.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: High

The rural quality of the site has been eroded by the presence of the skip hire business, phone masts, pony paddocks and railway embankment. Given its relatively secluded position it would be able to accommodate change relatively easily and may even benefit from mitigation measures associated with any proposed change.

Potential Landscape Impacts

- Loss of native hedgerows and vegetation on site.
- Visual impact on chalk downland and river valley to the east could erode the rural character.

Potential Landscape Mitigation Measures

- Careful siting of new facilities to prevent loss of hedgerows and vegetation

- Planting of additional woodland planting screens to integrate the facility with the surrounding riparian landscape including willows and alders
- Minimise impact on entrance to site, which retains a rural character

The following ‘Broad Management Objectives’ for the Chalk River Valley landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Consider opportunities for re-planting hedgerows and hedgerow trees where these have been lost. In particular, the comparatively dense structure of willows, poplars and other moisture loving trees should be retained along field boundaries and the course of the river
- Resist excessive signage associated with new development along the trunk roads and maintain a sense of landscape scale when planning new road junctions - junctions that are too large will disrupt visual unity along the valleys.

Table B.3.2.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Users of CB Skip Hire	Low	No change	
Residents on western edge of Laverstock, off Church Road	Medium	Slight beneficial – No change	15m planted buffer strip on eastern edge of site
Passengers and employees on railway line	Low	Slight adverse – No change	Sensitive site planning and inclusion of tree planting within site.
Users of Park and Ride facility at Bishopdown	Low	No change	Planting of 15m buffer at southern end of site.
Walkers on footpath on Cockey Down and Laverstock Down (potential impact)	Medium	No change	Sensitive site planning and inclusion of tree planting within site.

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting and existing industrial character, the site could accommodate change. The main visual impacts, on residences on Broadway Ledge and the footpath to the south of the site, could be almost entirely mitigated through sensitive site planning and screen planting. Site planning should avoid the loss of the lane with hedgebanks that runs through the site.

Recommended further Landscape and Visual Surveys

- Visual survey from footpath on Cockey Down and Laverstock Down
- Night time visual survey

B.3.2.3 Noise

Introduction

The site at St Thomas Farm has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Inert Waste Recycling/Transfer;

- Composting.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- South western garden of Southbourne, located 33m to the north east of the site boundary; and
- The rear garden of 117a Church Road, located 188m to the east of the site boundary.

The proposed site is located within land that is currently being used as a skip hire facility . Given the current usage, background noise levels were made with site activities occurring. The site at St Thomas Farm is bounded to the North West with a railway line, which is elevated approximately 4 metres above the ground level of the site. The remaining boundaries of the site are surrounded by farm/open land with a flat terrain to noise sensitive receptors to the east.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions clear and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on the A30, which is approximately 300m to the north east of the site. Noise is also perceptible at both noise sensitive receptors from current operations at CB Skips, and trains on the adjacent railway, though to a lesser extent at 117a Church Road. At 117a Church Road, road noise from Church Road was more perceptible.

Consecutive background noise measurements were taken at Southbourne and 117a Church Road. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.3.2.3.1 - Southbourne - Background Noise Levels (AU1_0049)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:19:00	00:05:00	54.9	66.1	48.3	56.6	52.6	50.2
12:24:00	00:05:00	59.5	74.9	47.5	57.6	53.1	50.6
12:29:00	00:05:00	60.3	75.0	48.0	62.4	54.1	50.9
12:19:00	00:15:00	58.8	75.0	47.5	58.9	53.3	50.6

Table B.3.2.3.2 - 117a Church Road - Background Noise Levels (AU1_0050)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:41:00	00:05:00	54.7	62.1	47.8	57.4	53.2	50.3
12:46:00	00:05:00	51.9	60.7	45.2	56.1	49.6	46.6
12:51:00	00:05:00	52.9	64.2	46.2	55.4	49.8	47.7
12:41:00	00:15:00	53.3	64.2	45.2	56.6	51.0	47.6

The average background noise levels (L_{A90}) at Southbourne and 117a Church Road are taken as being 50.6 dB and 47.6 dB, respectively.

Assessment Suitability

The site is well separated from local housing, with the exception of the owner's house, and already contains similar noise sources. The other nearest noise sensitive receptors are on Church Road.

There is little or no screening from the proposed site but with appropriate screening the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 – 10 dB(A) reduction is required on the southern and eastern boundary of the facility. The facility should be sited towards the west section of the allocation area and at least 100m from the north east residential property. By careful siting and placing activities in buildings a greater area can be utilised.

Recommendation

With mitigation and assuming the owner's house is within the same planning unit, due to increased traffic on the access route, the site is deemed suitable for the intended uses with respect to noise.

B.3.2.4 Air Quality and Odour

Introduction

CB Skip Hire, St Thomas Farm is located to the northeast of Salisbury. The site currently accommodates a skip hire company.

Potential uses include materials recycling facility, waste transfer station, local recycling inert waste recycling/ transfer and composting.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 14.9µg/m³ NO_x (standard for protection of vegetation 30µg/m³);
- 11.1µg/m³ NO₂ (standard 40µg/m³);
- 14.3µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially sensitive receptors within 500 metres: residential premises, including the areas of Bishopdown and schools along Church Road. The River Avon System SSSI/cSAC is located within 250 metres of the site and is a potentially sensitive habitat. The Cockey Down SSSI, also a potentially sensitive habitat, is located just over 500 metres east of the site.

Air pollutant sources within 500 metres of the site: road traffic on the A30 and A338 and minor roads; gas/oil/solid fuel space heating for buildings; and CB Skips concrete batching (additional potential emissions of dust).

Table B.3.2.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (1 nursery- Leap Frog Day Nursery)	1 (2)	2 (2)	N/A	N/A	3 (3)	2 (2)	3 (3)
Total residential between 100 and 500m (200 properties)	1 (2)	1 (2)	N/A	N/A	3 (3)	1 (1)	3 (3)
Residential within 250m only (500 properties)	1 (2)	1 (2)	N/A	N/A	2 (2)	1 (1)	2 (2)
Ecological designation within 500m of site (River Avon System SSSI/cSAC)	N/A	1 (1)	1 (1)	1 (1)	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

2 = moderate risk, further assessment is recommended, mitigation should be required

3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated

Values in brackets denote potential 'in-combination' or cumulative effects

N/A = risk is not applicable in these circumstances

* Bioaerosol high risk is limited to within 250m of the site

Mitigation

Dust, bioaerosol (with composting) and odour, control measures are recommended. See 'Air Emissions Mitigation Options' in Appendix C.

Recommendation

All air quality risks for the intended use are low to high without mitigation. Dust, bioaerosol (with composting) and odour mitigation is recommended. Detailed assessment should be undertaken if the site is intended for composting.

B.3.2.5 Water Quality / Environment

NGR: 415976,131849

Location: St Thomas Farm, Salisbury

Site Area: 1.5 hectares

Data Source: Landmark Envirocheck Report 30094295_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.2.5.1 - CB Skip Hire Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>Nearest surface water feature is the River Bourne, 86m to the east.</p> <p>The EA identify that the watercourse has a chemical and biological quality of Very Good and high nutrient levels. It also has an ecological classification in line with the Water Framework Directive as Poor.</p>	<p>Impact on River Bourne flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on River Bourne quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage system including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) and foul drainage.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS⁴⁵ map indicates that the site comprises of superficial deposits of alluvium, River Terrace deposits of sand and gravel, flint and chalk, with silt and clay underlain by the Upper Cretaceous Newhaven Chalk Formation (a chalk with many marl seams). There are no faults in the area.</p>	<p>Potential for a pathway to be created between contamination and the groundwater.</p>	<p>-</p>	<p>-</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are underlain by Primary (Major) Aquifer.</p>	<p>Contamination of aquifer.</p> <p>Changes to the groundwater flow regime of primarily</p>	<p>Surface water drainage system including runoff collection system and utilisation of SuDS, foul drainage and infiltration device design (taking into account the SPZ 1 designation).</p>	<p>Environmental management during construction.</p> <p>Determine monitoring</p>

⁴⁵ 1:50 000 Drift geological map (Sheet No. 298, Salisbury)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
		shallow aquifers during construction if pumping required for excavations.	Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.	requirements with EA.
Hydrogeology: Groundwater – Source Protection Zone	Site and surroundings are in SPZ area 1.	Contamination of drinking water supply.	Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.	Produce working plan for site.
Hydrogeology: Groundwater – Vulnerability	Aquifer is classified as highly vulnerable.		Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and to include good working practices, and EA PPGs during construction.	Review runoff treatment requirements. Surface Water Management Plan. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Direction of Flow	Groundwater is likely to be flowing south (assuming this is the direction of flow of River Bourne).	Not applicable.	-	To be considered during further assessment.
Discharges: Surface water – Discharge Consents	Storm sewage overflow to River Bourne; 838m to north.	Not applicable.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	Sewage discharges of final / treated effluent to land / Soakaway; 75m to west, 754m to north.	Not applicable.	-	To be considered during further assessment.
Discharges: Land – Pollution Incidents	Oils – diesel (2008); Cat. 4 (no impact) to water; Cat. 2 (significant incident) to land; 210m to north.	Not applicable.	-	To be considered as possible source of contamination if any found during monitoring.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Abstractions: Surface Water – Abstractions	One private surface water abstraction (“amenity – lake and pond throughflow”) from River Bourne 835m to north.	No risk posed as abstraction is upstream.	-	-
Abstractions: Groundwater – Abstractions	There are no public water abstractions within 1km of site. Two private groundwater abstractions, for “general farming and domestic” (i.e. could be used for drinking water), 231m to east and 464m to south. Abstractions less than 20m ³ per day will not be listed and may be present in the area.	No risk posed to local public abstractions (although site IS within SPZ area 1). Contamination of drinking water supply.	Surface water drainage system including runoff collection system and utilisation of SuDS, foul drainage and infiltration device design (taking into account the SPZ 1 designation). Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and to include good working practices, and EA PPGs during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan. Monitoring boreholes (may be required for obtaining operating permit).
Flood Risk	The southern tip of the site is within Flood Zone 2; the remainder is in Flood Zone 1. There is the potential for flood risk from surface water runoff, infrastructure and artificial drainage systems which need to be assessed. There is the potential for flood risk from groundwater which need to be assessed.	Flooding could interrupt operations and cause pollution to spread from the site, although only a fraction of the site is at risk. The site could increase the pluvial flood risk to	Engineered flood defence, SuDS design to control runoff however there are design implications with being located within SPZ1.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
		surrounding sites.		
Land Uses	<p>There is a Licensed Waste Management Facility at the site itself, a transfer station for household, commercial and industrial; a similarly licensed facility is located 876m north of the site. These sites are also recorded as Registered Waste Transfer Sites.</p> <p>A Local Authority Recorded Landfill Site is present 641m to the south, licensed for soil and subsoil.</p>	Risk during construction of contaminated ground at site with possible runoff to River Bourne and infiltration to aquifer.	Site Waste Management Plan to specify how excavated material will be handled, stored and disposed of. Site Waste Management Plan and Pollution Incident Control Plan to be implemented by contractors.	<p>Geotechnical Investigation and consultation to determine extent and nature of waste.</p> <p>To be considered as a possible source of contamination if any found during monitoring.</p>
Conservation Designations	Cockey Down, a chalk grassland SSSI ⁴⁶ , is 531m east of the site.	No risk posed as no pathway to the SSSI.	-	-
	River Avon System SSSI includes the River Bourne ⁴⁷ .	Contamination of statutorily-protected ecological site.	<p>Surface water drainage system including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) and foul drainage.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Consult with Natural England regarding how works may affect the SSSI.</p> <p>Produce working</p>

⁴⁶ Natural England citation - http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003265.pdf

⁴⁷ Natural England citation - http://www.sssi.naturalengland.org.uk/citation/citation_photo/2000183.pdf

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
			areas etc.) and to include good working practices, and EA PPGs during construction.	plan for site. Review runoff treatment requirements.
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility, Inert Waste Recycling and Transfer Station or a Composting Facility at **CB Skip Hire, St Thomas Farm, Salisbury** falls within the below category.

- **Many / serious issues identified** – review further assessment requirements of waste site

This initial screening indicates:

- Surface water courses within 1km of the site, therefore there is the potential for changes to their flow and quality
- The presence of a Primary Aquifer and SPZ 1 beneath the site, therefore there are potential groundwater contamination issues
- Fluvial, pluvial and groundwater flood risk
- River Avon SAC / SSSI nearby
- Current use as waste facility potentially causing contamination at site
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and liaison with the Environment Agency.

B.3.3 Harnham Business Park, Salisbury (Site Ref S3)

B.3.3.1 Introduction

The site extends to 4.5ha located on the south-west edge of Salisbury. The site includes a partially developed Business Park and established trading estate units with various industrial (B2 and B8) uses on its western side and a new business/retail park on its eastern part. The site has an established direct access to the A3094. The northern boundary of the site is marked by the A3094. A new housing estate borders the eastern edge of the site. To the south are fields and in the south-east corner is West Harnham Chalk Pit. To the west is a new trading estate which contains a large commercial business. There is a football ground, nursery and golf course within 1km west of the site. There are no Public Rights of Way are present on the site however PROWs run along field boundaries to the south, south east and north of the site and through housing estate to the east of the site. The site is located within Flood Zone 1 and in close proximity to Flood Zone 3 which is associated with the River Nadder.

The site is located in proximity to a number of designated sites including the West Harnham Chalk Pit SSSI and West Harnham Limeworks which are approximately 60m south-east. The River Nadder is approximately 350 north-east and is part of the River Avon Special Area of Conservation (SAC). The site is also within 3 km of the Cranborne Chase and West Wiltshire Downs AONB.

The site is not allocated in the adopted Salisbury District Local Plan although land to the east of the site is designated for housing (H2C, map 83) which has been built out, and policy H8. The emerging South Wiltshire Core Strategy proposes land use designations on land to the south of the site for housing and employment (Core policy 2).

A number of planning consent have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/2003/1127 proposed demolition of existing buildings and erection of residential development at former T & N Site, Netherhampton, Salisbury SP2 8NG

Reference: S/2004/1779 Demolition of existing buildings and erection of buildings B1, B2 and B8 uses and erection of two additional buildings for motor dealership and a children's day nursery at Sseb Depot Site, Netherhampton, Salisbury SP2 8NQ

B.3.3.2 Landscape and Visual Impact

Introduction

Business Park on the south-eastern edge of Salisbury, including established trading estate units on its western side and a new business/retail park on its eastern part. The estate is located on the edge of the River Nadder floodplain and is generally flat in character, although rises slightly towards a small chalk scarp to the south.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Dorset Downs and Cranbourne Chase

Key characteristics relevant to the site:

- A rolling, chalk landscape with dramatic scarps and steep-sided, sheltered valleys.
- Scarp slopes with species-rich grassland, complex combs and valleys, spectacular views, prominent hillforts and other prehistoric features.
- Open, mainly arable, downland on the dip slope with isolated farmsteads and few trees.

The A3094 to the north of the site marks the boundary of the Salisbury Plain and West Wiltshire Downs Landscape Character Area. As well as having extensive open, rolling Chalk plateau dominated by large arable fields, this area is also typified by river valleys with common settlements and narrow floodplains, dominated by former floated flood meadows and meandering rivers as seen here at the River Nadder.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Wooded Downland

Landscape Character Area: Fovant Down Wooded Downland

Key characteristics relevant to the site:

- Elevated chalk upland, dominated by Upper Chalk with a capping of Clay-with-Flint with escarpments of Upper, Middle and Lower Chalk.
- Strongly rolling landform with gently domed hill tops, dry valleys and dramatic scarps eroded into rounded spurs and deep combs.
- Remnant chalk grassland is an important habitat on the steep slopes of the scarps and valley sides.
- Intensive and widespread arable cultivation

The site is not that typical of the Wooded Downland landscape type, which is generally includes more woodland and is sparsely settled. WCC judge the condition of this landscape type to be 'good' due to its strong woodland and hedgerow structure. It is considered to have a strong character based on its varied chalk topography. The overall strategy is to 'conserve' the highly rural, peaceful character of the area and its distinctive topography and landcover.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- No landscape designations
- Public footpath runs immediately adjacent to southern boundary of site

Baseline Landscape Character and Features: Site Survey

The site lies on the south-western edge of Salisbury. To the east a new housing estate immediately abuts the site, while to the west there is a further industrial unit and arable countryside. The northern boundary of the site is marked by the A3094 while to the south a small chalk scarp with scrub and grassland marks a transitional area into open arable fields.

The site has two distinct character areas, the Trading Estate, to the east, and part of Business Park that is currently under construction. The Trading Estate appears to have been established during the late 20th century and has a varied selection of industrial units, constructed of steel and brick, with wide areas of concrete and bitmac. The Business Park is partially complete and has a number of vacant plots. The southern end of this site does not appear to be within the proposed site boundary.

The Business Park and Trading Estate are both set within a mature, albeit low quality, landscape structure, with coniferous hedging between the two parts of the site and native scrub to the south. There are groups of mature beech along the A3094 Netherhampton Road frontage.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Low-Medium

The quality and condition of the site landscape is generally poor, due to its industrial character and poor state of repair of much of the infrastructure.

Due to the proximity of the public footpath to the south, new housing overlooking the site to the east and the presence of the A3094 to the north, much of the site is relatively overlooked. However given that the site is already industrial in character, there would be no major impact on the character of the landscape if part of the site were used for waste management.

Potential Landscape Impacts

- Loss of beech trees on northern frontage of site
- Erosion of rural character to landscape to the south of site

Potential Landscape Mitigation Measures

- Retention of beech trees on northern boundary of site
- Planting of native woodland hedging and woodland around facility
- Location of facility away from footpath to south of site.

Table B.3.3.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residents of new housing to east of site	High	No change - Slight adverse <i>(significance of impact depends on location of facility within site)</i>	Retention of conifers in site for short term screening
Users of A3094	Low	No change – Slight adverse	Planting of 15m wide native woodland strip around new facility. This could be on an earth bund.
Visitors and workers on estates	Low	Negligible	
Users of footpath to south of site	High	No change - Slight adverse <i>(significance of impact</i>	Location of new facilities away from residents, footpath and A3094

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
		<i>depends on location of facility within site)</i>	

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting at the foot of a low scarp and with some mature trees on its northern boundary, and its existing industrial character, the site could accommodate some change. However, due to its semi-rural location and the relatively high number of sensitive visual receptor groups in close proximity to the site, particular care will need to be taken when siting and screening any facility here, to mitigate visual impact.

Recommended further Landscape and Visual Surveys

- Visual survey from public footpath to south of site
- Winter-time visual survey from footpath to the north of the A3094

B.3.3.3 Noise

Introduction

The Site at Harnham Business Park, Salisbury has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- Residential car park to the rear of properties on Bridgewater Close, this location was representative of noise sensitive receptors which border the southern section of the allocated site; and
- Grass to the west of Wellworthy Drive, this location was deemed representative of noise sensitive receptors which border the northern section of the allocated site.

The proposed site is located within land that is currently an industrial estate consisting of a number of vehicle garages and small industrial premises. An open space of land is located to the north of the allocated site, which borders onto the A3094. Given the current usage of the industrial estate, background noise levels were measured with noise from the current occupiers of the industrial estate. The site at Harnham Business Park is bounded directly to the east by a significant residential estate. The remaining boundaries to the west and south of the site are surrounded by farm/open land.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions of patchy cloud and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on the A3094 and noise from the industrial estate. Noise at the monitoring location to the south of the residential estate is dominated by industrial noise, mainly from a vehicle garage, while the monitoring location to the north of the residential estate is dominated by road traffic noise.

Consecutive background noise measurements were taken at the rear of Bridgewater Close and to the east of Wellworthy Drive. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.3.3.3.1 - Bridgewater Close - Background Noise Levels (File #76)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:34:10	00:05:00	42.3	60.7	36.2	44.0	39.7	37.6
14:39:10	00:05:00	47.0	62.1	36.4	48.7	44.6	41.8
14:34:10	00:10:00	45.3	62.1	36.2	46.3	42.1	39.7

Table B.3.3.3.2 - Wellworthy Drive - Background Noise Levels (File #78)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:46:58	00:05:00	62.4	77.5	50.2	64.2	60.3	56.1
14:51:58	00:05:00	60.8	73.0	46.4	63.7	58.8	52.5
14:56:58	00:05:00	60.7	72.6	46.6	63.7	57.3	51.7
14:46:58	00:15:00	61.4	77.5	46.4	63.9	58.8	53.4

The average background noise levels (L_{A90}) at the rear of Bridgewater Close and to the east of Wellworthy Drive are taken as being 39.7 dB and 53.4 dB, respectively.

Assessment Suitability

The site is part of an existing industrial estate with a residential estate located on the eastern boundary with a childrens nursery in close proximity to the industrial estate.

Mitigation

Adequate mitigation due to the proximity of residential units is not possible

Recommendation

The site is not deemed suitable for the intended uses with respect to noise.

B.3.3.4 Air Quality and Odour

Introduction

Harnham Business Park is located on the edge of Harnham in the south west of Salisbury on the A3094 Netherhampton Road. The site is currently a business park with various B2 and B8 uses.

Potential uses include materials recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 11.2µg/m³ NO_x (standard for protection of vegetation 30µg/m³);
- 9.5µg/m³ NO₂ (standard 40µg/m³);
- 14.5µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are 690 properties within 500 meters located mainly to the east within Harnham. There are two sensitive ecological sites within 500 metres, these are a SSSI (West Harnham Chalk Pit) and the River Avon which is a SSSI and SAC. These two sites may be affected if there is a change in NOx conditions due to the site.

Air pollutant sources within 500 metres of the site: road traffic from the A3094 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. There are no industrial sources of bioaerosols and odour in the area.

Table B.3.3.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
Total residential within 100m of site (160 properties)	1	1	N/A	N/A	N/A	1	2
Total residential between 100 and 500m (530 properties)	1	1	N/A	N/A	N/A	1	2
Residential within 250m only (279 Properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500 metres of site (West Harnham Chalk pit SSSI, River Avon System SSSI/SAC)	N/A	2	2	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol high risk is limited to within 250m of the site</p>							

Mitigation

Dust and odour, control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low. Dust and odour mitigation is recommended. Detailed assessment should not be necessary.

B.3.3.5 Transport

Introduction

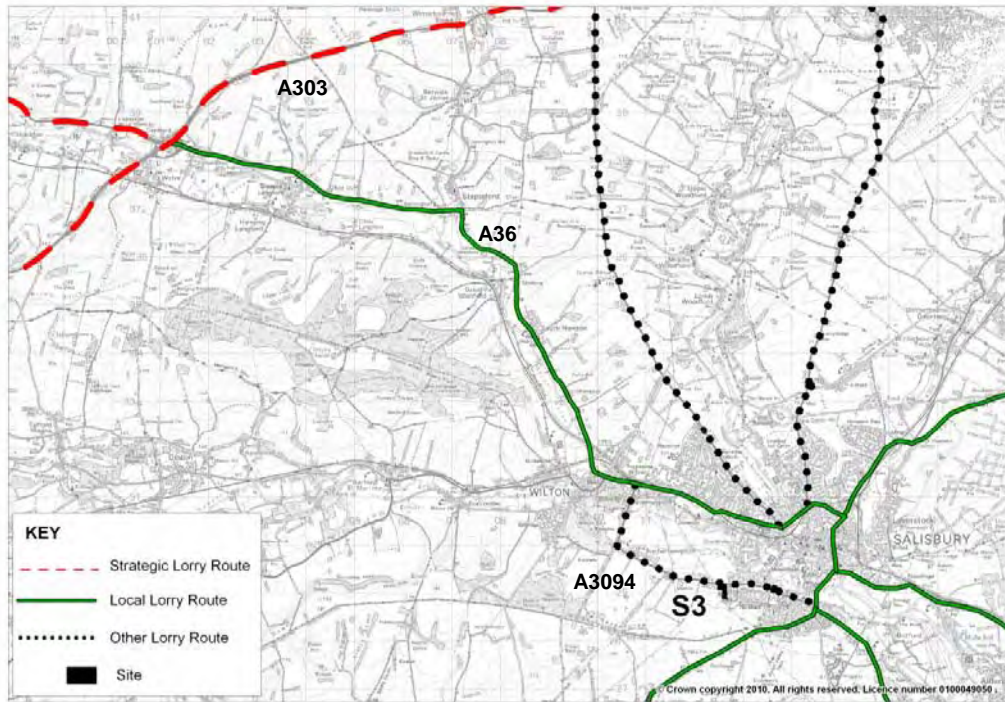
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is located within an established Business Park. The business park site covers a total area of 4.5ha and has a mix of small scale B1 and B2 employment uses. It is proposed that the waste facility is located within this business park however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junctions to the business park but not the site access within the wider site. The site is allocated for a strategic scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.3.3.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.3.3.5.1** shows that the site is accessed directly off the A3094 which is designated as an 'other' lorry route which, by definition, is only to be used where it is essential to gain access. The nearest strategic route is the A303 to the north of the site, accessed via the A36 which is designated as a local lorry route.

Figure B.3.3.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.3.3.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.3.3.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

As mentioned previously the location of the site within the business park is unknown. This section therefore examines the access options into the wider business park site. There are currently two access points, both priority junctions with ghost island right turn lanes that can accommodate up to five Passenger Car Units (PCUs), equivalent to approximately 2 HGVs. The geometry of both junctions is considered suitable for the proposed uses. The speed limit on the A3094 at the access is 30mph and visibility at both access points and in both directions is to standard.

The western most access is currently used for access to Booker Cash and Carry whilst the eastern access is used for access to a number of small scale B2 uses. Whilst the peak hours of operation of the site are likely to be outside the highway network peak hours, the relatively high flows observed on the A3094 would suggest a capacity assessment would be required to ensure the access junctions can accommodate the proposed traffic volumes without the need for mitigation.

Transport Environmental Impacts

The residential area of West Harnham lies immediately to the east of the site. This suburban area just outside Salisbury has residential frontage although this is largely set back from the road with driveways and front gardens. Notwithstanding this it is recommended that access to the site from the strategic lorry network for HGVs is taken from/to the west thus avoiding West Harnham. The eastern access road has adjacent residential properties and as such an increase in HGVs at this access is likely to have an adverse impact on the residential amenity at this location, particularly given that speed humps are present on the access road which would increase the noise associated with the HGVs.

It is recommended that for HGVs, access to the strategic lorry network is restricted to/from the west through appropriate routing agreements. With this in place the impact of the HGV traffic on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal. It may be more appropriate for access to the site to be restricted to the western access point which is located away from residential dwellings.

Due to the nature of waste facilities it may be that the proposed development conflicts with the existing uses on the business park site. The location and layout of the site within the business park is therefore of paramount importance to ensure impacts are minimal both in terms of the local environment and the potential for blocking back to internal estate roads.

Off Site Highway Network

The junction of the A3094/A36 is a signalised T junction whereby the A3094 forms the single lane minor entry. The junction does not allow traffic to turn right towards Salisbury from the A3094. Should there be an operational requirement for HGVs to turn right on to the A36 towards Salisbury they would be required to turn around at the roundabout junction of the A30/A36. The roundabout is deemed suitable for this in terms of the inscribed circle diameter however large HGVs would take up both circulatory lanes which would not be ideal. There is a right turn lane to the A3094 at the A3094/A36 signalled junction that can accommodate up to 12 Passenger Car Units (PCUs), approximately 6 HGVs.

Access to an MRF/WTS facility will usually be in peaks, likely between 9:30–10:30am and 2:00–3:00pm however, if vehicles arrive from transfer stations the operational trips will be more constant throughout the day. In either case the majority of trips will be outside of the highway network peak hours and as such capacity at local junctions is unlikely to be unduly affected by the proposals. Nevertheless a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes as observed flows through the junction appeared to be relatively high in off peak conditions.

Accessibility by Sustainable Modes

There is a bus stop 500m to the east of the site access this is however outside the recommended 400m. In addition there is a 2-3m shared use cycle/footway on the southern side of the A3094 which provides good pedestrian and cycle access to the site.

Constraints

The main constraints identified at this site are:

- The potential for impacts associated with HGV traffic on the residential amenity of West Harnham and those properties adjacent to the eastern site access;
- The A3094/A36 signalised T junction does not allow traffic to turn right towards Salisbury from the A3094 requiring a u-turn at the roundabout junction of the A30/A36 for access to Salisbury; and
- The potential for capacity issues at the site accesses and the A3094/A36 junction which would need to be investigated once proposals were finalised.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/S3/001** in **Appendix D**.

Mitigation

No highway mitigation is proposed at this stage however should operational requirements allow, it is recommended that the route to the site be signed from the west, enforced using routeing agreements with the site operator. The cost of this mitigation would be minimal.

Recommendation

The site offers the following advantages:

- It is located with reasonable access to the local and strategic lorry network;
- Both potential access junctions are of a good standard suitable for HGV use with good visibility in both directions; and
- Access by sustainable modes is good when considering the proposed uses.

The following issues/constraints have been identified:

- Impacts associated with HGV traffic on the residential amenity of West Harnham and those properties adjacent to the eastern site access;
- The A3094/A36 signalised T junction does not allow traffic to turn right towards Salisbury from the A3094; and
- The potential for capacity issues at the site accesses and the A3094/A36 junction.

In conclusion, the proposed site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report.

B.3.3.6 Water Quality / Environment

NGR: 412580, 129040

Location: Salisbury

Site Area: 4.41 hectares

Data Source: Landmark Envirocheck Report 30094397_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.3.6.1 - Harnham Business Park Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is a drain 175m to the south west. The River Nadder which is approximately 420m to the north east just upstream of the confluence with the River Avon. There is a tributary of the River Nadder 507m northwest of the site.</p> <p>The Environment Agency (EA) identify that the River Nadder watercourse has a chemical and biological quality of Good and High nutrient levels.</p> <p>The River Nadder has an ecological classification in line with the Water Framework Directive as Good⁴⁸.</p>	<p>Impact on the River Nadder flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Nadder quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design,</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p> <p>Good working practices and EA guidance during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS map⁴⁹ indicates that the site comprises of superficial deposits, variable deposits of sandy silty clay, locally chalky and flinty in dry valleys, underlain by the Upper Cretaceous Newhaven Chalk Formation (a chalk with many marl seams) and Seaford Chalk Formation (a chalk with large nodular flint seams). The site is on the downthrown side of the Mere fault directly south of the site.</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>

⁴⁸ River Basin Management Plan South West River Basin District

⁴⁹ BGS 1:50 000 Drift geological map (Sheet No. 298, Salisbury)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Hydrogeology: Groundwater – Hydrogeological Units	Site and surroundings are predominantly underlain by a primary aquifer (Major Aquifer) highly permeable).	Possible contamination of the primary aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if foundations intercept groundwater or if pumping is required for excavations.	Surface drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance during construction.	Environmental Management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³)		
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a northerly direction towards the River Nadder.	No risk posed.		
Discharges: Surface water – Discharge Consents	One discharge of Sewage –pumping station to River Nadder, 854m east.	No risk to works.	-	-
Discharges: Groundwater – Discharge Consents	Four discharges of Sewage – final treated effluent to soakaway, 795m, 813m, 816m and 821m south east.	No risk to works.	-	-
Discharges: Pollution Incidents	No pollution incidents within 1km of site.	No risk posed.		To be considered as possible source of contamination if any found during

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
				monitoring
Abstractions: Surface Water – Abstractions	One abstraction from River Nadder for other environmental improvements, 801m to north east	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	<p>Abstractions for metal goods: 58m, 60m and 63m south west.</p> <p>Abstraction for industrial cooling, 60m, 65m and 68m south west.</p> <p>Abstractions for industrial processing, 174m west and 766m north east.</p> <p>Abstractions for general farming/ domestic, 218m and 223m north and 693m south.</p> <p>Abstraction for private water supply, 223m north.</p> <p>Abstractions for machinery & electronics: general use, 512m and 662m north east.</p> <p>Abstractions for other industrial / commercial public services, 847m west.</p>	No risk posed to local public abstractions Contamination of drinking water supply	<p>Surface drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design,</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p> <p>Good working practices and EA guidance during construction</p>	<p>Environmental Management during construction</p> <p>Determine monitoring requirements with EA</p> <p>Produce working plan for site</p> <p>Review runoff treatment requirements</p> <p>Monitoring boreholes (may be required for obtaining operating permit)</p>
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	SuDS design to control runoff.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Land Uses	<p>Recorded Landfill site: Tip at Churchfields, accepting household, trade, sewage sludge waste, 479m north east.</p> <p>Churchfields Depot, 781m north east.</p> <p>Churchfields Industrial Estate, accepting paint waste, waste cellulose thinners, 831m north (License lapsed/ cancelled).</p>	Risk during construction of contaminated ground at site with possible runoff and with contamination of the	Site Waste Management Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land,

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements	
	Churchfields Industrial Estate, accepting civic amenity waste 892m north east.	aquifer.		human health and controlled waters.	
Conservation Designations	West Harnham Chalk Pit has been designated as a Site of Special Scientific Interest (SSSI), it is located 73m south east of the site. The site has been designated for geological reasons.	No risk posed.	Surface drainage plan including runoff collection system	Environmental Management during construction.	
	River Avon System SSSI is located 404m north east of the site. This site is also classified as a Special Area of Conservation (SAC).	Potential contamination of an area of a protected ecological site.	Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).	Determine monitoring requirements with EA.	
	River Avon System SAC located 404m north east of the site – this has candidate status.			Consult with Natural England regarding how works may affect the SSSI and SAC.	
Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit).	Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station or Local Recycling Facility at **Harnham Business Park, Salisbury** falls within the below category:

- Several potentially significant issues identified – review further assessment requirements of the site

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Primary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of pluvial or groundwater flooding
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised, plus a Surface Water Management Plan will be required.

The further assessment and work that is required includes a flood risk assessment, surface water management plan, and contamination assessment.

B.3.4 Maidment Skip Hire, Swallowcliffe (Site Ref S4)

B.3.4.1 Introduction

The site extends to 0.6ha located approximately 1km east of the village of Swallowcliffe and approximately 11km west of Salisbury. The site is currently used for a small skip-hire service and recycling business on the site of an old garage. The site has an existing access to the A30 which connects with the Wiltshire HGV Route Network at Shaftesbury and Wilton. The site is surrounded predominantly by fields; however the north east and south west boundaries are formed by dwellings, the south east boundary is delineated by the A30. There is minimal planting within the site, with some coniferous screening to the west and east and a native hedgerow to the north. The site falls within a Flood Zone 1 area. There are no Public Rights of Way on the site however Public Rights of Ways run along the adjacent field boundaries.

The site is located in proximity to a number of designated sites including the Cranborne Chase and West Wiltshire Downs AONB. Several SAMs are located within 1 km south east of the site and Castle Ditch Fort is approximately 1.4 km to the north west of the site. There are a number of Wildlife Sites in the vicinity of the site, including Sutton Down/Sutton Ivers Wildlife Site 0.5 km to the south east, Whitmarsh and Swell Hill Woods 1.1 km to the north west, Haredene Wood 1.8 km to the north west, Swallowcliffe Wood 1 km to the north west and Walkers Copse 1.5 km to the west.

The site is not allocated in the adopted Salisbury District Local Plan and the emerging South Wiltshire Core Strategy does not propose any new land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. These relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use.

B.3.4.2 Landscape and Visual Impact

Introduction

Small skip-hire service fronting onto the A30, on the site of an old garage just outside the village of Swallowcliffe.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Blackmoor Vale and the Vale of Wardour

Key characteristics relevant to the site:

- A complex mosaic of mixed farming: undulating, lush, clay vales fringed by Upper Greensand hills and scarps.

To the south of the site, there are views over the Dorset Downs and Cranbourne Chase landscape character area, a rolling, chalk landscape with dramatic scarps and steep-sided, sheltered valleys. It is an open, mainly arable, downland landscape with isolated farmsteads and few trees.

Wiltshire Landscape Character Assessment:

Landscape Type: Wooded Downland

Landscape Character Area: Fovant Down Wooded Downland

Key characteristics relevant to the site:

- Elevated chalk upland, dominated by Upper Chalk with a capping of Clay-with-Flint with escarpments of Upper, Middle and Lower Chalk.
- Strongly rolling landform with gently domed hill tops, dry valleys and dramatic scarps eroded into rounded spurs and deep combs.
- Contrasts between wide open views of rolling downland, to large scale 'rooms' of arable farmland enclosed by woodland, to panoramic views of the valleys and plateaus from the scarp slopes and valley sides.
- The steeply rising scarp slopes are visually dominant in the surrounding lowland areas, enriched by highly visible historic features such as the Fovant badges and Neolithic hill forts and barrows.
- Varying mix of two dominant land cover elements – the open arable fields and the woodland blocks and belts, which are linked and unified by the network of hedgerows and hedgerow trees.
- Remnant chalk grassland is an important habitat on the steep slopes of the scarps and valley sides.
- Field pattern dominated by large rectangular fields typical of eighteenth and nineteenth century enclosure with some remnant small scale medieval patterns close to villages.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- Cranbourne Chase and West Wiltshire Downs AONB
- Bridleway to north-west of site
- Footpath to north-west of site
- Bridleway to south-east of site (Buxbury Hollow)
- Bridleway to south-west of site (Red House Farm/Stonehill Buildings)

Baseline Landscape Character and Features: Site Survey

The site is an active skip hire and recycling business. It is active with lorries and tractors and includes a selection of ancillary buildings together with a large garage building dating to the 1930s. Building materials include breeze blocks, concrete render and pebble dash. Overhead utilities cables are visible. There is minimal planting within the site, with some coniferous screening to the west and east and a native hedgerow to the north. The site fronts on to the A30 and is much overlooked.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor.

Capacity to Accept Change: Medium. The site is currently visible from the A30 and possibly from surrounding footpaths.

Potential Landscape Impacts

- Harm to/loss of existing ‘Stainers’ garage building, a local landmark, used during the war as an outstation for the Ministry of Supply to repair and maintain army vehicles.
- Impact on the surrounding rural landscape character which is designated an AONB, especially conflicting with the open chalk hills to the south.

Potential Landscape Mitigation Measures

- Retain existing native hedgerows and, if practical in short term, the coniferous hedging
- Plant native hedgerows, including evergreens, around site to screen views
- Operate new facilities within/behind Stainers Garage to reduce impact on rural views from A30/AONB

The following suggestions are made for the Blackmoor Vale and Vale of Wardour landscape character area in the Countryside Character Volume 8 South West (Countryside Agency):

- There is scope for replacing a whole generation of hedgerow trees – particularly oaks – planting new hedges and revitalising existing ones.

Table B.3.4.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Road users on A30	Low	Negligible	Supplement planting with additional native belt of trees and hedgerow species Use planted bund to give year round screening along A30 frontage.
Agricultural workers in surrounding area	Low	Negligible	
Walkers and riders on surrounding footpaths/bridleways (subject to detailed walkover)	Medium (sensitive, but don't come in close proximity to site)	Negligible – slight adverse (depending on proposals and visibility) Limited views on south/south east footpath due to vegetation	

Summary: Residual Landscape and Visual Impacts

This site is located in a relatively sensitive position, within an AONB and adjacent to elevated open farmland and a relatively busy A road. The presence of the garage building which is of some historical interest also adds to the character of the site. However, given that the site is already utilised for waste management purposes and that there are no high sensitivity visual receptors within the immediate vicinity of the site, the residual visual and landscape impacts could be negligible, so long as vegetation screens are provided and the site is carefully planned.

Recommended further Landscape and Visual Surveys

- Visual survey from footpath and bridleway network around site (referred to in Table B.3.4.2.1 above), in winter and summer.

B.3.4.3 Noise

Introduction

The Site at Maidments Skip Hire, Swallowcliffe has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- To the rear of ‘Halstead’, which is located on the western boundary of Maidments Skip Hire, this location was deemed representative of the rear gardens of the bordering residential properties.

The proposed site is located within land that is currently occupied by Maidments Skip Hire, and borders the A30 to the south and farm land to the north. The site shares boundaries to the east and west with residential properties.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions of patchy cloud and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on the A30, with an additional source of noise originating from Maidments Skip Hire; however this was not deemed significant during monitoring period.

Consecutive background noise measurements were taken at the rear of the residential property ‘Halstead’. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.3.4.3.1 - ‘Halstead’ - Background Noise Levels (File #83)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:02:47	00:05:00	57.2	75.1	37.1	59.8	49.0	43.1
16:07:47	00:05:00	58.8	78.1	37.3	58.3	48.3	43.6
16:12:47	00:05:00	57.4	75.6	36.3	55.1	49.3	43.6
16:02:47	00:15:00	57.9	78.1	36.3	57.7	48.9	43.4

The average background noise level (L_{A90}) at the rear of ‘Halstead’ is taken as being 43.4 dB.

Assessment Suitability

The site is part of an existing industrial unit with houses on the eastern and western boundaries. It is considered that the site, although used as a skip hire depot, would not be ideal for the intended intensification of use.

Mitigation

Any operations would need to be within a building but the increase in traffic movements associated with the intended uses would probably be unacceptable.

Recommendation

Even with mitigation the site is deemed not suitable for the intended uses with respect to noise.

B.3.4.4 Air Quality and Odour

Introduction

Maidments Skip Hire is located in Swallowcliffe and is approximately 11 kilometres west of Salisbury. The site is currently operating as a skip hire service, waste recycling site and waste transfer station.

The existing waste management operations may potentially be extended.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 7.7µg/m³ NO_x (standard for protection of vegetation 30 µg/m³);
- 5.9µg/m³ NO₂ (standard 40µg/m³);
- 14.3µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are 6 residential properties within 500 metres. There are no ecologically sensitive sites within 500 metres of the site.

Air pollutant sources within 500 metres of the site: road traffic from the A30 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. Agricultural activities in the area are potential sources of dust, bioaerosols, NH₃ and odour.

Table B.3.4.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (2 properties)	1	1	N/A	N/A	N/A	N/A	1
Total residential between 100 and 500m (4 properties)	1	1	N/A	N/A	N/A	N/A	1
Residential within 250m only (3 Properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500 metres of site (Salisbury Plain SAS, Porton Down SSSI/SPA)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol high risk is limited to within 250m of the site

Mitigation

A basic level of mitigation is required. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

The extension to the existing site would be considered to have negligible impacts on air quality given the current usage and lack of material environmental constraints.

B.3.4.5 Transport

Introduction

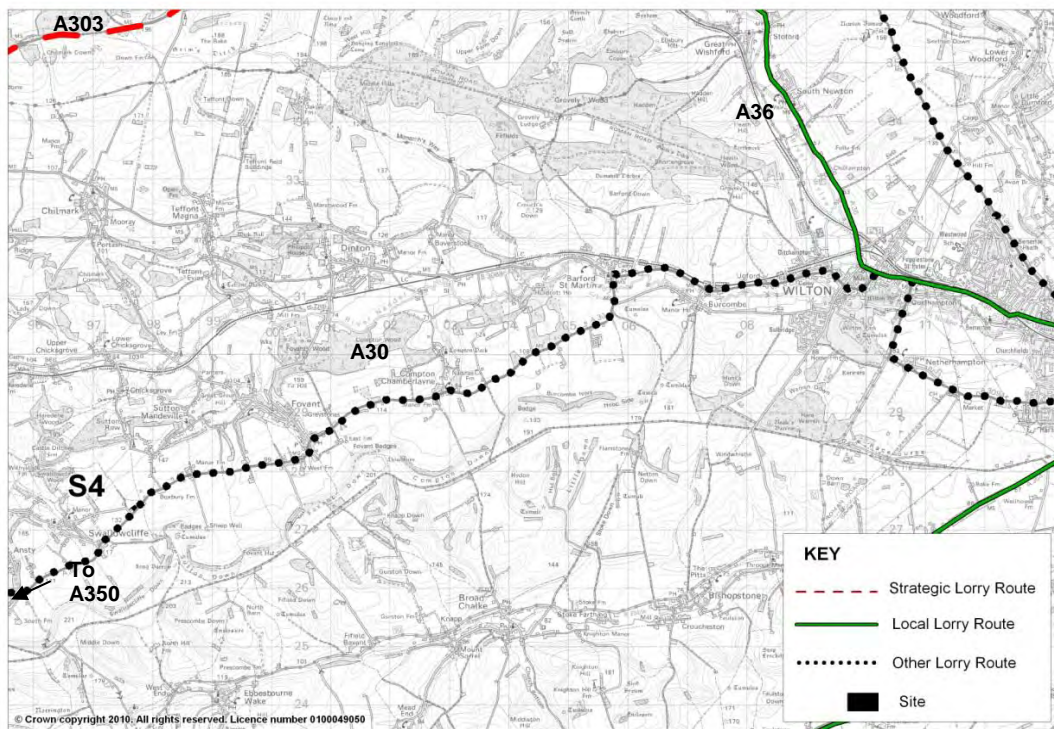
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The 1.3ha site is located north east of Swallowcliffe on the A30, approximately 11km west of Salisbury. The site currently operates as a skip hire service, waste recycling and waste transfer station. The site has been allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.3.4.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.3.4.5.1** shows the site is accessed directly off the A30. The A30 is designated as an 'other' lorry route which can be used where it is essential to gain access. The nearest strategic route is the A303 to the north, accessed via the A350 to the west or the A36 to the east. Both the A350 and A36 are designated as local lorry routes.

Figure B.3.4.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.3.4.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.3.4.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The site is accessed from the A30 via a priority junction with no dedicated right turn facility. At the access the A30 is a single carriageway rural road with 3m lane widths, low traffic flows and a speed limit of 60mph. The frontage of the road is predominantly agriculture. The vertical and horizontal alignment of the A30 at the access provides good visibility from the site access however visibility in both directions is restricted to some extent by the boundary wall and vegetation which formalises the site access.

Transport Environmental Impacts

The only potential environmental impact associated with the proposals is the impact on the village of Wilton, 14km to the east of the site. However due to the size of the development it is likely that the impact on noise, vibration, severance or fear and intimidation for pedestrians would be minimal.

Off Site Highway Network

Considering the relatively small size of the proposed site and on site observations of traffic volumes it suggests that junction capacity in the vicinity of the site will not be unduly affected by the proposals.

Accessibility by Sustainable Modes

The site is located in a very rural location and access by sustainable modes is not considered to be a viable or safe option.

Constraints

The only constraints identified at this site are the poor accessibility by sustainable travel modes and the minor modifications to the boundary wall at the site access, required to improve visibility.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/S4/001** in **Appendix D**.

Mitigation

The only mitigation deemed appropriate at this site is minor modifications to the boundary wall and vegetation at the site access, required to improve visibility. The cost of this mitigation is likely to be minimal and would likely be part of any improvements brought about by change of use at the site.

Recommendation

The site offers the following advantages:

- The access junction to the site is suitable for the proposed uses both in terms of capacity and safety with just minor modifications needed to the boundary wall;
- The size and location of the site suggests a minimal impact on the local environment and sensitive land uses; and
- There is unlikely to be an impact on the capacity of local junctions.

The following issues/constraints have been identified:

- The site has poor access by sustainable travel modes; and
- The site is some distance from the strategic lorry network.

The proposed site is considered appropriate for small scale MRF/WTS/LR uses with consideration of the mitigation measures as set out in this report.

B.3.4.6 Water Quality / Environment

NGR: 397680, 127370

Location: Swallowcliffe

Site Area: 0.6 hectares

Data Source: Landmark Envirocheck Report 30094733_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.4.6.1 - Maidments Skip Hire Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is a drain 783m south, the River Nadder is 1840m to the north east.</p> <p>The EA identify that the River Nadder watercourse has a chemical and biological quality of Very Good and High nutrient levels, and that it has an ecological classification in line with the Water Framework Directive of Moderate.</p>	<p>Impact on River Nadder flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on River Nadder quality as a result of potential runoff contamination during construction and operation.</p> <p>Due to the distances of these water features from the site the likelihood of impact is considered low.</p>	<p>Surface water drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The geological map⁵⁰ indicates that the site is underlain by the Boyne Hollow Chert member of the Upper Greensand formation, which comprises of sandstone, with chert beds.</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology:</p>	<p>Site and surroundings are underlain by Primary Aquifer</p>	<p>Contamination of</p>	<p>Surface water drainage plan</p>	<p>Environmental</p>

⁵⁰ BGS 1:50 000 Drift geological map (Sheet No. 298, Salisbury)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Groundwater – Hydrogeological Units	(Major Aquifer).	aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if foundations intercept groundwater or if pumping is required for excavations.	including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)	management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within a SPZ, However a SPZ II and SPZ III area extends up to 792m east of the site.	No risk posed to public water supply; but local private abstractions may exist (<20m ³).	Good working practices and EA guidance driving construction.	Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable			
Hydrogeology: Groundwater – Direction of Flow	Groundwater could potentially be flowing south to the drain, but is more likely to be flowing north east towards the River Nadder.	No risk posed.		
Discharges: Surface water – Discharge Consents	No recorded surface water discharges within 1km of the site.	Not applicable.	-	-
Discharges: Groundwater – Discharge Consents	2 Sewage discharges of final / treated effluent to land / Soakaway, 495m to west and 701m to north east	No risk to works	-	To be considered during further assessment.
Discharges: Pollution Incidents	No recorded pollution incidents within 1km of the site.	Not applicable.	-	-
Abstractions: Surface Water –	There are no abstractions within 1km of the site.	No risk posed as the abstractions are upstream of the River	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Abstractions		Nadder.		
Abstractions: Groundwater – Abstractions	2 groundwater abstractions for general farming and domestic at 731m to the west and 966m to the east. 1 abstraction for a “private water supply: general use” 731m west. 1 abstraction for “general household use, 966m east”.	Contamination of drinking water supply and aquifer Local private abstractions may exist (<20m ³).	Surface water drainage plan including runoff collection system and design of infiltration devices. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Flood Risk	The site is in Flood Zone 1. The site is less than 1 ha.	Potential risk from groundwater flooding.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	There is a household, commercial and industrial transfer station on site.	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	The area (Cranborne Chase/West Wiltshire Downs) is designated an Area of Outstanding Natural Beauty.	Possible contamination of an	Surface drainage plan including runoff collection	Environmental management during

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
		area of a protected landscape.	system. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance during construction.	construction. Determine monitoring requirements with EA. Consult with Natural England regarding how works may affect the SSSI. Produce working plan for site. Review runoff treatment requirements.
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station or a Local Recycling Facility at **Maidments Skip Hire** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are surface water features within 1km of the site and therefore there is the potential for changes to their flow and quality
- A Primary Aquifer underlies the site and therefore there are potential groundwater contamination issues
- There is a risk of groundwater flooding
- The site is within an Area of Outstanding Natural Beauty
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that would be required include a flood risk assessment and contamination assessment.

B.3.5 Sarum Business Park, Salisbury (Site Ref S5)

B.3.5.1 Introduction

The site extends to 12 ha located to the north west extent of Ford and approximately 4 km north of Salisbury. The site is a business centre consisting of Old Sarum Airfield, Sarum Business Park and Castle Gate. The site has established access on to the Portway which is a Roman Road. The northern boundary of the site is defined by the Portway beyond which lies a residential area with a football ground and playing field and agricultural fields. To the north east of the site are residential dwelling along Green Lane. The southern boundary abuts Old Sarum Airfield and to the south west is a field. The site is located in flood zone 1. No Public Rights of Way are present on the site however there is a Public Rights of Way to the east of the site.

The site is located in proximity to a number of designated sites including a SAM approximately 1km to the south west and a SAM approximately 0.5km to the north east of the site. The Old Sarum Wildlife Site is located 1 km to the south west of the site

The site is not allocated in the adopted Salisbury District Local Plan. There is an area of land north east of the site which is allocated for housing (H2D) and employment (E1) which has already been developed as a residential area. The emerging South Wiltshire Core Strategy does not propose any new land use designations in this area. The site contains B1, B2 and B8 class uses which are adjacent to and part within the Old Sarum Airfield Conservation Area.

A number of planning consent have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use and others include:

Reference: S/2005/0211 Mixed use development comprising new residential, employment uses and community facilities and associated infrastructure on land at Old Sarum, Salisbury SP4 6BY

Reference: S/2007/2541 Change of use of cottage offices with ancillary residential use and erection of new building to form healthcare clinic with associated car parking and turning area at: The Beehive, Amesbury Road, Old Sarum, Salisbury, SP4 6BL.

Reference: S/2007/1484 80 residential dwellings including internal access roads and parking at: Area 1, Land Adjacent The Sarum Centre, The Portway, Old Sarum, Salisbury, Area 1

Reference: S/2005/0619 Residential and open space provision at: Ministry of Defence Playing Fields, Old Sarum, Salisbury SP4 6BY

B.3.5.2 Cultural Heritage

Introduction

The Old Sarum Business Park site incorporates remains of one of the oldest working airfields in England. Laid out in the First World War, Old Sarum Airfield still contains a number of original early 20th century hangars and associated buildings. The site has been developed as a business park, but retains in use many of the historic ancillary RAF buildings. The three surviving World War I hangars have been designated Grade II* Listed Buildings (all under the same listing). The 1918 workshop and 1935 headquarters buildings have been individually designated Grade II Listed Buildings. Old Sarum Airfield was designated a Conservation Area in 2007, the boundary of which was drawn to include the Flying Field, the WWI technical area, the remains of the Administrative Area, the Machine-gun Range, and all the surviving domestic areas dating from the 1920s, 1930s, 1950s and 1960s. This intentionally excluded areas of the Old Sarum Business Park to the east and west of the wartime structures.

Although there are no recorded archaeological features within the site itself, the surrounding area has some significance in terms of recorded features. There is 1 Scheduled Monument c.500m to the northeast of the site, which is screened from the site by a number of buildings.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded assets have been ascribed a unique Asset Number (i.e. **S5-a, b, c**, etc). A full methodology statement is set out in Chapter 3.

Designated Heritage Assets

The site lies partly within the Old Sarum Airfield Conservation Area

There are 3 Grade II* and 2 Grade II Listed Buildings within the site

There is 1 Scheduled Monument within the Study Area (500m to the NE)

Heritage Assets within the Site

Table B.3.5.2.1 - Heritage Assets within the Site

Asset No.	Name & Description	WSMR / LB No	Designation	OS Ref
S5-a	<i>Old Sarum Airfield - Old Sarum airfield retains the most complete group of technical buildings representative of a Training Depot of the First World War period.</i>	SU13SE528	Conservation Area	SU15143345
S5-b	<i>World War I Hangars – Three RAF hanger buildings dating to WWI</i>	LBS 319557	Grade II* LB	SU15173347
S5-c	<i>World War I Workshop, built 1818</i>	LBS 495994	Grade II LB	SU15153349
S5-d	<i>World War II Headquarters Building, built 1935, now Territorial Army HQ</i>	LBS 495995	Grade II LB	SU15153349

Heritage Assets within the Study Area

Table B.3.5.2.2 - Heritage Assets within the Study Area

Asset No.	Name & Description	WSMR No	Designation	OS Ref
S5-e	<i>Portway Roman Road - The Roman road between Sorviodunum and Calleva Atrebatum. The conjectural route of the Portway was sectioned by a pipeline outside the study area. The alignment was confirmed and it had side ditches 100ft apart.</i>	SU13SE301 SU13SE308	None	SU14523309
S5-f	<i>Linear Feature - Multiple linear ditches visible on an aerial photograph also identified in archaeological evaluation in 1999.</i>	SU13SE665	None	SU15273326
S5-g	<i>Group of cropmark features recorded 100m north of the site by aerial photography, comprising linear feature (617) and two early Bronze Age barrows (618, 619), excavated by Wessex Archaeology in 2006.</i>	SU13SE561 SU13SE617 SU13SE618 SU13SE619	None	SU14863360
S5-h	<i>Group of cropmark features recorded 100m north-east of the site by aerial photography, comprising a number of ploughed barrow sites and a linear feature (683)</i>	SU13SE600 SU13SE601 SU13SE602 SU13SE607 SU13SE608 SU13SE609 SU13SE610 SU13SE619 SU13SE620 SU13SE621 SU13SE683	None	SU15493393
S5-i	<i>Ende Burgh or Hand Barrows – extant pair of Bronze Age barrows (604). Excavations have revealed later Saxon deposits placed within the barrows (403). Recorded c.500m north-east of the site.</i>	SU13SE604 SU13SE403	Scheduled Monument	SU15883405
S5-j	<i>Group of cropmark features recorded c.400m north-east of site, known through aerial photography.</i>	SU13SE603 SU13SE605 SU13SE633 SU13SE635 SU13SE649 SU13SE661	None	SU15903395

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic heritage assets are recorded within the study area.

The area is particularly significant in terms of Bronze Age remains. A number of cropmark sites have been recorded by aerial photography, some of which have been subject to archaeological evaluation revealing datable material (**S5-g, h, i, j**).

The Iron Age (700 BC – AD 43)

No Iron Age heritage assets are recorded within the study area.

The Roman Period (AD 43 – AD 450)

The northern boundary of the site is defined by the line of the 'Portway', a Roman road that ran between *Sorviadunum* (Old Sarum) and *Calleva Atrebatum* (Silchester) (**S5-e**). No finds or features associated with the road have been identified within the study area. A second Roman road also orientated on Old Sarum lies to the south of the airfield outside of the study area. This may indicate the potential for the presence of archaeological deposits.

The Early Medieval Period (AD 450 – AD 1066)

Archaeological excavation of the Ende Burgh or Hands Barrow Scheduled Monument revealed evidence of Saxon deposits that had been later inserted within the Bronze Age barrow (**S5-i**).

The Medieval Period (AD 1066 – AD 1547)

No Medieval heritage assets are recorded within the study area.

The Post-Medieval Period (AD 1547 – c. AD 1900)

The linear cropmark recorded crossing the airfield on aerial photographs (**S5-f**) may be post-Medieval in date. The concentration of coal ash found during archaeological evaluation indicates a relatively recent date for the creation of this feature, whilst its situation at the margin of the field suggest it might be the result of late 19th/early 20th century steam ploughing.

The Modern Period (c.1900 – to present)

The site for Old Sarum Airfield (**S5-a**) was selected in 1917, to provide facilities for a training station for the rapidly expanding Royal Flying Corps (RFC). Like many others of this period, the airfield was provided with a cluster of general service sheds and a camp consisting largely of wooden buildings. The three hangers (**S5-b**) and workshop (**S5-c**) were building in 1918. At the end of World War I, Old Sarum was one of the few airfields which were not closed down as part of the post war run-down. In 1920, 11 Training Squadron was disbanded and preparations were made to turn the station into the permanent home of the School of Army Co-operation. Three other operational squadrons were based at the airfield for varying periods between 1935 and 1939 (notably the Headquarters Building, **S5-d**). 1944 marked the end of a period of major expansion in the AOP squadrons and the spare hangar space at Old Sarum Airfield was used by 3505 Servicing Unit, which maintained numerous aircraft operating in small and scattered detachments to provide practice facilities for Anti-Aircraft and Searchlight sites. In May 1947, the School was re-designated the School of Land/Air Warfare, training Air Force, Army and Navy officers. It closed as a military base in 1979. The most westerly of the 3 paired hangars was destroyed in 1986.

Significance of heritage assets

The significance of the designated heritage assets within the site is high. After Duxford in Cambridgeshire and Leuchars in Scotland, Old Sarum retains the most complete group of technical buildings representative of a Training Depot Station of the First World War period. The historic and architectural interest of the surviving wartime buildings and airfield is therefore high. This is reflected in the Grade II* designation of the hangers, as well as the Grade II listing of the workshop and headquarters building, and the extent of the Conservation Area.

The significance of the undesignated heritage assets within the wider study area is generally low. The significance of the Scheduled Monument (**S5-f**) located c.500m to the east is high.

Assessment Suitability

Given the significance and high level of designation of the heritage assets within the site, development should not be permitted within the curtilage or setting of any of the Listed Buildings or the Conservation Area.

Development may be permitted within the parts of the business park that lie outside of the Conservation Area providing it does not impact on the setting of the Listed Buildings. Any new development should not exceed the height or mass of other existing buildings within the site.

There are no records of any known archaeological features or deposits within the site. Aerial photography, coupled in places by evaluation, has shown however that the study area contains a number of cropmarks relating to linear features and barrow features (notably **S5-d, e, g**). It is possible that any features that may have existed within the site prior to the early 20th century would have been disturbed by the development of the airfield and later business park. However, the potential for the presence of archaeological deposits within the site cannot be entirely dismissed and further archaeological evaluation is recommended. Should the development entail the need for invasive groundworks – particularly along the northern boundary of the site adjacent the line of the Roman road (**S5-e**), further archaeological field evaluation would be recommended to assess the potential for the presence and extent of survival of buried archaeological deposits.

The one known Scheduled Monument within the study area (**S5-j**) lies 500m to the northeast of the site boundary and is screened from the site by a number of buildings. Development would not therefore affect the setting of the Scheduled Monument.

Mitigation

No development should be permitted within the Conservation Area or within the curtilage or setting of the Listed Buildings.

Development within the business park outside of the Conservation Area may be acceptable where it does not impact upon the setting of the Listed Buildings. Development should not exceed the height or mass of the existing buildings.

Recommendations

Should the development entail the need for invasive groundworks – particularly along the northern boundary of the site adjacent the line of the Roman road (**S5-e**), further archaeological field evaluation would be recommended to assess the potential for the presence and extent of survival of buried archaeological deposits.

Conclusion

The Old Sarum Business Park site (S5) incorporates remains of one of the oldest working airfields in England. Laid out in the First World War, Old Sarum Airfield still contains a number of original early 20th century hangers and associated buildings. The site has been developed as a business park, but retains in use many of the historic ancillary RAF buildings. The three surviving World War I hangers have been designated Grade II* Listed Buildings (all under the same listing). The 1918 workshop and 1935 headquarters buildings have been individually designated Grade II Listed Buildings. Old Sarum Airfield was designated a Conservation Area in 2007, the boundary of which was drawn to include the Flying Field, the WWI technical area, the remains of the Administrative Area, the Machine-gun Range, and all the surviving domestic areas dating from the 1920s, 1930s, 1950s and 1960s. This intentionally excluded areas of the Old Sarum Business Park to the east and west of the wartime structures.

Given the significance of the heritage assets within the site, no development should be permitted within the Conservation Area or within the curtilage or setting of the Listed Buildings. Development within the business park outside of the Conservation Area may be acceptable where it does not negatively impact upon the setting of the Listed Buildings. Development should not exceed the height or mass of the existing buildings.

Given the extent of recorded archaeological deposits within the study area (including the line of a Roman road that defines the northern boundary of the site), further archaeological field evaluation

is recommended to assess the potential for the presence and extent of survival of buried archaeological deposits.

The one known Scheduled Monument within the study area (**S5-1**) lies 500m to the northeast of the site boundary and is screened from the site by a number of buildings. Development would not therefore affect the setting of the Scheduled Monument.

B.3.5.3 Landscape and Visual Impact

Introduction

This site consists of a business/industrial area consisting of Old Sarum Airfield, Sarum Business Park and Castle Gate.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Military structures, airfields, tracks and signs.
- Airfields are also conspicuous.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: High Chalk Plain

Landscape Character Area: Porton Down

Key characteristics relevant to the site:

- Very large scale and open, exposed landscape.
- Rolling plateau land form with panoramic views over the surrounding lowlands creating a sense of elevation.
- Large regular arable fields are bounded mainly by ditches or fences with occasional hedgerows.
- Extensive areas of chalk grassland and scrub occur on the northern and central parts of the area under military ownership with arable farmland around the periphery.
- Copses and woodland belts, at various stages of growth occur throughout the area with sinuous older plantations contrasting with more recent tree planting in geometrical blocks.
- Settlement is sparse, limited to nucleated villages, military camps and isolated farmsteads.

WCC consider the condition of this landscape type to be 'good', as military activity has maintained large areas of the countryside. It has a 'strong' sense of character, due to its vast scale, remoteness and openness. They note however, that the 'long views and openness of the level plateau have a high visual sensitivity to change' and the overall management strategy of the area is to conserve the open and isolated character of the plain.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- Monarch's Way long distance trail to north and east of site.
- Distant views from rights of way on chalk downland to south-east of site
- Sarum Centre site : Landscape setting of Salisbury and Wilton

Baseline Landscape Character and Features: Site Survey

The industrial estate is a long, relatively narrow site, to the west of the Sarum Centre. It consists of three sub-areas; Old Sarum Airfield, Sarum Business Park and Castle Gate Business Park.

Castle Gate Business park lies at the south-western end. It is relatively open in character, with views over the airfield to the south and large areas of car parking. Units are generally large in scale and of modern design, generally constructed of grey steel. The site has a structure of young hedgerows and trees, which give some screening to the south. The site is well lit, with street lighting.

Sarum Business Park lies to the centre of the site and fronts on to the Portway Roman Road. It is situated on the site of an established military site, but the buildings are contemporary in design, with a number of identical two storey, cream units, used for businesses such as printing and laundry. The Portway frontage is generally well vegetated with mature hedgerow and the internal road layout is lined by mature lime and cherry trees.

Old Sarum Airfield consists of a number of hangars and ancillary brick buildings, some dating back to the 1917 when the airfield was requisitioned from farm land for use by fighter and training aircraft. It is the second oldest continuously operational aerodrome in the United Kingdom. The military presence ended in 1979 and following its use for aeroplane construction in the 1980s the site is now used for light aviation. The site retains a historic military character due to the architecture of the buildings and continued presence of aircraft within the area.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Ordinary
Capacity to Accept Change: Low – Medium

Due to its rural setting and history and whilst being relatively large in size, the numbers of existing user-groups that could be affected may be significant.

Potential Landscape Impacts

- Loss of large-scale mature trees and hedgerows, especially in Sarum Business Park and Old Sarum Airfield areas.
- Erosion of historic character of Old Sarum Airfield
- Erosion of open rural farmland to south of site.

Potential Landscape Mitigation Measures

- Sensitive site planning to avoid loss of mature hedgerows, trees and avenue structures.
- Location of facilities away from site boundaries, to minimise additional erosion of rural character of the countryside beyond.

The following ‘Broad Management Objective’ for the High Chalk Plain landscape type in the *Wiltshire Landscape Character Assessment* is relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

Table B.3.5.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Light aircraft – users of Old Sarum Airfield	High	Slight adverse	Retention of existing vegetation structure
Employees of business parks	Low	Slight adverse	Sensitive site planning

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Users of A30	Low	Negligible	Use of vegetation and bunds to screen facilities
Users of Portway	Low	Negligible – slight adverse	
Users of A345	Low	Negligible	
Users of road joining A345-A338 via Ford	Low	Negligible	
Users of Monarch Way long distance trail	Medium (reduced impact due to distance)	Negligible	
Users of distant footpaths to south-west of site	Medium (reduced impact due to distance)	Negligible	

Summary: Residual Landscape and Visual Impacts

The site is relatively large, and it is difficult to summarise potential impacts without further information on specific proposals. It is important that it has a relatively strong historic character, albeit dating to the 20th century and this should be protected. The site is also well used, with a large number of visual receptors, both on-site and within the surrounding countryside, which is very open in character. Whilst it is a brown-field site, it does not currently have a strong heavy-industry or waste-dominated character.

Recommended further Landscape and Visual Surveys

- Visual surveys from footpaths

B.3.5.4 Noise

Introduction

The Site at Sarum Business Centre, Salisbury has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- Western end of Northside, outside the front of number nineteen, Northside; this location was deemed representative of noise sensitive receptors to the east of Sarum Business Park; and
- On the grass to the west of Partridge Way approximately 20 metres from the kerb of Portway, this location was deemed representative of noise sensitive receptors on Partridge Way.

The proposed site is located within land that is currently an industrial estate / business park consisting of a number of large industrial premises and car show rooms. Background noise levels were made with noise from the industrial estate in operation. The site at Sarum Business Centre is bounded directly to the north by Portway and to the south by an airfield. Residential properties are located to the east of the site and on the north side of Portway. A new residential estate is currently in construction on the north side of Portway near to the western section of the allocated site.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions of patchy cloud and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on Portway, aircraft taking off and landing at the airfield, and noise of an industrial nature from Sarum Business Centre. Noise at Northside is dominated by industrial noise and aircraft, while the monitoring location to the west of Partridge Way is dominated by road traffic noise.

Consecutive background noise measurements were taken at Northside and on the grass to the west of Partridge Way. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.3.5.4.1 - Northside - Background Noise Levels (File #AU1_0047)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:26:00	00:05:00	49.0	60.9	38.0	52.5	44.3	39.8
11:31:00	00:05:00	51.2	62.5	38.6	53.3	50.8	43.2
11:36:00	00:05:00	51.4	59.3	44.1	52.8	51.4	47.1
11:26:00	00:15:00	50.7	62.5	38.0	53.0	50.1	41.6

Table B.3.5.4.2 - West of Partridge Way - Background Noise Levels (File #AU1_0048)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
11:46:00	00:05:00	59.1	68.3	42.9	63.9	53.6	45.8
11:51:00	00:05:00	61.3	70.0	51.6	64.4	59.8	54.7
11:56:00	00:05:00	58.6	67.7	47.3	62.1	56.4	50.8
11:46:00	00:15:00	59.9	70.0	42.9	63.8	57.8	49.3

The average background noise levels (L_{A90}) at Northside and to the west of Partridge Way are taken as being 41.6 dB and 49.3 dB, respectively.

Assessment Suitability

The site is part of an existing industrial unit with houses on the northern and eastern boundaries. It is considered that, due to the separation distance capable of being provided with careful siting, the site is suitable for the intended uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required on the northern and eastern boundary depending on the facilities location within the site. Any facility needs to be sited at least 200m from the eastern boundary and 80m from Portway to the north, i.e. locate facilities towards the south. With careful siting and placing activities in buildings a greater area could be utilised.

Recommendation

With mitigation the site is deemed suitable with respect to noise.

B.3.5.5 Transport

Introduction

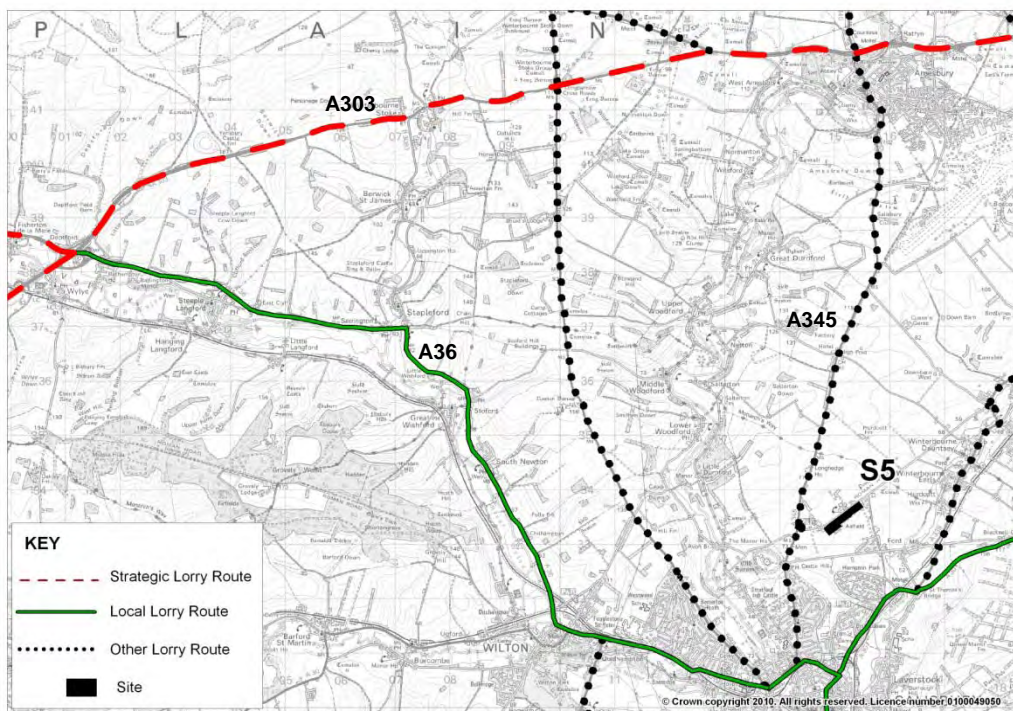
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is located within an established business centre off Portway just off the A345. The business centre site covers a total area of 12ha and has a mix of small scale B1 and B2 employment uses. It is proposed that the waste facility is located within this business centre however the exact location and site area of the proposed site is unknown. As such this appraisal has considered both access junctions to the business centre but not the site access within the wider site. The site is allocated for a local scale recycling facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.3.5.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure 2.1** shows that the site is situated off Portway which is not a designated lorry route. The A345 is less than 1km to the west and is designated an ‘other’ lorry route which, by definition, is only to be used where it is essential to gain access. The nearest strategic route is the A303 10km to the north.

Figure B.3.5.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.3.5.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.3.5.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

There are two access junctions to the business park, both off Portway, a single carriageway road subject to a 40mph speed limit. The junctions are at Lancaster Road and Old Sarum Park. Both junctions are signal controlled, however the signals at the Old Sarum park junction are not yet operational and the junction is currently operating as a priority junction. The junction at Lancaster Road is a signalled crossroads with the northern arm forming an access to the new residential development (partially occupied) on the north side of Portway. The junction at Old Sarum Park is also a signal controlled crossroads (pending) with the northern arm forming an access to an area of developable land, not currently in use. It is unlikely that the capacity at these junctions will be unduly affected by the proposals however once the scale of the proposals are finalised a capacity assessment on these junctions will be required which takes account of any committed developments.

Transport Environmental Impacts

There are a limited number of residential properties fronting Portway although as mentioned previously there are a number of new dwellings being constructed opposite the business park. These are more set back from the carriageway than traditional properties and as such the impact of the HGV traffic on noise and vibration is likely to be minimal. Of greater consideration is the impact on the existing small scale B1 and B2 uses on site. The nature of these existing uses is unlikely to generate a significant level of HGV traffic and as such any additional HGV flows associated with the proposals are likely to have a perceived significant impact. The siting of the site within the business park is therefore of paramount importance.

Off Site Highway Network

It is recommended that access to the HGV network be taken from the west via the A345. The junction of A345/Portway is a large four arm roundabout with one arm forming the Salisbury Park and Ride. The roundabout to the west of Lancaster Road provides access to the Castle Gate Business Park and the western end of the new residential development on the north side of Portway. It is considered that both junctions will be suitable for the proposed uses however a capacity assessment will be required which takes account of any committed developments.

Accessibility by Sustainable Modes

There are bus stops on Portway in close proximity to the site. The new signalled junctions at Lancaster Road and Old Sarum Park have pedestrian crossing facilities. Cycle facilities are discontinuous with facilities provided at the new junctions associated with the residential developments and developable land. These facilities do not provide a coherent off road cycle network.

Constraints

The main constraint identified at this site is the potential adverse impact of HGV traffic on the amenity of the existing B1 and B2 uses on the business park.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/S5/001** in **Appendix D**.

Mitigation

No mitigation required providing an appropriate location within the business park is found where the impact on the amenity of the existing B1 and B2 uses can be minimised.

Recommendation

The site offers the following advantages:

- The site is located within 10km of the strategic HGV network and 0.8km of the 'other' HGV network;
- The impact on residential amenity is likely to be low;
- The impact on highway capacity is likely to be minimal however capacity assessments will be required.

The following issues/constraints have been identified:

- The potential adverse impact on the existing B1 and B2 uses on the business park.

In conclusion, the proposed site is considered appropriate for the proposed uses.

B.3.6 Thorney Down WTS, Winterslow (Site Ref S6)

B.3.6.1 Introduction

The site extends to 1.4ha and lies to the north of the A30 adjacent to the former Thorny Down Landfill site Winterbourne Down which is approximately 9 km north east of Salisbury. The western part of the site is used as a Waste Transfer Station with an area of covered hard-standing at its eastern end. The site has an established access on to the A30 which is a local lorry route. The site is bounded to the north by the restored and landscaped Thorny Down landfill site and to the south by the A30 beyond which lies some farm buildings / areas. No Public Right of Ways run through the site, however one runs to the east of the site.

The site is located in proximity to a number of designated sites including Salisbury Plain SPA/SSSI/SAC, Thorny Down Road Verge Wildlife Site is approximately 15m south and Porton Down SPA/SSSI located 250m east of the site. An area of ancient woodland lies 850m to the west of the site. The site is located within a Strategic Nature Area of Chalk Downland.

The site overlies a major aquifer of high vulnerability. There is potentially a presence of protected species and trees.

The site is not allocated in the adopted Salisbury District Local Plan and the emerging South Wiltshire Core Strategy does not propose any new land use designations in this area.

A number of planning consent have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others include:

Reference: S/2006/0707 Redevelopment of industrial site for housing at Rear of 2, 4, and 6 Firsdown, Salisbury SP5 1SF

Reference: S/2007/8008 Variation of condition to extend the period of operation until 2036, Thorny Down Transfer Station, London Road, Winterslow, Salisbury SP5 1BL

B.3.6.2 Landscape and Visual Impact

Introduction

The site lies to the north of the A30, close to Winterbourne Down, adjacent to the former Thorney Down Landfill site. The western part of the site is used as a Waste Transfer Station while the eastern part of the site is currently unused.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Scattered copses and shelterbelts.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: High Chalk Plain

Landscape Character Area: Porton Down

Key characteristics relevant to the site:

- Very large scale and open, exposed landscape.
- Rolling plateau land form with panoramic views over the surrounding lowlands creating a sense of elevation.
- Large regular arable fields are bounded mainly by ditches or fences with occasional hedgerows.
- Copses and woodland belts, at various stages of growth occur throughout the area with sinuous older plantations contrasting with more recent tree planting in geometrical blocks.

WCC judge that military land use throughout this landscape type has maintained large areas of the *Chalk High Plain* Landscape Type in 'good' condition and the vast sense of scale and openness gives this landscape a 'strong character'. The overall landscape strategy is to 'conserve' this open and isolated character.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- Special Landscape Area
- Footpath to east of site

Baseline Landscape Character and Features: Site Survey

The site lies to the north of the A30, within a false cutting. A wide vehicular entrance provides access to the site, but the dog-leg design reduces views into the site. To the north of the site, the restored Thorney Down landfill site lies at a higher level, mimicking the rolling chalk landscape of the area and screening the site from the north. The site is therefore well-contained and intimate in character, although its rural character has been eroded through changes to topography and vegetation. Embankments within the site have been planted with native woodland species and these are establishing well.

The western part of the site is in use as a Waste Transfer Station and includes a portacabin office, large-scale waste containers, a weigh-bridge and large bitmac turning areas for lorries. The eastern end of the site is narrower and has been laid out to include a wide access road with embankments each side, with an area of covered hard-standing at its eastern end. This part of

the site is currently used for storage of gas containers and is not generally accessible to lorries. From this end of the site there are glimpsed views out to the Thorney Down landfill site which currently managed as a meadow, and rolling arable fields with strips of woodland beyond.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor
Capacity to Accept Change: High

The landscape quality of the site is poor, although as planting matures its condition is slightly improving. The general quality of the landscape has been severely damaged and this, combined with the existing screening that is in place would enable the site to easily accommodate change.

Potential Landscape Impacts

- Loss of embankment vegetation, which is establishing well.

Potential Landscape Mitigation Measures

- Continue to maintain existing vegetation on embankments
- Maintain the high degree of visual enclosure that the site currently affords, thus conserving the rural character of the surrounding landscape.

The following ‘Broad Management Objectives’ for the Wooded landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

Table B.3.6.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Workers/visitors to waste transfer site	Low	No change	Additional native woodland planting at eastern end of site
Walkers on footpath to east of site (subject to walkover survey)	Medium	No change – slight adverse	

Summary: Residual Landscape and Visual Impacts

Given that this site is well-concealed and already predominantly given over to use as a waste transfer station, there would be negligible landscape and visual impacts.

Recommended further Landscape and Visual Surveys

- Visual survey of footpath to east of site

B.3.6.3 Noise

Introduction

The site at Thorney Down WTS, Winterslow has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Composting;
- Inert Waste Recycling/Transfer.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- Midwinter farm house just off the A30, located opposite the allocated site approximately 125m away.

The proposed site is located within land that is currently occupied by a waste transfer facility, and borders the A30 to the south and farm land to all other boundaries.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions of patchy cloud and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on the A30, with an additional source of noise originating from the current transfer station, including occasional banging and reversing beepers.

Consecutive background noise measurements were taken at the front of the Midwinter farm house. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.3.6.3.1 - Midwinter Farm House - Background Noise Levels (File AU1_0045)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
10:28:00	00:05:00	47.9	55.3	40.2	50.2	47.4	43.6
10:33:00	00:05:00	48.0	53.5	41.6	50.3	47.7	44.5
10:38:00	00:05:00	48.0	62.5	39.7	50.3	46.1	42.8
10:28:00	00:15:00	48.0	62.5	39.7	50.3	47.2	43.4

The average background noise level (L_{A90}) at Midwinter farm house is taken as being 43.4 dB.

Assessment Suitability

The site is separated from the nearest residential property by the A30.

The site is partially screened by the A30 and existing buildings and is considered suitable with respect to noise for the proposed uses with careful siting.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required on the southern and eastern boundary of the facility. Any facility should be located at least 150m from any residential development.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.3.6.4 Air Quality and Odour

Introduction

Thorney Down is located close to the A30 and Winterbourne Down and is approximately 8 kilometres north east of Salisbury. The site is partially used as a waste transfer station, including earth screened bund. The remainder of the site remains unused.

Potential uses include composting, inert waste recycling and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 10µg/m3 NOx (standard for protection of vegetation 30 µg/m3);
- 7.7µg/m3 NO2 (standard 40µg/m3);
- 14.7µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There is 1 isolated farmhouse within 500 meters located approximately 160 metres to the south of the site. Salsbury plain SAC and Porton Down SPA and SSSI are located within 500 metres of the site. These two sites may be affected if there is a change in NOx conditions due to the site.

Air pollutant sources within 500 metres of the site: road traffic from the A30 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. Agricultural activities in the area are potential sources of dust, bioaerosols, NH₃ and odour.

Table B.3.6.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (1 property)	1	1	N/A	N/A	N/A	1	1
Residential within 250m only (1 Property)	N/A	N/A	N/A	N/A	1	N/A	N/A
Ecological designation within 500 metres of site (Salsbury Plain SAS, Poton Down SSSI/SPA)	N/A	1	1	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol high risk is limited to within 250m of the site

Mitigation

Basic level of mitigation is required. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Risks associated with potential uses for site are generally low. If proposed composting process is open then risk of bioaerosol would be considered medium and further assessment may be required.

B.3.6.5 Water Quality / Environment

NGR: 421370, 134080

Location: Winterslow, South Wiltshire

Site Area: 1.4 hectares

Data Source: Landmark Envirocheck Report 30094591_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.6.5.1 - Thorney Down Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Hydrology: Surface Water – Flow and Quality	<p>The nearest surface water feature is a covered reservoir 902m to north west,</p> <p>The nearest river is the River Bourne 3425m to the north west.</p> <p>The Environment Agency (EA) identify that the River Bourne watercourse has an overall chemical and biological quality of Poor with Moderate nutrient levels.</p> <p>The River Bourne has an ecological classification in line with the Water Framework Directive as Moderate¹.</p>	<p>As the River Bourne is over 3km from the site there will be negligible impact on the river flow.</p>	<p>Surface drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design,</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p>	<p>Environmental Management during construction.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p>
Geology: Stratigraphy	<p>The site is underlain by infilled ground (backfilled workings) which overlies the Newhaven Chalk Formation (a chalk with many marl seams)</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>
Hydrogeology: Groundwater – Hydrogeological Units	<p>Site and surroundings are predominantly underlain by a primary aquifer (Major Aquifer) (highly permeable)</p>	<p>Possible contamination of the primary aquifer.</p> <p>Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p>	<p>Environmental management during construction</p> <p>Determine monitoring requirements with EA</p> <p>Produce working plan for site</p> <p>Review runoff treatment requirements</p>
Hydrogeology: Groundwater –	<p>The site is not located within a SPZ, However a SPZ II area extends up to 310m south east of the</p>	<p>No risk posed to public water supply;</p>	<p>Good working practices and EA</p>	<p>Monitoring boreholes (may be required for obtaining</p>

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Source Protection Zone	site.	but local private abstractions may exist (<20m ³).	guidance during construction.	operating permit) Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	No information is available on direction of flow.	No risk posed.		
Discharges: Surface water – Discharge Consents	None recorded within 1km of the site.	Not applicable.	-	-
Discharges: Groundwater – Discharge Consents	Seven discharges of final treated effluent to groundwater via soakaway 598m and 630m south west and between 645m and 772m south. Three discharges of final treated effluent to land, 722m and 869m south west and 878 north west.	No risk to works	-	-
Discharges: Land – Pollution Incidents	None.	No risk posed		To be considered as possible source of contamination if any found during monitoring
Abstractions: Surface Water – Abstractions	None	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	One abstraction for general farming & domestic use 90m south east. No other abstractions within 1km of the site.	Contamination of drinking water supply	Surface water drainage plan including runoff collection system and design of infiltration devices. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
			to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices – EA guidance during construction.	Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	No risk of flooding but the potential for pluvial flooding and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	Historic Landfills: one accepting inert, industrial, household, commercial and special waste, on site, and accepting unknown wastes 207m north. One Licensed Waste Management Facility for household, commercial & industrial wastes, 23m south west. One Recorded Landfill accepting general waste, 630m north west. One Waste Transfer sites on site accepting dry non hazardous commercial/ industrial, household, park & grounds waste, civic amenity waste.	Risk during construction of contaminated ground at the site.	Site Waste Management Plan and Pollution Incident Control Plan to be implemented by contractors	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	Porton Down has been designated as a Site of Special Scientific Interest (SSSI), and a Special Protection Area (SPA) it is located 190m north of the site.	No risk posed as no pathway to the SSSI/SPA.	-	-
	Salisbury Plain has been designated a Special Area of Conservation (SAC) it is located 190m north of the site.	No risk posed as no pathway to the SAC.		

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either an Inert Waste Recycling and Transfer Station or a Composting Facility at **Thorney Down, Winterslow** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site.

This initial screening indicates that:

- There are surface water features within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Primary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of pluvial and groundwater flooding
- There are potentially contaminating land uses on the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

Further assessment and work that will be required include a flood risk assessment, surface water management plan, and a contamination assessment.

B.3.7 Salisbury Road Industrial Estate, Downton (Site Ref S7)

B.3.7.1 Introduction

The site extends to 10.5 ha and is an existing industrial estate on the north west extent of Downton and approximately 10km south east of Salisbury. The site has direct access onto the A338, which is part of the Primary Road Network and HGV route network. The northern boundary of the site is formed by an area of open space border, to the east is an area of open space beyond which are residential properties and the River Avon SAC/SSSI. Residential properties, Downton Primary and Secondary schools, Longclose Park Sports Ground and Memorial Gardens are located to the south of the site. The western boundary is formed by the A338 beyond which are residential properties. There are no Public Right of Ways present on the site however PROWs run along field boundaries to the north, south and east of the site. The site abuts Flood Zone 3 which is associated with the River Avon.

The site is located in proximity to a number of designated sites including the Cranborne Chase and West Wiltshire Downs AONB within 800 meters of the site. The site and the surrounding area is identified as an Area of Special Archaeological Significance. The Moot and Moot House Downton: Grade II* SAM and Historic Park and Garden approximately 750 meters to the south east of the site.

The site is allocated in the adopted Salisbury Local Plan for employment development (Policy E11) and the emerging South Wiltshire Core Strategy does not propose any new land use designations in this area. The southern boundary of the site borders the Downton Conservation Area.

A number of planning consent have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use and others:

Reference: S/2006/2461 Erection of single storey building in rear of car park to provide 6 bed & breakfast units at: White Horse Hotel, 62 The Borough, Downton, Salisbury SP5 3LY

Reference: S/2008/0748 Erection of 50 dwellings including parking & highway works at: Wick Lane, Downton, Salisbury, SP5 3NH

B.3.7.2 Cultural Heritage

Introduction

The Salisbury Road Business Park site is a modern development on the outskirts of Downton. It comprises a roughly rectangular area of 10.5ha north of the eastern part of the historic village core. The site has been gradually developed since the 1960s, prior to which it remained as agricultural land.

The Salisbury Road Business Park has already been extensively developed and is occupied by a number of large commercial buildings. No known archaeological features are recorded within the site. The site lies adjacent to the Downton Area of Special Archaeological Significance, designated due to evidence of the medieval development of the village, and Downton Conservation Area. A number of prehistoric features were recorded close to the site during archaeological evaluation undertaken in 1990. There is one Scheduled Monument (S7-k) c.250m south east of the site. The site has already been extensively developed as a business park.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique Asset Number (i.e. **S7-a, b, c**, etc). A full methodology for cultural heritage is set out in Chapter 3.

Designated Heritage Assets

There are no designated heritage assets within the site

The site lies immediately north of the Downton Conservation Area and Downton Area of Archaeological Significance

There is 1 Scheduled Monument c. 250m southeast of the site

There are 3 Grade II* Listed Buildings within 500m of the site

There are 29 Grade II Listed Buildings within 500m of the site

Recorded Heritage Assets within the Site

There are no recorded heritage assets within the site.

Recorded Heritage Assets within 500m of Site

Table B.3.7.2.1 - Recorded Heritage Assets within 500m of Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
S7-a	<i>A series of ring ditches visible on aerial photography thought to be of Iron Age date, relating to a settlement site. Recorded 250m northwest of the site</i>	SU12SE203	None	SU16852213
S7-b	<i>A ring ditch was revealed in a test-pit, then in a trial trench in 1990. A 5m section was cut across the ditch to a depth of c300mm & showed it to have clearly defined edges. The fill contained flint tempered pottery & burnt flint. Relates to S7-a above. Recorded 250m northwest of the site.</i>	SU12SE634	None	SU16852214
S7-c	<i>Romano-British settlement - A settlement site comprising 3 small</i>	SU12SE309	None	SU16862203

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	<i>pennanular rings, a rectangular enclosure and several pits are visible on aerial photographs. An evaluation of 28ha revealed well-preserved features and a clay-lined oven. Recorded c.200m northwest of the site.</i>			
S7-d	<i>Find spot - a Medieval pottery fragment was excavated from a test-pit in 1990. Record c.200m east of the site</i>	SU12SE476	None	SU16862179
S7-e	<i>Circular feature - undated ring ditch. Partly excavated in 1990 when a five metre wide ditch was revealed. Recorded c.200m east of the site.</i>	SU12SE629	None	SU16872179
S7-f	<i>Undated oval features surrounded by a possible bank of irregular shape visible on aerial photographs. Recorded c.400m southwest of the site.</i>	SU12SE628	None	SU16632163
S7-g	<i>Wick - A settlement with Medieval origins. Earthworks survive to north-west and south of Wick House, not surveyed. Recorded c.500m southwest of the site.</i>	SU12SE456	None	SU16602150
S7-h	<i>New Court Farm Linear feature - visible on the 2001 aerial photographs as a soilmark. Recorded c.300m north of the site.</i>	SU12SE671	None	SU17372234
S7-i	<i>New Court Farm - farmstead with Medieval origins known as 'Newcourte' in AD1569. Recorded c.250m northeast of the site.</i>	SU12SE455	None	SU17382217
S7-j	<i>Downton - Settlement of Early Medieval (Saxon) origins. Pottery of this date has been found in excavations. Castle Meadow (1953-1957) and a gravel pi . Probably a Saxon Hundred 'moot' or meeting place. (See SU12SE403). Recorded c.350m southeast of the site.</i>	SU12SE400	Area of Special Archaeological Significance	SU181216
S7-k	<i>Downton borough cross. A Medieval cross repaired in 1797 and completely restored in 1897 as a Diamond Jubilee Memorial. The cross now consists of an hexagonal base 0.5m high supporting a series of three tiered steps about 0.2m high. About 0.6m of this shaft is apparently original. The head is not in the form of a cross and dates from 1897. Recorded c.300m southeast of the site.</i>	SU12SE460	Scheduled Monument	SU17492150

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
S7-l	<i>Find spot - Land to The Rear of The White Horse. During evaluation in 2007 two pits were found, both of which contained numerous finds. These are as follows: animal bone, peg type roof tiles, fragment of green glazed ridge tile and Lavistock type pottery of 13th-14th century date. Recorded c.450m southeast of the site.</i>	SU12SE475	Area of Special Archaeological Significance	SU17562143
S7-m	<i>Find spot - Late Medieval Scottish coin of David II, Aberdeen 1329-71. Recorded c.500m southeast of the site.</i>	SU12SE461	Area of Special Archaeological Significance	SU17562130
S7-n	<i>Spot find - Garden In S Lane Downton - Post-Medieval earthenware candlestick. Recorded c.500m south of the site.</i>	SU12SE525	Area of Special Archaeological Significance	SU175213
S7-o	<i>The New Town - A 'new' Medieval town was built in the early 13th century. The growth of the New Town in the early 13th century is documented in the surviving account rolls of the Winchester Estates. In 1208-9 nineteen rents were recorded for burgage plots in the new town. By 1218 there were 89 burgage paying rent. Recorded c.450m south of the site.</i>	SU12SE478	Area of Special Archaeological Significance	SU17442180
S7-p	<i>River Avon watermeadows, used as late as the early part of the 20th century, were the subject of a desk-base assessment in 1996 by Wessex Archaeology. The rapid survey of the area revealed that substantial earthworks of the system are still in situ (up to 0.8m high). Recorded c.500m south of the site.</i>	SU12SE533	Area of Special Archaeological Significance	SU17502100
S7-q	<i>Newcourt Farm – Group of four Listed Buildings. Newcourt farmhouse is late 17th century in date (Grade II*)</i>	LBS319671 LBS319672 LBS319673 LBS319674	Grade II* LB Grade II LB Grade II LB Grade II LB	SU17302220 (centred on group)
S7-r	<i>Downton Built Heritage – collective of 28 Listed Buildings within the historic core of Downton to the S of the site. Mostly post-medieval in date.</i>	LBS319708 LBS319638 LBS319634 LBS319635 LBS319640 LBS319635 LBS319641	Grade II LB Grade II LB Grade II LB Grade II LB Grade II LB Grade II LB Grade II LB	SU17342146 (centred on group)

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
		LBS319639	Grade II LB	
		LBS319637	Grade II LB	
		LBS319581	Grade II LB	
		LBS319636	Grade II LB	
		LBS319581	Grade II LB	
		LBS319637	Grade II LB	
		LBS319600	Grade II LB	
		LBS319585	Grade II LB	
		LBS319586	Grade II LB	
		LBS319580	Grade II LB	
		LBS319587	Grade II LB	
		LBS319588	Grade II LB	
		LBS319589	Grade II LB	
		LBS319572	Grade II LB	
		LBS319682	Grade II LB	
		LBS319679	Grade II LB	
		LBS319681	Grade II LB	
		LBS319683	Grade II LB	
		LBS319677	Grade II LB*	
		LBS319678	Grade II LB	
		LBS319591	Grade II LB	
		LBS319591	Grade II LB	
		LBS319575	Grade II LB	
		LBS319594	Grade II LB	
		LBS319595	Grade II LB	
		LBS319580	Grade II LB	
		LBS319574	Grade II LB	
		LBS319578	Grade II LB	
		LBS319577	Grade II LB	
		LBS319567	Grade II LB	
		LBS319575	Grade II LB	
		LBS319629	Grade II LB	
		LBS319662	Grade II LB	
		LBS319630	Grade II LB	
		LBS319592	Grade II LB	
		LBS319591	Grade II LB*	
			Conservation Area	

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic or Bronze Age heritage assets are recorded on the WSMR within the study area.

The Iron Age (700 BC – AD 43)

Archaeological assessment and evaluation undertaken in 1990 revealed a series of ring ditches containing tempered pottery and burnt flint of possible Iron Age (or possibly Roman) date at a site c.250m northwest of the site (**S7-a, b, c**).

The Roman Period (AD 43 – AD 450)

The New Court farm settlement (c.200m northwest of the site) evaluated in 1990 revealed 3 small pennanular rings, a rectangular enclosure and several pits, as well as a clay-lined oven, thought to be of Romano-British date (**S7-c**). The small cropmark site c.400m W of the site (**S7-f**) may be of similar date, although this is not confirmed.

The Early Medieval Period (AD 450 – AD 1066)

The earliest documentary reference to Downton dates from the eighth century (**S7-j**). There are no other recorded Early Medieval heritage assets recorded within the study area.

The Medieval Period (AD 1066 – AD 1547)

In the early thirteenth century Bishop Peter des Roches founded a new market village at Downton (**S7-o**). The new village was set apart from the old village, being located on the west side of the River Avon. This form of land holding is known as burgage tenure and the typically long, narrow, property plots, laid out in blocks are called burgage plots. Around 120 burgages were being rented out in the early years of the village. This layout still defines the character of this part of Downton and the extent of the Area of Special Archaeological Significance designation.

A number of medieval heritage assets are recorded in the study area, notably Newcourt Farm (**S7-i**) c.250m to the north east, a farmstead known as the Wick (**S7-g**), Downton borough cross (**S7-k**), medieval pottery (**S7-l**), the findspot of a coin the medieval Scottish King David II (**S7-m**) and the findspot of an earthenware candlestick (**S7-n**), all of which lie between 200-500m south of the site boundary within the Area of Special Archaeological Significance designation.

It is clear that the site lay beyond the core of the medieval village and later medieval planned town. The potential for the presence of unrecorded archaeological finds is therefore low.

The Post-medieval Period (AD 1547 – c. AD 1900)

The number of Listed Buildings within the western part of Downton south of the proposed site illustrates the development of the village in the post-medieval period (**S7-r**). The buildings at Newcourt Farm (**S7-q**) are of particular architectural interest. The farmhouse is of late 17th century date and is Grade II* listed. There is currently no intervisibility between the site and the listed buildings to the northeast or south / south east.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded within the study area.

Significance of Heritage Assets

There are no heritage assets within the site.

The significance of the heritage assets within the wider study area is high as they illustrate the historic development of the village and its late medieval planned layout, which is still evident in the survival of the burgage plots. The character and setting of the historic village is therefore of high significance. This is reflected in the high number of Listed Buildings within Downton and its designation as a Conservation Area.

The significance of the undesignated heritage assets within the wider study area is low, although the potential for the presence of further finds within Downton is reflected in its designation as an Area of Special Archaeological Significance.

Assessment Suitability

The site is currently screened by vegetation from the Downton Conservation Area and nearby Listed Buildings (**S7-r**). There is no inter-visibility between the site and the closest Grade II* Listed Building at Newcourt Farm (**S7-q**). Providing the level of screening is maintained and the height

and scale of the new development does not exceed that of other buildings within the business park, the setting of the Downtown Conservation Area and Listed Buildings will not be affected.

Despite the presence of known prehistoric features (**S7-a, b, c, d, e**) and medieval features (**S7-g, i, j, k, l, m, n, o**), and the proximity of the Downton Area of Special Archaeological Significance, the extent of modern development means that the potential for the presence of currently unrecorded deposits is low. Given the lack of disturbance on the site prior to the 1960s onwards, it is likely that subsequent development would have led to the loss or truncation of any unrecorded archaeological deposits. Archaeology is not therefore considered a constraint to development.

Mitigation

No mitigation will be required for the surrounding built heritage providing that the existing screening is retained and that the height and mass of any new proposed development does not exceed existing structures.

No archaeological mitigation will be required.

Recommendations

No further assessment is recommended.

Conclusion

There are no heritage assets recorded on the WSMR, NMR, historic maps or aerial photographs within the site boundary. The site has already been extensively developed for commercial use.

The study area encompasses part of the Downton Conservation Area which contains a high number of Grade II and Grade II* Listed Buildings. Providing that the proposed development does not exceed the height and mass of the existing structures within the site and that the site remains screened by vegetation, the setting of the surrounding built heritage will not be affected, and no further mitigation will be required.

Although a number of archaeological features and finds have been identified within the study area (part of which south and east of the site is designated an Area of Special Archaeological Significance), the potential for the presence of currently unrecorded archaeological deposits within the site is low. No further archaeological assessment is recommended. No mitigation for the impact on archaeological deposits will be required.

B.3.7.3 Landscape and Visual Impact

Introduction

This is an active Business Park to the north of the village of Downton, set within the flood plain of the River Avon.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- River valleys with common settlements and narrow floodplains, dominated by former flooded flood meadows and meandering rivers.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Chalk River Valley

Landscape Character Area: Lower Avon Chalk River Valley

Key characteristics relevant to the site:

- Strongly enclosed valleys with an intimate scale contrasting with the surrounding open upland landscape.
- Hedgerows and hedgerow trees add to the lush and enclosed feel of the valleys.

- Riparian woodlands, lines of poplar along ditches and willow pollards.
- Valleys contain a concentration of settlement in contrast to the adjacent unsettled downs.
- Many long established villages, sited along the spring line and built of a rich variety of vernacular materials.
- Valley used as transport corridors with major roads and railway lines along valley sides.
- Rural landscape sometimes interrupted by the large volume of traffic.

These areas can have a diverse mosaic of land cover and habitats including meadows, fen and wet woodland on valley floor. This character has been lost within the site; however views out of the site to the east indicate a strong flood plain character beyond.

The Lower Avon Chalk River Valley is wider than the other chalk river valleys, containing the confluence of the Rivers Wylye, Nadder, Bourne and Ebbles with the Avon. Major trunk roads follow the sides of the Lower Avon Chalk River Valley but despite their noise and movement this character area retains substantial areas of rural and remote pastoral landscape.

WCC judge the overall condition of the Chalk River Valley Landscape Type to be 'good' and its landscape character 'strong' with its chalk rivers of high water quality and rich biodiversity, its largely intact hedgerow network, riparian woodland and compact well kept villages. However there are some elements of declining condition such as some hedgerows in poor condition. The overall strategy is to 'conserve' the tranquil, intimate and rural character of the landscape. WCC also highlight opportunities for replanting and managing hedgerows and limited native tree planting/regeneration.

District Landscape Character Assessment: N/A

Landscape Designations and policies:

- The site lies within a Special Landscape Area
- Avon Valley long distance path runs to the east of the site

Baseline Landscape Character and Features: Site Survey

This is a flat site on flood plain of the River Avon, to the north of the village of Downton. The site is accessed from three points on the A338 and has a number of access roads running through it. To the south of the site, off Long Close West a disused building could also provide further access into the site. The site has a low-density structure, with wide roads; external storage yards and parking areas and some vacant plots. Surfacing is predominantly concrete and bitmac. There is little internal vegetation within the site although there are some mature boundary trees, including Lombardy poplars and oaks. There is ornamental hedging around the boundaries of some units.

The site consists of a varied selection of two storey business and industrial units, constructed at various times during the latter part of the 20th century, with materials including steel, render, glass, breeze-block and brick. Pavements with street lighting provide pedestrian access throughout the site. External features also include security fencing and chainlink fencing.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor quality. Flood plain character has been eroded by construction of business units.

Capacity to Accept Change: Medium. Large site with little overlooking, other than from the A338, a busy road on the western frontage of the site.

Potential Landscape Impacts

- Further erosion of flood plain character of Special Landscape Area.
- Loss of existing trees on site.

Potential Landscape Mitigation Measures

- Wide buffers of planting, around the site boundaries, especially reflecting the riparian species of the flood plain, including willows, poplars and alders on the eastern parts of the site and oaks to the west.
- Sensitive site planning to minimise impact on the character of the river valley to the west.

The following ‘Broad Management Objective’ for the Chalk River Valley landscape type in the *Wiltshire Landscape Character Assessment* is relevant to the site:

- Consider opportunities for re-planting hedgerows and hedgerow trees where these have been lost. In particular, the comparatively dense structure of willows, poplars and other moisture loving trees should be retained along field boundaries and the course of the river.

Table B.3.7.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Impact on Receptor	Potential Visual Mitigation Measures
Users of A338	Low	No change – Slight adverse <i>(significance of effect dependent on location of proposals)</i>	Location of facilities away from residential properties or with 15m woodland buffer strip Planting of native, riparian species around facilities, especially to north and east of site.
Users of Avon Valley Path (subject to winter-time survey)	High	No change – Slight adverse <i>(significance of effect dependent on location of proposals)</i>	Planting of large scale hedgerow trees and hedgerows along A338
Workers on industrial estate	Low	No change – slight adverse <i>(significance of effect dependent on location of proposals)</i>	Location of facilities away from A338 frontage
Residents on Long Close	High	No change – slight adverse <i>(significance of effect dependent on location of proposals)</i>	
Residents on Salisbury Road (A338)	High	No change – slight adverse <i>(significance of effect dependent on location of proposals)</i>	
Users of service station on Salisbury Road (A338)	Low	No change	

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed setting and existing industrial character, the site could accommodate some change, however sensitive planning would be required to minimise adverse impacts on surrounding residential properties and existing users of the industrial estate. The rural floodplain

character of the landscape to the east should be reflected in planting around new facilities to integrate them with their surroundings.

Recommended further landscape and visual surveys

- Visual surveys from public Avon Valley Path (winter and summer)

B.3.7.4 Transport

Introduction

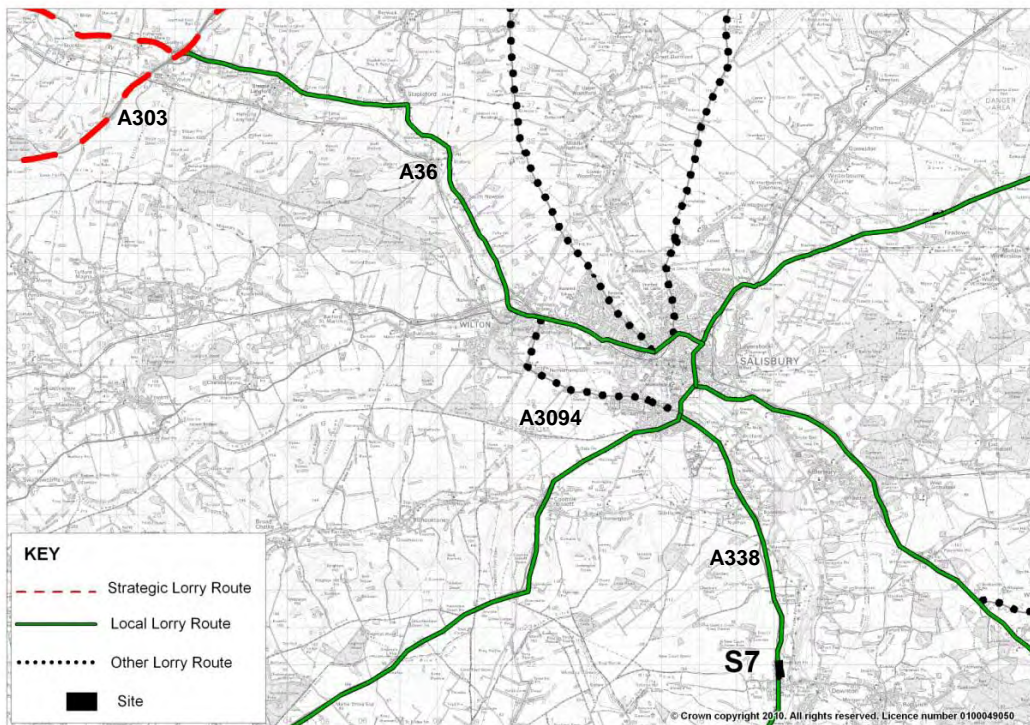
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is an established industrial estate to the north of Downton on the A338. The estate covers a total area of 10.5ha and has a mix of B1 and B2 employment uses. It is proposed that the waste facility is located within this estate however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junction to the estate but not the site access within the wider site. The site is allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.3.7.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.3.7.4.1** shows that the site is accessed directly off the A338 (local lorry route). The nearest strategic lorry route is the A303 to the northwest accessed via the A36 (local lorry route).

Figure B.3.7.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.3.7.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.3.7.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
	12,000	70	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

There are two access points to the industrial estate, both off the A338. The southerly access is a priority T-junction with a ghost island right turn lane that can accommodate 2 Passenger Car Units (PCUs), approximately 1 HGV. The speed limit on this section of the A338 is 30mph and visibility in both directions is acceptable for the speed of road. The northerly access is a three arm roundabout with the eastern arm forming the industrial estate road. Both access points are linked by internal estate roads and as such either access could be used for access to all areas of the estate.

One potential use for this site is for a HRC facility. This proposed use will generate not only HGV traffic but also a high volume of car based trips, typically on a weekend and therefore unlikely to coincide with the weekday AM and PM peaks on the highway network nor with the peak arrivals and departures for the existing mix of B2 and B8 uses on the estate. Nevertheless the stacking capacity at the right turn lane of the priority junction is unlikely to cope with the volumes of traffic associated with HRC uses. However, given that the roundabout access to the north is unlikely to have the same capacity issues the use of this junction is likely to be self regulating.

Should the site be taken forward as an MRF/WTS facility the trip generation profile will likely be in batches, likely between 9:30–10:30am and 2:00-3:00pm, which avoids the peak highway periods. However, if vehicles arrive from transfer station the operational trips will be more constant throughout the day. It is likely that staff trips will not have a major impact on both peaks; however

there is a chance that a shift change will occur during either the AM or PM peak period resulting in an impact on the highway network peak hours.

The highway infrastructure at the access junctions to the estate are likely to be sufficient to accommodate the proposed uses, however a capacity assessment would be required to ensure no mitigation would be required once the proposals were finalised.

Transport Environmental Impacts

The villages of Downton and Redlynch lie to the east off the A338. There is a potential for adverse impacts associated with increased HGV traffic through these villages, particularly impacting on the residential amenity and the bridge within Downton. Whilst the route has a 7.5T environmental weight limit, the route through these villages has the potential to provide a 'rat run' to the M27, enabling vehicles to avoid the additional journey time associated with the A338, A31 route to the M27. Any development should ensure that no additional HGV traffic uses this route as a 'rat run' in order to prevent further adverse impacts on the residential amenity of the villages.

There are residential properties and sensitive land uses (school) fronting the A338 however the impact of the additional trips associated with the proposed development are unlikely to provide a substantial increase in HGV impact given the existing levels of HGV use on the route.

For access to the strategic road network to the north it should be ensured that the A3094 is not used as a short cut to the A36 and A303. The A3094 has residential frontage and on street parking and as such is designated as an 'other' lorry route, to be used only where it is essential to gain access. Providing HGVs are appropriately routed via designated local lorry routes the impact on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal although this is highly dependent on the scale of the facility proposed.

Off Site Highway Network

The junction of The Borough (B3080) and the A338 is a signalled T-junction with a dedicated right turn lane on the southern approach arm that can accommodate 6 Passenger Car Units (PCUs), equivalent to 2-3 HGVs. Site observations suggest that capacity at the junction will not be unduly affected by the proposals however a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes.

Accessibility by Sustainable Modes

There are bus stops at the access to the estate and 1m footways along the A338. Footways are also present within the estate however these were observed to be blocked by parked cars in some areas.

Constraints

The main constraints identified at this site are:

- The potential impacts of HGV traffic on the villages of Downton and Redlynch;
- The potential impacts of HGV traffic on the residential properties and sensitive land uses fronting the A338; and
- The potential capacity issues at the priority access junction to the industrial estate.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/S7/001** in **Appendix D**.

Mitigation

No mitigation proposed

Recommendation

The site offers the following advantages:

- The site is reasonably accessible by sustainable modes of travel;
- There are two access points to the estate, the use of which is likely to become self regulating;

- The site is within an established industrial estate and as such the nature of the proposed uses is unlikely to adversely impact on the environment within the estate; and
- The site is located directly off a local lorry route.

The following issues/constraints have been identified:

- The potential impacts of HGV traffic on the villages of Downton and Redlynch;
- The potential impacts of HGV traffic on the residential properties and sensitive land uses fronting the A338; and
- The potential capacity issues at the priority access junction to the industrial estate.

In conclusion, the proposed site is considered appropriate for the proposed uses however appropriate HGV routing should be considered. Junction capacity assessments will be required, particularly at the priority access to the estate where HRC uses in particular, may have an impact on capacity.

B.3.7.5 Water Quality / Environment

NGR: 417140, 121860

Location: Downton

Site Area: 10.46 hectares

Data Source: Landmark Envirocheck Report 30092903_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.7.5.1 - Salisbury Road Industrial Estate Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is a drain 37m to the north east. The River Avon is 240m to the east. The River Avon flows in a southerly direction discharging into the English Channel.</p> <p>The EA identify that the River Avon watercourse close to Downton has a chemical quality of Good and a biological quality of Very Good and High nutrient levels.</p> <p>The River Avon has an ecological classification in line with the Water Framework Directive as Poor⁵¹.</p>	<p>Impact on RiverAvon flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on River Avon quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p> <p>Good working practices and environment Agency guidance during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p>
<p>Geology : Stratigraphy</p>	<p>The Envirocheck lists the stratigraphy as Chalk (including Red chalk).</p>	<p>Potential pathway for contaminant to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are predominantly underlain by a primary aquifer (Major Aquifer) - highly permeable.</p>	<p>Possible contamination of the primary aquifer.</p> <p>Changes to the groundwater flow regime of primarily shallow aquifers</p>	<p>Surface water drainage plan including runoff collection system</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste</p> <p>Pollution Incident and Control</p>	<p>Environmental Management during construction</p> <p>Determine monitoring requirements with EA</p> <p>Produce working plan for site</p> <p>Review runoff treatment</p>

⁵¹ River Basin Management Plan South West River Basin District
Plan Design Enable

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
		during construction if pumping required for excavations or where foundations intercept groundwater.	Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) Good working practices and environment Agency guidance during construction.	requirements Monitoring boreholes (may be required for obtaining operating permit)
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within a SPZ, However a SPZ I and II area extends up to 521m south west of the site.	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in an easterly direction towards the River Avon.			
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable	Potential contamination of drinking water supply		
Discharges: Surface water – Discharge Consents	Discharges of agriculture/ fish farming to River Avon, 351m north east and 598m to east.	No risk to works	-	-
Discharges: Groundwater – Discharge Consents	None	No risk to works	-	-
Discharges: Land – Pollution Incidents	Category 2 (significant incident) to water, Category 4 (no impact) to air/land, 493m to south west. Rubber/ litter or solids (1996); Category. 4 to water; Category. 3 (minor incident) to water; 901m to north	No risk posed.		To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	One abstraction for spray irrigation and agriculture, 280m to north east. One abstraction from river for unspecified	No risk posed as abstraction is upstream.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
	purpose, 632m to east.			
Abstractions: Groundwater – Abstractions	<p>Three abstraction for spray irrigation and agriculture, 280m to north east, 240m to west and 743 to west.</p> <p>Three abstractions for general farming and domestic, 170m to north east. 553m to south west and 743m to west.</p> <p>Two abstractions for aquaculture, fish farm – 743m to north east and 903m to north east.</p> <p>One abstraction for Industrial processing, 748m to south east.</p> <p>One abstraction for unspecified purpose, 533m to east.</p>	<p>No risk posed to local public abstractions. Contamination of drinking water supply.</p>	<p>Surface drainage plan inc. runoff collection system.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and environment Agency guidance during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p>
Flood Risk	<p>The site is in Flood Zone 1, the south east and north east corner of the site is adjacent to a Flood Zone 3. There is a Flood Zone 2 area east of the site.</p> <p>The site is greater than 1 ha in size.</p>	<p>No risk of flooding but the potential for pluvial and groundwater flooding should be investigated.</p>	<p>SuDS design to control runoff.</p>	<p>A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures. The 1% annual probability flood level needed for the assessment can be obtained from the Environment Agency at a charge.</p>
Land Uses	<p>Chalk Pit, accepting inert waste (now closed) 818m west of site.</p>	<p>Risk during construction of contaminated ground at site with possible run off</p>		<p>To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.</p>
Conservation Designations	<p>The area (Cranborne Chase/West Wiltshire Downs) located 738m west of site is designated as an Area of Outstanding Natural Beauty.</p>	<p>Contamination of an area of a protected landscape. Potential</p>	<p>Surface drainage plan including runoff collection system</p> <p>Consider limiting types of waste handled at site e.g. only solid</p>	<p>Environmental Management during construction</p> <p>Determine monitoring requirements with Environment</p>

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
	<p>The Avon Valley located 141m east of the site has been classified as an environmentally sensitive area.</p> <p>River Avon System Site of Special Scientific Interest (SSSI) is located 201m east of the site.</p> <p>River Avon System Special Areas of Conservation (SAC) located 201m east of the site – this has candidate status.</p>	<p>contamination of an area of protected ecological and landscape sites.</p>	<p>waste, only inert waste</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p> <p>Good working practices and environment Agency guidance during construction.</p>	<p>Agency</p> <p>Consult with Natural England regarding how works may affect the Area of Outstanding Natural Beauty, the Site of Special Scientific Interest (SSSI), and the Special Areas of Conservation (SAC)</p> <p>Produce working plan for site</p> <p>Review runoff treatment requirements</p>
<p>Drainage: Current Surface Water /Foul Drainage Systems – Capacity</p>	<p>The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.</p>	<p>-</p>	<p>-</p>	<p>-</p>

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Household Recycling Centre, Materials Recovery Facility, Waste Transfer Station, or a Local Recycling Facility at **Salisbury Road Industrial Estate, Downton** falls within the below category.

- Few / no significant issues identified – progress waste site to next stage of assessment

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is on a Primary Aquifer and therefore there are potential groundwater contamination issues
- There are risks from pluvial, fluvial and groundwater flooding
- There are protected sites including the River Avon SSSI nearby
- There are some potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include a flood risk assessment, surface water management plan, and liaison with the Environment Agency.

B.3.8 Brickworth Quarry and Landfill (Site Ref S8)

B.3.8.1 Introduction

Brickworth Quarry and Landfill extends to approximately 21ha, located 1km west of Whiteparish and 10km south east of Salisbury. The site is an operational sand quarry which includes the import of inert waste for use in restoration operations. The site has an existing access directly from the A36 via a signalised crossroads from which there is a gated access to the site. There are left and right turn filter lanes into the site. The site is surrounded by fields and fairly isolated except for a few residential properties opposite the south eastern corner of the site separated by the A36 and a number of isolated farms. The site bounded on southern and western margins by Lowdens Copse (woodland), providing year-round screening from the west and south. Earth bunds have also been constructed to the north of the site and further screening along the A36 is provided by a hedgerow. The site is within grade 3 agricultural land with a PROW which runs adjacent to the site. Part of the site has already been restored to rough grassland. The site is located within a Flood Zone 1 area.

The site is located in proximity to a number of designated sites including Langley Wood and Homan's Copse, Loosehanger Copse and Meadows, and Whiteparish Common SACs are within 3 km south and south east and the New Forest National Park which is approximately 6 km away.

The site is not allocated in the adopted Salisbury District Local Plan and the emerging South Wiltshire Core Strategy does not propose any land use designations in this area.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/2006/8004 Construction, demolition and excavation Waste Recycling Facility, Brickworth Quarry Harestock Whiteparish Salisbury SP5 2QJ;

Reference: S/2004/0674 Change of use to C3 (residential) land adjacent Brickworth Quarry SP5 2QJ;

Reference: S/2008/0708 Change of use of land to site a mobile home for use by a gypsy family at: Tricky's Paddock, Brickworth Road, Whiteparish, Salisbury SP5 2QG

B.3.8.2 Landscape and Visual Impact

Introduction

The site is currently a sand quarry lying to the south of the A36 west of Whiteparish. It is well enclosed by woodland, hedgerow vegetation and mature hedgerows. The site is being reinstated to agriculture by means of the selected deposition of inert waste.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Scattered copses and shelterbelts.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Wooded downland

Landscape Character Area: Witherington Wooded Downland

Key characteristics relevant to the site:

- Large scale 'rooms' of arable farmland enclosed by woodland,
- Varying mix of two dominant land cover elements –open arable fields and woodland blocks and belts, which are linked and unified by the network of hedgerows and hedgerow trees.
- Network of lanes often rising up the dry valleys linking the high downs to the lowlands, with sunken shady lanes in some more wooded zones plus a few main roads crossing the areas.
- A peaceful, tranquil and secluded rural landscape, with sheltered enclosed woodland areas contrasting with more open, remote downland and steep uninhabited scarps.
- Sparsely settled with scattered farmsteads and occasional small villages

WCC judge the condition of the Wooded Downland landscape type to be 'good', due to its varied woodland cover and strong hedgerow network. It is considered to have a 'strong' character based on its chalk geology and ancient monuments and landscapes. WCC seek to 'conserve' the highly rural, peaceful character of this type with its varied topography and landcover. Elements requiring restoration are field boundaries and hedgerow trees.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- The site lies within a Special Landscape Area
- The site is located close to the boundary of the New Forest National Park, which runs approximately 0.5 Km south of the site, along Moor Lane
- A public footpath runs close to the western boundary of the site, within Sandland Copse and Goose Eye Copse
- A public footpath runs adjacent to the eastern edge of the site, from Lowdens Copse to the A36 and beyond.

Baseline Landscape Character and Features: Site Survey

This site currently consists of a sand quarry. Part of the site has already been restored to rough grassland. Parts of the site currently being quarried have undergone significant change to their topography, with extraction to approximately 7m. The quarry includes associated portacabin offices, a weigh-bridge and digging machinery.

The site is set in a relatively remote rural location away from settlement, although the A36 Salisbury-Southampton road runs along its northern boundary, reducing the rural character and tranquillity of the site. Plantation woodland, including pine and larch with deciduous scrub margins is located around much of the site boundary, providing year-round screening from the west and south. Earth bunds have also been constructed to the north of the site, to screen it from the A36. Further screening along the A36 is provided by a strong, mature hedgerow, although this will be less effective during the winter months as HGVs are still visible.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor
Capacity to Accept Change: High

The site has been significantly disturbed by the sand extraction that has been taking place, although this appears to have been well managed to minimise visual impact and allow on-going restoration. The surrounding plantation woodland provides a strong backdrop that is typical of the area, although the quality of the woods has been eroded through the planting of non-native pine.

Due to its large size, current state of disturbance and existing screening, the site would be able to accommodate a high degree of change without further impact.

Potential Landscape Impacts

- Reduced potential for the full restoration of the quarrying activity

Potential Landscape Mitigation Measures

- Siting of facilities away from the A36 and public rights of way
- 15m native woodland screen around facilities to integrate with surrounding landscape

The following ‘Broad Management Objectives’ for the Wooded landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

Table B.3.8.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Workers at quarry	Low	No change	15m buffer planted buffer strip around facility Location of facility away from direct proximity of footpaths and roads
Users of footpath to west of site	Medium (partially screened by existing woodland)	No change – slight adverse (depending on siting of facility)	
Users of footpath to east of site	High	No change – Slight adverse (depending on siting of facility)	
Drivers on A36	Low (already well screened, although glimpsed views of quarry possible)	No change	

Summary: Residual Landscape and Visual Impacts

Due to its semi-enclosed wooded setting and existing quarried character, the site could accommodate change. The main visual receptor groups, walkers on nearby footpaths and drivers

on the A36 are both already well screened, although this could be further enhanced with additional planting.

Recommended further landscape and visual surveys

- Visual survey from public footpaths
- Winter-time visual survey from footpaths

B.3.8.3 Noise

Introduction

The site at Brickworth Quarry and Landfill has been allocated the following use, and as such has been assessed in regard to noise from the following:

- Inert Waste Recycling/Transfer

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated use of the site.

In order to assess the site’s suitability for the above use in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- North of cottage located within Lowdens Copse, situated approximately 630m to the south of the site boundary; and
- A farm gate located to the east of properties at Whites Farm, approximately 185m to the east of the site boundary.

The proposed site is located within land that is currently Brickworth Sand Quarry. Given the current usage, background noise levels were made with site activities occurring. The site at Brickworth Sand Quarry is bounded to the North East by the A36. The remaining boundaries of the site are surrounded by forests.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions clear and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on the A36, especially at the monitoring site situated to the east of White’s Farm. Noise from the A36 was also perceptible at Lowdens Copse but bird noise was dominant.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.3.8.3.1 - Lowdens Copse - Background Noise Levels (AU1_0043)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
09:17:00	00:05:00	47.8	55.9	39.0	51.0	45.8	41.5
09:22:00	00:05:00	49.8	56.9	36.8	53.4	47.4	41.1
09:27:00	00:05:00	47.8	58.1	39.5	51.4	45.9	41.4
09:17:00	00:15:00	48.6	58.1	36.8	52.3	46.2	41.5

Table B.3.8.3.2 - East of Whites Farm - Background Noise Levels (AU1_0044)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
09:43:00	00:05:00	70.7	78.9	48.8	75.5	65.9	52.3
09:48:00	00:05:00	70.5	78.6	48.9	74.7	67.3	57.4
09:53:00	00:05:00	71.2	78.7	52.3	75.3	68.3	57.0
09:43:00	00:15:00	70.8	78.9	48.8	75.2	67.4	55.5

The average background noise levels (LA90) at Lowdens Copse and the properties at Whites Farm are taken as being 41.5 dB and 55.5 dB, respectively.

Assessment Suitability

The site is separated from the nearest residential property by the A36.

The site is partially screened by the topography and is considered suitable with respect to noise for the proposed uses with careful siting.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required depending on the facilities location and the facility should be sited as far away from the south east corner as practical, with a minimum separation of 150m from any residential properties. With careful siting and placing activities in buildings a greater area could be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended use with respect to noise.

B.3.8.4 Air Quality and Odour

Introduction

Brickworth Quarry and Landfill site currently supports an open sand extraction operation. The setting is rural, bounded on southern and western margins by Lowdens Copse (woodland).

Potential uses include inert waste recycling / transfer.

Baseline

Estimated background annual mean levels of priority pollutants for 2005 and comparable standards are:

- 10.7µg/m³ NO_x (standard for protection of vegetation 30µg/m³);
- 8.2µg/m³ NO₂ (standard 40µg/m³);
- 14.5µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

Potentially sensitive receptors within 500 metres: residential premises, including Newton and Whiteparish. There are no ecologically sensitive sites within 500 metres of the site.

Air pollutant sources within 500 metres of the site: road traffic on the A27 and A36, and minor roads; gas/oil/solid fuel space heating for scattered buildings; Lower Pensworth quarry. Lower Pensworth quarry is a potential source of nuisance dust. There are no industrial sources of bioaerosols and odour in the area.

Table B.3.8.4.1 Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (1 Property)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (1 Property)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	N/A
Residential within 250m only (25 properties)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	N/A
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol high risk is limited to within 250m of the site</p>							

Mitigation

Dust control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low. Dust mitigation is recommended. Detailed assessment should not be necessary.

B.3.8.5 Transport

Introduction

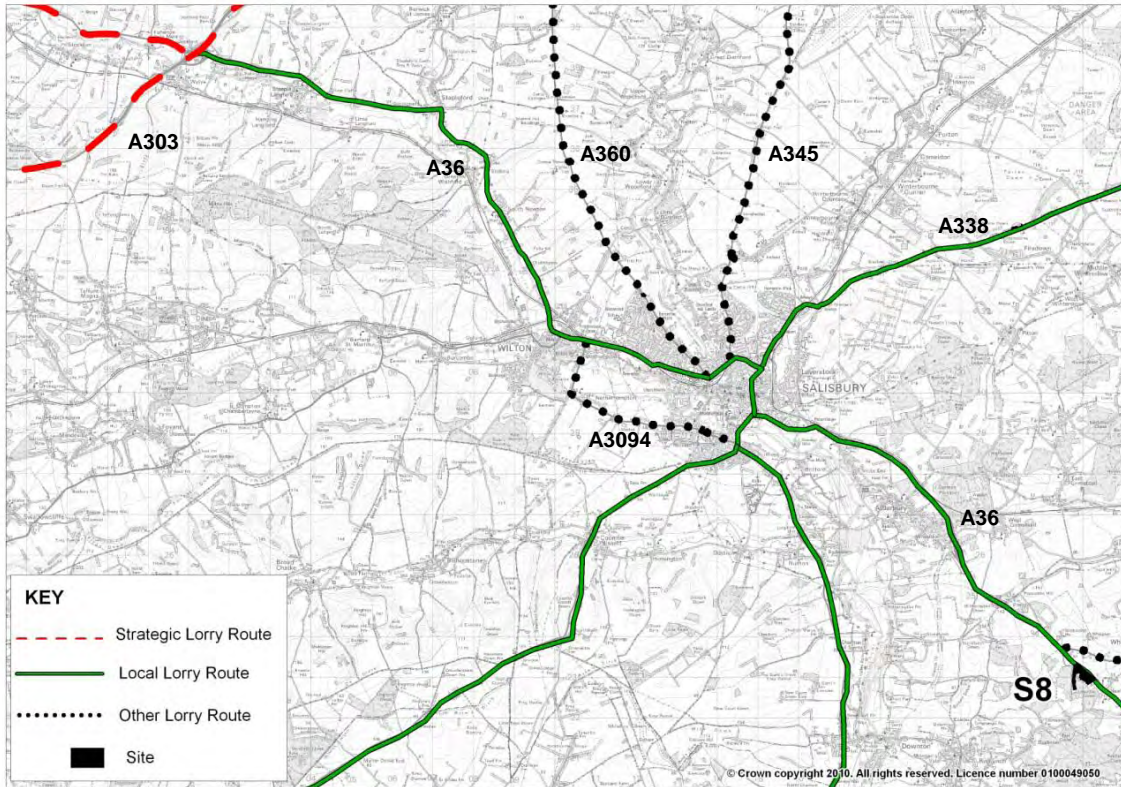
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is proposed to be used for inert waste recycling which would be associated with existing landfill operations. Any operation is likely to cease on or before completion of any permitted land filling operations. The site is allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.3.8.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.3.8.5.1** shows that the site is located directly off the A36, a designated local lorry route. The nearest strategic lorry route is the A303 to the north accessed via Salisbury. The freight motorway (M27) is located 15km to the south via the A36.

Figure B.3.8.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for Inert Waste Recycling/Transfer (IWR/T) only.

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.3.8.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.3.8.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	

As the IWR/T operations will occur on an existing landfill, processing the inputs before they are deposited, there are unlikely to be additional transport movements over and above those associated with the existing landfill operations.

Assessment Suitability

Existing/Potential Access Junctions

The site is currently used as a sand quarry. The existing access to the site is directly from the A36 (T) via a signalised crossroads from which there is a gated access to the site. There are left and

right turn filter lanes into the site with good stacking capacity. The site access is considered appropriate for the proposed use.

Transport Environmental Impacts

The site is located on the A36. The nearest sensitive land use is the village of Whiteparish just off the A27, designated as an 'other' lorry route, and as such is to be used only when it is essential to gain access. The road is single carriageway with a 30 mph speed limit through the village where the road narrows as a result of on street parking outside residential properties that front the road. If access was taken via this route the impacts on the residential amenity of this settlement would be significant. Nevertheless it is unlikely that access via the A27 would be required given the north-south link provided by the A36.

Although there are some residential properties fronting the A36 to the south, these are largely set back from the road and existing HGV flows on the route suggest any impact is likely to be minimal. Providing HGVs are routed along the A36 the impact of the HGV traffic on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal.

Off Site Highway Network

The offsite highway network is unlikely to be unduly affected by the proposed operation as it is probable that there will be minimal transport movements over and above those associated with the existing landfill operations. If additional movements similar to those associated with a standalone facility were to occur, the Highways Agency would want comfort that the impact on Junction 2 of the M27 would not be material and as such a capacity assessment would be required.

Accessibility by Sustainable Modes

The site has very poor accessibility by non car modes.

Constraints

The main constraints identified at the site are:

- The site is a long way from the strategic lorry network to the north (A303 – 29km) and to the south (M27 - 14km);
- The potential impact at Junction 2 of the M27 should traffic generation be considerably above that associated with the existing landfill operations.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/S8/001** in **Appendix D**.

Mitigation

No mitigation required

Recommendation

The site offers the following advantages:

- The site is an existing landfill and as such the highway network and access is designed to accommodate HGV traffic;
- The site access is suitable for the proposed uses; and
- The site is accessed directly off a local lorry route.

The following issues/constraints have been identified:

- The site is located a long way from the strategic lorry network; and
- The potential impact at Junction 2 of the M27 should traffic generation be considerably above that associated with the existing landfill operations.

The site is considered appropriate for the proposed uses however it should be noted that the assessment has been largely based on the assumption that there will be limited additional traffic over and above those associated with the existing landfill operations.

B.3.8.6 Water Quality / Environment

NGR: 422960, 122990

Location: Whiteparish

Site Area: 17.32 hectares

Data Source: Landmark Envirocheck Report 30094728_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.8.6.1 - Brickworth Quarry and Landfill Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is a drain 297m south. The Whiteparish tributary located 663m east; flows south towards the River Blackwater, 2662m to the south of the site.</p> <p>The Whiteparish Tributary has an ecological classification in line with the Water Framework Directive as moderate⁵².</p>	<p>Impact on the tributaries of the Whiteparish tributary flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the tributaries of the Whiteparish tributary quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The Envirocheck lists the stratigraphy as Oldhaven, Blackheath Woolwich & Thanet beds (the Lambeth Group) which comprise mainly clay, sandy clay & silt with occasional fine sand layers.</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>

⁵² River Basin Management Plan South West River Basin District

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Hydrogeology: Groundwater – Hydrogeological Units	Site and surroundings are predominantly underlain by a secondary aquifer (Minor Aquifer) variably permeable.	Possible contamination of the secondary aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³).	Good working practices and EA guidance during construction.	Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is moderately vulnerable			
Hydrogeology: Groundwater – Direction of Flow	There is insufficient information to determine groundwater flow direction.	Not applicable.		
Discharges: Surface water – Discharge Consents	Four discharges of Sewage / to a tributary of the River Blackwater 700m east, 742m south east, 849m south east and 861m east	No risk to works.	-	-
Discharges: Groundwater – Discharge Consents	Two discharges of Sewage – final treated effluent, 489m south east and 666m north east.	No risk to works.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Discharges: Pollution Incidents	Farm effluent on footpath (1992); Category 3 (minor incident), 382m south, Oils-diesel, Category 3 481m north west.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	No abstractions within 1km of the site.	Not applicable.	-	-
Abstractions: Groundwater – Abstractions	One abstraction for general farming and domestic use 760m north.	Contamination of drinking water supply. Local private abstractions may exist (<20m ³).	Surface water drainage plan including runoff collection system and design of infiltration devices. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices – EA guidance during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Land Uses	<p>Historic Landfill: Whiteparish Sand Pit, accepting: industrial, commercial, household waste and liquid sludge, 20m east.</p> <p>There is a recorded landfill at a Sandpit on A36, accepting: household and trade waste, 98m north east.</p>	<p>Risk during construction of contaminated ground at site leading to contamination of aquifer or surface waters.</p>	<p>Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.</p>	<p>Geotechnical investigation and consultation to determine likely contamination issues.</p> <p>To be considered as potential contamination sources if any found during monitoring.</p>
Conservation Designations	<p>The New Forest National Park is 538m to the south of the site.</p> <p>The New Forest, 735m to south east has been designated a SSSI.</p>	<p>Contamination of an area of a protected landscape.</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Good working practices – EA guidance during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Consult with Natural England regarding how works may affect the SSSI.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p> <p>Surface Water Management Plan.</p>
Drainage: Current Surface	<p>The Drainage Authorities have been contacted with regard to the current</p>	-	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Water /Foul Drainage Systems – Capacity	capacities of the drainage systems and they are unable to supply information to inform this section.			

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of an Inert Waste Recycling and Transfer Station at **Brickworth Quarry and Landfill, Whiteparish, Wiltshire** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Secondary Aquifer and therefore there are potential groundwater contamination issues
- The site is at risk from pluvial and groundwater flooding
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.

B.3.9 Employment Allocation, Mere (Site Ref S9)

B.3.9.1 Introduction

The site extends to 4ha and is located on the western edge of Mere which is approximately 15 km south west of Warminster.

The site is Grade 2 agricultural land which extends beyond the northern and western boundaries of the proposed allocation. The employment allocation is located close to the A303 (HGV Route Network) which can be accessed by the B3092 to the west of the site. An agricultural gate provides the current access to the field. Norwood House and an Industrial Estate is located to the east of the site beyond which lies a residential area. The southern boundary is formed by the B3092 beyond which lies a field.

The site is located in proximity to a number of designated sites including the Cranborne Chase and West Wiltshire Downs AONB which is approximately 300 meters north of the site beyond the A303. Dead Maid Quarry SSSI and associated Wildlife Site is situated close to the adjacent industrial estate. Nor Wood South County Wildlife Site and an area of Ancient Replanted Woodland is within 100 meters to the north west of the site and Long Hill County Wildlife Site is approximately 300 meters to the north east of the site. There is a large SAM and 3 smaller SAMS within 1km east of the site.

The site is allocated in the adopted Salisbury Local Plan for employment development (Policy E12) and the area to the west of the site is allocated for housing development (policy H16). The emerging South Wiltshire Core Strategy does not propose any new land use designations in this area. The site is approximately 0.5 km to the west of the Mere Conservation Area.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, and change of use.

Reference: S2005/1079 Change of Use of land for the stationing of 6 static holiday caravans used for holiday letting on Land adjacent to Townsend Nursery, Mere, Warminster BA12 6JL

Reference: S/2003/251 Erection of 4 dwellings and alteration to existing vehicular & pedestrian accesses to Prospect farm, Land at Castle Street, Mere, Warminster BA12 6JW

Reference: S/2009/550 Extension of Bramley House Residential care Home to provide 10 bedrooms with ensuite facilities at Bramley House, Castle Street, Mere, Warminster BA12 6JN (approximately 2 miles from Employment Allocation, Mere)

Reference: S/2007/1105 Redevelopment of site including conversion of vacant listed building to provide 13 retirement homes on land at former Castle Hill Garage, Castle Street, Mere, Warminster BA12 6JL

Reference: Erection of 11 dwellings amendments to existing approval, Castle Hill Garage, Castle Street, Mere, Warminster BA12 6JE (in the village, approximately 5 miles from Employment Allocation, Mere)

B.3.9.2 Landscape and Visual Impact

Introduction

Compact site located at the western end of the rural town of Mere, adjacent to a small business park. The site is currently greenfield and used for arable crops. It is relatively well screened from Mere and the adjacent B3095 by mature vegetation; however it would be seen from a short stretch of the A303 to the west.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Blackmoor Vale and the Vale of Wardour

Key characteristics relevant to the site:

- A complex mosaic of mixed farming: undulating, lush, clay vales fringed by Upper Greensand hills and scarps.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Greensand Terrace

Landscape Character Area: Kilmington Terrace

Key characteristics relevant to the site:

- Flat aprons of land from which the dramatic chalk escarpments and hills rise.
- Dominated by arable fields of Parliamentary enclosure.
- Large geometric fields and open skies contrast with the smaller scale, enclosed landscape of the adjacent Wooded Greensand Hills.
- Upper Greensand geology giving rise to rich brown earth soils that have a high agricultural value.
- Land use is predominantly agricultural, including cereal cropping, grass rotations, dairy farming and stock rearing.
- Mixed woodland runs in discontinuous belts along the base of the chalk escarpment.
- Coniferous belts planted as game coverts.
- General absence of prehistoric earthworks in contrast to the surrounding chalk landscapes.

WCC judge the overall landscape condition of this landscape type to be 'moderate', due to the good condition of settlement but eroded biodiversity and landscape structure. The landscape is judged to have 'moderate' strength of character, due to its simple, open character with the weakening influence of settlement and transport corridors. The overall management strategy is to 'conserve' the open farmed character of the terrace with its distinct pattern of settlement and the contrast with the adjacent escarpment and 'improve' lost and/or declining features such as field boundaries and woodland.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- The Cranbourne Chase and West Wiltshire Downs AONB lies to the north of the A303, just north of the site.
- A public footpath runs up the side of Long Hill, to the north-east of the site
- The Monarch's Way long distance trail runs to the south of the site

Baseline Landscape Character and Features: Site Survey

Flat site at approximately 120m AOD, visually enclosed by low hill to the north-east and Nor Wood, a County Wildlife Site, to the north. The site is bounded by the B3092 to the south, which has a strong hedgerow boundary which screens views of the site during the summer months. South of the B3092 the parkland landscape of Zeals House includes mature roadside trees. To the east of the site, Dead Maid Quarry accommodates a small business park, its sunken situation and mature boundary trees meaning that the two sites are well screened from each other.

The site, and the wider field to which it belongs, is currently farmed for arable crops and has no built elements, although the site is allocated in the Salisbury Local Plan for employment use. There are no public rights of way over the site, although distant views of the site are likely from a public bridleway over Long Hill.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: High
Capacity to Accept Change: Medium

The site has a strong hedgerow and woodland structure, meaning it is well screened from the B3095 as well as the adjacent business park, during the summer months. From the north and west however, the site is visually more open and less able to accept change.

Potential Landscape Impacts

- Loss of hedgerows
- Loss of rural character
- Disturbance to flat topography in surrounding area

Potential Landscape Mitigation Measures

- Sensitive site planning so as to minimise loss of hedgerows and mature trees on eastern boundary, including careful access design.
- Planting of 15m+ wide woodland strip around facility, to link in with existing field pattern and mitigate views from surrounding rural area.

The following 'Broad Management Objectives' for the Greensand Terrace landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Improve the condition and character of hedgerow boundaries by thickening and replanting where lost, apply consistent management techniques and replacing hedgerow trees where over mature and dying.

Table B.3.9.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Users of footpath on Long Hill	Medium (0.5Km away)	Slight adverse	Screen planting around all site boundaries Minimise loss of existing hedgerows when designing site access
Residents of new housing development at western end of Mere (potential for winter views only)	High (but 0.5 Km away and majority of housing unlikely to have views)	No Change	
Users of B3095	Low	Slight adverse	
Users of A303	Low	No Change	
Employees of business park at Dead Maid Quarry (potential impact, winter only)	Low	No Change	

Summary: Residual Landscape and Visual Impacts

Compared to the majority of other sites, this is greenfield in character and to develop it for waste purposes would see a significant erosion of its rural character. Given that the site is allocated for employment use, however, it is likely that this character will change in any event. If the site was developed for business, and with careful siting of the proposed facilities away from the B3092 and adjacent industrial estate, and with the planting of additional screening vegetation, the residual adverse impact of the proposals would be slight - negligible.

Recommended further Landscape and Visual Surveys

- Visual survey from surrounding footpaths
- Night time visual surveys

B.3.9.3 Noise

Introduction

The site at Employment Allocation, Mere has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Household Recycling Centre;
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- Norwood House, located to the north of the B3092 and to the east of the allocated site.

The proposed site is located within land that is currently a Brownfield site and borders the B3092 to the south and farm land to the west and northern boundaries.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions of patchy cloud and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on the A303, which is located approximately 280m to the north, with an additional source of noise originating from road traffic on the B3092.

Consecutive background noise measurements were taken at the rear garden of Norwood house. The sound level meter was located in a free-field location at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.3.9.3.1 - Norwood House - Background Noise Levels (File #85)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:47:57	00:05:00	51.3	57.9	45.7	52.7	50.8	48.9
16:52:57	00:05:00	51.4	58.3	44.3	53.1	50.7	48.3
16:57:57	00:05:00	51.4	64.0	44.7	53.2	50.2	48.2
16:47:57	00:15:00	51.4	64.0	44.3	53.0	50.6	48.5

The average background noise level (LA90) at Norwood House is taken as being 48.5 dB.

Assessment Suitability

The site is adjacent to a residential property and existing industrial estate. With careful siting away from the south east boundary the site is deemed to be suitable for the intended uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required on the eastern and southern boundaries of the facility. The facility should be sited towards to the west of the allocation area and no closer than 120m to the nearest residential property. With careful siting and placing activities in buildings a greater area could be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.3.9.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

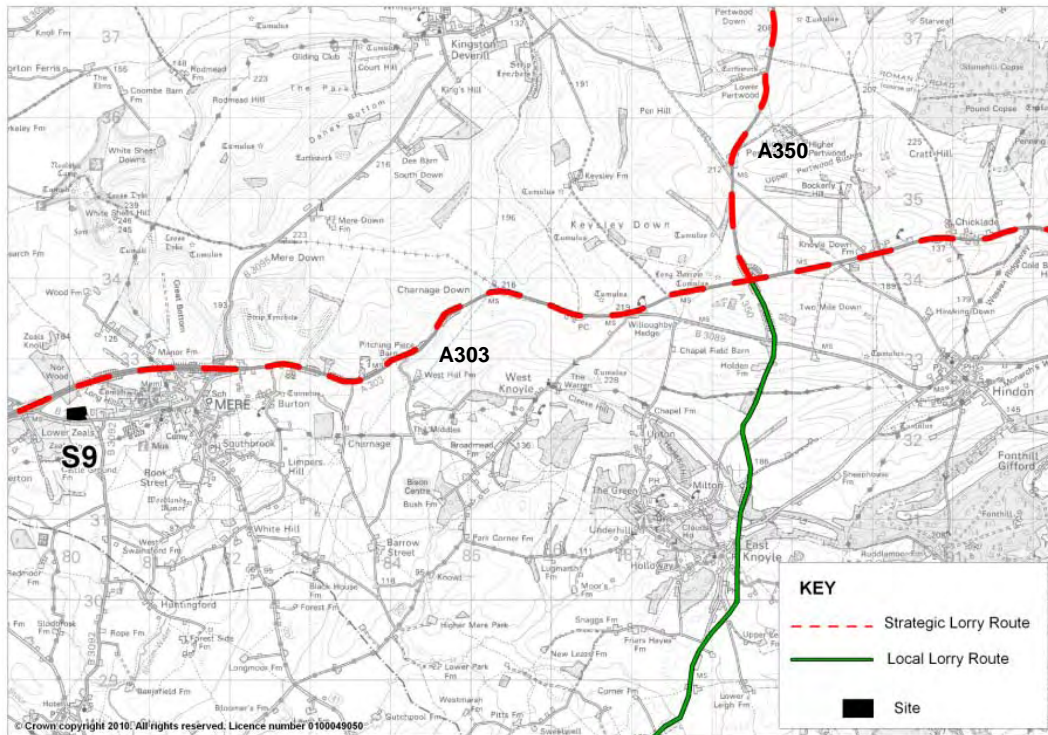
The 4 ha site is located off the B3092 to the west of the village of Mere. The site has been allocated as a local scale waste facility in the DPD. It is located approximately 1.5km west of the village centre, and 0.7km east of the A303/B3092 junction. The site is off the B3092 and adjacent to the Quarryfields Industrial Estate.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.3.9.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.3.9.4.1 shows that there is no existing access to the site. However, access would be taken off the B3092 which is not designated as a lorry route.

Figure B.3.9.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.3.9.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.3.9.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	12,000	70	by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The site currently has no access. However, access will be taken from the B3092 to the south of the site. The B3092 is subject to the national speed limit. The limit reduces to 30mph approximately 250m east of the site, west of the B3092/B3095 junction and the village of Mere. The B3092 is 7.5m wide near the site; however north of the A303 junction to the west, the road becomes narrow and difficult to navigate for larger vehicles.

It is proposed that the access is located towards the east of the site as this is the where the visibility is maximised when taking account of the curvature of the B3092. The proposed access would take the form of a priority T-junction with a right turn ghost island. DMRB53 requires a minimum visibility of 215m for this type of road which should be achieved by the approximate location of the proposed access provided vegetation is regularly trimmed back from the carriageway.

Transport Environmental Impacts

The site is located near to the village of Mere and is adjacent to an industrial estate and agricultural land/open space. There is also a large residential property located between the site and the industrial estate which is located 80m from the proposed site access.

The B3092 has a footway provided on the south side of the road. This is 1.8m in width and is to a poor standard, featuring numerous cracks and an uneven finish. There are no cycle facilities present. There are no crossings in the immediate vicinity and the land use of the area suggests that there is no existing demand for such a facility. The lack of width of the footway and speed of traffic make the use of the footway intimidating for users.

The routing of HGVs or large volumes of traffic through the village would deteriorate from the rural character of the settlement and therefore should be avoided.

Off Site Highway Network

The B3092 is connected to the strategic lorry network by the A303 which lies 0.7km west of the site and provides a dual carriageway bypass of Mere. The junction with the A303 takes the form of a grade separated junction with the westbound on/off slips located opposite each other to the south of the A303, and the eastbound slips located off a side road off the B3092 to the village of Zeal. The eastbound on slip is a priority junction, not a slip road, unlike the other three.

To the east of the village is an additional access point to the A303, which can be reached via the B3095. This provides access for westbound diverging vehicles and eastbound merging vehicles.

⁵³ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

However, the B3095 through the village centre has varying widths, often being narrow, and encounters a lot of on street parking.

From on site observations, traffic flows appeared to be relatively low in the area and on the B3092. Therefore, it is felt that capacity will not be an issue. Notwithstanding this, a junction capacity assessment would be required if/when development plans are finalised, to ensure the local highway network can accommodate the proposed traffic volumes.

Accessibility by Sustainable Modes

There are no bus stops in the immediate vicinity. The nearest bus stops are located on the B3095 towards Mere, 700m east of the site. There are no cycling facilities near to the site, whilst a footway is provided on the south side of the B3092, with a width of 1.8m.

Constraints

The main constraints identified at this site are:

- The proximity of the residential property to the site and specifically the proposed site access; and
- The impact of possible traffic routing via Mere village when coming from, or heading to the east.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/S9/001** in **Appendix D**.

Mitigation

It is recommended that a new site access is constructed towards the east of the site, taking access off the B3092. It is recommended that the proposed site access will provide a right turn ghost island to avoid delay for through traffic. Vegetation would require trimming to avoid obscuring the visibility at the site access, whilst traffic calming or speed reduction need to be considered. This can be in the form of either a speed reduction to 50mph which reduces the required visibility to 160m, or speed warning signs. An environmental weight restriction should also be considered for the village of Mere combined with appropriate routing agreements to avoid HGVs routing through the village along the narrow B3095.

An indicative access design is presented as drawing number **5044619.017/TP/S9/002** in **Appendix D**. It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. Also highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£30k** - for the new access; and
- **£120k** - for the right turn ghost island.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- It is located in close proximity to the strategic lorry network;
- The local highway network appears to have low levels of traffic; and
- The site is allocated as employment land.

The following issues/constraints have been identified:

- It is located adjacent to a residential property;
- The site is not accessible to those using sustainable modes of transport;
- A new site access is required; and
- The B3095 through Mere is narrow and unsuitable for HGVs.

In conclusion, the site is considered appropriate for the proposed uses. However, consideration is required of the mitigation measures as set out in this report, to ensure the site access is fit for purpose. Further investigation will be required to assess the visibility from the proposed site access, whilst consideration of speed reduction measures for the B3092 may be necessary.

B.3.9.5 Water Quality / Environment

NGR: 380090, 132310

Location: Mere

Site Area: 4 hectares

Data Source: Landmark Envirocheck Report 30094806_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.9.5.1 - Employment Allocation Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water features are the ditches either side of the A303 in Nor Wood, 200m north of the site. There is also a small pond 350m west of the site and a larger pond at Lower Zeals 400m south-west of the site.</p> <p>There are no nearby rivers that have been classified by the EA or the Water Framework Directive.</p>	<p>Impact on flow or runoff of contamination to watercourse – although closest water feature is not likely to be sensitive due to its location alongside A303.</p>	<p>Surface water drainage system including runoff collection system, utilisation of Sustainable Drainage Systems (SuDS) and foul drainage.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS⁵⁴ map indicates that the site is underlain by the Melbury Sandstone part of the Lower Cretaceous Upper Greensand Formation. The site is on the downthrown side of the Mere fault, which trends in East North East- West South West direction to the south of</p>	<p>Potential for a pathway to be created between contamination and the groundwater.</p>	<p>-</p>	<p>-</p>

⁵⁴ 1:50 000 Drift geological map (Sheet No. 297, Wincanton)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	the site.			
Hydrogeology: Groundwater - Hydrogeological Units	Site and surroundings are underlain by Primary (Major) Aquifer.	Contamination of aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations.	Surface water drainage system including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater - Source Protection Zone	Site is within a SPZ area 3 and adjacent to a SPZ area 2.	Contamination of drinking water supply.		
Hydrogeology: Groundwater - Vulnerability	Area is classified as being of intermediate vulnerability.			
Hydrogeology: Groundwater – Direction of Flow	No information available on direction of flow.	-	-	-
Discharges: Surface Water – Discharge Consents	Sewage discharge of final / treated effluent to stream (Slod Brook); 528m to south-west.	Not applicable.	-	To be considered during further assessment.
Discharges: Groundwater - Discharge Consents	Trade - agricultural and surface discharge; 544m to south. Sewage discharge of final / treated effluent to land /	Not applicable.	-	To be considered during further assessment.

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	<p>Soakaway; 535m to south-west, 596m to south-west, 736m to east.</p> <p>Non-water company sewage to land / soakaway; 800m to south-west.</p>			
<p>Discharges: Pollution Incidents</p>	<p>No pollution incidents recorded within 1km of the site.</p>	<p>No risk posed.</p>	<p>-</p>	<p>-</p>
<p>Abstractions: Surface Water - Abstractions</p>	<p>No surface water abstractions within 1km of the site.</p>	<p>No risk posed.</p>	<p>-</p>	<p>-</p>
<p>Abstractions: Groundwater - Abstractions</p>	<p>One private groundwater abstraction for a nursery, includes potable use; 603m to east.</p>	<p>Contamination of drinking water supply.</p>	<p>Surface water drainage scheme including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Flood Risk	The site is in Flood Zone 1 and on a shallow aquifer. The site is greater than 1ha.	There is no risk of fluvial flooding but changes in runoff could lead to an increase in the potential for pluvial flooding. The site is also on a shallow aquifer so there is a risk of groundwater flooding.	Use of SuDS, Surface Water Management Plan and infiltration device design.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Land Uses	Quarry Industrial Estate is immediately adjacent to the east of the site; includes manufacturing.	Risk during construction of contamination that has migrated to the site causing contamination of the aquifer.	Site Waste Management Plan and Pollution Incident Control Plan to be implemented by contractors.	To be considered as a possible source of contamination if any found during monitoring.
Conservation Designations	Cranborne Chase & West Wiltshire Downs AONB is present 200m north of the site on the far side of the A303.	Contamination of an area of a protected landscape designation.	Surface water drainage system including runoff collection system, utilisation of Sustainable Drainage Systems (SuDS) and foul drainage. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential risk to surface water flow and quality in terms of hardstanding, bunding, landscaping and ground level design. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
			storage areas, designated liquid handling areas etc.) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.	operating permit). Surface Water Management Plan.
Conservation Designations	Dead Maid Quarry SSSI, immediately adjacent to the east of the site, has been notified for geological reasons ⁵⁵ .	No risk posed.	-	Liaise with Natural England to ensure integrity of site will not be affected.
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

⁵⁵ http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003395.pdf

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of either a Household Recycling Centre, Materials Recovery Facility / Waste Transfer Station, or site for Local Recycling at **Employment Allocation, Mere** falls within the below category.

- Several / potentially significant issues identified – review further assessment requirements of waste site

This initial screening indicates:

- Surface water features within 1km of the site, therefore there is the potential for changes to their flow and quality
- The presence of a Primary Aquifer and SPZ 1 beneath the site, therefore there are potential groundwater contamination issues
- Pluvial and groundwater flood risk
- Potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

Further assessment will be required for flood risk, as well as any requirements the EA may have. Further assessment will also be required as designs are developed.

B.3.10 Former Imerys Quarry, Quidhampton (Site Ref S10)

B.3.10.1 Introduction

The site extends to 4 ha located to the north of Quidhampton approximately 3 km north east of Salisbury town centre. The site is a former quarry and processing plant with an established access directly onto the A36. The northern extent of the site is defined by the former quarry area beyond which is a school and sports field and the eastern boundary is delineated by Penning Road with a sport ground located beyond. The southern boundary is formed by a railway line and the A36 and the western limit of the site is a former railway sidings. There are a number of sensitive receptors in the area, including housing and secondary school to the east and north east of the site. There is no Public Rights of Way in proximity.

The site is located in proximity to a number of designated sites including the chalk pit which is a RIGS and the River Avon SAC / SSSI which is located 500m to the south of the site.

The site is not allocated in the adopted Salisbury District Local Plan although land to the north east of the site is identified as housing land (policy H8), and south of the site as housing land (policy H16).

The emerging South Wiltshire Core Strategy proposes the land use designation on the site as employment land (Core Policy 2)

A number of planning consent have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/2003/73 Demolition of existing flats and construction of 10 Residential dwellings, 83-101 Pinewood close SP2 9HZ

Reference: S/2007/1785 Demolition of public house and redevelopment of site for 100% affordable housing (14 no. 2) bed flats including car parking and access – Conquered Moon Public House, Woodside Road, Bermerton Heath, Salisbury SP2 9EE

B.3.10.2 Landscape and Visual Impact

Introduction

The site is a former chalk quarry located in Quidhampton to the west of Salisbury north of the A36.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Scattered copses and shelterbelts.
- Woodland confined mainly to valleys and steep slopes.
- Unimproved chalk grassland of high nature-conservation value.
- River valleys with frequent settlements and narrow floodplains, dominated by former floated flood meadows and meandering rivers.
- Steep scarps with unimproved grassland and woodland.
- Military structures

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: High Chalk Plain

Landscape Character Area: Salisbury Plain East

Key characteristics relevant to the site:

- Very large scale and open, exposed landscape.
- Rolling plateau land form with panoramic views over the surrounding lowlands creating a sense of elevation.
- Steep and incised slopes down to the surrounding river valleys.
- Copses and woodland belts, at various stages of growth occur throughout the area with sinuous older plantations contrasting with more recent tree planting in geometrical blocks.
- Rich ecology particularly the numerous extensive and intact areas of chalk grassland.

District Landscape Character Assessment: Kennet Landscape Conservation Strategy

Landscape Character Area: Salisbury Plain

Key characteristics relevant to the site:

- Salisbury Plain is bisected by the valley of the River Avon running from north to south which forms a separate landscape character area.
- Geology dominated by upper chalk

Landscape Designations and Rights of Way:

- No landscape designation
- No public rights of way

Baseline Landscape Character and Features: Site Survey

This site currently consists of a former chalk quarry. Access is provided via a ramped roadway across the railway line which sits in a cutting. An earth track runs alongside the eastern boundary up to a residential property to the north-east of the site, Beach Cottage. The site itself is enclosed via a high chain-link and concrete post fence with a combination of native vegetation.

A large residential area, Westwood, is located to the east of the site. However due to the characteristic undulating landform of the local area, only a limited number of properties have views across to the site. To the immediate west of the site there is an area of open ground, with

electricity pylons following a north / south alignment. To the west of this open ground there is a small MOD site, with associated buildings.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: High

The site has been significantly disturbed by the extraction of chalk. Due to the local landform the impact on the surrounding character has been minimal as there are very limited views into the site. The surrounding quality and condition of the landscape character could be described as moderate with residential properties and open undulating to the north of the site.

Due to its large size, current state of disturbance, the site would be able to accommodate a high degree of change. Additional mitigation measures may be required to ensure the minimal views of the site from the surrounding areas are retained.

Potential Landscape Impacts

- Reduced potential for the full restoration of the quarrying activity

Potential Landscape Mitigation Measures

- Sitting of facilities away from the A36 and ensuring surrounding properties are screened from any new buildings.

The following ‘Broad Management Objectives’ for the High Chalk Plain landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve the areas of chalk grassland, arable biodiversity, Juniper scrub and ancient woodland of high ecological value.
- Explore opportunities to reinstate buffer areas of chalk grassland around the arable fields but ensuring retention of arable interest.

Table B.3.10.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residents to the North East of site, Stanley Little Road	High	Low / negligible impact due to distance and intervening vegetation	Buffer planting to screen any new potential views, depending on level of development.
Drivers on A36, South of site	Medium	No Impact – site is well screened	
Properties on MOD Base – West of Site (0.5km away)	High / Medium	Views from receptor into site, Low / Medium due to distance	
Views from North	Moderate	Views from receptor into site	

Summary: Residual Landscape and Visual Impacts

Due to its enclosed position within the landscape and limited views into the site caused by the undulating landform, this site could accommodate change. Minor mitigation measures may be required depending on the level of development. This would ensure the limited views into the site are retained.

Recommended further landscape and visual surveys

- n/a

B.3.10.3 Noise

Introduction

The site at the Former Imerys Quarry, Quidhampton has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Household Recycling Centre;
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Local Scale Treatment.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- South of residential properties on Hazel Close, situated approximately 90m to the north east of the site boundary; and
- To the south of properties on the junction of the A36 and Foot’s Hill, located approximately 100m to the south of the site boundary.

The proposed site is located within land that is occupied by the former Imerys Quarry. The site is bounded to the south by a railway line in a cutting and furthermore the A36, and to the east by Penning Road. To the west and north of the site, the surrounding area is farm land and a school playing field, respectively.

Baseline

Background noise measurements were undertaken on 5th February 2010, with meteorological conditions clear and light southerly winds. The current noise environment around the allocated site is dominated by road traffic on the A36, and occasional trains on the railway.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.3.10.3.1 - Hazel Close - Background Noise Levels (#80)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:10:06	00:05:00	53.3	64.6	47.6	54.7	51.7	49.9
15:15:06	00:05:00	50.4	55.6	47.4	51.4	50.2	49.1
15:20:06	00:05:00	52.1	62.0	47.5	53.4	51.1	49.6
15:10:06	00:15:00	52.1	64.6	47.4	53.2	51.0	49.5

Table B.3.10.3.2 - Foot’s Hill - Background Noise Levels (#81)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:29:05	00:05:00	52.9	60.6	47.9	54.2	52.3	50.9
15:34:05	00:05:00	53.2	58.0	46.9	54.3	52.9	51.1

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:39:05	00:05:00	53.2	58.8	49.1	54.5	52.8	51.3
15:29:05	00:15:00	53.1	60.6	46.9	54.3	52.6	51.1

The average background noise levels (LA90) at residential properties on Hazel Close and on Foot's Hill are taken as being 49.5 dB and 51.1 dB, respectively.

Assessment Suitability

The site is a former quarry with residential dwellings to the north east, separated by Penning Road, and with residential dwellings to the south, separated by a railway and the A39.

With careful siting the site is deemed suitable with respect to noise.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required on the eastern and northern boundaries of the facility and the facility should be sited away from the eastern boundary, with a minimum separation distance of 150m between the proposed facilities and any residential dwelling. With careful siting and placing activities in buildings a greater area could be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.3.10.4 Air Quality and Odour

Introduction

The former Imerys Quarry is located to the west of Salisbury and is bordered by A36 to the south and Quidhampton to the east.

Potential uses include household recycling centre, materials recovery facility, waste transfer station, local recycling and local scale treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 14.6µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 10.9µg/m3 NO2 (standard 40µg/m3);
- 14.8µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are 600 properties including 2 schools within 500 meters of the site. River Avon System SSSI and SAC are located within 500 metres. This site may be affected if there is a change in NOx conditions due to the site.

Air pollutant sources within 500 metres of the site: road traffic from the A36 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. Existing quarry activities at site may cause dust emissions.

Table B.3.10.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (600 properties)	1	1	N/A	N/A	N/A	2	2
Residential within 250m only (130) Properties)	N/A	N/A	N/A	N/A	1	N/A	N/A
Ecological designation within 500 metres of site (River Avon SSSI/SAC)	N/A	1	1	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol high risk is limited to within 250m of the site</p>							

Mitigation

Dust and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

The risks associated with the potential uses of the site are low and only require minimal mitigation. No further assessment is required.

B.3.10.5 Transport

Introduction

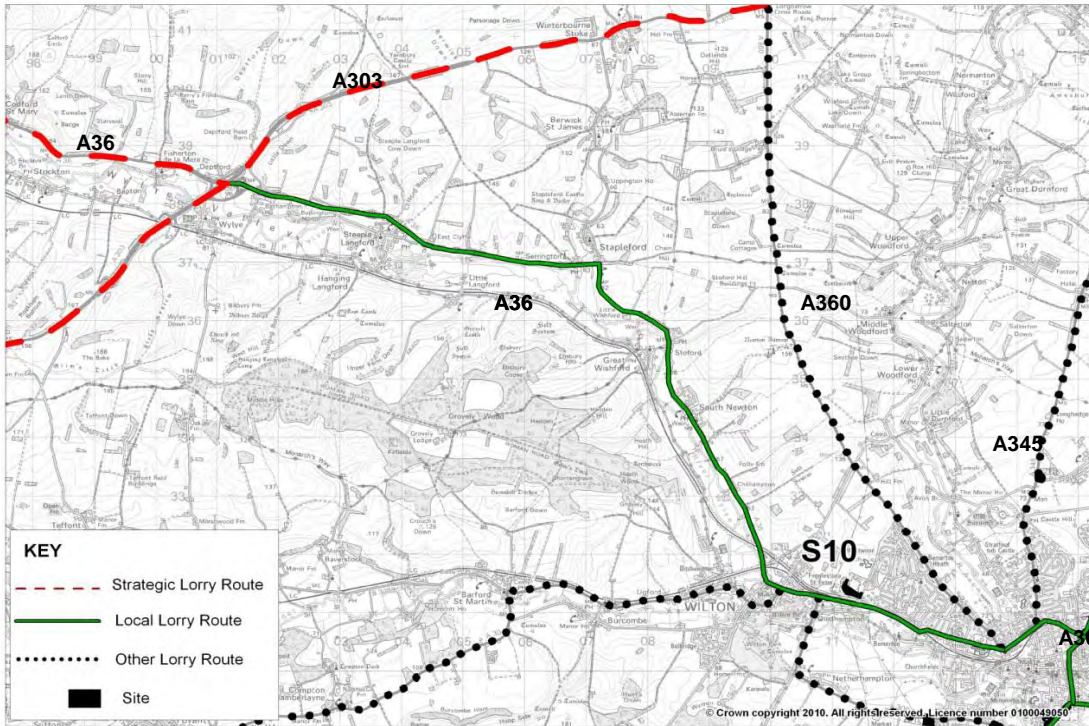
This technical note presents a review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is a former chalk quarry located to the north west of Salisbury and is accessed directly off the A36. The site is allocated for a local scale facility and is contained in the South Wiltshire Core Strategy as a potential employment allocation.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.3.10.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.3.10.5.1** shows that the site is accessed directly off the A36 which is designated as a local lorry route. The nearest strategic route is the A303 to the north of the site which can be accessed via the A36 to the west (local lorry route) or the A360 to the east, designated as an 'other' lorry route which should only be used where it is essential to gain access. Access to the strategic network from the east via a local lorry route can be gained via the A30 and A338.

Figure B.3.10.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Local Scale Treatment (T);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.3.10.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.3.10.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	45,000	285	AM or PM highway peak period.
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
	12,000	70	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
	At landfill site	No additional HGV trips	

Assessment Suitability

Existing/Potential Access Junctions

Access to the site is gained from the A36 via an unconventional on/off slip arrangement either side of the access leading to a narrow (3.4m) bridge over the railway line (**Figure B.3.10.5.2**). From the west, 2-way access/egress is via a 4.9m wide slip road. Egress via the westerly slip road, although permitted at present, is difficult due to the poor visibility brought about by the vertical alignment of the A36. Access via the easterly slip road (5.8m) is similarly permitted at present but difficult particularly for slow moving HGVs due to the vertical alignment of the A36 which reduces forward visibility. Egress from the site to the east is via the off slip with a requirement for vehicles to stop before joining the A36.

Figure B.3.10.5.2 - Existing Access Arrangements



Western on/off slip (view from site)



Eastern on/off slip (view from site)



Narrow Railway Bridge



Eastern on/off slip (view towards site)

The relatively high traffic flows on the A36 coupled with poor visibility on the approaches makes the existing access to the site unsafe in its current form.

Transport Environmental Impacts

From a purely environmental impact perspective it would be recommended that all access to the site would be from/to the west via the A36 leading to the A303 (strategic lorry route). Providing the routing of development traffic is taken via this route the impact on noise, vibration, severance or fear and intimidation for pedestrians would be minimal.

Should it be necessary for access to be gained from the east via the A360 or A345 then the impact on the residential amenity in Salisbury would be more significant. The route would pass through areas of dense population and sensitive land uses. A more appropriate route for access from the east would be via the A30 which is designated as a local lorry route.

Off Site Highway Network

The proposed uses are likely to generate traffic outside of the highway network peak periods (08:00 – 09:00 and 17:00 – 18:00). As such the impact of the proposals on capacity is likely to be minimal. If taken forward as a HRC the site will generate significant volumes of traffic on a Saturday that would coincide with the peak weekend traffic on the network. Whilst typically less than a weekday peak the traffic volumes on a Saturday can be high and as such the local junctions in and around Salisbury in particular (St Pauls Roundabout and Castle Roundabout), would require assessment.

Accessibility by Sustainable Modes

There are footways present on the south side of the A36 and bus stops are located outside the site access. The access by sustainable modes is considered to be sufficient for the proposed uses as typically it will not be appropriate for the site to be accessed by non car modes. Due to the narrow bridge into the site, access on foot would not be considered safe unless a dedicated pedestrian footway was provided.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan of the accessibility of the site is presented as drawing no. **5044619.017/TP/S10/003** in **Appendix D**

Constraints

The main transport constraints identified are:

- The access is unsuitable for the proposed uses. The non-restricted access and egress via the slip road arrangement (access and egress permitted from both east and west) is unsafe as visibility is well below standard for the speed and flow of traffic on the A36; and
- The one way access over the railway bridge is not appropriate for high volumes of traffic, most notably those associated with HRC operations.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/S10/001** in **Appendix D**.

Mitigation

It is recommended that the site is not used for operations likely to be accessed by the public (HRC) due to the infrastructure requirements necessary to accommodate the high traffic volumes associated with these facilities. For small scale MRF/WTS operations it is proposed that a left in/left out arrangement be implemented with all access to the site gained from the west and all egress from the site to the east (towards Salisbury). It is recommended that the speed of traffic on the A36 be reduced and enforced and warning signs implemented to make drivers aware that slow moving vehicles will be merging on to the A36.

An assessment of the suitability of the bridge over the railway line to accommodate the proposed number of HGVs will need to be undertaken both in terms of the standard of the structure and the likely requirement for vehicles to give way so as to ensure traffic will not back up to the A36. It may be necessary to either widen the structure or, more likely signalise the access over the bridge which must ensure that traffic does not back up to the A36. It may be considered that due to the operational requirements of the site that no improvements at the bridge are required and access will be self regulating.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£100k** – For left in/left out arrangement and modifications to slip roads;
- **£10k** – For warning signs and speed limit reduction; and
- **£50k** – To signalise access over the bridge (may not be required).

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the capital cost of undertaking the construction of the proposals.

Recommendation

The site offers the following advantages:

- The site is accessed directly off the A36 which is designated as an 'other' lorry route with relatively good access to the strategic lorry network; and

- The site is a previous quarry and as such has been deemed appropriate for HGV access in the past.

The following issues/constraints have been identified:

- The requirement for vehicles to use a narrow (3.4m) bridge over the railway line to access the site would make the site unsuitable for site uses that generate a significant volume of traffic without the need for costly bridge widening improvements;
- In its current form the access is unsuitable for the proposed uses as visibility on the A36 is restricted by the vertical alignment of the road;
- There is the potential for adverse impacts on the residential amenity in and around the Salisbury area;
- Off site access by sustainable modes is acceptable however on site infrastructure improvements in the form of footway provision on the railway bridge would be required (currently insufficient width for this provision).

It is not recommended that the site be used for facilities that will generate high volumes of traffic, notably a HRC facility that would be accessed by the public. The proposed site is considered appropriate for small scale MRF/WTS uses with consideration of the mitigation measures as set out in this report. It should be noted that the mitigation as set out in this report has been developed on the basis of purely waste uses on the site. As the site is allocated for potential employment use in the core strategy it may be that wider access improvements or new access points are required.

B.3.10.6 Water Quality / Environment

NGR: 411290, 131380

Location: Quidhampton

Site Area: 4.84 hectares

Data Source: Landmark Envirocheck Report 30094913_1_1 (8th Feb 2010) unless otherwise referenced

Table B.3.10.6.1 - Former Imery's Quarry, Quidhampton Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is a drain 254m to the south, the River Nadder is 439m to the South, the River Wylfe is 792m to the south west. The River Wylfe flows in an east-south east direction discharging into the River Nadder. The River Nadder flows in an easterly direction discharging into the River Avon.</p> <p>The EA identify that the River Nadder watercourse has a chemical and biological quality of Very Good and high nutrient levels.</p> <p>The River Nadder has an ecological classification in line with the Water Framework Directive of Good⁵⁶.</p>	<p>Impact on River Nadder flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on River Nadder quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site is underlain by backfilled workings which are underlain by the Upper Cretaceous Seaford Chalk Formation (a chalk with large nodular flint seams). The site is on the downthrown side of the Mere fault to the south of the site⁵⁷.</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment in terms of a pathway.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are underlain by Primary Aquifer (Major Aquifer).</p>	<p>Contamination of aquifer.</p> <p>Changes to the groundwater flow regime of primarily</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert</p>	<p>Environmental management during construction</p> <p>Determine monitoring requirements with EA</p>

⁵⁶ River Basin Management Plan South West River Basin District

⁵⁷ BGS 1:50 000 Drift geological map (Sheet No. 298, Salisbury)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
		shallow aquifers during construction if foundations intercept groundwater or if pumping is required for excavations.	waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA guidance during construction.	Produce working plan for site Review runoff treatment requirements Monitoring boreholes (may be required for obtaining operating permit)
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within a SPZ, however a SPZ I area extends up to 424m East of the site with SPZ II and III areas extending up to 322m east of the site.	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing south towards the River Nadder.	Not applicable.		
Discharges: Surface water – Discharge Consents	Wessex Water Services discharges storm sewage overflow/storm tank 688m to the south west.	Not applicable.	-	-
Discharges: Groundwater – Discharge Consents	There is one groundwater discharge consent on site operated by Imery's Minerals Ltd, for vehicle washing discharging to soakaway lagoon. Wiltshire County Council, discharge sewage to soakaway, 897m west and 975m north west.	Not applicable.	-	-
Discharges: Pollution Incidents	There have been no pollution incidents within 1km of the site.	Not applicable.		To be considered as possible source of contamination if any found during monitoring.
Abstractions:	There are no surface water abstractions	No risk posed.		-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Surface Water – Abstractions	within 1km of the site.			
Abstractions: Groundwater – Abstractions	There are: 2 abstractions for general/ process /mineral washing within 1km of site. 1 abstraction for sports grounds/spray irrigation within 200m of site. 1 abstraction for drinking, cooking, sanitary, washing within 200m of site. 1 abstraction for dairies /general use), within 1km.	Contamination of drinking water supply	Surface water drainage plan including runoff collection system and design of infiltration devices. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices – EA guidance during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	One historical landfill, 715m south east of site, licensed for inert waste. One Local Authority recorded landfill site, 889m south east, licensed for construction waste.	Mobilisation of contaminants during construction.	-	To be considered as possible source of contamination in terms of contaminated land, human health and controlled waters if contamination is found during monitoring.
Conservation Designations	Bemerton Heath and Barnard’s Folly Local Nature Reserve located 277m east of the site.	Contamination of an area of a protected landscape.	Surface water drainage plan including runoff collection system and infiltration device design.	Environmental Management during construction. Determine monitoring requirements with EA.
	River Avon System SSSI is located 254m south of the site. This site is also classified as a Special Area of	Potential contamination of an area of a protected	Consider limiting types of waste handled at site e.g. only solid waste, only inert waste	Consult with Natural England regarding how works may

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
	<p>Conservation (SAC).</p> <p>River Avon System SAC located 446m south of the site – this has candidate status.</p>	<p>ecological site.</p>	<p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p> <p>Good working practices – EA guidance during construction.</p>	<p>affect the SSSI.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p> <p>Surface Water Management Plan.</p>
<p>Drainage: Current Surface Water /Foul Drainage Systems – Capacity</p>	<p>The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.</p>	<p>-</p>	<p>-</p>	<p>-</p>

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Household Recycling Centre, Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility or a Waste Treatment site at **Former Imery's Quarry, Quidhampton** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is on a Primary Aquifer and therefore there are potential groundwater contamination issues
- The site is at risk of pluvial and groundwater flooding
- The River Avon SSSI is near the site
- There are some potentially contaminating land uses near the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

Further assessment and work that will be required includes flood risk assessment, surface water management plan and contamination assessment.

B.4 West Wiltshire

B.4.1 Hampton Business Park (Part of), Melksham (Site Ref W1)

B.4.1.1 Introduction

This Greenfield site extends to 7 ha and is located on the eastern fringe of Bowerhill approximately 11 km north east of Trowbridge. The site is part of a 12ha employment allocation known as Hampton Business Park and adjacent to the existing Bowerhill industrial estate. This greenfield site comprising of two elements, the northern part is a sports field and the southern part fields which are use for grazing by cattle. The site would be accessed via an accessed road form the adjacent A350. The sports ground and the fields are surrounded by hedgerows which provide some screening.

The site is not located in proximity to any designated sites. The site consists predominantly of semi-improved grassland fields (grade 3 agricultural land) and falls within flood zone 1 area. A public right of way crosses the site, running north to south and a non-segregated public footpath and cycleway also runs adjacent to the site, along the A350. The Kennet and Avon Canal is approximately 650 meters to the south of the site.

The site is allocated for General Employment (Policy E1) in the West Wiltshire District Local Plan and the emerging Wiltshire Core Strategy proposes to designate the site as a future employment area and identifies a substantial allocation for Housing / Mixed use to the north of the site.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: 06/02778/FUL Erection of B1 and B8 mixed use business units with access and parking on land south of Avro Business centre, Avro Way, Bowerhill, Wilts.

Reference: 06/01228/FUL Proposed new bulk retail unit on land south of 7 Lancaster Road, Bowerhill, Wilts

Reference: 07/02004/OUT Single Storey 2 bedroom dwelling on land west of 512 Semington Road, Wilts

Reference: 07/00552/FUL Erection of B1/B8 commercial unit and associated works on land east of A350 Devizes Road, Bowerhill, Wilts

Reference: W/09/03197/FUL Erection of multipurpose agricultural building (including livestock housing) on land at Boundary Farm, 620 Berryfield Lane, Melksham, Wilts SN12 6EF

Reference: W/10/00133/FUL (PENDING CONSIDERATION) Change of use of land with siting of associated container on land at 9 Lancaster Road, Bowerhill, Wilts.

B.4.1.2 Landscape and Visual Impact

Introduction

The site is located south of Melksham within the Hampton Business Park, off the A350. To the east of the site is the Bower Hill Industrial Estate. Opposite the A350 to the west is the recently developed Ashville Centre Business Park, part of the wider employment allocation known as Hampton Business Park. The site is currently greenfield, partially used as pasture for grazing (cattle).

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture
- Low ridges from which the frequent medium sized towns are viewed
- Wide river corridor with ancient pattern of flood meadows but much influenced by modern development

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Open Clay Vale

Landscape Character Area: Avon Open Clay Vale on the cusp of Minety Rolling Clay Lowland

Key characteristics relevant to the site:

- Level land form with wide open skies and views to ridges and downs
- Predominantly intensively managed permanent pasture with some arable
- Hedgerows, gappy or low flailed in places with sparse hedgerow trees enclose fields of varying size.
- Sections of the area remain rural and tranquil despite major routes through (M4).
- Buildings in varied material of brick, render and stone

Generally the condition of the landscape character area is considered by WCC to be 'moderate', with a 'moderate' strength of character.

The strategy for the area is to conserve the elements that contribute to the rural, tranquil landscape and improve elements in decline such as hedgerows and hedgerow trees

Landscape Designations and Rights of Way:

- A public right of way crosses the site in a zig-zag running north to south, with access out to the Bower Hill Industrial Estate. A non-segregated public footpath and cycleway also runs adjacent to the site, along the A350.

Baseline Landscape Character and Features: Site Survey

The proposed site is a flat area of greenfield and pasture, parcelled by degraded hedgerows with decaying hedgerow trees. To the west of the site, along the A350 is a public footpath / cycleway, separated from the site by a low embankment and timber post and rail fence. Near the south end of the site is a roundabout to the A350 with a potential future turning into the site.

East of the site is the Bower Hill Industrial estate, a collection of large industrial sheds, many in disrepair with broken windows and rusting metal siding, and newer low brick offices. Between the site and Bower Hill are brownfields of rough grass and scrub. Rusting wire mesh fencing topped with barbed wire runs along the brownfield boundaries. To the north of the site is a private golf course accessed from Bower Hill Industrial Estate.

The site is fairly well contained to the east, however is open to the major traffic route of the A350 to the west with long views to the north and south. The area is urban / urban fringe in character with a mix of new commercial development and run down industrial units.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor
Capacity to Accept Change: High

The site is an isolated, exposed area within a partially run down urban / urban fringe setting. There are several significant landscape detractors in the vicinity of the site and it has no connection to the wider landscape character. As such, the site has a poor landscape character. Development in this area would have no impact on the overall landscape character due to the isolated nature of the site, and existing surrounding land uses. Therefore the site has a high capacity to accommodate change.

Potential Landscape Impacts

- Further erosion of the rural character and setting

Potential Landscape Mitigation Measures

- Facilities to be small to medium in scale, in keeping with an agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and repair rural character

The following 'Broad Management Objectives' for the Open Clay Vale in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Retain and manage the hedgerow network and nurture new hedgerow trees
- Promote appropriate management of arable land including retaining area of fallow land and maintaining an unploughed margin around fields
- Minimise small scale incremental change such as signage or fencing which could change the rural peaceful character of the landscape
- Ensure both future construction and changes to existing buildings are designed to integrate with the existing character and structure of settlements
- Screen views to intrusive urban edges through planting new woodland

Table B.4.1.2.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Public Footpath / Cycleway Users	Medium	Moderate adverse	Facilities to be in keeping with an agricultural style

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Golf Course Users	Medium	Moderate adverse	Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
A350 Road Users	Low	Slight adverse	
Ashville Centre Business Park	Low	Slight adverse	
Bower Hill Industrial Estate	Low	Slight adverse	

Summary: Residual Landscape and Visual Impacts

Due to the disconnection of the site from the wider rural landscape character and existing adjacent land uses the site has a high capacity to accommodate change. There are no landscape or visual receptors in the vicinity with a high sensitivity to change within the site. The main visual impacts could be almost entirely mitigated through sensitive facility design and screen planting.

Recommended further Landscape and Visual Surveys

- Completed

B.4.1.3 Transport

Introduction

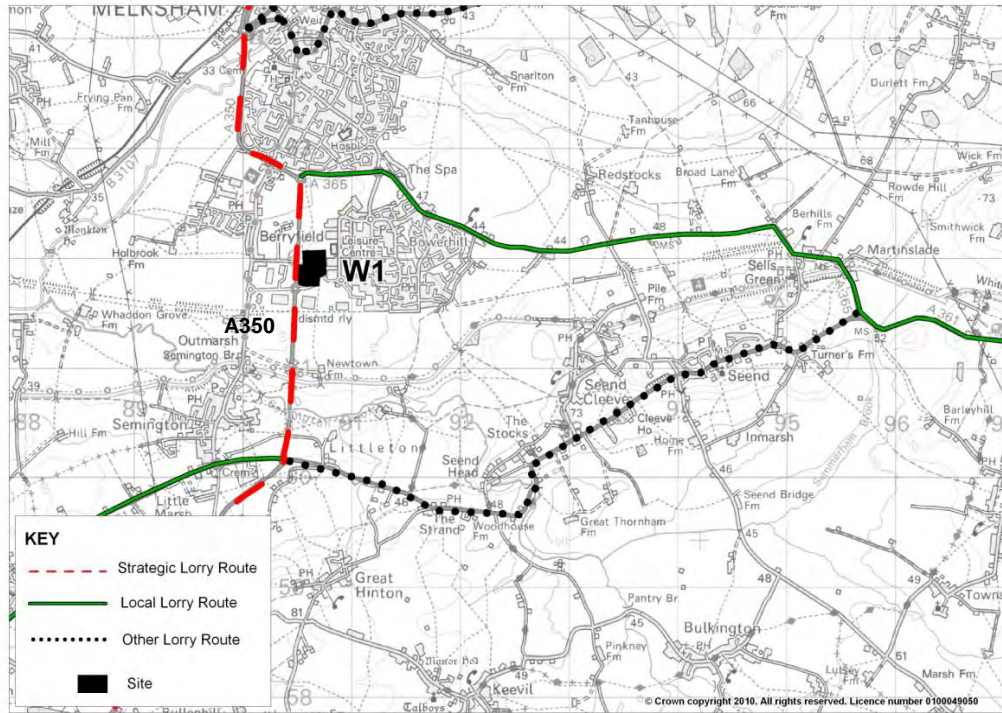
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

The site is sandwiched between the A350 to the west and Bowerhill Industrial Estate to the east. The site is located on an area of vacant land. Land to the south of the site has recently been developed into B2 & B8 employment type use.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.1.3.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.4.1.3.1** below shows that the site is located adjacent to the A350, a Strategic Lorry Route.

Figure B.4.1.3.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Treatment (T);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.1.3.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.4.1.3.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Assessment Suitability

Existing/Potential Access Junctions

Whilst no formal access to the site is currently provided, there is potential for direct access to the site from the A350 via an existing access road from the nearby roundabout. This four-arm roundabout provides an access to a new B2 & B8 employment area from the A350. This existing employment area is located to the south of the access road with the proposed site to the north of the access road. This newly constructed access road provides the most direct link between the site and the Strategic Lorry Route.

The access road is 10 metres wide with a right turn ghost island into the B2/B8 employment area. 3.0m wide footways are provided on both sides of this access road. To the east of the B2/B8 employment site and the proposed site the access road becomes a ‘stub’ providing no through route to the Bowerhill Industrial Estate. This access stub may link the access road to the Bowerhill industrial estate in the future.

Transport Environmental Impacts

Bowerhill lies to the east of site, Melksham to the north, and Semington to the south. The impact on these settlements is likely to be insignificant due to the direct access to the Semington to Melksham bypass (A350), which will reduce the impact of the development on these local settlements. It should however be ensured that the Semington Road is not used as an alternative to the A350. A pedestrian crossing currently exists across the A350 on the northern arm of the roundabout. This pedestrian crossing limits severance caused by the A350 by linking the site to the west.

Off Site Highway Network

The access road, which runs along the southern boundary of the proposed site currently, forms the eastern arm of a four-arm roundabout with the A350. This access road therefore provides very good links between the site and the Strategic Lorry Network (A350).

The A350 is a single carriageway road with a speed limit of 60mph.

Accessibility by Sustainable Modes

Very good wide footways are provided along both sides of the existing access road. These footways link to the A350 via a formal pedestrian crossing. Good pedestrian links are therefore provided towards the west of the site and there is potential for good pedestrian links to the east.

Bus stops are located about 400 metres to the west of the site and about 700 metres to the east of the site.

Despite there being good sustainable links to the site which may be appealing to staff it is unlikely that visitors to the site will use sustainable modes of transport.

Constraints

The main constraints identified at this site are:

- There is currently no formal access into the proposed site;
- Some newly constructed lamp columns may need to be relocated along the access road to allow access into the proposed site;
- The site is currently vacant land and therefore does not currently have any existing industrial/employment uses (i.e. no HGV infrastructure exists within the site boundary; and
- Potential capacity problems on the A350 and therefore a Transport Assessment would be required.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/W1/001** in **Appendix D**.

Mitigation

A new formal access would need to be constructed between the existing access road and the Greenfield site.

An indicative access design is presented as drawing number **5044619.017/TP/W1/002** in **Appendix D**. It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. Also highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

The only off-site mitigation measure that could be considered would be to link the site to the eastern industrial estate (Bowerhill Industrial Estate). This would require an extension of the existing access road, linking it to the existing roundabout located in the south-western corner of the Bowerhill site. This extension should provide links for both vehicles and pedestrians. However, this link may form part of other development proposals in the area and would benefit the Bowerhill Site more than this site. Therefore, this mitigation is not a requisite for the proposal to provide any type of waste facility on this grassland.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- £30K - to provide a new formal priority access (note: this cost only includes for the provision of a bell mouth access and therefore additional costs will arise in terms of extending the access into the site); and
- £150K - to link the site to the eastern industrial estate (note this mitigation is not required for this site but may be constructed as part of larger developments plans in the area).

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- There is potential for direct access to the site from the Strategic Lorry Route Network;
- A waste type facility site will fit in well with the local land uses, which is currently made up of industrial / warehouse type employment uses; and
- Very good pedestrian facilities are provided to the site from the west.

The following issues/constraints have been identified:

- A formal access will need to be provided;

- Lamp columns that currently run along the southern boundary of the site may need to be removed or relocated to allow access to the proposed site;
- The site is currently vacant land and therefore does not have any existing industrial/employment uses (i.e. no HGV infrastructure exists within the site boundary; and
- The capacity on the A350 junctions in the vicinity of the site, although unlikely to be unduly affected by the proposals would require capacity assessments as part of a Transport Assessment; and
- No pedestrian access is currently provided between Bowerhill (to the east) and the site. The site is therefore ideally located, in transport terms, with very good links for HGVs to access the wider strategic highway network without impacting on any local settlements.

In conclusion, the proposed site is considered appropriate, in transport terms, for the proposed uses with consideration of the mitigation measures as set out in this report.

B.4.1.4 Water Quality and Odour

Introduction

NGR: 390640, 161910

Location: Melksham

Area: 7.2 hectares

Data Source: Landmark Envirocheck Report 30096908_1_1 (8th Feb 2010) unless otherwise referenced

Table B.4.1.4.1 - Hampton Business Park Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Hydrology: Surface Water – Flow and Quality	<p>There is a small pond within the site at the south-eastern corner, and a ditch associated with the road c. 15m away to the south at its nearest point.</p> <p>There are a number of small ponds mainly between 250m and 500m to the west.</p> <p>The Kennet & Avon Canal is 800m to the south, with good overall and ecological status and a chemistry score of A - very good.</p> <p>Berryfield stream (biology score A – very good) is 480m north-west.</p>	Potential for contamination of ditches and ponds during construction and operation.	<p>Surface water drainage scheme including runoff collection system and Sustainable Drainage Systems (SuDS).</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and to include good working practices, and Environment Agency Pollution Prevention Guidelines (EA PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
Geology: Stratigraphy	The BGS ⁵⁸ map indicates that the site comprises of superficial deposits of gravel sand and clay underlain by the Upper Jurassic Oxford Clay Formation. The Trowbridge Fault has a NE-SW trend and lies directly south of the site.	Potential for a pathway to be created between contamination and the groundwater.	-	To be considered during further assessment.
Hydrogeology: Groundwater – Hydrogeological Units	The site is on a Secondary (Minor) Aquifer.	Contamination of aquifer. Changes to the groundwater flow regime of primarily shallow aquifer during construction if	<p>Surface water drainage scheme including runoff collection system and design of infiltration devices.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p>

⁵⁸ 1:50 000 Drift geological map (Sheet No. 281, Frome)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
		pumping required for excavations.	bunded storage areas, designated liquid handling areas etc.) and including good working practices and EA PPGs during construction.	Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan. Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Source Protection Zone	The site is not on or near a SPZ.	No risk posed to public water supply; but local private abstractions may exist (<20m ³ per day).		
Hydrogeology: Groundwater – Vulnerability	The vulnerability of the aquifer beneath the site is low, although it is intermediate 200m west of the site			
Hydrogeology: Groundwater – Direction of Flow	No information available on direction of flow.	-		
Discharges: Surface Water - Discharge Consents	Water company storm overflow; to Berryfield Stream, 271m north-west; to Berryfield Brook, 490m north-west. Water company final / treated effluent; to Berryfield Stream, 372m north-west. Final / treated effluent; to River Avon, 847m south-west. Trade discharge; process effluent to Berryfield Brook, 357m north; process effluent to Berryfield Stream 451m south-east; agricultural and surface discharges to tributary of River Avon, 830m north-east.	Not applicable.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	Final / treated effluent; to groundwater, 468m south-west.	Not applicable.	-	To be considered during further assessment.
Discharges:	A category 3 (minor) incident to	Not applicable.	-	To be considered as potential

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Pollution Incidents	controlled waters involving inert sands, 659m west.			pollution source if contamination found during investigation.
Abstractions: Surface Water Abstractions	There are no registered abstractions within 1km of the site, although as abstractions of less than 20m ³ / day do not need to be registered these may be present in the area.	Contamination of potable water supply.	SuDS, surface water management scheme, infiltration devices. Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) and including good working practices and EA PPGs during construction.	Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan. Monitoring boreholes (may be required for obtaining operating permit).
Abstractions: Groundwater Abstractions				
Flood Risk	The site is in Flood Zone 1, is greater than 1 ha, and is underlain by a shallow aquifer.	There is no risk from fluvial flooding however there is a risk of changing surface water runoff causing pluvial flooding. The shallow aquifer also means there is a risk of groundwater flooding. Flooding could interrupt site operations and cause pollution to spread from the site.	Surface water drainage scheme and SuDS design to control runoff.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Land Uses	There is a waste transfer site 50m north-east taking household, industrial and commercial wastes; and one taking non-biodegradable waste 220m east. These are located in Bowerhill Industrial Estate which is adjacent to the site, along with a number of other industries including manufacturing and engineering.	There is a risk that contamination from these sites has migrated to the waste site – potentially causing contaminated runoff during construction earthworks that will leach through to the aquifer or enter surface waters.	Site Waste Management Plan and Pollution Incident and Control Plan to specify how excavated material will be handled, stored and disposed of.	Geoenvironmental Investigation and consultation to determine extent and nature of waste or contamination, if any. To be considered as a potential source of pollution if any is found during monitoring.
Conservation Designations	There are no statutory conservation designations within 1km of the site.	No risk posed.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Material Recovery Facility / Waste Transfer Station, Local Recycling centre or Waste Treatment site at **Hampton Business Park, Melksham** falls within the following category:

- Few significant issues identified

The initial screening indicates that:

- There are surface water courses within 1km of the site therefore there is the potential for changes to their flow and quality
- There is a Secondary Aquifer beneath the site and therefore there are potential groundwater contamination issues
- There is a pluvial and groundwater flood risk
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

Further assessment which will be required includes flood risk assessment, surface water management plan and a contamination assessment.

B.4.2 West Wilts Trading Estate, Westbury (Site Ref W2)

B.4.2.1 Introduction

The site extends to 68 ha and is located 1 km to the north west of Westbury approximately 6 km south of Trowbridge. The site a large established trading estate which encompasses many uses including some small scale waste uses, processing industries, light industrial uses and car sales. The estate has two existing access points to the estate, one of the B3097 Hawkeridge Road and via a roundabout off Storridge Road.

The northern boundary is defined by hedgerows and tree belts beyond which lies agricultural land and to the east by Hawkridge Road and a small number of properties located on this road. The site is flanked to the south by The Ham and properties located on Hawkeridge Park and to the west by Storridge Road and Storridge Farm. The local railway line is located approximately 500-600m from the east and south boundaries of the site beyond which there are residential areas to the south east of the site. The south west boundary of the site is adjacent to Biss Brook and part of the western area of the site lies within Flood Zone 2.

The site is in proximity to a number of designations these include a number of County Wildlife Sites within 1km of the site and Picket Wood and Clanger Wood SSSI 1.1km to the east of the site. The Blue Circle Cement Works RIG is approximately 1.6km to the east of the site. Areas of ancient woodland lie approximately 1km to the north east of the site and 0.8km to the west. There is a SAM in the centre of the site and two SAMs are situated approximately 0.6km to the south west of the site. The South West Nature Area is situated approximately 0.8km to the east and 0.3km to the west of the site.

The site is allocated for General Employment (Policy E1) in the West Wiltshire District Local Plan and the emerging Wiltshire Core Strategy proposes to designate large area to the east, south and west of the industrial estate for future employment area.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: 06/03401/OUT Residential development on land adjacent to 25 Hawkeridge Park Westbury, Wilts

Reference: 07/03398/FUL Conversion of existing flat to two bedroom flats and new building of one bed flat all 1st floor level on land at 50 The Ham, Westbury, Wilts BA13 4HD

Reference: 07/03274/FUL Proposed demolition of existing engineering workshop, bungalow and FLT charging area with the construction of new unloading area and loading dock along with the two new accesses.

B.4.2.2 Cultural Heritage

Introduction

The West Wilts Trading Estate comprises an area 68ha. It is a post-World War Two development on the outskirts of Westbury, which between 1947 and 1972 had been the site of an extensive poultry farm with buildings and associated roads covering much of it with the exception of the eastern side, which remained as open fields. Prior to this the site had been open farm land probably associated with Storridge Farm on the west side, the former Biggs’s Bush Farm in the east and the former Lodge Wood Farm on the north-east side, both now disappeared. In more recent times the site became a trading estate with business and industrial buildings gradually replacing the farm buildings. Open areas on the site have gradually been infilled with new buildings up to the present day and now only one or two areas at the eastern edge of the site remain as undisturbed grassland. The site is bounded to the north, east and west by open agricultural land with a few small areas of woodland. Brook Hall lies within 250m to the north too, and comprises three Listed Buildings and undesignated earthworks associated with the remains of the earlier manor house. The south side comprises mainly the more recently established Northacre Industrial Park, though there is also one Listed Building, Storridge farmhouse on the site’s southern boundary.

There is one designated heritage asset within the site boundary, which is recorded on the Wiltshire Council Sites and Monuments Record (WSMR) and the National Monuments Record (NMR). Scheduled Monument (**W2-a**) comprising the remains of a homestead moat with earthwork banks and a well-defined building platform accessed in the centre of the south arm of the moat. It is probably the Medieval precursor to Brook Manor. It is located at the centre of the site and bounded on all sides by buildings and associated parking, roads and other infrastructure such that its setting is entirely restricted to the boundary of the Scheduled Monument itself.

There is one undesignated asset, a former medieval deer park (**W2-v**), the boundary of which encompasses much of the present trading estate. No physical evidence of the park survives.

There are several Listed Buildings within the study area; in the north-west, a Grade I 15th century wing of Brook Hall (**W2-e**) and two Grade II buildings associated with the present farm (**W2-d** and **W2-f**), Grade II Storridge farmhouse (**W2-c**) close to the southern site boundary and three Grade II buildings north and north-east of the site (**W2-g**, **W2-h** and **W2-i**). A number of undesignated archaeological sites are recorded within the 500m study area surrounding the site which date from the Prehistoric period through to recent times.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique asset number (i.e. **W2-a**, **b**, **c**, etc). A full methodology for the assessment of cultural heritage issues reported in this document is set out in Chapter 3.

Designated Heritage Assets within the Site

There is one designated asset within the site, Scheduled Monument (**W2-a**)

Table B.4.2.2.1 - Designated Heritage Assets within the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W2-a	<i>Medieval moated site. This</i>	ST85SE451	<i>Scheduled</i>	ST8568,5286

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	<i>comprises the remains of a homestead moat with internal and external bank surviving as a roughly rectangular enclosure aligned north-west – south-east with an internal dimension of c.100m². The island contains a well-defined building platform accessed in the centre of the south side of the moat. On the south-west side the moat is 17m wide and 1.7m deep. It has a leat at either end carrying water from the Biss Brook. The moat is likely to be the precursor of Brook House and may have been abandoned in the 13th century when a deer park was created (W3-v).</i>		<i>Monument</i>	

Designated Heritage Assets within or close to Study Area

There is one Grade I Listed Building (W2-e) and six Grade II Listed Buildings (W2-c, W2-d, W2-f, W2-g, W2-h and W2-i) within the study area

There are no other designated assets within the study area, though the Scheduled former Medieval settlement of Brook (W2-b) lies just outside it and to the west of Northacre Industrial Park

A small part of the western side of site lies partially within an Area of Archaeological Interest.

Table B.4.2.2.2 - Designated Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W2-c	<i>Storridge farmhouse, Westbury. Mid 19th century 2 storey red brick house. Model-type farmyard and farm buildings. Considered the best of a number of model-type farmhouses in Westbury.</i>	313156	<i>Grade II Listed; Area of Archaeological Interest</i>	ST85295262
W2-d	<i>Brook Hall, a farmhouse dating c. 1600 and altered late 18th century. A two-storey building of coursed rubble with a stone slate roof</i>	313820	<i>Grade II Listed; Area of Archaeological Interest</i>	ST85065343
W2-e	<i>Early wing at Brook Hall. 15th century, now an outbuilding and wing of the farmhouse. Two-storey building of eight bays in coursed stone rubble with a tiled roof. Probably built as a first floor hall house, reputedly for Robert Willoughby, created Baron de Broke by Henry VII in 1491.</i>	313819	<i>Grade I Listed; Area of Archaeological Interest</i>	ST85065346
W2-f	<i>Barn at Brook Hall, probably late 17th century. A seven bay, timber-frame clad structure with weatherboarding and tiled roof.</i>	313821	<i>Grade II Listed; Area of Archaeological Interest</i>	ST85105345

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W2-g	<i>Court Farmhouse. A late 17th century building of rendered brick and tiled roof. Two-storey with attic in two parallel ranges. Late 19th century rear range and 20th century alterations to casements and dormer.</i>	313826	Grade II Listed	ST85935363
W2-h	<i>Number 5, Heywood Hawkeridge. A semi-detached cottage with a datestone of 1741 at the front. Two-storey building of brick with pantiled roof.</i>	313824	Grade II Listed	ST86315370
W2-i	<i>Hawkeridge Farmhouse. Now a detached house. It dates to the mid-17th century and was extended in the 1860s. It is a two-storey building on a T-plan, built of rendered brick with Welsh slate roof.</i>	313825	Grade II Listed	ST86645341

Heritage Assets within the Site

There is one recorded non-designated heritage assets within the site.

Table B.4.2.2.3 - Heritage Assets within the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W2-v	<i>A former medieval deer park, mentioned as early as 1323. Leland also later mentioned a “fayre park and fine greyned oaks”. It was disparted by 1582 and sub-divided.</i>	ST85SE474	Area of Archaeological Interest	ST85485304

Heritage Assets within or close to the Site

Table B.4.2.2.4 - Heritage Assets within or close to the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W2-b	<i>Medieval settlement and associated field-systems west of Brook Farm. This scheduled monument falls into two separate areas of protection comprising medieval settlement of Brook, a manor house site and the field systems 2km west of Westbury. The settlement is centred around a north – south hollow way, fronting on to which are a series of house platforms. To the north there is a series of large rectangular paddocks defined by ditches and banks. A large platform south of Brook Lane is the site of a manor house which is depicted on 18th century maps of the area. Other features are probably associated</i>	<i>ST85SE453 Much of the extent of these remains fall within the Scheduled Monument though cropmarks and other earthworks lie outside the designated areas. Cropmarks</i>	SM34182/01-02	ST85265181

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	<i>with formal gardens, strip fields and a headland. The settlement of Brook is first recorded in 1228 but by the 18th century had shrunk to a single large house.</i>	<i>also lie within the site which be the buried remains of associated field-system ditches or boundaries.</i>		
W2-j	<i>A selection of artefacts dating from the Neolithic comprising a greenstone axe, bone gouge and bead, 15 sherds of Bronze Age pottery and a number of medieval sherds found on field surface and during a small evaluation in 2000.</i>	ST85SE101; ST85SE155; ST85SE465	None	ST86355242 ST86345233 ST86345233
W2-k	<i>A selection of artefacts on the former Westbury Ironworks site discovered during mineral extraction comprising a single Neolithic diorite axe and Iron Age saddle querns, pottery, a bone comb and a silver coin of the Dobunni.</i>	ST85SE100; ST85SE200	None	ST86325228
W2-l	<i>The remains of a Roman period settlement site discovered during the 19th century and poorly recorded. Finds include pottery, coins and brooches, querns, loom weights all dating between 1st – 4th centuries, and human remains. An evaluation in 2000 demonstrated that the majority of the site had since been destroyed by later quarrying and railway works. The central and northern parts may survive better.</i>	ST85SE300	None	ST86445249
W2-m	<i>A former Roman well which contained coarse ware sherds, Samian sherds and an iron “object”. Discovered during mineral extraction.</i>	ST85SE301	None	ST86155219
W2-n	<i>An undated enclosure visible as a cropmark on an aerial photograph.</i>	ST85SW610	Area of Archaeological Interest	ST84305253
W2-o	<i>A single sherd of undiagnostic roman pottery was recovered during a watching brief for a flood relief channel in 2000.</i>	ST85SE319	Area of Archaeological Interest	ST85255219
W2-p	<i>A few sherds of Roman pottery were discovered in a watching brief during the construction of a water pipeline in 2002.</i>	ST85SE320	None	ST86275260
W2-q	<i>An archaeological evaluation was carried out in 2003 at Money Well to the east Glenmore Farm. A</i>	ST85SE322; ST85SE327;	None None	ST86575287

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	<p><i>Romano-British enclosure settlement was recorded along with a contemporary field-system. Two burials were recorded on the site. One, a small circular grave with the remains of an infant inhumation and the second a crouched adult inhumation. An Early Medieval bone pin-beater was also recovered in another trench. Linear features, ditches, pits and other settlement evidence and field-system evidence were recorded. Fills of some of the enclosure ditches were very rich in Roman period artefacts including Black Burnished wares. Other finds include a stone rubber, a cylindrical glass bead and a shale armlet fragment. Elsewhere another ditch had a number of fills, some rubbish dumps. A lot of pottery was again recovered from the dump deposits including colour coated wares and Samian as well as a glass vessel fragment and a 2nd – 3rd century alloy brooch.</i></p>	<p>ST85SE328; ST85SE404</p>	<p>None None</p>	
<p>W2-r</p>	<p><i>An archaeological evaluation in 2001 on land to the south-west of Hawkeridge Farm produced two residual Roman period sherds from one trench. A large pit, perhaps a quarry pit, was also recorded in the same trench. Post-medieval pottery was recovered from it.</i></p>	<p>ST85SE329; ST85SE539</p>	<p>None None</p>	<p>ST86405316 ST86405316</p>
<p>W2-s</p>	<p><i>A detailed plan of a post-medieval or later water meadow was made which demonstrated three sets of ridges and adjacent channels separated by other linear earthworks. Stone and brick structures were also present in the field some of which suggest a 19th century date. An archaeological evaluation revealed two medieval ditches in one trench, set at right angles. Both ditches contained fairly undiagnostic medieval pottery. Another trench contained a single ditch in which Late Saxon and Early Medieval sherds were recorded.</i></p>	<p>ST85SE402; ST85SE477; ST85SE529;</p>	<p>Area of Archaeological Interest</p>	<p>ST85315239</p>
<p>W2-t</p>	<p><i>Brooke House. A Late Medieval manor house and earthworks. It is on the site of Brook Hall, a Medieval manor house, some elements of which survive in the current fabric. Earthworks survive to the south-east and east of the house. A number of these represent the</i></p>	<p>ST85SE452</p>	<p>Area of Archaeological Interest</p>	<p>ST85195328</p>

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	<i>remains of house sites and possibly a formal garden. A significant building is recorded at this location on the Andrews and Dury map of Wiltshire, 1773 and it is probable that the earthworks are its remains. A series of house platforms and garden plots are recorded to the north of Brook Drove along the western edge of a hollow way. The main hollow way, trackway or village street runs through the site on a north – south alignment, with others running off it. The main hollow way appears to open out south of Brook Drove and this may be the remains of some form of village green. The former deer park (W2-v) is also associated with the former Brook Hall and was recorded as such in 1323.</i>			
W2-u	<i>Hauekerigge - a Late Medieval settlement that may survive as buried remains, though no earthwork remains are recorded. It is recorded in AD1249 and described as a Hamlet in 1368.</i>	ST85SE460	None	ST86185372
W2-w	<i>An undated series of linear cropmarks probably associated with earthworks found to the south-east of Brook Hall (W2-t).</i>	ST85SE618	Area of Archaeological Interest	ST85625346
W2-x	<i>Cropmark evidence of a small undated square enclosure with an annexe and a linear feature running to the north, west of Glenmore.</i>	ST85SE619	None	ST86325282
W2-y	<i>A probable modern cropmark feature resembling a square building foundation which may be the remnant of a 2nd World War PoW camp structure, now built over. Evidence of the camp's demolition recorded in a 2002 watching brief.</i>	ST85SE620; ST85SE621	None	ST86045234
W2-z	<i>A complex of undated earthwork features near Cutteridge Farm, some of which are clearly former field boundaries, some the results of quarrying activity and some possible house platforms.</i>	ST85SW605	Area of Archaeological Interest	ST84845360
W2-aa	<i>An undated field-system plotted from aerial photographs to the west of Hawkeridge Mill.</i>	ST85SE647	None	ST86385354
W2-bb	<i>An undated linear gully was recorded during an archaeological evaluation in 2000. A single flint and large piece of burnt limestone were</i>	ST85SE 651	Area of Archaeological Interest	ST85755186

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	<i>recovered.</i>			
W2-cc	<i>The remains of a Post-medieval fulling mill which in 1823 belonged to the Matravers of Westbury.</i>	ST85SE655	None	ST86715336
W2-dd	<i>Evidence of a Roman-British settlement at Ox Leaze Wood. Limited excavation in 1973 produced evidence of drystone walling, foundations and slag. Geophysical survey in 1997 revealed evidence of buildings and enclosures, one of which may be a villa site. There may be up to five buildings in total. The main building is approximately 40m long and 15m wide. Sub-divisions suggest the presence of several rooms with a corridor at the western end. All other structures lie at right angles to the main building. There are also some east-west aligned trackways and a series of paddocks or small fields. A lead coffin containing a Roman period inhumation was found in 1959 on the western edge of Ox Leaze Wood. This is likely to be associated with the settlement site.</i>	ST85SW301; ST85SW302	Area of Archaeological Interest	ST84855271 ST84835270
W2-ee	<i>Roman period remains of a building. Footings and a rubble floor were identified along with sherds of native coarse pottery, Samian, iron objects and a bronze ring. Could well be associated with site W2-dd.</i>	ST85SW303	Area of Archaeological Interest	ST84625279

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

A number of Neolithic and Bronze Age artefacts comprising two stone axes and Bronze Age pottery (**W2-j** and **W2-k**) have been recovered to the east of the site in the area of the former Westbury Ironworks.

The Iron Age (700 BC – AD 43)

Unstratified Iron Age artefacts comprising querns, several sherds of pottery; a silver coin and bone comb (**W3-k**) were recovered in the area of the former Westbury Ironworks.

The Roman Period (AD 43 – AD 450)

Several areas of former Roman period settlement have been recorded in the study area, two to the east of the site (**W2-l** and **W2-q**) and one to the west at Ox Leaze (**W2-dd**). This latter may also be associated with building remains slightly further to the west too (**W2-ee**). A number of Roman period artefacts have been found around the study area comprising pottery sherds (**W2-o**, **W2-p** and **W2-r**) and a well (**W2-m**) in which a number of coarse ware sherds and samian ware

were recovered (AC Archaeology, 2000, Foundations Archaeology, 2000, AC Archaeology, 2002 and Wessex Archaeology 2004).

The Early Medieval Period (AD 450 – AD 1066)

With the exception of the recovery of a few sherds of Early Medieval pottery to the south of the site during an evaluation in 2002 (**W3-s**) and a bone pin beater found in the east of the area (**W2-q**), there are no recorded remains within the study area (AC Archaeology, 2002, Wessex Archaeology 2004).

The Medieval Period (AD 1066 – AD 1547)

There is one designated heritage asset within the site boundary. This is the Scheduled former Medieval moated site (**W2-a**) which comprises the remains of a 17m wide homestead moat with internal and external bank with a well-defined building platform accessed in the centre of the south side of the moat. It has a leat at either end carrying water from the Biss Brook. The site is likely to be the precursor of Brook House and may have been abandoned in the 13th century when a deer park, which also encompasses much of the site, was created (**W3-v**). The moated site is completely surrounded by modern development, though within its fenced boundary does not appear to have suffered any adverse physical effects. Elsewhere in the study area several undesignated heritage assets are recorded. These include sherds of pottery and evidence of archaeological features discovered during archaeological trial trenching (**W2-j** and **W2-s**), earthworks associated with Brook Hall (**W2-t**) and possible field system cropmarks (**W2-w** and **W2-z**). Also, to the south just outside the study area lie the Scheduled remains of the former Medieval settlement of Brook (**W2-b**), which survives as an extensive series of earthworks. It is unlikely that further significant remains of the period survive elsewhere on the site.

There is one designated Medieval building within the study area, the 15th century Grade I Listed wing of Brook Hall (**W2-e**). This sits on higher ground to the north-west of the site. Boundary screening and a deciduous tree belt along the northern site boundary following the Biss Brook leave only very limited views from the building to the site and the extensive nature of current development on site suggests that future development, of similar height and mass is not likely to adversely affect its setting.

The Post-medieval Period (AD 1547 – c. AD 1900)

There are six Post-medieval Grade II Listed buildings within the study area, one of which, Storridge farmhouse (**W2-c**), lies very close to the site's south-western boundary. The remainder lie more than 300m from the site boundary. Boundary screening and a deciduous tree belt along the northern site boundary following the Biss Brook leave only very limited views from the buildings associated with Brook Hall (**W2-d** and **W2-f**) to the site. The remaining buildings to the north-east (**W2-g** and **W2-h**) have very limited views to the site due to distance and topography and Storridge farmhouse (**W2-c**) has direct views of industrial buildings within the site. In each case future development, of similar height and mass would not adversely affect settings. There are several undesignated Post-medieval heritage assets elsewhere within the study area, comprising buildings and discovered artefacts. These would not be affected by any future development within the site.

The Modern Period (c.1900 – to present)

Cartographic evidence (1:10,560 – 1890 onwards and 1:2,500 – 1887 onwards) reveals a landscape comprising predominantly agricultural land until the late 1940s after which much of the site was developed, with the exception of a small area near the eastern boundary. A study of available aerial photographs at the National Monuments Record's office did not highlight any additional evidence of previously unrecorded heritage assets with the exception of cropmark indications of field boundaries surviving in the eastern grassed area.

Significance of Heritage Assets

Known heritage assets within the site boundary comprise the designated former Medieval moated site (**W2-a**) and the undesignated Medieval deer park (**W2-v**). There is no likelihood that buried archaeological remains either associated with the Medieval assets or dating to other periods could

survive within the majority of the site due to its extensively developed nature. The only surviving evidence of buried archaeological remains could take the form of remains associated with agricultural land-use, specifically former field boundaries in the east of the site.

The setting of the Scheduled Monument (**W2-a**) comprises late 20th century industrial buildings and does not contribute to the significance of the monument in its current context. However, new development at the site could consider opportunities to improve and enhance the monument's setting. No historic buildings would be physically affected by development within the site boundary. The settings of the Grade I wing of Brook Hall and the Grade II buildings contribute to their significance. However, development on the site would be obscured from Storridge farmhouse (**W2-c**) on the site's western boundary by current 20th century buildings and so would not be affected. The settings of the other Listed Buildings would also not be affected since views are currently either limited by screening and deciduous tree belts in the north or by distance and topography.

Assessment Suitability

One designated heritage asset has been recorded within the site boundary (**W2-a**) and one undesignated asset (**W2-v**). The extensively developed nature of the site indicates that there is likely to be little archaeological significance within the site boundary. The buried remains of former field boundaries may survive near the eastern boundary. It is very unlikely that any potential remains within the site boundary would be worthy of designation, would warrant preservation in situ or would preclude any potential development of the site.

Although the setting of the Scheduled Monument (**W2-a**) within the site has been heavily compromised by modern development immediately surrounding it, any future development schemes proposed will need to consider opportunities for improving its setting.

Due to the extensively developed nature of the site there is not likely to be any adverse effect on the setting of any Listed Buildings within the study area.

Mitigation

Possible mitigation could involve inputs into concept designs and landscaping works to enhance the setting of the Scheduled Monument.

Recommendations

Consideration needs to be given to the improving the setting of the Scheduled Monument. No further archaeological assessment is recommended.

Conclusion

The extensively developed nature of the site indicates that there would not be any adverse effect on the setting of any Listed Buildings within the study area. The potential for the presence of currently unrecorded archaeological deposits within the site is low. No further archaeological assessment is recommended and no mitigation would be required. The setting of the Scheduled Monument will require consideration within design proposals.

B.4.2.3 Landscape and Visual Impact

Introduction

The site lies on the north-western fringe of Westbury, fronting onto Storridge Road. To the north of the site there is Northacre Trading Estate with open countryside to the north. The Northacre trading estate along with this site contribute to the general industrial/urban fringe character of the area. There are a number of residential properties to the south east of the site.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture.
- Wide river corridor with ancient pattern of flood meadows but much influenced by modern development.
- Away from the built-up areas, the land cover is predominantly agricultural with a mosaic of arable and pasture uses.
- The hedge cover on the arable land is often poor. However in the pasture areas, especially the lower lying meadows around the many small streams, the hedges are frequent and overgrown. Hedgerow trees are also characteristic.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Trowbridge Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on Clay.
- Mixed arable and pastoral land use with pasture concentrated around the water courses.
- Variable field pattern with network of full hedgerows and mature hedgerow trees.
- Small number of meadows of neutral and unimproved grassland.
- Views vary from semi-enclosed by intact hedgerows, riparian vegetation and woodland blocks to more open with views to the rising scarps of the chalk uplands.
- A largely peaceful, rural landscape.

The characteristics listed are typical of the countryside to the north and south of the site, which is currently highly visible. As the site is increasingly developed, this visual connection with its rural surroundings will diminish, and its industrial/commercial character predominates.

The condition of the Rolling Clay Lowland is judged by WCC to be generally 'good', in part due to its areas of mixed pastoral and arable farmland with intact hedgerows, woodlands and hay meadows. However its varied farming, coniferous planting and influence of prominent urban edges etc give it a 'moderate' strength of character. The overall management strategy is to 'conserve' the peaceful rural landscape with its hedgerow network, rich riparian vegetation, remnant meadows for example, and to 'strengthen' its character through measures to minimise the urbanising influence of large towns, new settlement and transport routes retaining or enhance their biodiversity and historic character of farms.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- Special Landscape Area
- Footpath immediately to the south and west of site
- Footpath along Biss Brook

Baseline Landscape Character and Features: Site Survey

This is a large flat, industrial estate on the edge of Westbury. There are a range of different style of building on the site with different construction methods and materials, brick and corrugate iron units, dilapidated industrial units and recent commercial units and businesses. A large cement works with chimneys is also present in the centre of the site. The buildings within the western part of the estate are in poor condition. Very little vegetation exists on the site except some thin screening along Biss Brook to the south western boundary of the site.

The site also borders the Northacre Trading Estate which has expanded over the last few years adding the industrial character of the area.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium – High

The existing landscape quality of the site is poor due to very limited vegetation and the industrial feel interrupting the surrounding character of the landscape. Due to the built form already present on this site, it has a medium-high capacity to accept change. New developments could replace the existing dilapidated units, however some mitigation may be required depending on the size, scale and type of development.

Potential Landscape Impacts

- Erosion of rural floodplain character

Potential Landscape Mitigation Measures

- Additional boundary / screen planting to mitigate any new developments.
- Location of facility away from Storridge Road
- Retain existing trees and hedgerows on site

The following ‘Broad Management Objectives’ for the Rolling Clay Lowland landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Retain and manage the dense hedgerow network and nurture new hedgerow trees.
- Introduce new tree planting along watercourses using typical riparian species such as alder and willow.
- Minimise small-scale incremental change such as signage, fencing or improvements to the road network, which could change the rural peaceful character of the landscape.
- Consider strengthening the enclosed character of the landscape and screening views to intrusive urban edges through nurturing existing and planting new woodland.
- Consider developing guidance for built development to ensure both future construction and changes to existing buildings are designed to integrate with the existing character and structure of settlements.

Table B.4.2.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
The Ham – Residential	High	Slight – moderate due to existing use	Retain existing vegetation and plant additional street trees and hedges to soften views into site Avoid locating facilities close to residential properties or western edge of site
Residential – North West (Hawkeridge)	High	Slight – moderate due to existing use	
Westbury White House	High	Slight – moderate due to existing use	
Farm of Storridge Road	High	Slight – moderate due to existing use	
Users of Storridge Road	Low	No change – slight adverse	

Summary: Residual Landscape and Visual Impacts

Due to the existing industrial character of this site and the nearby Northacre Trading Estate any change it not likely to alter the character dramatically. Potential views will need to be screened to

preserve the character and feel of the surrounding area ensuring the open countryside surrounding the site is not affected.

Recommended further landscape and visual surveys

- Night time visual survey

B.4.2.4 Noise

Introduction

The site at West Wilts Trading Estate, Westbury has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Household Recycling Centre
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.
- Treatment

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On farm land on the north west corner of The Ham, this location is deemed to represent the rear of residential properties on Hawkeridge Park, located approximately 100m to the south of the site boundary; and
- A field access gate on an unnamed lane to the east of the allocation site, located approximately 100m from the eastern boundary of the site, this location is deemed representative of Hawkeridge Farm.

The proposed site is located within land currently occupied by an industrial estate, and business units. Given the current usage, background noise levels were made with these activities occurring. The allocated site is bounded to the east by the B3097 (Hawkeridge Road). The surrounding area of the site is farm land with interspersed residential dwellings.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic and noise from the industrial estate within the allocation site.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.4.2.4.1 - Hawkeridge Park - Background Noise Levels (AU1_0036)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:30:00	00:05:00	45.9	56.0	42.5	47.2	45.2	43.9
14:35:00	00:05:00	48.0	58.4	42.1	51.6	45.0	43.2
14:40:00	00:05:00	47.2	55.5	42.4	49.7	45.7	44.0
14:45:00	00:05:00	52.0	66.5	44.1	54.1	47.3	45.2
14:50:00	00:05:00	48.9	58.5	42.8	51.4	47.4	45.2
14:55:00	00:05:00	49.9	62.1	42.9	51.9	45.5	44.0

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:30:00	00:30:00	49.1	66.5	42.1	51.7	46.0	44.0

Table B.4.2.4.2 Hawkeridge Farm - Background Noise Levels (File #72)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:35:11	00:05:00	51.8	65.8	43.7	53.6	50.2	47.7
14:40:11	00:05:00	50.9	64.5	41.3	52.9	49.7	46.9
14:45:11	00:05:00	54.2	67.5	44.6	56.1	52.2	49.0
14:35:11	00:15:00	52.5	67.5	41.3	54.2	50.7	47.9

The average background noise levels (LA90) at Hawkeridge Park and Hawkeridge Farm are taken as being 44.0 dB and 47.9 dB, respectively.

Assessment Suitability

The site is on an existing industrial estate with a residential estate to the south east.

The site is partially shielded by purpose made screening in the east and due to the ability to increase the distance between residential receptors by careful siting is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required, the location of which will depend on the siting of the facility. The facilities should be sited away from the residential properties by at least 150m.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.4.2.5 Air Quality and Odour

Introduction

The site is located to the northwest of Westbury on the West Wilts Trading Estate. Existing site encompasses some small scale waste uses, a number of processing industries, light industrial uses, car sales and a nightclub.

Potential uses include household recycling centre, materials recycling facility, waste transfer site, local recycling and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 13.5µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 8.8µg/m3 NO2 (standard 40µg/m3);
- 14.5µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 300 receptors within 500 metres of the site consisting of: scattered residential housing and farms. There are no sensitive ecological sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic on the B3097 and minor roads; gas/oil/solid fuel space heating for buildings existing landfilling and waste management operations

in the area (additional potential emissions of dust, bioaerosols, NH₃ and odour); sewage treatment works (additional potential emissions of bioaerosols, NH₃ and odour).

Table B.4.2.5.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	3 (3)	2 (2)	N/A	N/A	3 (3)	2 (2)	3 (3)
Total residential between 100 and 500m (300 properties)	2 (2)	2 (2)	N/A	N/A	2 (2)	1 (1)	2 (2)
Residential within 250m only (130) Properties)	N/A	N/A	N/A	N/A	3 (3)	N/A	N/A
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol high risk is limited to within 250m of the site</p>							

Mitigation

Measures to control emissions of local air pollutants (gas engines), and of dust, odour and bioaerosols should be required. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are moderate to high without mitigation. Measures to control emissions of local air pollutants from combustion plant, and of dust, odour and bio-aerosols are recommended. Detailed assessment should be undertaken.

B.4.2.6 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

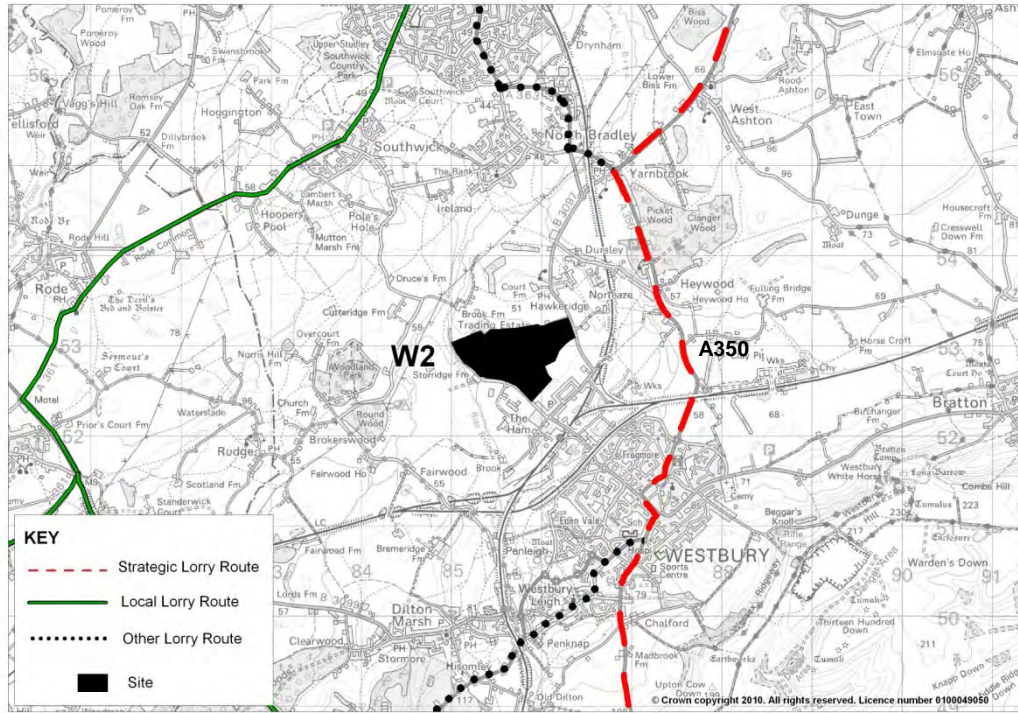
The site is located to the northwest of Westbury within a large established trading estate. The existing estate is 68ha in area and is occupied by various employment uses.

It is proposed that the waste facility is located within this trading estate, however, the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junction to the estate but not the site access within the wider site. The site is allocated for a strategic scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.2.6.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.4.2.6.1** below shows that the site is located about 1.6km west of the A350, which forms part of the Strategic Lorry Route Network. Access to the A350 can only be gained by local roads which are not part of the lorry network.

Figure B.4.2.6.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Treatment (T);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.2.6.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.4.2.6.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
	12,000	70	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Assessment Suitability

Existing/Potential Access Junctions

Eastern Access (Primary)

The primary access to the site is taken via a priority crossroads junction (with a ghost island right turn filter lane) with the B3097 Hawkeridge Road. Hawkeridge Road is subject to a 50mph speed limit.

Site observations showed that an element of delay occurs at this junction during off-peak periods. The capacity of this junction during a peak period may therefore be an issue and should be investigated further as part of a Transport Assessment.

Visibility from this access is approximately 110m in both directions. This junction therefore does not meet the required standards for a 50mph road. However, all traffic using this access will be turning left out of the site and will therefore only be opposed by one direction of traffic (i.e. northbound traffic coming from the residential area called The Ham). The volume of northbound traffic from The Ham is minimal. The available forward visibility, for traffic entering the site, more than meets the required standards for a 50mph road.

Western Access (Secondary)

The secondary access is taken via a four-arm roundabout off Storridge Road.

The secondary access indirectly links the site to Hawkeridge Road via a residential area, which is subject to horizontal traffic calming measures. The Primary access therefore provides the most direct and preferred route to the A350 to the north. The secondary access does however provide the most direct route to the A350 to the south via Station Road and the town of Westbury.

The entire estate is currently subject to a 30mph speed limit.

Transport Environmental Impacts

There is potential for the residential properties of Hawkeridge Park at The Ham to be significantly impacted upon given their proximity to the site and their frontage on the road passing by the southeast side of the estate (i.e. via the secondary route to the site). This residential area is subject to a 30mph speed restriction with vehicle activated signs and priority build-outs to control traffic speed. The secondary access would cater for any vehicle movements from the Westbury area without the need for vehicles entering this small residential area, however, the transportation of waste through Westbury itself is not considered ideal.

It is anticipated that the majority of vehicles accessing the site will approach from the north via the A350/A363 interchange and enter the estate via the primary access, again avoiding the necessity for vehicles to pass through the residential area at 'The Ham'.

A number of small settlements exist to the north of the site on the eastern side of Hawkeridge Road. The overall impact, in transport terms, is likely to be minimal on these settlements given that HGVs already use this road to access the estate (i.e. any impact will be diluted by existing HGV traffic) and tall hedgerows are currently located on the eastern boundary of Hawkeridge Road to provide a buffer between the carriageway and the houses.

Off Site Highway Network

Primary Route (Northbound via Hawkeridge Road)

Wiltshire County Council's 'Freight Routes in Wiltshire' document recommends that the most appropriate HGV route to the site is via the primary site access located off Hawkeridge Road. This recommended route directs all HGV traffic through Yarnbrook (located approximately 2km north of the site). For HGVs travelling from the south this will involve a diversion northbound along the A350 through Westbury and onto Yarnbrook and then southbound along Hawkeridge Road.

Hawkeridge Road, which provides the primary route to the site, is subject to a 50mph speed limit. Hawkeridge Road connects the site to a large three-arm roundabout approximately one mile north of the site. From this roundabout Hawkeridge Road continues northeast towards the A350 (part of the Strategic Lorry Route Network) but this section of road is subject to a 15' height limit due to the nearby railway bridge. The preferred and signed route to the A350 for HGVs instead continues northwest towards the A363 via a four-arm roundabout. The eastern arm of this roundabout then links to the A350 via a mini roundabout. This preferred route diverts HGVs by about half a mile compared to the height restricted route.

The mini roundabout between the A350 & the A363 currently accommodates a large amount of HGVs and provides plenty of manoeuvrability. Whilst this preferred route for HGVs avoids the 15' high bridge, the A363 does pass under the same railway line but with much more clearance, in and forms part of a designated lorry route.

Halfway between the primary access and the A350, Dursley Road connects to Hawkeridge Road via a priority T-Junction. Dursley Road provides a more direct link to the A350. However, a 7.5 tonne weight restriction applies to this road and therefore this more direct route is not recommended for HGVs.

Secondary Route (Southbound via Secondary Access and then through Westbury)

As stated above Wiltshire County Council recommend HGVs to use the northern primary access via Hawkeridge Road. However, for non-HGV traffic a secondary route provides a more direct access to the site from the south.

Sturridge Road connects the secondary site access to a mini roundabout in the southwest corner of the site. To the east of this mini roundabout is the residential area of The Ham which has traffic calming and residential properties (fronting on to the carriageway). All motorists should therefore be discouraged from using the secondary access to travel north through The Ham (i.e. all northbound traffic should use primary site access – common sense should direct northbound traffic this access as it is the most direct to the north).

The southbound route into Westbury Town Centre passes through a large residential settlement. This route does provide a direct route to the A350 (Strategic Lorry Route Network) for links to the southern highway network and is currently used by a large number of HGVs. However, this route is not recommended for HGV use by Wiltshire. The impact of non-HGV traffic from the proposed site using this route should therefore be minimal.

Other than the location of numerous residential properties being located along this secondary route, through Westbury, no other major issues exist.

Accessibility by Sustainable Modes

Footways are located on both sides of most of the trading estate roads. At the primary site access a footway is provided on only the northern side of the carriageway.

No footways are provided along Hawkeridge Road and therefore pedestrian links from the primary access are limited to just the nearby bus stop. Footways are provided on both sides of the carriageway from the secondary access (on the western boundary of the site) linking to The Ham and Westbury Centre.

Bus stops are located throughout the existing trading estate. These bus stops are served by buses that provide links to Bath and Trowbridge.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/W2/003** in **Appendix D**.

Constraints

Primary Route (to the North)

The main constraints identified at this site (via the primary route) are:

- A small amount of congestion was observed at the primary access junction during an off-peak site visit. Congestion may therefore be an issue during peak periods; and
- Whilst more direct routes from Hawkeridge Road link the site to the A350 (i.e. via Dursley Road and the northern section of Hawkeridge Road) these links are subject to either weight restrictions or height restrictions.

Secondary Route (to the South)

The main constraints identified at this site (via the secondary route) are:

- This route passes through Westbury Town Centre where numerous residential properties front onto the carriageway;
- Residential properties and traffic calming exists along The Ham (the section of road that links the two routes together); and
- This route is not recommended for HGV use by Wiltshire CC.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/W2/001** in **Appendix D**.

Mitigation

Although some congestion was observed at the primary site access this junction already has a 30m right turn Ghost Island. The impact of right turns blocking ahead movements is therefore reduced significantly. Whilst no mitigation is proposed at present it may be that the introduction of traffic signals at this access junction is needed. The main turning movements between the north and the site access lend themselves to the potential to introduce a signalised left turn filter lane (i.e. right turners and left turners run together in one signal phase). This may require some widening of the access road. A full capacity assessment as part of a transport assessment at the planning application stage would be needed to determine the requirement of such mitigation.

It is recommended that the appropriate routing of HGVs will need to be enforced in order to minimise environmental impacts as much as possible. The “most appropriate route” (as stated in Wiltshire CC’s ‘Freight Routes in Wiltshire’ document) is via the eastern access towards the north. The western secondary access should be used by non-HGV traffic only. HGVs should therefore be discouraged from using the secondary access and the secondary route through appropriate signing and routing agreements.

Recommendation

The site offers the following advantages:

- The site is currently used by a large number of HGVs. Therefore any impact of HGVs from the new site will be diluted;
- The site is already a well established trading estate and therefore provides existing transport infrastructure for a waste facility site;
- Good quality access already exists at the site and no mitigation measures are deemed essential. However, signalisation of the primary access should be considered;
- Very good public transport links are available within the site linking the site to Bath and Trowbridge; and
- Good pedestrian facilities are provided linking the site to Westbury and The Ham from the western site access.

The following issues/constraints have been identified:

- Any transport impact from the new development will be magnified due to the nearby residential settlements. However this impact will only relate to HGVs wishing to travel south on the A350 through Westbury and can be controlled through routing agreements;
- Congestion was observed at the primary access junction during an off-peak site visit, which may be more prevalent in peak periods

In conclusion, the proposed site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report. In addition, consideration of the appropriate location of the site within the trading estate should be considered and HGV routing should be enforced through Hawkrigge Road towards the north only.

B.4.2.7 Water Quality / Environment

Introduction

NGR: 385140, 152610

Location: Westbury

Site Area: 68 hectares

Data Source: Landmark Envirocheck Report 30093594_1_1 (8th Feb 2010) unless otherwise referenced

Table B.4.2.7.1 - West Wilts Trading Estate Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is the Biss Brook on the site.</p> <p>The EA identify that the Biss Brook watercourse has a chemical and biological quality of Very Good and high nutrient levels.</p> <p>The Biss Brook has an ecological classification in line with the Water Framework Directive as Moderate.</p>	<p>Impact on the Biss Brook flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the Biss Brook quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA Pollution Prevention Guidelines (PPGs) guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site comprises of Quarternary drift deposits underlain by the Upper Jurassic Oxford Clay formation. There are a series of faults trending NE-SW to the north and south of the site⁵⁹.</p>	<p>Not applicable.</p>	<p>-</p>	<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are predominantly underlain by unproductive strata (non aquifer), the west part of the site is underlain by a Secondary (Minor) Aquifer of low permeability Quaternary drift deposits.</p>	<p>Possible contamination of the minor aquifer.</p> <p>Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment</p>

⁵⁹ BGS 1:50 000 Drift geological map (Sheet No. 281, Frome)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	excavations. No risk posed to public water supply; but local private abstractions may exist (<20m ³)	hardstanding, bunding, landscaping and ground levels. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA Pollution Prevention Guidelines (PPGs) guidance driving construction.	requirements. Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is of low vulnerability.			
Hydrogeology: Groundwater – Direction of Flow	There is insufficient information to determine groundwater flow direction.	Not applicable.	-	-
Discharges: Surface water – Discharge Consents	5 discharges of trade effluent to a tributary of the Biss Brook, on site, 873m south. 2 miscellaneous discharges of mine/ groundwater to a tributary of the Biss Brook adjacent to the site. 1 discharge of process effluent to a tributary of the River Biss, 178m south east, 9 discharges of final-treated effluent: (to a tributary of the Bitham Brook) 167m north, (to a trib of Biss Brook) 385m and 415m south west, 435m and 437m north, (to Bitham Brook) 904m, 938m and 966m east and 979m north east. 1 discharge from a pumping station: 795m north west. 2 discharges of final-treated effluent to an unnamed watercourse, 192m and 194m north,	No risk posed.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge	8 discharges of final-treated effluent to soakaway within 1km of site.	No risk posed.	-	To be considered during further assessment.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Consents				
Discharges: Pollution Incidents	Oils – diesel including agricultural; Category. 2(significant incident) to water; Category.3 (minor incident) to land; 130m north. Atmospheric pollutants & effects, Category. 2 to air; Category.3 to land, 145m west. 199m south east and 233m south west.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring
Abstractions: Surface Water – Abstractions	1 abstraction from a tributary of River Biss for mining, 833m south east	No risk posed.	-	To be considered during further assessment.
Abstractions: Groundwater – Abstractions	None recorded within 1km of the site.	No risk posed.	-	-
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size. The aquifer is likely to be shallow.	No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Land Uses	<p>Historical Landfill: 11 sites accepting inert, industrial, commercial and household waste from 20m north to 989m east.</p> <p>Local recorded landfill: disused tip, 260m north east,</p> <p>Licensed Waste Management Facilities: Metal recycling facility/ scrapyard on site. Biological treatment, 490m to south east. Special waste transfer station, 828m south east.</p> <p>Registered Waste Treatment or Disposal: Waste Oil sludge, residues from solvent recovery plant, waste oil, on site and organic solvents, petroleum oil tank wastes, waste oils, incineration with treatment, on site.</p>	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident and Control Plan to specify how excavated material will be handled, stored, and disposed of	<p>Geotechnical investigation and consultation to determine extent and nature of waste.</p> <p>To be considered as a source of contaminants if contamination is found during monitoring.</p>
Conservation Designations	There are no protected conservation areas within 1km of the site.	No risk posed.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Household Recycling Centre, Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility, or Waste Treatment site at **West Wiltshire Trading Estate**, falls within the below category:

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There is a surface water feature on the site and therefore there is the potential for changes to its flow and quality
- The site is underlain by a Secondary Aquifer and therefore there are potential groundwater contamination issues
- The site is at risk from pluvial and groundwater flooding
- There are potentially contaminative land uses on site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.

B.4.3 Northacre Trading Estate, Westbury (Site Ref: W3)

B.4.3.1 Introduction

The site extends to 43 ha and is located on the north-western fringe of Westbury, fronting onto Storridge Road approximately 6.5 km south of Trowbridge. The Northacre Trading Estate is a new trading estate and part of the existing Brook Lane Trading Estate and a sewage works. Northacre Trading Estate site is accessed by a new roundabout and road with signage and lighting. The site is a large flat area on the edge of floodplain for Biss Brook, which runs close to/along the western site boundary, beyond which is open countryside. To the north, the West Wilts Trading Estate contributes to the general industrial/urban fringe character of the area. A number of detached, two-storey suburban houses face the Trading Estate on Storridge Road along the site's north-eastern boundary. To the south-east lies Westbury Train Station and Brook Lane Industrial Estate. The local railway line is located approximately 150m from the south-east boundary of the site. Much of the trading estate currently consists of vacant plots although part of the site is occupied by a large milk processing dairy. The Western boundary of the site lies close to a flood zone 3 area.

The site is in proximity to a number of designations these include the New Forest National Park Site with Bratton Downs SSSI, Salisbury Plain SSSI/SPA/SAC situated further afield a number of County Wildlife Sites within 1km of the site and Picket Wood and Clanger Wood SSSI is 1.1km to the north east of the site. The Blue Circle Cement Works RIG is approximately 1.6km to the north east of the site. Areas of ancient woodland lie approximately 1km to the north east of the site and 0.8km to the west. There is a SAM on the industrial estate to the north and two SAMs are situated to the west of the site.

Part of the site is allocated as New Employment Land Allocation (E1) and part Employment Policy Area (E2) in the West Wilts District Local Plan. Adjacent to the site is the designated Westbury Rail Freight Facility. The emerging Wiltshire Core Strategy proposes to designate a major part of site and large area to the north east, south and north west of the industrial estate for future employment area.

A number of planning consents have been granted within 500m of this site since 2006, those of particular note include:

Reference: W/07/09004 Westbury Resource Recovery Facility, including Mechanical Biological Treatment, a Household Recycling Centre, Vehicle Parking and all necessary ancillary development at land off Stephenson Road, Northacre Industrial Park for Hills Minerals and Waste Ltd

Other consents of particular note include:

Reference: W/09/02412/CLE Use of building known as 1 Storridge, Westbury as a self contained dwelling on land at Storridge farm Bungalow, Storridge Road, Westbury, Wiltshire BA13 4HY

Reference: 07/01018/FUL Construct a food grade building for the loading of bulk road tankers with milk powders on land at Westbury Dairies Ltd., 4 Stephenson Road, Northacre Industrial Park, Westbury

B.4.3.2 Cultural Heritage

Introduction

The Northacre Industrial Park is a modern development on the outskirts of Westbury, the majority of which was built from 2000 onwards. Prior to 2000, throughout much of the 20th century the present Sewage Works occupied the eastern part of the site along with a cheese factory. Part of the west side and all of the southern area are currently open rough grassland. The site comprises an area of 43ha which is bounded to the north by the West Wilts Trading Estate, to the east and south by a corridor of industrial development alongside and adjacent to Westbury railway station and to the west by an extensive and open agricultural landscape.

The western half of the site lies within an Area of Archaeological Interest as allocated in the West Wiltshire Local Plan. These are locally defined areas within the urban centres which may have archaeological resources worthy of protection. There are no designated heritage assets recorded within the site on the Wiltshire Council Sites and Monuments Record (WSMR) or National Monuments Record (NMR). Archaeological evaluations have been undertaken at three locations within the site boundary (**W3-l**, **W3-m** and **W3-p**). Remains associated with these evaluations could represent agricultural outfield systems associated with the Scheduled Medieval settlement of Brook to the south-west of the site (**W3-b**). Within the site boundary undesignated cropmarks in the south-west of the site could also be associated with this monument. This asset lies less than 200m from the south-western site boundary and at its closest only c.100m and has uninterrupted views across to the Northacre site with clear inter-visibility between it and the open grassland in the west and south of the site and current buildings.

There are two Listed Buildings within the study area; in the north, the Grade II Storridge farmhouse (**W3-d**) and in the south the Grade II Brook farmhouse (**W3-c**). A number of undesignated archaeological sites are recorded within the 500m study area surrounding the site which date from the Prehistoric period through to recent times.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique asset number (i.e. **W3-a**, **b**, **c** etc, Figure 5044619.15/CH W3). A full methodology for the assessment of cultural heritage issues reported in this document is set out in Chapter 3.

Designated Heritage Assets within the Site

There are no statutory designated assets within the site boundary.

Designated Heritage Assets within or close to Study Area

There are two Scheduled Monuments within the study area, one to the south-east lies c.100m south-west of the site (**W3-b**) whilst the other (**W3-a**) lies within the West Wilts Trading Estate.

There are two Grade II Listed Buildings within 500m of the site (**W3-c** and **W3-d**)

The site lies partially within an Area of Archaeological Interest.

Table B.4.3.2.1 - Designated Heritage Assets within or close to Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W3-a	<i>Medieval moated site. This comprises the remains of a homestead moat with internal and external bank surviving as a roughly rectangular enclosure aligned north-west – south-east with an internal dimension of c.100m². The island contains a well-defined building platform accessed in the centre of the south side of the moat. On the south-west side the moat is 17m wide and 1.7m deep. It has a leat at either end carrying water from the Biss Brook. The moat is likely to be the precursor of Brook House and may have been abandoned in the 13th century when a deer park was created (W3-j).</i>	ST85SE451	Scheduled Monument	ST8568,5286
W3-b	<i>Medieval settlement and associated field-systems west of Brook Farm. This scheduled monument falls into two separate areas of protection comprising medieval settlement of Brook, a manor house site and the field systems 2km west of Westbury. The settlement is centred around a north – south hollow way, fronting on to which are a series of house platforms. To the north there is a series of large rectangular paddocks defined by ditches and banks. A large platform south of Brook Lane is the site of a manor house which is depicted on 18th century maps of the area. Other features are probably associated with formal gardens, strip fields and a headland. The settlement of Brook is first recorded in 1228 but by the 18th century had shrunk to a single large house.</i>	ST85SE453 <i>Much of the extent of these remains fall within the Scheduled Monument though cropmarks and other earthworks lie outside the designated areas. Cropmarks also lie within the site which are the buried remains of associated field-system ditches or boundaries.</i>	SM34182/01-02	ST8526,5181
W3-c	<i>Brook Farmhouse, Westbury. An early – mid 18th century two-storey rendered brick house with a part stone extension. Various associated outbuildings and lean-tos.</i>	313075	Grade II Listed	ST8550,5176
W3-d	<i>Storrige farmhouse, Westbury. Mid 19th century two-storey red brick house. Model-type farmyard and farm buildings. Considered the best of a number of model-type</i>	313156	Grade II Listed	ST8529,5262

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	<i>farmhouses in Westbury.</i>			

Heritage Assets within the Site

There are three undesignated heritage assets within the site boundary (**W3-l**, **W3-m** and **W3-p**) which were identified during a series of archaeological field evaluations.

Table B.4.3.2.2 - Heritage Assets within the Site

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W3-l	<i>An undated linear gully was recorded during an archaeological evaluation in 2000. A single flint and large piece of burnt limestone were recovered.</i>	ST85SE 651	None	ST8575,5186
W3-m	<i>A few unstratified medieval sherds including 12th – 13th century types were recovered during an archaeological evaluation in 2001. No cut features were recorded. The pottery may have originated at the Laverstock and Crockerton production centres.</i>	ST85SE476	None	ST8542,5207
W3-p	<i>A detailed plan of a Post-medieval water meadow was made which demonstrated three sets of ridges and adjacent channels separated by other linear earthworks. Stone and brick structures were also present in the field some of which suggest a 19th century date. An archaeological evaluation in 2002 revealed two medieval ditches in one trench, set at right angles. Both ditches contained fairly undiagnostic medieval pottery. Another trench contained a single ditch in which Early Medieval sherds were recorded.</i>	ST85SE402; ST85SE477; ST85SE529	None None None	ST8531,5239

Heritage Assets within or close to the Study Area

Table B.4.3.2.3 - Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W3-e	<i>A selection of artefacts dating from the Neolithic comprising a greenstone axe, bone gouge and bead, 15 sherds of Bronze Age pottery and a number of medieval sherds found on field surface and during a small evaluation in 2000.</i>	ST85SE101; ST85SE155; ST85SE465	None	ST8635,5242
W3-f	<i>A selection of artefacts on the former Westbury Ironworks site</i>	ST85SE100;	None	ST8632,5228

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
	discovered during mineral extraction comprising a single Neolithic diorite axe and Iron Age saddle querns, pottery, a bone comb and a silver coin of the Dobunni.	ST85SE200		
W3-g	A former Roman well which contained coarse ware sherds, Samian sherds and an iron "object". Discovered during mineral extraction.	ST85SE301	None	ST8615,5219
W3-h	The remains of a Roman period settlement discovered during the 19 th century and poorly recorded. Finds include pottery, coins and brooches, querns, loom weights all dating between 1 st – 4 th centuries, and human remains. An evaluation in 2000 demonstrated that the majority of the site had since been destroyed by later quarrying and railway works. The central and northern parts may survive better.	ST85SE300	None	ST8644,5249
W3-i	A probable modern cropmark feature resembling a square building foundation which may be the remnant of a 2 nd World War PoW camp structure, now built over. Evidence of the camp's demolition recorded in a 2002 watching brief.	ST85SE620; ST85SE621	None	ST8604,5234
W3-j	A former medieval deer park, mentioned as early as 1323. Leland also later mentioned a "fayre park and fine greyned oaks". It was disparked by 1582 and sub-divided.	ST85SE474	None	ST8548,5304
W3-k	A few sherds of Roman pottery were discovered in a watching brief during the construction of a water pipeline in 2002.	ST85SE320	None	ST8627,5260
W3-n	A single sherd of undiagnostic Roman pottery was recovered during a watching brief for a flood relief channel in 2000.	ST85SE319	None	ST8525,5219
W3-o	Surviving earthworks of a possible Post-medieval house site with formal garden. 4ha of the earthworks were surveyed.	ST85SE610. These lie within the boundary of Scheduled Monument SM34182/01-02	Scheduled Monument	ST8519,5157
W3-q	A small group of undated linear earthworks which may be associated with W3-b. These do not lie within the Scheduled Monument.	ST85SE601	None	ST8496,5182

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	NGR
W3-r	<p>Evidence of a Roman-British settlement at Ox Leaze Wood. Limited excavation in 1973 produced evidence of drystone walling, foundations and slag. Geophysical survey in 1997 revealed evidence of buildings and enclosures, one of which may be a villa site. There may be up to five buildings in total. The main building is approximately 40m long and 15m wide. Sub-divisions suggest the presence of several rooms with a corridor at the western end. All other structures lie at right angles to the main building. There are also some east-west aligned trackways and a series of paddocks or small fields.</p> <p>A lead coffin containing a Roman period inhumation was found in 1959 on the western edge of Ox Leaze Wood. This is likely to be associated with the settlement site.</p>	ST85SE301	None	ST8485,5271

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

A number of Neolithic and Bronze Age artefacts comprising two stone axes and Bronze Age pottery (W3-e and W3-f) have been recovered to the east of the site in the area of the former Westbury Ironworks.

The Iron Age (700 BC – AD 43)

Unstratified Iron Age artefacts comprising querns, several sherds of pottery; a silver coin and bone comb (W3-f) were recovered in the area of the former Westbury Ironworks.

The Roman Period (AD 43 – AD 450)

A number of Roman period artefacts have been found around the study area comprising pottery sherds (W3-k and W3-n) and a well (W3-g) in which a number of coarse ware sherds and samian ware were recovered. Two areas of former Roman period settlement are recorded one to the east of the site (W3-h) and one to the west at Ox Leaze (W3-r).

The Early Medieval Period (AD 450 – AD 1066)

With the exception of the recovery of a few sherds of Early Medieval pottery in the south of the site during an evaluation in 2002 (W3-p) there are no recorded remains within the study area.

The Medieval Period (AD 1066 – AD 1547)

Archaeological evaluations undertaken on the Northacre site between 2000 and 2002 have also revealed evidence of Medieval activity in the west and south of the site comprising a few ditches from which sherds of Medieval pottery were recovered. The site is located close to quite extensive and significant areas of well-preserved Medieval earthworks set within a probable contemporary agricultural landscape. These comprise predominantly the Scheduled remains of Brook Medieval settlement (W3-b) to the south-west of the site as well as undesignated cropmarks that extend out

of the Scheduled area and earthwork remains to its south (**W3-q**). There are records of a former deer park (**W3-j**) which was contemporary and associated with Brook Manor to the north of the site and the Scheduled remains of a moated manor site (**W3-a**) which is located within the West Wilts Trading Estate.

The Post-medieval Period (AD 1547 – c. AD 1900)

There are two Post-medieval Grade II Listed buildings within the study area. On the south-western site boundary lies Brook farmhouse (**W3-c**) which dates to the mid-18th century, whilst on the north-western site boundary Storridge farmhouse (**W3-d**), set within a Model-type farmyard and buildings, dates to the mid-19th century. A large house platform and associated earthwork features, set within the boundary of the Scheduled Monument (**W3-b**) indicate the remains of a former manor house with formal garden (**W3-o**).

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded within the study area. Cartographic evidence (1:10,560 – 1890 onwards and 1:2,500 – 1887 onwards) reveal a landscape comprising predominantly agricultural land throughout much of the last century with only limited development in the eastern part of the site comprising a Sewage Works and a cheese factory. A study of available aerial photographs at the National Monuments Record's office did not highlight any additional evidence of previously unrecorded heritage assets.

Significance of heritage assets

This section of the report discusses the significance of the heritage assets and the potential for as yet unknown heritage assets to exist.

There are three recorded heritage assets within the site (**W3-l**, **W3-m** and **W3-p**). These represent recorded archaeological features and artefacts which were identified during a series of archaeological field evaluations. These are likely to be associated with the designated former Medieval settlement site that lies within 200m of the site to the south-west (**W3-b**). There is a likelihood that further buried archaeological remains could survive within the site boundary in currently undisturbed ground to the west and south of the site and that these could be of Medieval date. Surviving evidence could take the form of remains associated with agricultural land-use, infilled ditches and former field boundaries and artefacts.

Although the significance of any surviving buried remains is unknown; given the date and nature of the archaeology already recovered and present, there are indications that any further buried deposits and features could be associated with the Scheduled Medieval settlement at Brook. This would make any archaeological remains in this area particularly significant.

Proposed future development may also affect the settings of designated assets within the study area, since the settings of each contribute to their significance. This is particularly important for those the Scheduled Medieval settlement of Brook that lie to the south-west of the site (**W3-b**) and, though less so, the Scheduled moated site to the north within the West Wilts Trading Estate (**W9-c**). The settings of the two Listed Buildings (**W3-c** and **W3-d**) contribute to their significance; however, both are not likely to be affected by any proposed future development.

Assessment Suitability

No designated heritage assets have been recorded within the site boundary, though there are three undesignated assets (**W3-l**, **W3-m** and **W3-p**). These are likely to be associated with the designated former Medieval settlement site to the south-west (**W3-b**). It is possible that further remains, of currently unknown significance, associated with all of these assets survive elsewhere in undisturbed areas of the site. Ground disturbing activities associated with any future development could degrade or remove buried archaeological remains and therefore adversely affect the significance of any surviving remains. In order to understand the potential and significance of the buried archaeological remains additional archaeological assessment would be required.

Although the nature of development on the site is currently unknown, any development in the south and west of the site is likely to affect the setting of the Scheduled Medieval settlement (**W3-b**) and therefore its significance. This is because this part of the site is currently open rough grassland with unobstructed views and contributes to the asset's significance. The setting of the Scheduled moated site (**W3-a**) located within West Wilts Trading Estate would not be affected by any development on the site since it is entirely enclosed by modern industrial development such that any further development would result in no measurable impact and would not affect its significance.

No Listed Buildings would be physically affected by development within the site boundary. The settings of the two Grade II Listed Buildings contribute to their significance. Whilst future development on the site would be visible from Storridge farmhouse (**W3-d**) on the site's northern boundary its setting would not be affected since currently it comprises the surrounding developed areas of extensive car-parking and industrial buildings. The setting of Brook farmhouse (**W3-c**) in the south would, however, be affected by future development in the west and south of the site since these areas are currently open rough grassland with unobstructed views. Once proposed developments are defined a more detailed visual impact assessment can be undertaken and possible mitigation measures discussed with the County Conservation Officer.

Mitigation

The results of previous investigations suggest further archaeological investigation would be required in order to understand the potential, extent, significance and type of possible archaeological remains on site. A programme of archaeological works could take the form of geophysical survey and archaeological trial trenching. However, the scope of any programme of archaeological works would need to be agreed in advance with the Wiltshire County Archaeologist. Such field surveys would define whether further archaeological works would be required in advance of ground disturbing works associated with future development.

Design proposals, and landscaping and screening options should be devised in consultation with English Heritage and Wiltshire Council's Conservation Officer in order to ensure appropriate mitigation of any adverse effect on the setting of Grade II Listed Brook House (**W3-c**) and Scheduled Monument (**W3-b**).

Recommendations

This assessment has identified that potential buried archaeological remains could survive within the site that are likely to be associated with the Scheduled Medieval settlement of Brook (**W3-b**). We recommend that further archaeological works should be undertaken as outlined above in the Mitigation section.

Conclusion

Based on current information it is recommended that further archaeological investigation is required to better understand the significance and extent (or location within the site) of potential buried archaeological remains. These could take the form of a programme of field surveys comprising geophysical survey followed by trial trenching. The results of these investigations could be used to inform a mitigation strategy. This strategy could involve the locating of ground disturbing works away from known areas of significant archaeological remains. The scope of any programme of archaeological investigations should be agreed in advance with the Wiltshire County Archaeologist.

The study area includes two designated Scheduled Monuments, a moated site (**W3-a**) and the former Medieval settlement of Brook (**W3-b**). It is likely that future development within the site, especially in the south and west would affect the setting of the latter. Development in the south and west of the site could also potentially adversely affect the setting of Grade II Listed Brook farmhouse (**W3-c**). Sensitive design proposals and landscaping and screening options should be devised in consultation with English Heritage and Wiltshire Council's Conservation Officer in order to ensure appropriate mitigation.

B.4.3.3 Landscape and Visual Survey

Introduction

The site lies on the north-western fringe of Westbury, fronting onto Storridge Road. It includes a new trading estate, Northacre Trading Estate, and part of the Brook Lane Trading Estate. To the south of the site there is open countryside whilst to the north, the West Wilts Trading Estate contributes to the general industrial/urban fringe character of the area. A number of residential properties on Storridge overlook the site along its north-eastern boundary.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture.
- Wide river corridor with ancient pattern of flood meadows but much influenced by modern development.
- Away from the built-up areas, the land cover is predominantly agricultural with a mosaic of arable and pasture uses.
- The hedge cover on the arable land is often poor. However in the pasture areas, especially the lower lying meadows around the many small streams, the hedges are frequent and overgrown. Hedgerow trees are also characteristic.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Trowbridge Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on Clay.
- Mixed arable and pastoral land use with pasture concentrated around the water courses.
- Variable field pattern with network of full hedgerows and mature hedgerow trees.
- Small number of meadows of neutral and unimproved grassland.
- Views vary from semi-enclosed by intact hedgerows, riparian vegetation and woodland blocks to more open with views to the rising scarps of the chalk uplands.
- A largely peaceful, rural landscape.

The characteristics listed are typical of the countryside to the south-west of the site, which is currently highly visible. As the site is increasingly developed, this visual connection with its rural surroundings will diminish, and its industrial/commercial character predominates.

The condition of the Rolling Clay Lowland is judged by WCC to be generally 'good', in part due to its areas of mixed pastoral and arable farmland with intact hedgerows and woodlands. However its varied farming, coniferous planting and influence of prominent urban edges etc give it a 'moderate' strength of character. The overall management strategy is to 'conserve' the peaceful rural landscape with its hedgerow network, rich riparian vegetation, remnant meadows for example, and to 'strengthen' its character through measures to minimise the urbanising influence of large towns, new settlement and transport routes retaining or enhance their biodiversity and historic character of farms.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- Special Landscape Area

- Footpath immediately to west of site
- Footpath along Brook Drove

Baseline Landscape Character and Features: Site Survey

This is a large, flat site on the edge of a floodplain, with the Biss Brook running close to/along the western site boundary. Until recently much of the site was a greenfield agricultural site, but the Northacre Trading Estate is currently being constructed, with a new access roundabout and road, signage and lighting installed and a number of industrial units established, including a large milk processing dairy. Much of the trading estate currently consists of vacant plots, and a link road connecting the site to another industrial estate to the south-west, Brook Lane Trading Estate, is currently blocked. The site currently is semi rural in character, with open views out across the floodplain to the south and some remaining farmland in the southern corner of the site.

The site also includes the northern part of the Brook Lane Trading Estate and a sewage works. This part of the site is a well-established industrial estate with a mixture of large and small units. It also includes three residential properties fronting onto Brook Lane. This part of the site differs in character to the Northacre Trading Estate, having a more enclosed, urban character. A number of detached, two-storey suburban houses face the Trading Estate on Storridge Road.

There is little important vegetation on the site, although some field boundary hedgerows remain. Mature trees front the existing Storridge Road/Brook Lane plot. Vacant plots include disturbed soil and include some semi-improved grassland and scrub.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium – High

Given its partial greenfield character and open views to the west, some areas of the site will be less able to accept change, however given its allocation for employment, this character will be changing in the coming months and years, reducing the significance of its effects on the landscape.

Potential Landscape Impacts

- Erosion of rural floodplain character
- Loss of hedgerow vegetation

Potential Landscape Mitigation Measures

- 15m wide woodland planting buffer along the western site boundary if it fronts onto open countryside, with high proportion of riparian species such as willow and alder
- Bund with native tree and hedgerow planting around site boundary
- Location of facility away from Storridge Road
- Retain existing trees and hedgerows on site

The following 'Broad Management Objectives' for the Rolling Clay Lowland landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Retain and manage the dense hedgerow network and nurture new hedgerow trees.
- Introduce new tree planting along watercourses using typical riparian species such as alder and willow.
- Minimise small-scale incremental change such as signage, fencing or improvements to the road network, which could change the rural peaceful character of the landscape.
- Consider strengthening the enclosed character of the landscape and screening views to intrusive urban edges through nurturing existing and planting new woodland.

Table B.4.3.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor (assuming North Acre Trading Estate developed for Employment use in any event)	Potential Visual Mitigation Measures
Workers on North Acre Trading Estate	Low	No change	Retain existing vegetation and plant additional street trees and hedges to soften views into site
Workers on West Wilts Trading Estate	Low	No change	
Workers on Brook Lane Trading Estate	Low	No change	
Residents on Storridge Road	High	No change – slight adverse	Plant 15m woodland buffer along western boundary of site
Users of Storridge Road	Low	No change – slight adverse	
Public footpath to west of site	High	No change – slight adverse	Avoid locating facilities close to residential properties or western edge of site
Users of Brook Lane	Low	No change	
Users of footpath to south-west of site (winter)	Medium	No change – slight adverse	

Summary: Residual Landscape and Visual Impacts

Given the size and diverse character of this site, it is not possible to make firm conclusions on the significance of the landscape and visual impact, however given that the site is allocated for Employment use and will ultimately be developed, the residual impact is likely to be slight. Given the urban fringe location of the site and proximity of some residential properties and footpaths however, it is essential that sensitive site planning and visual mitigation measures are incorporated.

Recommended further Landscape and Visual Surveys

- Winter-time footpath surveys to south-west of site
- Night time visual survey

B.4.3.4 Noise

Introduction

The site at Northacre Trading Estate, Westbury has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Treatment.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On farm land on the north west corner of The Ham, this location is deemed to represent the rear of residential properties on Hawkeridge Park, approximately 200m to the north east of the site boundary; and
- Brook Farm, located on the southern boundary of the allocation site.

The proposed site is located within land currently utilised as an industrial estate and on farm land. Given the current usage, background noise levels were made with these activities occurring. The allocated site is bounded to the east by Storrige Road and the surrounding area of the site is farm land with interspersed residential dwellings.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic, noise from the industrial estate within the allocation site, and rail traffic. The noise levels measured at Brook farm were increased due to construction works to the east of brook farm in connection with the rail depot.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.4.3.4.1 - Hawkeridge Park - Background Noise Levels (AU1_0036)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:30:00	00:05:00	45.9	56.0	42.5	47.2	45.2	43.9
14:35:00	00:05:00	48.0	58.4	42.1	51.6	45.0	43.2
14:40:00	00:05:00	47.2	55.5	42.4	49.7	45.7	44.0
14:45:00	00:05:00	52.0	66.5	44.1	54.1	47.3	45.2
14:50:00	00:05:00	48.9	58.5	42.8	51.4	47.4	45.2
14:55:00	00:05:00	49.9	62.1	42.9	51.9	45.5	44.0
14:30:00	00:30:00	49.1	66.5	42.1	51.7	46.0	44.0

Table B.4.3.4.2 - Brook Farm - Background Noise Levels (AU1_0037)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:26:00	00:05:00	44.3	48.8	40.4	45.9	43.9	42.2
15:31:00	00:05:00	46.5	51.4	41.6	49.1	45.3	43.5
15:36:00	00:05:00	47.6	55.1	40.5	51.2	44.7	42.1
15:26:00	00:15:00	46.3	55.1	40.4	49.4	44.5	42.5

The average background noise levels (LA90) at Hawkeridge Park and Brook Farm are taken as being 44.0 dB and 42.5 dB, respectively.

Assessment Suitability

The site is on a partially complete industrial estate.

The site is partially shielded by the railway and existing buildings and due to the ability to increase the separation the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required, the location of which will depend on the sitting of the facility. The facilities should be sited at least 150m away from the residential properties.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.4.3.5 Air Quality

Northacre Trading Estate is located to the north west of Westbury. The site is currently a trading estate with a number of developed units, units under construction and plots awaiting development. Potential uses include materials recycling facility, waste transfer site, local recycling and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 14.2µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 9.4µg/m3 NO2 (standard 40µg/m3);
- 14.1µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 270 scattered residential properties within 500 metres of the site. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 meters of the site: road traffic on the B3097 and minor roads; gas/oil/solid fuel space heating for buildings; existing landfilling and waste management operations in the area (additional potential emissions of dust, bioaerosols, NH₃ and odour); sewage treatment works (additional potential emissions of bioaerosols, NH₃ and odour).

Table B.4.3.5.1 Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (50 properties)	3 (3)	2 (2)	N/A	N/A	3 (3)	2 (2)	3 (3)
Total residential between 100 and 500m (220 properties)	2 (2)	1 (1)	N/A	N/A	2 (2)	1 (1)	2 (2)
Residential within 250m only (80) Properties)	3 (3)	2 (2)	N/A	N/A	3 (3)	1 (1)	3 (3)
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol high risk is limited to within 250m of the site

Mitigation

Measures to control emissions of local air pollutants from combustion plant, and of dust, odour and bio-aerosols should be required. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are moderate to high. Measures to control emissions of local air pollutants from combustion plant, and of dust, odour and bioaerosols recommended. Detailed assessment should be undertaken.

B.4.3.6 Water Environment

NGR: 385390, 151900

Location: Westbury

Site Area: 42.98 hectares

Data Source: Landmark Envirocheck Report 30173198_1_1 (8th Feb 2010) unless otherwise referenced

Table B.4.3.6.1 - Northacre Trading Estate Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>Biss Brook is located on the site. The EA identify the Biss Brook watercourse as having a chemical and biological quality of Very Good and High nutrient levels and an ecological classification in line with the Water Framework Directive of Moderate.</p>	<p>Impact on the Biss Brook flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation. Impact on the Biss Brook quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA Pollution Prevention Guidelines during construction.</p>	<p>Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The geological map⁶⁰ indicates that Quarternary drift deposits are underlain by the Upper Jurassic Oxford Clay formation. There are a series of faults trending NE-SW to the north and south of the site.</p>	<p>Not applicable.</p>	<p>-</p>	<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are underlain by unproductive strata (non aquifer) and by a Secondary (Minor) Aquifer of Quarternary drift deposits.</p>	<p>Possible contamination of the minor aquifer. Changes to the groundwater flow regime of primarily shallow aquifers during construction if foundations intercept groundwater or if pumping is required for excavations.</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.) to include good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes</p>

⁶⁰ BGS 1:50 000 Drift geological map (Sheet No. 281, Frome)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³ /day).		(may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is moderately vulnerable			
Hydrogeology: Groundwater – Direction of Flow	There is insufficient information to determine groundwater flow direction.	Not applicable.	-	-
Discharges: Surface water – Discharge Consents	Discharges of process effluent to trib of River Biss on site. Discharges of sewage: final/treated effluent to the Biss Brook), 195msouth east, and to tributary of River Biss, 196m north.	No risk posed.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	4 discharges of sewage: final/treated effluent to a soakaway), 41m, 102m and 119m east and 83m north east.	No risk posed.	-	To be considered during further assessment.
Discharges: Pollution Incidents	Minor pollution incident of atmospheric pollutants and effects; on site.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring
Abstractions: Surface Water – Abstractions	Abstraction from tributary of Biss Brook, 174m to the south east.	Not applicable.	-	To be considered during further assessment.
Abstractions: Groundwater – Abstractions	No groundwater abstractions recorded within 1km of the site.	Not applicable.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Flood Risk	The site is in Flood Zone 1 with the exception of the north west part of the site which is in Flood Zone 3 and a small area in the south west area of the site which is in Flood Zone 2. The site is larger than 1ha and situated (partly) on a shallow aquifer.	Flooding could interrupt operations and cause pollution to spread from the site, although only a fraction (10%) of the site is at risk. The site could increase the flood risk to surrounding sites, and there is a risk of groundwater flooding.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	Historic Landfills 79m east, 461m north west, 929m, 934m and 957 north east, 978m south west. 656m South, 829m, 887m, 891m south west, 791m south. 931m east. Licensed Waste Facilities: household, commercial and industrial, 818m south. Waste transfer station, 169m south east. Tips (closed) accepting household waste 670m, 799m, and 929m south, 829m, 862m South west and 169m South east. Waste treatment sites 211m north, 257m north east. 270m south, 357m, 500m south west.	Mobilisation of contaminants during construction.	-	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	Westbury Ironstone Quarry has been designated an SSSI, it is located 804m to the south of site.	No risk posed as no pathway to the SSSI.	-	-
Drainage: Current Surface Water /Foul	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems	-	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Drainage Systems – Capacity	and they are unable to supply information to inform this section.			

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility or a Waste Treatment site at **Northacre Trading Estate** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- A water course is located on the site and therefore there is the potential for changes to its flow and quality
- The site is on a Secondary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of fluvial, pluvial and groundwater flooding
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

Further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.

B.4.4 Lafarge Cement Works (Site Ref: W4)

B.4.4.1 Introduction

The site is situated within the Lafarge Cement Works estate and adjacent to a landfill site off the A350 from Trowbridge to Westbury.

Potential uses include household recycling centre, material recycling facility, waste transfer site, local recycling, inert waste recycling / transfer, composting and treatment.

The site extends to 24 ha and is located 1km to the north-east of Westbury, approximately 6.5 km south east of Trowbridge. The Lafarge Cement Works operations are currently mothballed. A restored landfill lies adjacent to the site. The site is located off the A350 from Trowbridge to Westbury. Access to the site is gained from the A350 which forms part of the HGV Route Network along the existing site access and haul road.

Several claypits and ponds are situated in close proximity, forming the northern and eastern boundaries to the site and a tributary of the River Biss forms part of the north eastern site boundary. An established rail link forms the southern boundary of the site, and immediately beyond this is an employee recreation facility including golf course and fishing lake. At its western end, the site consists of a formal driveway, which leads to the wider works area.

The site is generally well screened from this area with mature woodland. A number of residential properties and farms are located to the north of the site some within 200 meters, although hedgerow vegetation restricts views towards the site. A Public Right of Way crosses the access between the clay pit and the plant site and several other Public Right of Ways run along field boundaries north of the site, screened from the site by a hedgerow. The site is located on a flat area of terrain at the foot of chalk downlands (Westbury Hill), the clay pit and eastern corner of the site are situated in flood zone 3 and 2.

The site is in proximity to a number of designations these include Salisbury plain SSSI/SAC/SPA which is approximately 2 km to the south east and Bratton Downs SSSI (south east) and Picket Wood and Clanger Wood SSSI approximately 1.3 km to the north west of the site. There are several other Wildlife Sites and priority habitats south (and to a certain extent north) of the site. A Special Landscape Area is identified to the east of the site although this designation is being phased out.

The site is not allocated in the adopted West Wiltshire District Local Plan and the emerging Wiltshire Core Strategy does not propose any designation in the vicinity of the site.

There is permission for the development of a strategic Waste Transfer Facility on part of the site that has not been implemented. Reference 02/01607/WCM Waste Transfer / segregation facility on land North West of cement works, Trowbridge Road, Westbury, Wiltshire

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing buildings, change of use, etc. of particular note is:

Reference: 07/02179/FUL Single Storey extension to land at front of school, Bitham brook County primary school, Arundell Close, Westbury BA13 3UA

B.4.4.2 Landscape

Introduction

This large site is situated to the north-east of Westbury adjacent to a railway line running along the foot of a chalk escarpment. The site includes an cement works and an area with planning permission for the development of a strategic Waste Transfer Facility.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture.
- Wide river corridor with ancient pattern of flood meadows but much influenced by modern development.
- Wide views across the area from the higher surrounding chalk downs.
- Away from the built-up areas, the land cover is predominantly agricultural with a mosaic of arable and pasture uses.
- The hedge cover on the arable land is often poor. However in the pasture areas, especially the lower lying meadows around the many small streams, the hedges are frequent and overgrown. Hedgerow trees are also characteristic.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Trowbridge Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on Clay.
- Mixed arable and pastoral land use with pasture concentrated around the water courses.
- Variable field pattern with network of full hedgerows and mature hedgerow trees.
- Presence of streams marked by lines of willows and crossed by modest bridges.
- Small number of meadows of neutral and unimproved grassland.
- Roads largely minor and rural with a few trunk roads and sections of motorway.
- Views vary from semi-enclosed by intact hedgerows, riparian vegetation and woodland blocks to more open with views to the rising scarps of the chalk uplands.
- A largely peaceful, rural landscape.

- Semi-enclosed landscape allowing intermittent views to the steep scarps of the Chalk uplands.

The condition of the *Rolling Clay Lowland* is judged by WCC to be generally 'good' however the strength of character is judged to be 'moderate' with the varied land use and urbanising influences having weakened it. The overall strategy is to 'conserve' the peaceful rural landscape and strengthen its character to minimise the urbanising elements.

District Landscape Character Assessment: N/A

Landscape Designations and policies:

- Special landscape area
- Public footpath to north-west of site
- Public footpath through north-east edge of site

Baseline Landscape Character and Features: Site Survey

The site is located on flat floodplain at the foot of a series of chalk downlands which rise up to the south. A number of claypit ponds lie in close proximity to the site and a tributary of the River Biss runs to the north east forming part of the site boundary. The site is heavily dominated by its industrial character, with a large chimney forming a local landmark visible from a wide distance. At its western end the site consists of a formal driveway, lined by an avenue of mature chestnut trees. This opens out into a wider area, with the Waste Treatment Facility site to the north-east. The site has strictly controlled access, being a private facility with health and safety risks, however a public footpath skirts its north-eastern edge. This has a hedgerow running adjacent to it, which helps screen the site during the summer months.

An established rail link forms the southern boundary of the site, and immediately beyond this is an employee recreation facility including golf course and fishing lake. The site is well screened from this area with mature riparian woodland vegetation. Further south, the chalk escarpment rises from 70m AOD to 223m AOD and includes the Westbury White Horse carved on its face. The Wessex Ridgeway long distance path runs along the top of this hill and the site would be a noticeable feature when viewed from this area, albeit forming part of a wider long distance panorama.

To the north of the site, the hamlet of Heywood has a remote rural character, with a narrow rural lane meandering across the floodplain. A number of residential properties are located in this area, although hedgerow vegetation restricts views towards the site.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: High

The site is physically and visually dominated by the cement works, which contrasts starkly with its rural context. Given the poor condition of the site and degree of existing visual intrusion, it is well placed to accept change. The strong structure of floodplain hedgerows help to screen the site in its immediate proximity.

Potential Landscape Impacts

- Loss of mature on-site vegetation such as the horse-chestnut avenue
- Harm to geomorphology and biodiversity of tributary
- Loss of footpath route

Potential Landscape Mitigation Measures

- Ensure existing vegetation is protected
- Retain/divert footpath to ensure that recreational access between Park Lane and Horse Croft Farm is maintained

The following ‘Broad Management Objectives’ for the Rolling Clay Lowland landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Consider strengthening the enclosed character of the landscape and screening views to intrusive urban edges through nurturing existing and planting new woodland.

Table B.4.4.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Visitors to Westbury Hill	High	No change	Retain and manage existing vegetation screens Additional planting around site boundary to reduce visual impact for footpath users
Residents on Park Lane	High	No change	
Users of LaFarge leisure facilities to south of site	Medium	No change	
Users of railway to south of site	Low	No change	
Users of footpath to north-east/through site	High	No change – slight adverse	
Users of footpath to north-west of site	High	No change	
Users of A350 (winter views only?)	Low	No change	

Summary: Residual Landscape and Visual Impacts

Given the large scale of the site, much of it is relatively well concealed during the summer months at least, by the strong hedgerow boundaries within its immediate vicinity. The site would be most visible to recreational visitors to Westbury Hill to the south. Given its existing weak rural character, any changes to the site would have little impact, either in landscape or visual terms. Indeed with additional native woodland buffer planting, there may be the opportunity to enhance parts of the site in visual or landscape terms.

Recommended further Landscape and Visual Surveys

- Visual survey from footpaths, including Wessex Ridgeway/Westbury Hill (summer and winter-time)

B.4.4.3 Noise

Introduction

The site at LaFarge Cement Works, Westbury has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Household recycling Centre
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.
- Inert Waste Recycling/Transfer
- Composting

- Treatment

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- To the south of Brickwood Farm, located approximately 20m to the north of the site boundary; and
- The footpath to the south of No.26 Park Lane, located approximately 210m to the north of the site boundary.

The proposed site is located within land previously utilised as cement works. The allocated site is bounded to the south by a railway and the surrounding area to the north of the site is farm land with interspersed residential dwellings.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is made up of local traffic, plant at the cement works and military activity.

Consecutive background noise measurements were taken the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.4.4.3.1 - Brickwood Farm - Background Noise Levels (AU1_0035)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
13:26:00	00:05:00	41.3	49.1	36.6	44.0	39.8	37.7
13:31:00	00:05:00	42.9	51.3	37.1	44.6	41.8	39.8
13:36:00	00:05:00	40.8	49.4	36.7	42.6	40.0	38.1
13:26:00	00:15:00	41.7	51.3	36.6	44.0	40.8	38.3

Table B.4.4.3.2 - 26 Park Lane - Background Noise Levels (File #71)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
13:45:34	00:05:00	46.3	61.6	40.2	48.3	44.2	42.5
13:50:34	00:05:00	49.3	62.9	40.5	51.9	46.9	44.5
13:55:34	00:05:00	47.0	57.9	40.6	49.7	44.9	42.7
13:45:34	00:15:00	47.7	62.9	40.2	50.0	45.3	43.2

The average background noise levels (LA90) at Brickwood Farm and No.26 Park Lane are taken as being 38.3 dB and 43.2 dB, respectively.

Assessment Suitability

The site is currently permitted to be utilised as cement works (although the operation had been mothballed at the time of the survey) and clay pit with housing on the north west perimeter.

The site is partially shielded by the screening bunds and the southern half of the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required on the northern and eastern boundaries. The facilities should be sited as far away from the north eastern boundary as practical, with a minimum distance of 150m from any residential development.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.4.4.4 Air Quality and Odour

Introduction

The site is situated within the Lafarge Cement Works estate and adjacent to a landfill site off the A350 from Trowbridge to Westbury.

Potential uses include household recycling centre, material recycling facility, waste transfer site, local recycling, inert waste recycling / transfer, composting and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 11.3µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 9.8µg/m3 NO2 (standard 40µg/m3);
- 17.1µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 18 sensitive receptors within 500 metres and scattered properties mainly consisting of farms. No ecologically sensitive sites within 500 metres of the works.

Air pollutant sources within 500 metres of the site: road traffic on the A350, B3098 and minor roads; gas/oil/solid fuel space heating for buildings; Blue Circle Industries Plc (1,3-butadiene, Benzene, Benzo(a)pyrene, CO, SO₂, PM₁₀, Pb, VOCs), Westbury Phase II operated by Viridor Waste Disposal Ltd (Benzene, CO, NO_x, PM₁₀, VOCs) and Westbury Power Plant operated by Viridor Waste Management Ltd (Benzene, CO, NO_x, PM₁₀, VOCs).

Table B.4.4.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (1 property)	2 (2)	1 (1)	N/A	N/A	2 (2)	1 (1)	2 (2)
Total residential between 100 and 500m (17 properties)	2 (2)	1 (1)	N/A	N/A	2 (2)	1 (1)	2 (2)
Residential within 250m only (4) Properties)	2 (2)	2 (2)	N/A	N/A	2 (2)	1 (1)	2 (3)
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
be satisfactorily mitigated Values in brackets denote potential 'in-combination' or cumulative effects N/A = risk is not applicable in these circumstances * Bioaerosol high risk is limited to within 250m of the site							

Mitigation

Measures to control emissions of local air pollutants (gas engines), and of dust, odour and bioaerosols should be required. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are moderate to high. Measures to control emissions of local air pollutants from combustion plant, and of dust, odour and bio-aerosols are recommended. Detailed assessment should be undertaken.

B.4.4.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

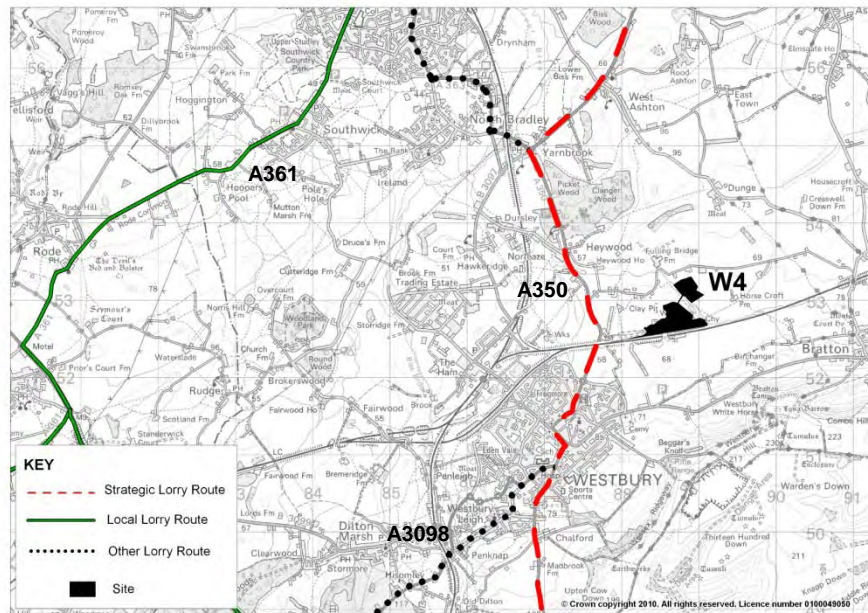
The site is located approximately 1 mile north of Westbury Town Centre and is accessed directly off the A350 Trowbridge Road. The site is currently an established Cement Works with direct access to the Buckleaze-Westbury railway link.

It is proposed that the waste facility is located within the existing Cement Works, however, the exact location and site area of the proposed site is unknown. As such, this appraisal has considered the access from the A350 and the access road leading into the works but not the specific site access within the site.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.4.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.4.4.5.1** below shows that the site is located on an existing Cement Works site about 800 metres from the A350, which is designated as a Strategic Lorry Route. Direct access is currently provided between this site and the A350.

Figure B.4.4.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Treatment (T);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS);
- Composting (C); and
- Landfill (L).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.4.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

It is unclear at this stage whether the existing cement works will cease to be in operation prior to the commencement of any waste uses on the site. Should this be the case it is likely that there will be a trade off of trips associated with the site whereby the cement works traffic is replaced by the traffic associated with waste operations.

Table B.4.4.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	45,000	500	AM or PM highway peak period.
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
	12,000	70	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	
Landfill	1.28 trips per hectare during busiest one hour period		Staff levels at a Landfill site are likely to be minimal
Composting	10,000	80	Staff levels at a Composting site are likely to be minimal

Assessment Suitability

Existing/Potential Access Junctions

Access to the existing Cement Works is gained directly off the A350 north of Westbury. The A350 has a speed limit of 60mph whereas the access road is currently subject to the national speed limit for the first 300m section from the A350 lowering to 20mph and then 10mph further along the access road. The access road is 6.7m wide for its entire length from the A350 to the Cement Works.

There is very good visibility at the junction between the access road and the A350. A visibility splay of more than 215 metres is achieved in both directions from the access road which is greater than the recommended visibility for the speed of road as set out in DMRB⁶¹.

The final section of the access road before entering the Cement Works is very straight, which could encourage faster speeds. However, a speed camera and an informal 20mph speed limit exist along this straight section.

⁶¹ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Transport Environmental Impacts

A number of residential properties are currently offset from the access road leading into the existing Cement Works. A sharp bend of radius of approximately 20m is located along the existing access road which, whilst reducing speeds, may create braking noise, which could be an issue for local residents. However, a large number of HGVs currently use this access road to enter the Cement Works and all of these dwellings are at least 10 metres from the carriageway. Therefore the impact of additional HGV traffic associated with the proposals is likely to be minimal.

To the south of the site is the Town of Westbury which has numerous residential properties fronting onto the carriageway. However this route is part of the Strategic Lorry Route Network and a large number of HGVs currently travel through the town. Whilst the impact of increased traffic on the town, in particularly HGVs, cannot be ignored it is considered that the impact of the HGV traffic on noise, vibration, severance or fear and intimidation for pedestrians is likely to be minimal

Off Site Highway Network

The existing Cement Works access road connects directly to the A350, which is part of the Strategic Lorry Route Network.

The A350 provides very good links to the north. Manoeuvrability within Westbury is adequate, although HGVs do sometimes have to cross over into the opposing lane to manoeuvre through the numerous mini roundabouts. It is unlikely that capacity at local junctions will be unduly affected by the proposals however this is largely dependent on the scale and nature of the proposed uses. The majority of potential uses will impact outside the highway AM and PM peak periods however capacity assessments will be a likely requirement when the site is taken forward.

Accessibility by Sustainable Modes

No footways exist along the existing access road and therefore the site is not very accessible by foot. However, it is unlikely that the general public will walk to the site given the distance from the nearest settlement (Westbury) and the general operation of the proposed site. Staff of the proposed site may wish to walk to the site but this unlikely and currently not possible.

The nearest bus stop is located approximately 1km south of the A350/access road junction. The site is not accessible from this bus stop by foot as no footways link to the site.

Constraints

The main constraints identified at this site are:

- Poor accessibility by foot and public transport;
- Residential properties are located along the access road near to the A350; and
- Residential properties front the road in the town of Westbury located to south of site, however this route is designated as a Strategic Lorry Route.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/W4/001** in **Appendix D**.

Mitigation

No mitigation required.

Recommendation

The site offers the following advantages:

- Direct access to the A350 (a strategic lorry route);
- Direct access to the rail network (should this be required);
- Existing HGV use on site; and
- Existing access junction with good visibility suitable for proposed uses.

The following issues/constraints have been identified:

- Poor accessibility by foot and public transport;
- A few residential properties are located along the access road near to the A350; and
- Residential town of Westbury located to south of site but this route is part of the Strategic Lorry Route Network.

In conclusion, the proposed site is considered appropriate for the proposed uses, however, consideration of the appropriate location of the site within the Cement Works site should be given.

B.4.4.6 Water Quality / Environment

Introduction

NGR: 388630, 153890

Location: Westbury

Site Area: 24.4 hectares

Data Source: Landmark Envirocheck Report 30105237_1_1 (9th Feb 2010) unless otherwise referenced

Table B.4.4.6.1 - Lafarge Cement Works Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>There is a drain on the site. The River Bridewell is 422m to the north, the Bitham Brook is 710m to the west. The EA identify that the River Bridewell watercourse has a chemical and biological quality of Fair.</p>	<p>Impact on River Bridewell flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation. Impact on River Bridewell quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The BGS map⁶² indicates that Quarternary drift deposits are underlain by the Kimmeridgian Clay. The site lies on the downthrown side of the Heywood fault which trends NE-SW north of the site.</p>	<p>Potential for the creation of a pathway for contamination to reach groundwater.</p>	<p>-</p>	<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are predominantly underlain by unproductive strata (non aquifer) with a small area in the middle of the site underlain by a Secondary (Minor) Aquifer of Quaternary drift deposits.</p>	<p>Possible contamination of the minor aquifer. Changes to the groundwater flow regime of primarily shallow aquifers if foundations intercept groundwater or if pumping is required</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p>	<p>Environmental management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment</p>

⁶² BGS 1:50 000 Drift geological map (Sheet No. 281, Frome)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
		for excavations.	Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.	requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		
Hydrogeology: Groundwater – Vulnerability	Aquifer is of intermediate vulnerability.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a northerly direction towards the River Bridewell.	No risk posed.	-	-
Discharges: Surface water – Discharge Consents	1 discharge of process effluent to the Heywood Brook, 27m north east. 1 discharge of sewage: final/treated effluent to a tributary of River Biss at 102m east. 3 discharges of sewage: final/treated effluent to a tributary of the Bitham Brook 261m to north, 263m to north and 817m to north west. 4 discharges of sewage: final/treated effluent to the Bitham Brook at 932m to north west, 986m to west, 988m to south west and 994m to south west.	Not applicable.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	1 discharge of sewage: final/treated effluent to soakaway 948m to north west.	Not applicable.	-	To be considered during further assessment.
Discharges: Pollution Incidents	None recorded within 1km of the site.	No risk posed.		-
Abstractions:	2 abstractions for general agriculture: spray	No risk posed as	Surface water drainage plan including runoff	Environmental

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Surface Water – Abstractions	irrigation/), 762m south east and 767m to south east.	abstraction is upstream.	collection system and design of infiltration devices. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices – EA guidance during construction.	management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Surface Water Management Plan.
Abstractions: Groundwater – Abstractions	None recorded within 1km of the site.	No risk posed.	-	-
Flood Risk	The site is in Flood Zone 1 with the exception of the north east and the south east corner of the site which is in Flood Zone 3. The site is greater than 1 ha in size.	Flooding could interrupt operations and cause pollution to spread from the site, although only a fraction of the site (about a quarter) is at risk. The site could increase the flood risk to surrounding sites.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	Historic Landfill Sites: Unknown landfill , 976m West. Licensed Waste Management Facilities: Westbury Landfill, Waste: Inert, Industrial, Commercial, household & special waste, on site and 41m north east (status Revoked), 75m to north east (status Expired), 314m to north west (Closed).	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
	<p>Local Authority Landfills: Westbury Clay Pit (waste: household, commercial, industrial), on site, BCI Chemical Works, Westbury, Waste: household, commercial & industrial, 89m to north east, Slag Lane (now closed) 987m to west.</p> <p>Registered Landfill: (westbury landfill site) Waste: no known restriction on source of waste, 136m north east.</p>			
Conservation Designations	<p>Bratton Downs has been designated an SSSI, it is located 963m to the south east of the site.</p>	<p>No risk posed as no pathway to the SSSI.</p>	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	<p>The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.</p>	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Household Recycling Centre, Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility, Inert Waste Recycling and Transfer Station, Composting Facility, Landfill or Waste Treatment site at **Lafarge Cement Works** falls within the below category:

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Secondary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of fluvial, pluvial and groundwater flooding
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include flood risk assessment, surface water management plan, and contamination assessment.

B.4.5 Bowerhill Industrial Estate, Melksham (Site Ref: W5)

B.4.5.1 Introduction

The site extends to 32 ha and is located on the western fringe of Bowerhill, approximately 0.5km south of Melksham and 11 km north east of Trowbridge. The site a part of a former airfield which has been developed as an industrial estate, the site lies adjacent to the 12ha employment allocation known as Hampton Business Park. The estate is currently occupied predominantly with B2 and B8 uses including small manufacturing and engineering businesses, large scale storage and distribution, a Household Recycling Centre, and a sports and leisure centre.

Access to the estate is gained via a roundabout on the A365 to the north east of the estate. This access route also serves the residential areas of Bowerhill. The northern boundary of the industrial estates is formed by fields beyond which lies the A365 and Melksham, the eastern extent of the site is defined by Halifax Road beyond which lies the residential area of Bowerhill. The southern extent of the site is formed by a new industrial development and sports ground and a sports ground and golf course borders the site, with the A350 approximately 150m to the west. There are two Public Rights of Way running from the centre of the industrial estate to the road that separates the industrial estate and housing estate to the east of the site. The site is located in Flood Zone 1.

No designated sites have been identified in proximity to the site.

The site is allocated as an General and Employment Area (Policies E1/E2) in the adopted West Wiltshire District Local Plan. The Melksham Conservation Area and new recreation space are identified in the plan to the north of the site. The emerging Wiltshire Core Strategy propose an allocations for Housing / mixed use to the north and future employment area to the south and west of the industrial estate.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing buildings, change of use, etc. others of particular note include:

Reference: W/09/01807/FUL Erection of a 3 bedroom and terrace house adjacent to 7 Padfield gardens on land adjoining 7 Padfield gardens, Melksham, Wiltshire

B.4.5.2 Noise

Introduction

The site at Bowerhill Industrial Estate, Melksham has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations;

- At the rear of No.26 Bader Park, located approximately 10m to the east of the site boundary; and
- In the lay-by of Dowding Way, it is deemed that this position is representative of properties that face the industrial estate, located approximately 21m to the east of the site boundary.

The allocated site is located within land currently utilised as an industrial estate. Given the current usage, background noise levels were made with these activities occurring. The allocated site is bounded to the east by Halifax Road, with a significant residential development further to the east. The A350 is located approximately 200m to the west of the allocated site.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is made up of local traffic, road noise from the A350 and industrial noise from the estate.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.4.5.2.1 - Bader Park - Background Noise Levels (AU1_0024)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:14:00	00:05:00	49.1	55.5	45.8	50.7	48.7	47.0
16:19:00	00:05:00	48.5	52.2	45.6	50.0	48.2	46.9
16:24:00	00:05:00	48.3	52.2	45.4	49.6	48.2	46.5
16:14:00	00:15:00	48.7	55.5	45.4	50.1	48.4	46.8

Table B.4.5.2.2 - Dowding Way - Background Noise Levels (AU1_0025)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:33:00	00:05:00	56.9	68.1	44.6	62.0	50.6	46.3
16:38:00	00:05:00	56.6	67.6	45.2	61.6	50.7	46.9
16:43:00	00:05:00	57.5	70.6	43.8	62.4	49.9	45.9
16:33:00	00:15:00	57.0	70.6	43.8	62.0	50.5	46.3

The average background noise levels (L_{A90}) at Bader Park and Dowding Way are taken as being 46.8 dB and 46.3 dB, respectively.

Assessment Suitability

The site is an existing industrial estate. A significant residential development is located along the site's east boundary, separated by the A350.

There is little or no screening from the proposed site but with appropriate screening and careful site location the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required on the northern and eastern boundaries, depending on the facilities location. The facilities should be sited as far away from the eastern boundary as practical with any external activities a minimum of 150m from any residential development. By careful siting and placing activities in buildings a greater area can be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.4.5.3 Air Quality and Odour

Introduction

The site is located on Bowerhill Industrial Estate, just west of Bowerhill residential areas and 0.5km south of Melksham. The site is currently occupied by commercial units. There are some existing waste uses including a Household Recycling Centre. There is also a sports and leisure centre and it is adjacent to a golf course / sports facility in the west. Land to the south of the site is in agricultural/Greenfield use and land just 1km north of the site includes the Melksham Conservation Area.

Potential uses include material recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 22.7µg/m³ NO_x (standard for protection of vegetation 30µg/m³);
- 16.9µg/m³ NO₂ (standard 40µg/m³);
- 22.5µg/m³ PM₁₀ (standard 40µg/m³).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 1335 sensitive receptors within 500 metres: the east and north of the site. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic on the A365, A350 and minor roads; gas/oil/solid fuel space heating for scattered buildings. A sewage treatment works just west of the site is a potential source of bioaerosols and odour.

Table B.4.5.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (190 property)	1 (1)	2 (2)	N/A	N/A	N/A	2 (2)	2 (2)
Total residential between 100 and 500m (1145 properties)	1 (1)	2 (2)	N/A	N/A	N/A	2 (2)	2 (2)
Residential within 250m only (315) Properties)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	1 (1)
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated

Values in brackets denote potential 'in-combination' or cumulative effects

N/A = risk is not applicable in these circumstances

* Bioaerosol high risk is limited to within 250m of the site

Mitigation

Dust and odour control measures should be required. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

Air quality risks for the intended use are low to moderate without mitigation. Mitigation for dust and odour is recommended. Detailed assessment should not be necessary.

B.4.5.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

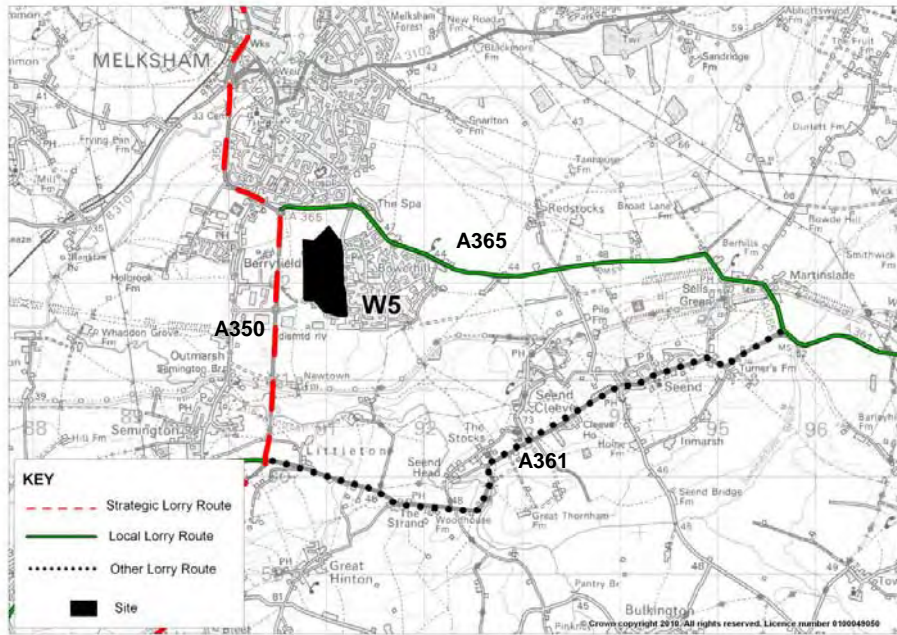
The site is located on the western edge of Bowerhill, about 1 mile south of Melksham, within an established industrial estate. The Industrial Estate site covers a total area of 32ha and has a mix of B2 & B8 type employment uses. There is an existing household waste recycling centre on the estate.

It is proposed that the waste facility is located within this Industrial Estate, however, the exact location and site area of the proposed site is unknown. As such this appraisal has considered the roundabout access to the estate but not the specific site access within the site. The site is allocated for a local scale facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.5.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.4.5.4.1** below shows that the site is located very close to the Strategic Lorry Route Network (SLR). Existing access to the SLR is provided via the A365 to the north, which is classed as a Local Lorry Route. There is potential to link the site directly to the A350 (SLR) to the west via an existing access road 'stub'.

Figure B.4.5.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.5.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.4.5.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

The site is located on an existing Industrial Estate that is currently accessed via a medium sized four-arm roundabout between Lancaster Road / Pathfinders Way / Halifax Road. This roundabout also provides access to Bowerhill residential estate. Two of the arms link to the residential estate and one to the industrial estate. The northern arm links both the residential and industrial estates to the A365 to the north via a large roundabout.

The industrial access road varies in width between 7 - 7.5m. Although each industrial unit has self contained parking areas, some on-street parking exists throughout the main industrial estate roads. Despite this on-street parking, the main industrial estate roads provide enough width to allow for two-way traffic however, two-way width is limited in these circumstances.

The access roundabout provides 6.7m wide entry lanes from the industrial estate, which allows for two vehicles to queue side by side. The facilities proposed will typically generate traffic outside of the highway network peak hours and the peak hours of the existing estate uses. Therefore, given the standard of the roundabout and the likely arrival and departure profiles it is unlikely that the capacity at this junction will be unduly affected by the proposals. Nevertheless a capacity assessment would be required.

Although the existing Bowerhill Industrial Estate is located next to the Bowerhill Residential Estate, the access roundabout is located north of both estates. Thus, vehicles accessing the industrial estate do not travel through any part of the residential area.

There is the potential to link the site directly to the A350 which is part of the strategic lorry network, to the west via an existing access road 'stub'. The access road runs along the southern boundary of another proposed waste site (W1 – Hampton Business Park), from the A350. The road comes to an abrupt end at the south-eastern boundary of the Bowerhill Industrial Estate. It may be that this access road has been left as a stub to allow a potential direct link between the A350 and Bowerhill Industrial Estate in the future. This linkage would allow HGVs from the Bowerhill site to access the A350 directly without the need to use the existing shared residential/industrial access roundabout.

The existing access road that could be linked to the Bowerhill site is 10 metres wide with a right turn ghost island leading traffic into the adjacent employment site access. 3.0m wide footways currently exist on both sides of this access road.

Transport Environmental Impacts

Bowerhill residential estate is located adjacent to the existing industrial estate. As stated above the access roundabout is located north of both estates. Thus, vehicles accessing the industrial estate do not travel through the residential area. Vehicles accessing the industrial estate may have some impact on the residential properties located in the northwest corner of the residential site (i.e. those located next to the roundabout). However, HGVs already use this access roundabout and therefore the impact of this proposal on residential settlements should be minimal in transport terms.

Off Site Highway Network

The site access roundabout links the site to the A365 to the north via a large roundabout. This roundabout then links directly to the A350 to the west via another roundabout. The A350 which is part of the strategic lorry network is located less than 2km from the site via this route.

As stated previously, there is potential to link the Bowerhill site directly to the A350 via an existing access road located to the southwest of the site. This access road could be linked to the roundabout located in the southwest corner of the Bowerhill site. This direct link would remove the need for site vehicles to access the existing industrial estate via the existing roundabout that provides shared access to the residential and industrial estates

Accessibility by Sustainable Modes

Bus stops are located within the Bowerhill residential area to the east of the site. These bus stops are therefore located within easy walking distance of the entire industrial site.

Footways are provided throughout the industrial estate on both sides of the carriageway. A verge acts as a buffer zone, separating the carriageway from most of the footways within the site. No footways are provided along the road that links the site to the A365 to the north. If the site is linked directly to the A350 (i.e. via the access road to the southwest) then there is potential for very good pedestrian facilities linking the site to the west.

Despite there being good sustainable links to the site it is unlikely that visitors to the site will use sustainable modes of transport. Nevertheless staff may wish to access the proposed site by sustainable transport modes.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/W5/003** in **Appendix D**.

Constraints

Anecdotal evidence suggests that the A350 is congested within this area during peak periods.

Mitigation

In order to ensure a minimal impact on the existing industrial units the waste facility site should be located at an appropriate location within the industrial estate.

Despite there being an existing, good quality, access to the site via the A365 and then the A350, it may be appropriate that the site is linked directly to the A350 to the west. A link road could be provided between the roundabout (located in the southwest corner of the site) and the existing access road 'stub' that links to the A350. However, this direct access link to the A350 may form part of other development proposals in the area and would then benefit any waste facility located on the Bowerhill Site. Therefore, this mitigation is not a requisite, for the proposal to provide any type of waste facility on the Bowerhill Industrial Estate, as the potential impact of using the existing access/route to the Strategic Network will be negligible.

Recommendation

The site offers the following advantages:

- The site does not have any constraints in transport terms;

- There is potential to provide a direct link from the site and the A350 to the west;
- Access to the site by sustainable modes is good;
- The site is currently used by HGVs and so suitable transport infrastructure already exists; and
- An existing high quality access already links the site to the A365 and then the A350.

The following issues/constraints have been identified:

- A capacity/impact assessment will be required to determine the impact of the site on the local highway network. No capacity issues were observed, on the highway network, during an off-peak period but anecdotal evidence suggests that the A350 is congested within this area during peak periods.

In conclusion, the proposed site is considered appropriate for the proposed uses, however, consideration of the appropriate location of the site within the industrial estate and the potential to link the site directly to the A350 should be given.

B.4.6 Canal Road Industrial Estate, Trowbridge (Site Ref: W6)

B.4.6.1 Introduction

The site extends to 30 ha and is located on the north western fringe of Trowbridge. The site is an existing and well established industrial estate with a mix of commercial and light industrial uses and a Household Recycling Centre. The site has several points of access including roundabouts at the southern and northern ends of the estate. The site is defined to the north by Towpath Road and Horse Road beyond which lies the residential areas of Hilperton Marsh. The site is flanked to the east by properties located along The Down and Wyke Road and to the south by properties located on Canal Road. The western boundary is formed by the Kennet and Avon Canal and a railway line.

There are several existing playing fields in the surrounding area and a Public Right of Way runs through the site. The Trowbridge General Cemetery is situated approximately 65 meters south east of the site. A small tributary runs through the north of the site consequently a small area of the industrial estate lies within a flood zone 2 and 3.

One designated sites has been identified in proximity to the site, this is the County Wildlife site along the Kennet and Avon canal bordering the north west boundary of the site.

The site is allocated as an Employment Area (Policy E2) in the adopted West Wiltshire District Local Plan. The Plan allocates an area for new housing (Policy H7) the north and North West and new recreational space 135 meters to the east of the site. The emerging Wiltshire Core Strategy does not propose any designation at the site although a future employment area is identified some distance to the south west of the industrial estate.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing buildings, change of use, etc. others of particular note include:

Reference: 07/02692 Construction of 49 two and three bedroom houses, one and two bedroom flats arranged in 2,3 and 4 on land opposite 2 Prospect Place, Trowbridge, Wiltshire

Reference: 07/01963/FUL New development of 12 no. new houses, 12 no. new flats and 26 no. car parking on land off York buildings, Trowbridge, Wiltshire

Reference: 07/01962/FUL New development of four no. new houses, four no. new flats and eight no. car parking spaces on land at Land Adjoining And Rear Of 3 St Thomas Road, Trowbridge, Wiltshire

Reference: 07/01911/OUT Erection of a class A1 food store, Class A1 (non food) / A3 floor space residential development on land at former Bottling Plant Ushers, Brewery, Conigne, Trowbridge, Wiltshire

Reference: 07/03731/FUL Change of use of existing office building from B1 to D1 (Clinic and health centre)

B.4.6.2 Noise

Introduction

The site at Canal Road Industrial Estate, Trowbridge has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- At the rear of residential properties on the corner of Canal Road and The Down, located approximately 10m to the east of the site boundary; and
- In the residential car park between No.44 and No.45 Towpath Road, located approximately 20m to the north of the allocated site boundary.

The allocated site is located within land currently utilised as an industrial estate. Given the current usage, background noise levels were made with these activities occurring. The allocated site is bounded to the east by rear gardens of residential properties on The Down, further residential properties are located to the south of the site. The west and north west of the site are bounded by a railway and canal, respectively.

Baseline

Background noise measurements were undertaken on 3rd February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is made up of road traffic on the B3106, local road traffic and industrial noise from the estate.

Consecutive background noise measurements were taken the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.4.6.2.1 - Canal Road - Background Noise Levels (AU1_0021)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:10:00	00:05:00	56.0	69.8	43.8	56.9	49.2	45.7
15:15:00	00:05:00	49.6	59.5	43.1	52.3	48.4	45.2
15:20:00	00:05:00	48.3	58.2	44.3	50.3	47.6	45.4
15:10:00	00:15:00	52.7	69.8	43.1	52.8	48.2	45.4

Table B.4.6.2.2 - Towpath Road - Background Noise Levels (AU1_0022)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:30:00	00:05:00	58.2	77.3	47.6	59.1	53.6	49.7
15:35:00	00:05:00	58.7	76.3	47.1	57.2	52.7	49.3
15:40:00	00:05:00	52.4	57.8	46.2	54.5	51.9	48.3
15:30:00	00:15:00	57.2	77.3	46.2	56.9	52.5	49.3

The average background noise levels (L_{A90}) at Canal Road and Towpath Road are taken as being 45.4 dB and 49.3 dB, respectively.

Assessment Suitability

The site is on an existing industrial estate with residential properties on its northern, eastern and southern boundaries.

There is little or no screening from the proposed site to the neighbouring properties, but with appropriate screening and careful site location the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5-10 dB(A) reduction is required, the location of which will depend on the final siting of the facility. The facilities should be sited towards the middle and mid west of the site area and any external activities a minimum of 150m from any residential development. By careful siting and placing activities in buildings a greater area can be utilised

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.4.6.3 Air Quality and Odour

Canal Road Industrial Estate is located to the northwest of Trowbridge. It is adjacent to Green Belt and its western boundary is formed by the Kennet and Avon Canal and a railway line. The site is currently occupied by an existing industrial estate including a mix of commercial and light industrial uses. There are existing waste uses on this estate including a Household Recycling Centre.

Potential uses include material recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 16.9µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 13.1µg/m3 NO2 (standard 40µg/m3);
- 14.8µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 3440 sensitive receptors within 500 metres: residential housing in Hilperton to the east and Trowbridge to the south which includes schools and a hospital. Furthermore, land allocated for future housing development lies to the immediate north and northwest of the site. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 1km of the site: road traffic on the A361, B3105 and minor roads; and Wessex Water Services Ltd sewage treatment works (additional potential emissions of bioaerosols, NH3 and odour). Waste uses on this estate currently in-place are potential sources dust and odour.

Table B.4.6.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (440 property)	2 (2)	2 (2)	N/A	N/A	N/A	2 (2)	2 (2)
Total residential between 100 and 500m (3000 properties)	2 (2)	2 (2)	N/A	N/A	N/A	1 (1)	1 (1)

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Residential within 250m only (1248) Properties)	2 (2)	2 (2)	N/A	N/A	N/A	1 (1)	1 (1)
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

2 = moderate risk, further assessment is recommended, mitigation should be required

3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated

Values in brackets denote potential 'in-combination' or cumulative effects

N/A = risk is not applicable in these circumstances

* Bioaerosol high risk is limited to within 250m of the site

Mitigation

Dust and odour control measures should be required. See 'Air Emissions Mitigation Options' in **Appendix C** below.

Recommendation

All air quality risks for the intended use are low to moderate without mitigation. Mitigation for dust and odour is recommended. Detailed assessment should not be necessary.

B.4.6.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

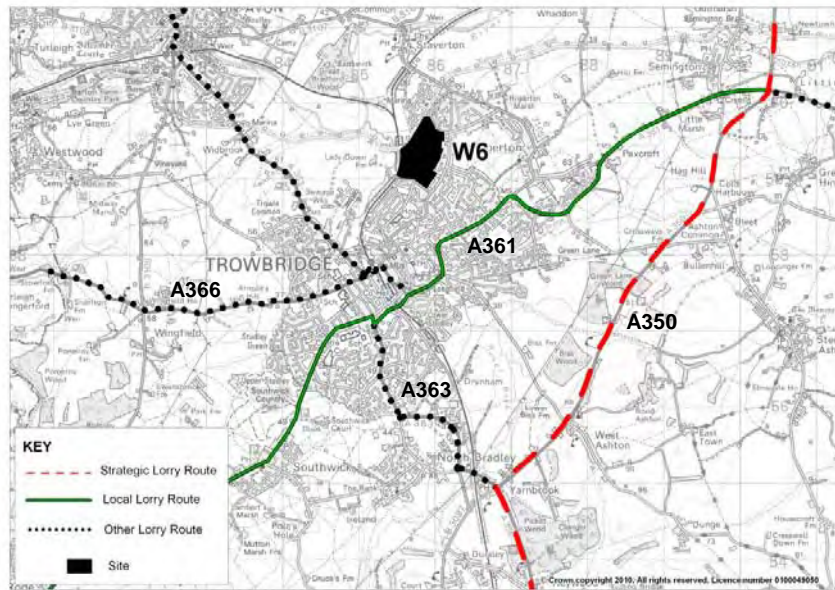
The site is located to the north of Trowbridge Town Centre within an established Industrial Estate with a mix of B1, B2, B8, and A1 uses. The total area of the existing estate is 35ha. There is an existing household waste recycling centre and a scrap yard on the estate.

It is proposed that the waste facility is located within this Industrial Estate, however, the exact location and site area of the proposed site is unknown. As such this appraisal has considered the roundabout access to the estate but not the specific site access within the site. The site is allocated for a local scale recycling facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.6.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.4.6.4.1** shows that the site is situated off Canal Road, which is not a designated lorry route. The A361 is located approximately 2km south of the site and just under 3km east of the site and is designated as a local lorry route. The nearest strategic lorry route is the A350 7km to the northeast and 6km to the south.

Figure B.4.6.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.6.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.4.6.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

Access to the estate is via a 4-arm mini roundabout located at the southern end of the estate. To the northern end is a large 4-arm roundabout with one arm leading to a residential area, which is subject a 7.5 tonne environmental weight restriction. HGVs currently use both accesses to enter the estate.

The estate is in a linear arrangement along Canal Road, which is a wide road (approximately 7.3m wide), with industrial frontage and suitable for HGV use.

Transport Environmental Impacts

The location of the site within Trowbridge and its proximity to residential areas is the greatest constraint on this development. This site currently generates HGV movements and therefore the impact of additional HGVs from the site would probably be diluted. However, the site is located away from the main strategic highway network and requires HGVs to pass through sensitive areas.

Southern Access

Access to the estate from the south requires HGVs to travel through the built up areas of Trowbridge where a mix of sensitive land uses such as; a school, a hospital, a shopping centre, and built up residential areas exist. As such, the impact of transporting waste to the site from the south is an area of concern. The whole route through Trowbridge to the A350 is subject to a 30mph speed limit and high pedestrian activity. **Figure B.4.6.4.2** shows difficult turning movements within the built up area of Trowbridge.

Figure B.4.6.4.2 - Difficult Turning Manoeuvres within the Built Up Areas of Trowbridge



Northern Access

Access to the estate from the north requires HGVs to travel through the rural residential areas of Hilperton and Hilperton Marsh. **Figure B.4.6.4.3** below shows how close some of the dwellings within Hilperton are to the carriageway. These rural settlements are subject to a 30mph speed limit and an element of on-street parking exists. Residential properties front the carriageway. The most direct route from the site access to Hilperton Marsh is via Horse Road. However, Horse Road is subject to a 7.5 tonne weight restriction and is a narrow road. The preferred route is therefore via Hammond Way, which avoids the 7.5 tonne weight restricted route.

Figure B.4.6.4.3 - Close Proximity of Dwellings within Hilperton (Northern Route)



General

Despite the sensitive areas named above, the industrial estate does already, in its present capacity, generate significant HGV trips through these areas. Any additional trips are likely to be relatively insignificant considering the existing usage of the routes into the estate. The industrial estate is currently signed from the A361 to the east via the northern route and from the A361 to the south via the southern route.

Despite the fact that HGVs accessing the existing estate currently use both routes, neither route is ideal. In terms of impact magnitude the preferred (not ideal) route to the site is via the northern access. This route avoids the very sensitive area of Trowbridge Town Centre where; network capacity, significant pedestrian activity, and large built up residential areas are all noteworthy issues in terms of HGV routing. However, the northern route will take HGVs through a rural residential area with some on-street parking and therefore does not provide an ideal 'preferred' route.

Off Site Highway Network

As stated above there are two main routes to/from the site via the strategic highway network. The northern access provides a link to the A361 via Marsh Road and Hill Street and then the A350 to the northeast. The southern access provides a link through Trowbridge Town Centre to the A363 and the A350 to the south.

A more detailed review of each route is summarised below:

- Via the northern access – the northern roundabout access connects to Hammond Way (B3106), which connects to Marsh Road (B3105). Marsh Road passes through the villages of Hilperton Marsh and Hilperton. The B3106 then connects to the A361, which then connects to the A350 (to the east) via numerous roundabouts.
- Via the southern access – the southern mini roundabout connects the site to the A363 via numerous 'B' class roads. These roads pass through both industrial and residential areas. The A363 is classed as an 'other' lorry route, which, by definition, is only to be used where it is essential to gain access. The A363 connects to the A361 via a large gyratory. Along this route the A363 passes through the centre of Trowbridge shopping area. The A361 is the first 'local' lorry route between the site and the strategic lorry route network. The A361 then links directly to the A350 (strategic lorry route) to the northeast or indirectly to the south via another section of the A363.

Although the existing industrial estate is currently used by HGVs, it is not currently located in the best location for the provision of direct access to the strategic highway network and as stated in the section above all routes to/from the site pass through sensitive areas. In addition, to the above-mentioned environmental issues, both the northern and southern routes provide some highway limitations. These highway limitations include:

- Northern Route:

- The mini roundabout between the B3106 and the B3105 provides a tight right turning manoeuvre for HGVs when travelling away from the site. Large HGVs are able to carry out this manoeuvre within the available carriageway but do come close to the pedestrian island located on the eastern arm of the roundabout. This could provide a level of fear and intimidation to pedestrians;
- Some on-street parking exists along the A3105 within Hiperton and Hilperton Marsh. This limits the available road width to approximately 4.0 metres. Whilst 4 metres is just enough width to allow two-way flow for short sections for small vehicles, HGVs will be unable to pass unopposed. ;
- A sharp bend exists along the A3105 within Hilperton. Although HGVs were observed carrying out this manoeuvre without too much difficulty the tight 15m radii and limited visibility in this location could cause fear and intimidation for local pedestrians and excessive vehicle noise when HGVs brake to negotiate the bend;
- The most direct route between the A3105 and the A361 is via Devises Road. However, this route is subject to a 7.5 tonne weight restriction, a 20mph speed limit, and vertical and horizontal traffic calming. The preferred route is therefore via Trowbridge Road towards the A361, which is slightly less direct.
- Southern Route:
 - The route through Trowbridge provides numerous tight turning manoeuvres in locations where a large number of pedestrians are trying to cross the carriageway; and
 - Capacity issues were observed within Trowbridge Town Centre.

Accessibility by Sustainable Modes

Wide footways are provided for on both sides of the site access road and extend throughout the entire estate. These footways are linked to a wide network of footways linking to the nearby residential/industrial area and also Trowbridge Town Centre.

A number of bus stops are located within the existing industrial estate. These bus stops are facilitated by an hourly service to/from Trowbridge Town Centre.

Despite these sustainable facilities, it is unlikely that visitors to the proposed site will use sustainable modes of transport given the nature of a waste facility site. The good bus and pedestrian facilities do however offer staff a good alternative to the private car.

Constraints

General

The main constraints identified at this site are:

- The site is located away from the main strategic highway network and requires HGVs to pass through numerous sensitive areas, whichever route is taken.

Northern Route

The main constraints identified along the northern route to the site are:

- This northern route passes through a rural residential area;
- Some dwellings are located fronting onto the carriageway; and
- Some on-street parking exists along this northern route, which narrows the carriageway down to 4 metres in some locations for short sections.

Southern Route

The main constraints identified along the southern route to the site are:

- This southern route passes through numerous sensitive areas, such as a hospital, school, shopping centre, and residential areas;

- The centre of Trowbridge has high pedestrian flows and is therefore not ideal or safe for HGV movements; and
- The route through Trowbridge provides numerous tight HGV turning movements.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/W6/001** in **Appendix D**.

Mitigation

This site can be accommodated in traffic terms with minimal impact on the wider highway network with no requirement for mitigation measures (i.e. the transport infrastructure to accommodate HGVs already exists to an acceptable level). However, despite the fact that HGVs use the existing estate, the site is not ideally located for a waste facility, as consideration ought to be given to the impacts on the residential amenity of the areas through which the HGVs will pass.

It is recommended that access for HGVs is restricted to the north through signing and routing agreements. Access for light vehicles from the south is deemed acceptable although further capacity analysis will be required to confirm this.

Recommendation

The site offers the following advantages:

- The site is currently an existing Industrial Estate, which currently generates HGV movements. This will dilute the level of impact caused by a new waste facility site;

The following issues/constraints have been identified:

- The site located away from the main strategic highway network;
- Neither route to the site provides an ideal link for HGVs as both routes pass through sensitive areas.

The site is not recommended as an 'ideal' site for a waste facility site, in transport terms, due to the nearby residential settlements. However, the site offers a potential site location if the impacts on the local residential areas are deemed acceptable. Further analysis regarding the impact on these sensitive areas would be required in the form of a Transport Assessment and Environment Statement.

B.4.7 West Ashton Employment Allocation, Trowbridge (Site Ref: W7)

B.4.7.1 Introduction

This greenfield site extends to 12 ha and is located on the south-west fringe of Trowbridge, on the West Ashton Road. The site is a relatively large, open pasture field, currently used for cattle grazing. The site is located in close proximity (1km) to the A350 a strategic lorry route, however the site requires the formation of the appropriate access infrastructure from West Ashton Road. The northern and eastern boundary is marked by a narrow, meandering tributary of the River Bliss. To the south of the site is an open field with Biss Farm beyond. To the west is West Ashton Road with a housing development across and fields.

A Public Right of Way runs directly through the site which is a flat and Grade 4 agricultural land located close to the River Biss, the northern and north eastern boundaries of the site border Flood Zone 3 and some of the northern parts of the site are in Flood Zone 2.

The site is in proximity to a number of designations these include areas of ancient woodland between 0.3 km and 0.6 km to the south east and east of the site, Green Lane and Biss Wood Wildlife Sites are located approximately 0.6 km to the east of the allocation and the Biss Meadows Country Park County Wildlife Site lies to the west of the site.

The site is allocated as a General Employment (Policy E1) in the adopted West Wiltshire District Local Plan, the allocation for employment uses requires a 30m wide heavily landscaped buffer strip which will to protect views onto the site from nearby housing. The emerging Wiltshire Core Strategy proposes to designate the site as a future employment area.

The site benefit from outline planning permission granted in 1998 valid (for 3 years from date of consent). No longer valid as reserved matters was withdrawn.

Reference 98/01149/OUT Land for employment use classes B1, B2 and B8 on land at Biss Farm, West Ashton Road, Trowbridge, Wiltshire (Outline Planning permission)

Reference: 01/01551 Reserved Matters (Withdrawn)

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing buildings, change of use, etc. others of particular note include:

Reference: 06/03404/FUL Demolition of existing bungalow and erection of 2 storey houses on land at Orchard Close, West Ashton, Wiltshire BA14 6AU

Reference: W/09/03252/FUL Revised house types (house A & house B) – two new dwelling and associated facilities on land at 1 Orchard Close, West Ashton, Wiltshire BA14 6AU

B.4.7.2 Cultural Heritage

Introduction

The proposed West Ashton Employment Allocation lies in an area of agricultural land currently under pasture, on the east side of the West Ashton Road. It comprises an area of 12ha. The site is hedge-lined along its West Ashton Road boundary. This screens it from the road and partially from the residential development on the west side of the road. To the north, east and west the site is bounded by open fields. The Biss Brook runs just to the north of the site’s northern boundary and 150m further to the north there is extensive residential development. This is screened from the site by mature trees.

There is one known archaeological feature within the study area, situated on the north-eastern boundary of the site, on the Biss Brook (**W7-a**).

Baseline

Approach

The study area comprises a 500m radius from the edge of the proposed site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique Asset Number (i.e. **W7-a, b, c**, etc). A full methodology for the assessment of cultural heritage issues reported in this document is set out in Chapter 3.

Designated Heritage Assets within the Site

There are no statutory designated assets within the site boundary or the study area

The site lies c.750m to the east of the Trowbridge Conservation Area.

Heritage Assets within or close to the Site

Cropmarks (**W7-a**) associated with one heritage asset recorded on the WSMR extend within the site boundary.

Table B.4.7.2.1 - Heritage Assets within or close to the Site

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W7-a	<i>A settlement known as Black Ball was discovered during an archaeological evaluation in 2005. This had been depicted on Andrews and Dury’s Map of Wiltshire, 1773. It appeared to have been a short-lived settlement, extant during the 17th – 18th centuries. Large amounts of pottery, brick and clay pipe was recovered along with evidence of</i>	ST85NE538	None	ST8712,5736

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
	<i>gullies, pits, post-holes ditches and foundation trenches indicative of a small number of probable stone-founded, timber framed dwellings.</i>			

Heritage Assets within or close to the Study Area

There are no other known heritage assets within the study area.

Summary Site History

There are no known heritage assets within the study area dating between the earlier Prehistoric period and the Medieval period. For that reason it is not necessary to summarise each period separately. A study of available aerial photographs at the National Monuments Record’s office also did not highlight any additional evidence of previously unrecorded heritage assets.

The Post-medieval Period (AD 1547 – c.1900AD)

There is one Post-medieval heritage asset recorded on the WSMR. This comprises the remains of a relatively short-lived settlement called Black Ball (**W7-a**) situated on the north-eastern site boundary as it meets the Biss Brook. Its discovery resulted from archaeological trial trenching in 2005 in which a series of pits, post-holes, ditches and foundation trenches were recorded along with large amounts of 17th – 18th century pottery and clay pipe (Wessex Archaeology, 2005). It had previously been known only as an entry on Andrews and Dury’s map of Wiltshire (1773). The south-eastern part of the site was, however, wooded until at least 1960, after which it appears to have been cleared. Maps dating from the First Edition of 1887 onwards to the present day record two instances of the name Black Ball. These are Blackball Bridge crossing the Biss Brook north-west of the site and Blackball Hatch close to the newly developed residential area of Longfield.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded on the WSMR within the study area. Ordnance Survey maps (1:10,560 – 1890 onwards and 1:2,500 – 1887 onwards) reveal a landscape comprising predominantly unenclosed agricultural land throughout the last century, with extensive woodland to the east outside of the study area. This has been reduced over the last 40 years and given over to agricultural land.

Significance of Heritage Assets

There are no designated heritage assets within the site or study area

Although no known heritage assets lie within the boundary of the site, potential buried archaeological remains associated with a Post-medieval settlement (**W7-a**), lying on the north-eastern site boundary could survive within the site. There is the potential that evidence from earlier periods of activity survives within the site; however, the likelihood is judged to be low.

The relative condition and extent of any surviving remains within the site is unknown. Past land-use, especially ploughing and improvements to the drainage is likely to have damaged and degraded any remains associated with the settlement since its abandonment. Surviving evidence could take the form of fragmented remains of floors and wall foundations of houses, agricultural and industrial buildings; building debris, artefacts and other features such as in-filled field boundary ditches reflecting several hundred years of settlement and management of the landscape. These remains could survive within any part of the site.

Assessment Suitability

It is possible that significant remains associated with Black Ball (**W7-a**) may extend within the site boundary. Ground disturbing activities associated with construction work could adversely affect the significance of any surviving remains. Archaeological field survey would be required in order to

understand the potential for archaeological remains to exist. However, the scope of any such work would need to be agreed with Wiltshire County Archaeologist.

No historic buildings will be physically affected by development within the site nor will the settings of any be affected.

Mitigation

Depending on the results of any further archaeological evaluation, which could take the form of geophysical survey and possibly trial trenching, a programme of archaeological works might be required to mitigate the potential adverse effects of development on significant buried remains. A proportionate and industry standard response to mitigate the potentially adverse impacts on the archaeological interest of the heritage assets could be for an archaeological excavation to take place in advance of ground disturbing works. This excavation would allow for archaeological recording of any discovered remains and the removal and retention of any recovered artefacts to take place. The scope of any programme of archaeological works should be agreed in advance with the Wiltshire County Archaeologist.

Recommendations

This assessment has identified that potential buried archaeological remains could survive within the site.

Further investigations could take the form of a programme of field surveys comprising geophysical survey followed by trial trenching. The results of these investigations could be used to inform a mitigation strategy. This strategy could involve the locating of ground disturbing works away from known areas of significant buried remains. The scope of any programme of archaeological investigations should be agreed in advance with the Wiltshire County Archaeologist.

Conclusion

There is one heritage asset recorded on the WSMR on the periphery of the site. No earthwork remains survive and there would be no impact on setting. Development of the site may impact on currently unrecorded remains associated with known and unknown sites of buried archaeological remains. A programme of archaeological field surveys could be undertaken to assess the nature, extent and significance of any surviving remains.

B.4.7.3 Landscape and Visual Impact

Introduction

This is a greenfield site on the south-west edge of Trowbridge, on the West Ashton Road. It lies within the floodplain of the River Bliss and is currently used as grazing pasture, however it is allocated for employment uses in the West Wiltshire District Local Plan.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Avon Vales

Key characteristics relevant to the site:

- Low ridges from which the frequent medium-size towns are viewed.
- Small woods.
- Wide views across the area from the higher surrounding chalk downs.
- Undulating clay vale with varied hedgerow pattern and a mixture of arable and pasture.
- Wide river corridor with ancient pattern of flood meadows but much influenced by modern development.
- Away from the built-up areas, the land cover is predominantly agricultural with a mosaic of arable and pasture uses.

- The hedge cover on the arable land is often poor. However in the pasture areas, especially the lower lying meadows around the many small streams, the hedges are frequent and overgrown. Hedgerow trees are also characteristic.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Rolling Clay Lowland

Landscape Character Area: Trowbridge Rolling Clay Lowland

Key characteristics relevant to the site:

- Gently rolling lowland based on Clay.
- Mixed arable and pastoral land use with pasture concentrated around the water courses.
- Variable field pattern with network of full hedgerows and mature hedgerow trees.
- Presence of streams marked by lines of willows and crossed by modest bridges.
- Woodland blocks including some ancient woodland and wet woodland of high ecological value plus scattered mature trees, giving a semi-enclosed character allowing intermittent views to the steep scarps of the Chalk uplands.
- Small number of meadows of neutral and unimproved grassland.
- Scattered settlement of towns, small villages and farmsteads, many using vernacular materials of brick, half timber, stone, tiles and thatch.
- Roads largely minor and rural with a few trunk roads and sections of motorway.
- Views vary from semi-enclosed by intact hedgerows, riparian vegetation and woodland blocks to more open with views to the rising scarps of the chalk uplands.
- A largely peaceful, rural landscape, although this has been somewhat eroded around Trowbridge, with some large scale industrial buildings and modern housing estates, the A350 trunk road and a concentration of railway lines

WCC judge the condition of this landscape type to be 'good' due to its mixed farmland, intact hedgerows and woodland and hay meadows. Its strength of character is 'moderate', weakened by elements such as its varied land use and influence of prominent urban edges and transport corridors including noise and light pollution. The overall strategy for the landscape type is to 'conserve' the peaceful rural landscape with its hedgerow network, rich riparian vegetation, remnant meadows, ancient woodlands and pattern of small villages and scattered farmsteads and to 'strengthen' its character through measures to minimise the urbanising influence of large towns, new settlement and transport routes and to improve the woodlands and farmlands by encouraging management to retain or enhance their biodiversity and historic character.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- Special Landscape area
- Public footpath through the centre of the site, and across the floodplain to the east
- Public footpath to the west of the site across the River Biss floodplain before forking towards Lower Studley and Drynham
- Public footpath to the west of the site adjacent to the West Ashton Road to Longfield

Baseline Landscape Character and Features: Site Survey

This is a flat, floodplain site, located close to the River Biss. It consists of a relatively large, open pasture field, currently used for cattle grazing. It is enclosed by a strong hedgerow on its south-western boundary adjacent to the West Ashton Road. Its south-western boundary is weaker, with large gaps. The northern boundary is marked by a narrow, meandering tributary of the River Biss with scattered waterside tree and scrub species. Beyond the site, the southern edge of

Trowbridge is defined by mature tree belts which provide an enclosed semi-rural backdrop to the site during the summer months.

The site lies in an area well-served by public footpaths running through the floodplain and connecting with the residential neighbourhoods on the southern edge of Trowbridge and North Bradley. It is therefore important for providing recreational access to the countryside.

Approximately 2Km to the south-east of the site the village of West Ashton and A350 have elevated views across the countryside, although Biss Wood and Biss Farm help to screen views of the site.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: High

Capacity to Accept Change: Low-Medium

The site has a rural character, with strong hedgerow and tributary boundaries. In the summer it is well screened from the West Ashton Road, although is likely to be more visible during the winter months. The site is highly visible to users of a public footpath that runs through it. Residential properties on the south-east of Trowbridge, A350 and Biss Farm, are also likely to have views of it, especially in the winter. In its current condition, the use of this site would have significant landscape and visual effects and it therefore has a low capacity to accept change.

Potential Landscape Impacts

- Loss of hedgerow along West Ashton Road
- Loss of pasture
- Erosion of open rural character of farmland and settings of tributary of River Biss, Biss Farm and southern edge of Trowbridge
- Loss of recreational access to countryside to residents of Trowbridge
- Harm to geomorphology of River Biss

Potential Landscape Mitigation Measures

- Protection of tributary alignment and setting
- Protection of hedgerow adjacent to West Ashton Road
- Strengthening of hedgerow along south-eastern boundary of site.
- Planting of 15m wide woodland buffer around facility, linking it in to existing hedgerows/landscape pattern

The following 'Broad Management Objectives' for the Rolling Clay Lowland landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Retain and manage the dense hedgerow network and nurture new hedgerow trees.
- Retain and manage hay meadows.
- Introduce new tree planting along watercourses using typical riparian species such as alder and willow.
- Minimise small-scale incremental change such as signage, fencing or improvements to the road network which could change the rural peaceful character of the landscape.
- Consider strengthening the enclosed character of the landscape and screening views to intrusive urban edges through nurturing existing and planting new woodland.

Table B.4.7.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor <i>(assuming site developed for employment use in any event)</i>	Potential Visual Mitigation Measures
Residents of Biss Farm/ Biss Barn B&B	High	No change	Retain hedge along West Ashton Road
Residents on A350/north-western edge of West Ashton	Medium	No change	Plant 15m wide strip of woodland around site
Users of West Ashton Road	Low	Slight adverse	Locate facility away from residents and road users
Residents of The Spinney/ south-eastern edge of Trowbridge	High	Slight adverse	Divert footpath to south-east of site
Users of right of way through site	High	Moderate adverse	
Users of public right of ways to west of site	Medium	No change – slight adverse	

Summary: Residual Landscape and Visual Impacts

The is currently a greenfield site forming part of the setting of Trowbridge. Whilst it is relatively well screened by hedgerows and intervening off-site woodland vegetation in the summer months, it is likely to be visible to a wider audience in the winter. The site contributes to the semi-enclosed, rural floodplain character of the area and this would be significantly affected if the site were to be developed. It is important to consider that the site is already allocated for Employment use however, in the West Wiltshire District Local Plan, and could therefore be developed in any event. If this was to occur, the residual landscape and visual effects would be minimal, either resulting in no change or slight adverse effects.

Recommended further Landscape and Visual Surveys

- Winter and summer visual surveys from footpath

B.4.7.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

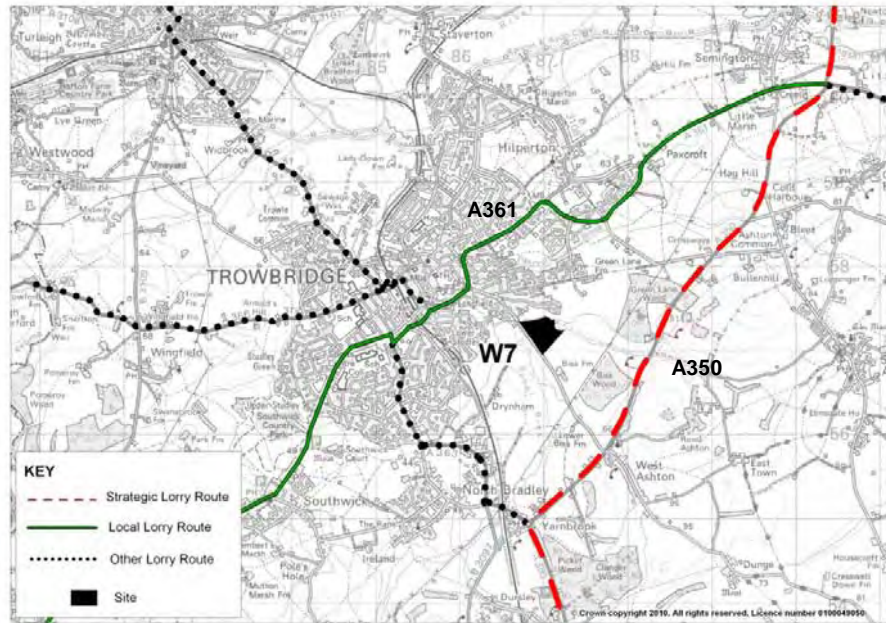
The 12ha site is located to the southeast of Trowbridge on grass/agricultural land. The site lies on the northern side of West Ashton Road opposite a small and newly developed residential area. West Ashton Road links the site to the main Strategic Lorry Route (A350) via a relatively new signal controlled junction. The site is allocated for a local scale recycling facility.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.7.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.4.7.4.1** shows that the site is situated off West Ashton Road, which is not a designated lorry route. The A350 is approximately 1.5km to the southeast and is

designated as a Strategic Lorry Route. The A361, a local lorry route, is located to the north of the site.

Figure B.4.7.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.7.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.4.7.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

This site is currently grass/agricultural land and the only existing access to the site is via a 3.8m wide gated access, which is currently only used by farm vehicles. This access is not suitable for the proposed uses and only provides an informal access for agricultural vehicles.

The site is bound to the north and east by other grass/agricultural land. West Ashton Road runs along the south-western boundary of the site. The existing site access links the site to West Ashton Road where the national speed limit currently applies. The substandard site access is currently located in the middle of the western boundary of the site and provides very good visibility in both directions due to the straight nature of West Ashton Road.

Approximately 100m northwest of the existing site access the national speed limit, along West Ashton Road, changes to a 30mph limit.

Transport Environmental Impacts

Towards the southeast of the site, there are no existing residential settlements located along West Ashton Road. The only residential properties located along West Ashton Road, towards the south of the site, are two farm buildings located just off the main carriageway.

A residential development is located adjacent to the northern half of the site, on the opposite side of West Ashton Road.

The western boundary of Trowbridge is located to the northwest of the site. Numerous residential settlements are located along West Ashton Road within Trowbridge.

Given the location of Trowbridge to the north of the site and the absence of residential settlements to the south, it is recommended that all site traffic is routed towards the south of the site. Providing routing for HGVs is taken from the south, the impact on noise, severance, air quality and fear and intimidation of pedestrians is likely to be minimal.

Off Site Highway Network

West Ashton Road links the site directly to the A350, approximately 1 mile southeast of the site. To the northwest of the site West Ashton Road passes through the town centre of Trowbridge. The route to the north is therefore not recommended for use by HGVs. West Ashton is subject to a speed limit of 60mph to the south and 30mph to the north of the site.

The 4-arm junction between West Ashton Road and the A350, located to the south of the site, has recently been signalised. This signalised junction currently provides separate left and right turn lanes from the A350 for traffic turning into West Ashton Road. A short flare is also provided for traffic exiting the West Ashton Road arm. Site observations showed that capacity may be an issue at this junction, as queues were observed during off-peak periods. A full capacity assessment will therefore be required to determine the impact of additional traffic from the site on this junction.

Accessibility by Sustainable Modes

Numerous bus stops are located about 400 metres northwest of the site within Trowbridge. These bus stops provide regular direct links to/from Trowbridge Town Centre.

A footway is provided on the southern side of West Ashton Road (i.e. opposite side to the proposed site). This footway provides links into Trowbridge Town Centre. There is no footway on the proposed waste facility side of West Ashton Road.

A pedestrian island is currently provided adjacent to the site. This island could provide a potential safe crossing point for pedestrians if pedestrian infrastructure is provided on development side of the carriageway.

Constraints

The main constraints identified at this site are:

- If the site access is located within the 30mph zone then the residential development adjacent to the site will be impacted upon in transport terms (i.e. noise and pedestrian fear/intimidation);
- If the site access is located away from the adjacent residential development (i.e. towards the southeast of the 30mph zone) then safety issues will arise in terms of locating the access within a national speed limit zone;
- Capacity issues were observed during a non-peak period at the junction between West Ashton Road and the A350 – additional traffic from the site will only exacerbate this issue. Further capacity analysis is therefore recommended at this junction as part of a Transport Assessment;

A plan showing the constraints is presented as drawing no. **5044619.017/TP/W7/001** in **Appendix D**.

Mitigation

A new site access will need to be provided off West Ashton Road into the site. Given that the recommended route to the site will be from the southeast, most vehicles accessing the site will be right turners. A right turn ghost island is therefore recommended at this new access. The best location for the new site access would be within the existing national speed limit zone (towards the southeast of the site boundary). This will limit the impact of noise & pedestrian fear/intimidation on the nearby residential development.

An indicative access design is presented as drawing number **5044619.017/TP/W7/002** in **Appendix D**. It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. Also highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

Enough internal queuing capacity should be provided within the site to stop vehicles queuing onto West Ashton Road.

No off-site mitigation is currently recommended, however, further capacity analysis is required at the junction between A350 & West Ashton Road. The need for mitigation measures may arise from this capacity analysis.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£150K** - to provide a new site access plus widening of West Ashton Road to provide a ghost right turn island (note: this cost only includes for the provision of a bell mouth access and therefore additional costs will arise in terms of extending the access into the site).

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- West Ashton Road is very straight near to the site and therefore visibility should not be a problem wherever the new site access is located;
- The site provides easy access to the Strategic Lorry Route Network; and
- No residential settlements are located between the site and the nearest Strategic Lorry Route Network, providing the access is located in a suitable location and access is restricted from/to the south

The following issues/constraints have been identified:

- A residential development is located adjacent to the site. However, the access to the site can be located away from the residential development to allow access to the Strategic Lorry Route Network without the need to pass by the residential area;
- The site is currently grass land and therefore does not have the transport infrastructure required for a waste facility. A new access is required along with onsite infrastructure;
- Speeds along West Ashton Road were observed to be excessive due to the straight nature of the road; and
- Capacity issues may exist at the junction between A350 / West Ashton Road, which may be exacerbated by additional site traffic.

In conclusion, the proposed site is considered appropriate, in transport terms, for the proposed uses with consideration of the mitigation measures as set out in this report.

B.4.7.5 Water Quality / Environment

Introduction

NGR: 386970, 157220

Location: Trowbridge

Site Area: 12 hectares

Data Source: Landmark Envirocheck Report 30173518_1_1 (15th Feb 2010) unless otherwise referenced

Table B.4.7.5.1 - West Ashton Employment Allocation Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is an un-named tributary of the River Biss located immediately adjacent to the northern boundary of the site. The River Biss is located 100m to the south west and flows in a northerly direction. The Paxcroft Brook is located 500m north of the site,</p> <p>The EA identify that the River Biss watercourse has a chemical and biological quality of Good.</p>	<p>Impact on the River Biss flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Biss quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site is underlain by the Upper Jurassic Oxford Clay, there is some alluvium (mainly silt) overlying the Oxford Clay in the east part of the site. The site lies on the downthrown side of the Trowbridge fault which trends NE-SW to the north of the site⁶³.</p>	<p>Potential for a pathway to be opened between contamination and the groundwater.</p>	<p>-</p>	<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are predominantly underlain by a unproductive strata (non aquifer); the far north east corner of the site is underlain by a Secondary (Minor) Aquifer of alluvium.</p>	<p>Possible contamination of the Secondary Aquifer.</p> <p>Changes to the groundwater flow regime of primarily</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p>

⁶³ BGS 1:50 000 Drift geological map (Sheet No. 281, Frome)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
		shallow aquifers during construction if foundations intercept groundwater or if pumping is required for excavations.	Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA PPGs during construction.	Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		
Hydrogeology: Groundwater – Vulnerability	Secondary Aquifer is moderately vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a westerly direction towards the River Biss.	Not applicable.	-	-
Discharges: Surface water – Discharge Consents	Discharges of final treated effluent; to a tributary of the River Biss, 280m south, 669m south west, 781m north east, 334m south east. Discharge of process effluent; 280m south, to a tributary of the River Biss; and 472m north east, to the River Biss. Discharge of other matter 586m west, to the River Biss.	No risk to works.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	There are no discharges to groundwater recorded within 1km of the site.	Not applicable.	-	-
Discharges: Pollution Incidents	General biodegradable household domestic waste (1989); Category. 3 (minor incident), 301m west.	No risk posed.	-	To be considered as possible source of contamination if any

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
				found during monitoring.
Abstractions: Surface Water – Abstractions	Abstraction from River Biss for lake & pond throughflow, 519m west.	No risk posed.	-	To be considered during further assessment
Abstractions: Groundwater – Abstractions	There are no groundwater abstractions within 1km of the site.	Not applicable.	-	-
Flood Risk	The majority of the site lies within flood zone 1. However the far north east part of the site (the area that is a minor aquifer) lies within flood zone 3 of the floodplain for the tributary of the River Biss.	Fluvial flooding or flooding from groundwater could interrupt operations and cause pollution to spread from the site, although only a fraction of the site is at risk. The site could increase the flood risk to surrounding sites.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures. The 1% annual probability flood level needed for the assessment can be obtained from the EA at a charge.
Land Uses	Shails Lane, Scrap metal Yard, no known restriction on waste, 428m north east. Green Lane, Special Waste Transfer Station, 439m north east.	Low possibility that contaminants have migrated to site - mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	The Green Lane Wood Nature Reserve is located 605m to the east of site.	Possible contamination of a protected area.	Surface water drainage plan including runoff collection system and infiltration device design. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling	Environmental Management during construction. Determine monitoring requirements with EA. Consult with Natural England regarding how works may affect the

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements / Design Considerations
			areas etc.)Surface drainage plan inc. runoff collection system Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Good working practices – EA guidance (PPGs) during construction.	SSSI. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station or Local Recycling Facility at **West Aston Employment Allocation** falls within the below category.

- There are several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There is a surface water course adjacent to the site and therefore there is the potential for changes to its flow and quality
- The site is underlain by a Secondary Aquifer and therefore there are potential groundwater contamination issues
- The presence of the Green Lane Wood Local Nature Reserve near the site
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include flood risk assessment, surface water management plan and contamination assessment.

B.4.8 Warminster Business Park, Warminster (Site Ref: W8)

B.4.8.1 Introduction

The site extends to 23 ha and is located on the north edge of Warminster and 15 km south of Trowbridge. The site is an existing industrial estate that contains a local household recycling centre and other small businesses including small manufacturing and engineering. The estate is accessed directly off the B3414 which leads to the A36/A350 Warminster – Westbury interchange. There are two existing access points to the estate, Furnax Way to the south and Roman Way to the north. The northern boundary of the site is formed by fields and approximately 500m beyond this is the A350, to the east is a local railway line and the properties at Arn View.

A Public Right of Ways runs through the site. Tennis courts and a playing field are opposite the site and there is an area of recreation space defined in the West Wilts Local Plan south of the site. A river runs along the eastern boundary of the site and consequently this area is within FZ 2 and FZ 3.

The site is in proximity to a number of designations these include a SAM (round barrow on Arn Hill) which is approximately 800 meters to the east and Norridge wood ancient woodland which lies approximately 360 meters west of the site. Wildlife Sites proximity to the site are Norridge Wood 360 meters to the west, Coldharbour Meadows 465 meters to the south, Warminster Verge 300 meters to the east and Arn Hill 430 meters to the east.

The site is allocated as a Employment Area (Policy E2) in the adopted West Wiltshire District Local Plan and identified within an area of archaeological interest and situated 370 meters to the north of the Warminster Conservation Area. The emerging Wiltshire Core Strategy proposes to designate a large area immediately to the west of the site for Housing / Mixed use.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing buildings, change of use, etc. of particular note is:

Reference: 06/00521/FUL 24 bedroom 2 storey extension to hotel on land at Motel Bath Road, Warminster, Wiltshire BA12 7RU

B.4.8.2 Cultural Heritage

Introduction

The proposed site lies within an established business park (Crusader Park). The northern site boundary meets open agricultural land and is not screened, whilst Warminster Verge and Arn Hill lie to the east between 300m – 450m from the site boundary and is partially screened with stands of mature, though small birch trees. In the west of the study area lies Norridge Wood, c.360m from the site and Cold Harbour Meadows lie to the south on the boundary of the study area. The Warminster Town Centre Conservation Area also lies to the south and is well screened from the site by extensive stands of trees. However, the site would be visible from the spire of the Grade B St Denys Church. The site comprises an area of 23ha, the majority of which is built over or hardcore surfaced in preparation for development. Only parts of the eastern edge of the site remain as undeveloped scrubby grassland.

The site lies within c.250m of the Warminster Town Centre Conservation Area (**W8-q**). It also lies within an Area of Archaeological Interest as allocated in the West Wiltshire Local Plan. These are locally defined areas within the urban centres which may have archaeological resources worthy of protection. Outside the study area, c.800m to the east is situated Scheduled Monument SM12295, a bowl barrow site, on top of Arn Hill. Much of this monument survives well, standing to a height of 1.5m, despite some erosion, infilling of the surrounding ditch and the depression in the middle which represents early investigation by Colt-Hoare. Its elevation means that there is likely to be a degree of inter-visibility between it and the site though this is restricted by intervening residential development and scrubby woodland.

Within the site there are two known archaeological features recorded on the Wiltshire Sites and Monuments record (WSMR). These comprise recovered artefacts and an Iron Age pit, recorded during an archaeological watching brief in Furnax Lane in the north of the site during 1998 and a putative enclosure (**W8-d** and **W8-e**).

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique Asset Number (i.e. **W8-a, b, c** etc; Figure 5044619.015/CH W8). A full methodology for the assessment of cultural heritage issues reported in this document is set out in Chapter 3.

Designated Heritage Assets within the Site

There are no designated heritage assets within the site boundary.

Designated Heritage Assets within or close to Study Area

There are no Scheduled Monuments within the 500m study area

There is one Grade B Listed Building, two Grade II* Listed Buildings and eleven Grade II Listed Buildings in the south of the study area, on the northern periphery of Warminster. These have been grouped under one asset reference (**W8-a**) and all lie more than 250m from the site boundary

There is one Scheduled Monument c.800m to the east of the site boundary (SM12295)

The site lies c.250m to the north of the Warminster Town Centre Conservation Area (**W8-q**)

The site lies within an Area of Archaeological Interest and another discrete Area of Archaeological Interest is focused on the core of the Warminster Town Centre Conservation Area (**W8-q**).

Table B.4.8.2.1 - Designated Heritage Assets within or close to Study Area

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W8-a	<i>Warminster Built Heritage – collective of 14 Listed Buildings on the periphery of the historic core of the town to the south of the site. With the exception of the Grade B Church of St Denys, which has 12th century origins but was entirely rebuilt in the 14th century, all are Post-medieval in date.</i>	312862; 312870; 312866; 312863; 312864; 312865, 312861; 312867; 312868; 312871; 312872; 312869; 312860; 312933.	Grade B Grade II* Grade II* Grade II Grade II Grade II Grade II Grade II Grade II Grade II Grade II Grade II Grade II Grade II Grade II These are all located within the Warminster Town Centre Conservation Area and within an Area of Archaeological Interest with the exception of building 312933, which is close by but in Warminster Manor Gardens.	ST8692,4549 ST8690,4526 ST8695,4537 ST8693,4545 ST8694,4544 ST8696,4543 ST8691,4535 ST8697,4541 ST8693,4535 ST8690,4526 ST8691,4528 ST8692,4533 ST8689,4528 ST8712,4538
W8-q	<i>The Conservation Area is centred on the linear element of the town running west to east with four roads leading off to north and south.</i>		Warminster Town Centre Conservation Area	ST869,64514
Scheduled Monument (SM12295)	<i>Bowl Barrow on Arn Hill Down, 450m east of New Farm and 800m east of Warminster Business Park. Set on a prominent hill top overlooking the Wylve Valley. The mound is 18m in diameter and 1.5m in height. It has a partially infilled ditch and an outer bank. Partial excavation of the centre produced a stone cist or box containing a cremation burial.</i>		Scheduled Monument (SM12295)	ST876,74647

Heritage Assets within the Site

There are two recorded non-designated assets that lie within the site boundary.

Table B.4.8.2.2 - Heritage Assets within the Site

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W8-d	<i>An archaeological watching brief was undertaken for a pipeline on land in Furnax Lane in 1998. An Iron Age pit was recorded and a small assemblage of artefacts recovered. These comprised sherds of Early – Middle Iron Age pottery and animal bone, and elsewhere, unstratified artefacts included, possible Neolithic/Bronze Age flint tool waste, Roman and Medieval sherds.</i>	ST84NE154; ST84NE206; ST84NE310; ST84NE455.	Area of Archaeological Interest	ST8647,4622
W8-e	<i>An undated rectangular enclosure at Brickhill Farm which may have been originally identified by aerial photograph. This could have an Iron Age origin if associated with a single Iron Age pit recorded during 1998 several metres to the north. In 1990 a trench was opened across this area but no evidence of cut features or artefacts was recorded. This part of the site is now built over and it is unlikely anything of archaeological significance survives.</i>	ST84NE697	Area of Archaeological Interest	ST8658,4661

Heritage Assets within or close to the Study Area

Table B.4.8.2.3 - Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W8-b	<i>A Late Medieval counter was found in the grounds of Warminster School.</i>	ST84NE453	Area of Archaeological Interest	ST8705,4546
W8-c	<i>This is the approximate location of the Early Medieval Royal Manor, first mentioned in the 9th century (AD899-925) and defines the earliest core of Warminster (Worgemynsterin). In the 10th century the settlement also had a mint. In 1979 an area of Emwell Street was excavated in which a series of drainage ditches were recorded. Pottery sequences dated these to the mid-11th century. The ditches appeared to have become choked with rubbish later on in the 11th century and were subsequently re-dug and rough stone surfaces laid between them. These ditches comprise the first securely dated material evidence for late Saxon settlement attached to the manor site.</i>	ST84NE402	None	ST8705,4535

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W8-f	<i>An undated D-shaped enclosure to north-east of Meyfeld Farm. It is considered possibly to be so small it may even be a pit. Probably identified through aerial photographic evidence.</i>	ST84NE696	Area of Archaeological Interest	ST8658,4661
W8-g	<i>An undated field-system north of Warminster and north-west of the site. It appears to represent a series of north-south oriented ditches. This cropmark complex was plotted from aerial photographs.</i>	ST84NE710	Area of Archaeological Interest	ST8600,4646
W8-h	<i>A series of undated square features in a pasture to the north of Cold Harbour Lane. These may be of modern origin.</i>	ST84NE654	Area of Archaeological Interest	ST8634,4579
W8-i	<i>An undated square feature on Cold harbour recreation Ground. This may be the surviving remains of a recent games pitch.</i>	ST84NE653	Area of Archaeological Interest	ST8656,4570
W8-j	<i>An undated, but probably modern feature just north of the Warminster on the outskirts of the Conservation Area. This may be the buried remains of former allotments identified on aerial photographs.</i>	ST84NE712	None	ST8664,4531
W8-k	<i>This is the former site of an Early Medieval (Saxon) chapel in Cold Harbour. The site is referred to in an 18th century manuscript with reports of bones and coffins being dug up and of foundations visible as parch marks in the grass of the pasture.</i>	ST84NE401	Area of Archaeological Interest; also located within the boundary of the Warminster Town Centre Conservation Area.	ST8682,4553
W8-l	<i>Earthwork evidence of settlement remains in Church Fields, Warminster. These lie on either side of the church to the west of a large ditch and bank. To the east there is also a building platform with banks and ditches adjoining. Though undated these may well be Medieval features.</i>	ST84NE669	Area of Archaeological Interest	ST8700,4560
W8-m	<i>One sherd of Late Iron Age/Early Roman period pottery was found during an archaeological evaluation at Warminster School in 2003.</i>	ST84NE208	Within the boundary of the Warminster Town Centre Conservation Area.	ST8702,4532
W8-n	<i>Two Bronze Age round barrows at</i>	ST84NE611;	Area of	ST8746,4621

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
	<i>Arn Hill which were destroyed during the construction of golf tees in 1911. One was found to contain a primary and secondary cremation burial, each in an urn. A perforated whetstone was also recovered from the collared urn of the primary cremation. The second barrow was buried when the debris from the first was used to create the golf tee.</i>	ST84NE612	Archaeological Interest	ST8744,4623
W8-o	<i>A single sherd of Late Medieval pottery found south-east of Upton Scudamore during an archaeological investigation in 1994.</i>	ST84NE458	Area of Archaeological Interest	ST8704,4676
W8-p	<i>Undated cropmark features identified on aerial photographs on the eastern boundary of the site. These may be the buried remains of Medieval ridge and furrow.</i>	ST84NE709	Area of Archaeological Interest	ST8695,4612

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded in the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic assets are recorded in the WSMR within the study area. Two Bronze Age round barrows which were destroyed in 1911 during the construction of golf tees (**W8-n**). These are located on the eastern boundary of the study area and would probably have been broadly contemporary with Scheduled Monument SM12295 higher up at the top of Arn Hill. Unstratified flint waste was recovered during a watching brief on Furnax Lane (**W8-d**). This may be of Neolithic or Bronze Age origin (Wessex Archaeology, 1998).

The Iron Age (700 BC – AD 43)

Iron Age evidence within the site comprises a single pit from which Early- Middle Iron Age pottery was recovered (**W8-d**) and a cropmark indicating a possible rectilinear enclosure (**W8-e**) which was considered on morphological grounds to be Iron Age. Its proximity to the Iron Age pit was also thought to be persuasive. It had been partially evaluated in 1979 though no evidence of archaeological remains was recovered. Both these sites have now been built over and it is unlikely buried remains survive. A possible D-shaped enclosure to the north of the site (**W8-f**) has also been considered on morphological grounds to be an Iron Age candidate and to the south of the site at Warminster School (**W8-m**) a single Late Iron Age/Early Roman period sherd was found during an archaeological evaluation in 2003 (Wessex 2003). These very fragmentary and possibly un-associated remains and the extent to which the site has been developed to date suggest that it is unlikely significant buried remains of this period survive within the site boundary.

The Roman Period (AD 43 – AD 450)

There are no recorded Roman period assets within the site boundary and with the exception of a single Late Iron Age/Early Roman period sherd, noted above, none within the study area.

The Early Medieval Period (AD 450 – AD 1066)

There are no recorded Early Medieval assets within the site boundary. However, the boundary of the study area encompasses part of the original core of Early Medieval Warminster (*Worgemynsterin*) and the former site of the Royal Manor of Warminster was located on what is

now the periphery of the town (**W8-c**). Evidence of archaeological remains of the period comprises cut features and artefacts from excavations at Emwell Street in 1979. A series of drainage ditches were recorded from which pottery dating no later than the mid-11th century was recovered. These were later re-dug and the softer surfaces between them stone surfaced. These ditches comprise the first securely dated material evidence for late Saxon settlement attached to the manor site. To the west of the former manor site in Cold Harbour and 200m south of the Business Park lies the site of an Early Medieval chapel (**W8-k**). It is referred to in an 18th century manuscript with reports of bones and coffins being dug up and of foundations visible as parch marks in the grass of the pasture. The site lies beyond the core of the early settlement and the extent to which the site has been developed to date suggest that it is unlikely significant buried remains of this period survive within the site boundary.

The Medieval Period (AD 1066 – AD 1547)

There are no recorded Medieval assets within the site boundary with the exception of a single unstratified sherd (**W8-d**) recovered during the above mentioned archaeological watching brief undertaken in 1998 on a pipeline in Furnax Lane (Wessex Archaeology, 1998). Elsewhere in the study area remains comprise a Late Medieval counter found in the grounds of Warminster School (**W8-b**) and another single Late Medieval sherd (**W8-o**) found in the north of the study area during an archaeological investigation in 1994 (Wessex Archaeology, 1994). Earthworks survive at Church Fields 200m south-east of the site on the periphery of Warminster (**W8-l**) and though undated these are thought likely to be Medieval features. Just on the eastern site boundary a small complex of undated cropmarks may be the buried remains of ridge and furrow (**W8-p**). There is no evidence of surviving earthworks of any sort extending into the site and the extent to which the site has been developed to date suggest that it is unlikely significant buried remains of this period survive within the site boundary. There is a low potential for the survival of buried remains of furrow bases (**W8-p**) in the east of the site where there is a small area of undisturbed ground adjacent to the drain.

The Grade B Listed St Denys Church (part of group **W8-a**) dates at least to the 14th century and is located on the edge of the Warminster. It is a very imposing building and is bounded by mature deciduous woodland on its northern side. The church has obscured views toward the site through the trees such that at ground level there is very limited inter-visibility. This inter-visibility may be increased markedly at height by those accessing the church spire. However, the setting of the building would not be affected by further development within the site.

The Post-medieval Period (AD 1547 – c.1900)

The group of Listed Buildings (**W8-a**) within the northern part of Warminster Town Centre Conservation Area (**W8-q**) and on its eastern edge are predominantly 18th and 19th century houses of two and three-storeys, along with several buildings associated with Warminster School and, just outside the Conservation Area, the Manor House. There is currently no inter-visibility between the site and the Listed Buildings and the Conservation Area in which there are set. It is therefore unlikely that new buildings would affect the present setting of Listed Buildings or of the Conservation Area or affect its significance, aesthetic quality or interest value.

There are no recorded Post-Medieval archaeological sites within the site boundary and none within the study area.

The Modern Period (c.1900 – to present)

There are three sites of very limited significance which have been identified on aerial photographs and are of modern origin. These comprise former sports fields, allotments and unidentified square features in pasture on Cold Harbour Lane (**W8-h**, **W8-i** and **W8-j**). Elsewhere there is a cropmark complex indicating an undated field-system to the north-west of the site (**W8-g**). Historic Ordnance Survey maps (1:10,560 – 1890 onwards and 1:2,500 – 1887 onwards) depict the site within an agricultural landscape. There are two farms and a gas works within the site with the remaining area given over to agriculture. This remains so until the 1970s when poultry houses and a depot are added. After 2000 much of the site was built on to provide the Business Park. A study of

available aerial photographs at the National Monuments Record's office did not highlight any additional evidence of previously unrecorded heritage assets.

Significance of Heritage Assets

There are no designated heritage assets within the site.

The site lies c.250m to the north of Warminster Town Centre Conservation Area (**W8-q**) in which there are a number of Grade II Listed Buildings and one Grade B church which represent core elements of the Medieval and Post-medieval historic townscape. These are well screened from the site to the extent that inter-visibility is only very limited. This group of buildings and their settings, and the setting of the Conservation Area contribute to their significance.

There are no significant recorded archaeological sites within the site boundary and although the site lies within an Area of Archaeological Interest it is not likely that significant unknown archaeological remains survive in the areas that have already been developed. There is only very little potential for the survival of possible buried remains in the eastern periphery of the site in currently undeveloped ground. The southern part of the site, south of Stephen's Way appears to have been cleared for development though buried archaeological remains may survive. The relative condition and extent of such surviving remains within the site is, however, unknown. Past land-use, especially ploughing and improvements to the drainage, prior to the development of the site as a whole, is likely to have damaged and degraded any remains that may survive such as furrow bases at the eastern edge of the site and unknown buried remains in the south of the site. Modern, post-war development of the site is likely to have degraded or removed any remains elsewhere.

The significance of any surviving archaeological remains is unknown; however, any significance would be associated with the potential that the remains are a source of evidence of former uses of the site and the surrounding area.

Assessment Suitability

Much of the site has been developed on, which limits the potential for archaeological remains to exist. It is possible that archaeology could be present at the eastern edge of the site (**W8-p**) and to a lesser extent in the south of the site. Ground disturbing activities associated with construction work could adversely affect the significance of any surviving remains. Based on current information these potential remains are unlikely to be worthy of designation, would not warrant preservation in situ and should not preclude any potential development within the site. However, further information is required to substantiate this statement. The potential scope for additional investigations is discussed below.

No historic buildings or the Warminster Conservation Area would be physically affected by development within the site. Given the proximity of the Conservation Area and associated Listed Buildings, especially St Denys Church a visual impact assessment on settings would possibly be required, once proposed development options are known.

Mitigation

Depending on the results of any further investigations, a programme of archaeological works might be required to mitigate the potential adverse affects of development on any significant buried remains. A proportionate and industry standard response to mitigate the potentially adverse impacts on the archaeological interest of the heritage assets could be for archaeological field survey to take place in advance of ground disturbing works. This would allow for recording of any discovered remains and the removal and retention of any recovered artefacts to take place. The scope of any programme of archaeological works should be agreed in advance with the Wiltshire County Archaeologist.

Recommendations

This assessment has identified that potential buried archaeological remains could survive within the site. Based on current information these potential remains are unlikely to be worthy of designation, would not warrant preservation in situ and should not preclude any potential

development within the site. However, further information is required to better understand the significance and extent (or location within the site) of these remains.

Further investigations could take the form of a programme of field surveys comprising geophysical survey followed by trial trenching. The results of these investigations could be used to inform a mitigation strategy. This strategy could involve the locating of ground disturbing works away from known areas of significant buried remains. The scope of any programme of archaeological investigations should be agreed in advance with the Wiltshire County Archaeologist.

Conclusion

There is one potentially surviving heritage asset recorded on the WSMR on the eastern periphery of the site, recent development having removed other known assets. No earthwork remains survive and there would be no impact on setting. Development of the site may impact on currently unrecorded remains associated with known and unknown sites of buried archaeological remains. A programme of archaeological field surveys could be undertaken to assess the nature, extent and significance of any surviving remains.

B.4.8.3 Noise

Introduction

The site at Warminster Business Park, Warminster has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- At the front of 18-20 Arn View, located approximately 40m to the east of the allocated site boundary; and
- To the north of No. 2 Furnax Lane on the southern border of the allocated site.

The allocated site is located within land currently utilised as an industrial estate. Given the current usage, background noise levels were made with these activities occurring. The allocated site is bounded to the west by the B3414 (Bath Road), and a railway to the east. The surrounding area to the west and north of the site is farm land, with a large grouping of residential dwellings to the south east.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is made up of road traffic on the B3414 and A36, industrial noise from the estate and trains on the railway.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.4.8.3.1 - Arn View - Background Noise Levels (AU1_0038)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:58:00	00:05:00	64.3	83.8	44.7	53.0	48.7	46.7
16:03:00	00:05:00	50.1	57.2	45.2	52.6	49.1	46.8

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:08:00	00:05:00	58.9	77.6	43.7	55.5	49.9	46.8
15:58:00	00:15:00	60.7	83.8	43.7	53.8	49.2	46.8

Table B.4.8.3.2 - 2 Furnax Lane - Background Noise Levels (AU1_0039)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
16:20:00	00:05:00	57.8	68.2	46.6	61.4	54.3	48.5
16:25:00	00:05:00	55.0	63.2	45.0	58.8	51.6	47.6
16:30:00	00:05:00	57.1	68.0	44.8	61.4	52.2	47.2
16:20:00	00:15:00	56.7	68.2	44.8	60.6	52.8	47.8

The average background noise levels (L_{A90}) at Arn View and No.2 Furnax Lane are taken as being 46.8 dB and 47.8 dB, respectively.

Assessment Suitability

The site is an existing industrial estate with residential dwellings on the south, west and eastern boundary.

There is little or no screening from the proposed site but with appropriate screening and careful site location the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required, the location of which will depend on the siting of the facility. The facilities should be sited towards the centre of the site with a minimum separation distance of 100m from Bath Road and 120m from the residential properties to the east. By careful siting and placing activities in buildings a greater area can be utilised

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise.

B.4.8.4 Air Quality and Odour

Introduction

The site is to the north of Warminster on an existing industrial estate. The industrial estate includes a Household Recycling Centre. There are new residential areas to the east of the site and new commercial premises to the west at Bath Road Business Park.

Potential uses include materials recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 11.4 µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 9.3µg/m3 NO2 (standard 40µg/m3);
- 14.5µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 475 sensitive receptors within 500 metres: scattered residential properties to the north and Warminster residents to the south, including schools. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic on the A36/A350, B3414 and minor roads. Other than surrounding agricultural areas, there are no notable sources of bioaerosols and ammonia.

Table B.4.8.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (50 properties)	1 (1)	2 (2)	N/A	N/A	N/A	2 (2)	2 (2)
Total residential between 100 and 500m (425 properties)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	2 (2)
Residential within 250m only (150 Properties)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	2 (2)
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential ‘in-combination’ or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol high risk is limited to within 250m of the site

Mitigation

Dust and odour control measures are recommended. See ‘Air Emissions Mitigation Options’ in **Appendix C**.

Recommendation

Air quality risks for the intended use are low to moderate without mitigation. Dust and odour mitigation is recommended. Detailed assessment should not be necessary.

B.4.8.5 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

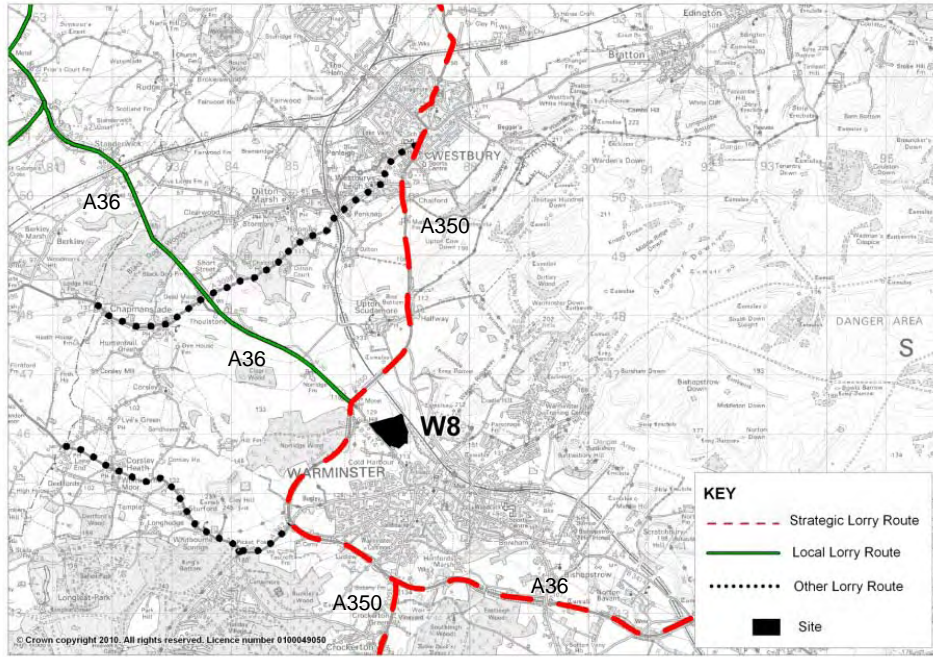
This 23 ha site is located off the B3414 Bath Road, 1.3km northwest of Warminster and is allocated for a local scale waste facility. It is currently an established business park and houses an existing Household Recycling Centre. It is proposed that the waste facility is located within this business park however the exact location and site area of the proposed site is unknown. As such this appraisal has considered the access junction to the business park but not the site access within the wider site. The site is largely surrounded by open space.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.8.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.4.8.5.1 shows that access to the site is gained via the A36/A350 (strategic lorry route) roundabout, 800m to the northwest of the site. This is linked to the B3414 Bath Road which is not designated as a lorry route.

Figure B.4.8.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.8.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.4.8.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed from the single carriageway B3414 Bath Road via two existing accesses. The northernmost is a 3 arm roundabout, whilst the southern access (nearest to Warminster) is via a priority T-junction with no dedicated right turn lane. The northern access road is known as Centurion Way, whilst the southern is Furnax Lane. Although the business park has two accesses, each serves a different section of the site. Whilst Furnax Lane appears to have the infrastructure to be a one way only (due to limited width) through route for access to all areas of the estate it is currently blocked by a trailer for reasons unknown at this stage (**Figure B.4.8.5.2**).

Bath Road is approximately 7m wide near the site, whilst the site access roads are both 7.3m wide. The site is subject to a 30mph speed limit as is Bath Road into Warminster. Approximately 90m north of the Centurion Way/Bath Road roundabout the speed limit becomes the national speed limit towards the A36/A350. Visibility from the northern access is required to be the entire junction as set out in DMRB⁶⁴. This is achieved at the junction. At the southern access of Furnax Lane, visibility is required to be 70m in DMRB⁶⁵ which is achieved here also.

Figure B.4.8.5.2 demonstrates on street parking found on the site, and shows the parked lorry trailer which currently blocks access between the two parts of the site between Centurion Way and Furnax Lane.

Figure B.4.8.5.2 - Trailer at end of Centurion Way Blocking Access to Furnax Lane (Note On Street Parking)



Transport Environmental Impacts

The site is located in a largely rural area with green fields surrounding it. There are however some residential properties located in the area, namely near the Centurion Way/Bath Road roundabout, along Bath Road from Furnax Lane to Warminster, and to the east of the business park, screened by 50m deep dense vegetation.

A 7.5T environmental weight restriction is in place on Bath Road, from the Furnax Lane junction into Warminster. This restriction applies to all vehicles “except for loading”. All HGVs are therefore encouraged to route via the Warminster Bypass, consisting of the A36 and A350, which

⁶⁴ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 3 (TD 16/07)

⁶⁵ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

loops around Warminster to the south and west, providing a national speed limit road which is designated as a strategic lorry route.

Footway widths within the site are 2m and provision is available throughout the business park. There are no apparent cycle facilities however, and the nearest bus stop is located 1km south, adjacent to the obelisk in Warminster at Emwell Cross.

Off Site Highway Network

The junction of the B3414/A350/A36 is a 4 arm roundabout, 800m to the northwest of the site. The A36(S) and A350(N) arms form the strategic lorry route in the area, whilst the A36(W) arm is a local lorry route. The B3414 is not a designated lorry route. Low traffic flows were observed in the area. Between the B3414 and A350 arms of the junction is Warminster Services, which provides facilities for HGVs. The A36(S) forms the Warminster Bypass, looping south then east around Warminster and towards Salisbury in the southeast. The A350(N) heads to Westbury, Trowbridge and beyond to Chippenham and the M4. The A36(W) leads to Beckington and onto Bath. The B3414 travels through Warminster town centre and rejoins the A36 near Heytesbury, to the southeast of Warminster.

Site observations suggest that capacity at the local junctions will not be unduly affected by the proposals however a capacity assessment would be required to ensure the junction could accommodate the proposed traffic volumes.

Accessibility by Sustainable Modes

Bath Road has footway provision on the business park side of the carriageway with a width of 2m. Dropped kerbs are provided around the roundabout where appropriate. There are no cycle facilities provided in the vicinity, whilst the nearest bus stop is located near to Warminster town centre at Emwell Cross on Silver Street.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/W8/003** in **Appendix D**.

Constraints

The main constraints identified at this site are:

- Some on street parking occurs on Centurion Way within the site;
- A 7.5T weight limit on the B3414 Bath Road between the site and Warminster town centre; and
- The lack of a through route on Furnax Lane between the two parts of the site.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/W8/001** in **Appendix D**.

Mitigation

No mitigation is required at either junction to the site.

Recommendation

The site offers the following advantages:

- It is located close to the strategic lorry network;
- The site is located away from most sensitive land uses;
- The site has two existing accesses to a suitable standard; and
- A waste facility is already located on the site.

The following issues/constraints have been identified:

- The site is not accessible by sustainable modes;
- Access to/from Warminster on Bath Road is not permitted for HGVs due to the environmental weight restriction;
- Some on street parking is evident on Centurion Way within the site; and
- There is no through road linking the two parts of the site.

In conclusion, the proposed site is considered appropriate for the proposed uses. No mitigation is required at this site, although consideration should be made as to how to control potential parking issues which may occur, and to also provide a link road between the two parts of the site.

B.4.8.6 Water Quality / Environment

NGR: 386680, 146070

Location: Warminster

Site Area: 23 hectares

Data Source: Landmark Envirocheck Report 30093723_1_1 (8th Feb 2010) unless otherwise referenced

Table B.4.8.6.1 - Warminster Business Park Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is The Were, 100m to the south of the site. The Were flows for approximately 2.4km before its confluence with the River Wylye.</p>	<p>Impact on The Were tributaries as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on The Were tributaries quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The geological map⁶⁶ indicates that the site is underlain by the Cretaceous Chalk (West Melbury Marly Chalk Member) directly north west of the site there is a small outlier with the slightly younger zig zag chalk and quarternary drift deposits of sands & gravels.</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>	<p>-</p>	<p>Consideration of geology during further assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are underlain by a Primary (Major) Aquifer.</p>	<p>Possible contamination of the Primary Aquifer.</p> <p>Changes to the groundwater flow regime of primarily shallow aquifers during construction if</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas</p>	<p>Environmental management during construction</p> <p>Determine monitoring requirements with EA</p> <p>Produce working plan for site</p>

⁶⁶ 1:50 000 Drift geological map (Sheet No. 281, Frome)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
		foundations intercept groundwater or if pumping is required for excavations.	etc.). Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.	Review runoff treatment requirements Monitoring boreholes (may be required for obtaining operating permit) Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is located within an SPZII area, with a SPZ I area extending up to 155m south east of the site.	There is a potential risk to groundwater.		
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a southerly direction towards the River Wylye.	No risk posed.	-	-
Discharges: Surface water – Discharge Consents	Discharge of final treated effluent (discharge to The Were via a soakaway) on site. Discharges of other matter (to a tributary of the River Were), 509m north west and 902m south east. Discharge from pumping station to the River Were, 558m south east. Discharge of Storm Sewage Overflow to the River Were, 725m south east.	No risk to works.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	Discharges of final treated effluent (to a soakaway), 29m north, 79m south, 159m, 194m, 239m, 346m 367m and 378m east and 390m, 424m south east.	No risk to works.	-	To be considered during further assessment.
Discharges: Pollution Incidents	Agricultural materials and wastes (slurry); Cat. 2 (significant incident) to water; 206m south.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Abstractions: Surface Water – Abstractions	There are no surface water abstractions within 1km of the site.	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	Potable water abstractions approximately 630m north east. For Food and drink: process water, 868m south. There is an unknown abstraction at 988m south east.	Contamination of drinking water supply.	Surface drainage plan inc. runoff collection system. Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.); and including EA Pollution Prevention Guidelines (PPGs).	Environmental Management during construction. Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit).
Flood Risk	The site is in Flood Zone 1 with the exception of the southern-most tip in Zone 2 and the eastern edge in Zone 3.	Limited risk of fluvial flooding but there is the potential for pluvial and groundwater flooding.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	Furnax Lane, waste: household, industrial & commercial transfer waste station, on site. Pathway Lane Tip: Waste: Industrial & Commercial, , 41m to south east. Portway, Warminster, waste: household, 487m to south east. Copheap Lane, for end of life vehicles, 926m to south east.	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Conservation Designations	There are no designated sites within 1km of the site.	Not applicable.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station or a Local Recycling Facility at **Warminster Business Park, Warminster** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Secondary Aquifer and is in a SPZ 2 and therefore there are potential groundwater contamination issues
- The site is at risk from pluvial, fluvial and groundwater flooding
- There are potentially contaminating land uses on site
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

Further assessment and work that will be required include a flood risk assessment, surface water management plan, and contamination assessment.

B.4.9 Chitterne Waste Management Facility, Chitterne (Site Ref: W9)

B.4.9.1 Introduction

This Greenfield site extends to 16 ha and is located north of the B390, 1km west of the village of Chitterne and 25 km north west of Salisbury. This site is currently pasture land located adjacent to a large scale inert landfill /landraise site. The inert landfill site adjacent to the proposed site has an existing access off the B390 which provide good access to the A36 to the west.

The site lies within a relatively remote rural area of open rolling grade 3 agricultural land surrounded by a few isolated farms. A strong belt of mature trees defines the northern boundary of the site and also along run along the southern perimeter and approximately 230m beyond this lies the B390. An area of young woodland planting has also been planted to the north of the site. Site is located over a major aquifer with high vulnerability.

The site is in proximity to a number of designations these include a number of Scheduled Ancient Monuments in the area and potentially an ancient field system. The site is located in the vicinity of Cranborne Chase AONB and the Salisbury Plain SPA, SAC and SSSI. The site is located within a South West strategic nature area and designated a Special Landscape Area (SLA).

The site is not allocated in the adopted West Wiltshire District Local Plan and the emerging Wiltshire Core Strategy does not proposes any designation in the area of the site.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing buildings, change of use, etc. others of particular note include:

Reference: 08/00785/OUT Proposed new dwelling on land east of valley farm, Chitterne, Wiltshire

Reference: W/09/03218/REM New dwelling (reserved matters) on land east of valley farm, Chitterne, Wiltshire

B.4.9.2 Cultural Heritage

Introduction

The proposed Chitterne Waste Management Facility extension (W9) lies within an area of Grade 3 agricultural land to the north of the B390 on the southern edge of Salisbury Plain. It comprises an

area of 15.5ha of undeveloped land, which is currently under crop. The site is tree-lined on part of its western side and running northwards, and is part tree-lined along its southern boundary. There is a small copse on the north-eastern boundary. The land adjacent on all sides of the site is also agricultural, predominantly arable, though there is also a large existing inert landfill site within 300m to the east. The Site’s visibility from the B390 is mostly obscured by the general topography of the land as it slopes down towards the north and by the trees on the site’s southern boundary. Otherwise, the site is open within a generally open rural landscape.

Improvements to the Chitterne Waste Management Facility would involve and have the potential to impact on the heritage resource of the site and immediate area. This report has set out to determine the known and potential heritage resource that could be affected by proposed future development of the site.

There are no designated heritage assets within the site boundary though there is one, a prehistoric field system of earthwork and buried archaeological remains (**W9-a**) in the south of the study area. Outside the study area, to the north, south-east and south-west there are a number of other Scheduled Monuments (**W9-b**, **W9-c**, **W9-d** and **W9-e**) which are associated with agricultural and funerary activities from the Bronze Age to at least the Roman period. Two Listed milestones (**W9-f** and **W9-g**) are situated along the B390 on the southern edge of the study area. There is one undesignated asset within the site boundary comprising an extensive and undated field-system which is likely to be associated with elements of the surrounding prehistoric to Roman period landscape. In fact, it is likely that the landscape has been farmed continuously up till the modern period.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique Asset Number (i.e. **W9-a**, **b**, **c**, etc). Heritage assets are listed in the gazetteers below and located on a map of the study area (Figure 5044619.015/CH W9). A full methodology for the assessment of cultural heritage issues reported in this document is set out in Chapter 3.

Designated Heritage Assets within the Site

There are no statutory designated assets within the site boundary.

Designated Heritage Assets within or close to Study Area

There is one Scheduled Monument (W9-a; SM33522) within the 500m Study Area - a complex of former field systems the boundary of which is defined by upstanding earthwork remains of lynchets. This is situated 300m south of the site boundary, on the south side of the B390

There are four Scheduled Monuments (W9-b, W9-c, W9-d and W9-e) which although they lie outside the study area are close enough and of a particular type and morphology to be worthy of consideration in this assessment

There are two Grade II Listed milestones (W9-f, W9-g) within c.500m of the site boundary

The site lies c.2km to the west of the Chitterne Conservation Area.

Table B.4.9.2.1 - Designated Heritage Assets within or close to Study Area

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W9-a	<i>A field system on Codford Down, Upton Lovell. It comprises a series of small rectangular fields covering 35h, defined by lynchets up to 1.5m high. Its date ranges from the Bronze Age to the end of the Roman period. Once part of a much larger system most of which was</i>	<i>Associated with ST94SE624 and W9-b (SM 31668)</i>	<i>Scheduled Monument 33522</i>	<i>ST9679,4300</i>

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
	<i>ploughed out during World War II.</i>			
W9-b	<i>Part of a prehistoric field system on Codford Down, Upton Lovell. Just outside the study area, to the south-west lie upstanding remains of an extensive later prehistoric field system (dating between the Bronze Age to end of the Roman period). It survives as three lynchets running from east to west across a small plantation. Surrounding areas have been ploughed out and survive as buried remains indicated by cropmarks.</i>	<i>Associated with ST94SE624 and W9-a (SM 33522)</i>	<i>Scheduled Monument 31668</i>	<i>ST7920,4290</i>
W9-c	<i>Knook Castle hillfort and associated prehistoric and Romano-British landscape. Just outside the study area, to the north-east. An area of intensive multi-period activity. Remains include a hillfort, settlement remains, extensive field systems, a trackway/boundary and a barrow.</i>	<i>Possibly associated with ST94SE624</i>	<i>Scheduled Monument 10227</i>	<i>ST9640,4467</i>
W9-d	<i>Round barrow cemetery including a separately scheduled bowl barrow to the south of Codford Down, Upton Lovell on the west side of the Chitterne Brook, c.200m south-east of the study area. The cemetery originally contained 1 bell barrow and 10 bowl barrows. The bell barrow and five bowl barrows survive as earthworks.</i>	<i>None</i>	<i>Scheduled Monuments 31665, 31666.</i>	<i>ST9791,4277</i>
W9-e	<i>Two saucer barrows 250m west of John's Planting, c.200m south-west of the study area. These are aligned north-south, 5m apart and have been reduced by ploughing to no more than 0.7m at most in height.</i>	<i>None</i>	<i>Scheduled Monument 12303</i>	<i>ST9579,4290</i>
W9-f	<i>Milestone just outside the study area boundary, c.500m from the site on the south side of the B390. Late 18th century. Limestone pillar with inscribed lettering to front: Miles from London and XIII from Amesbury. It has a slightly damaged top.</i>	<i>313621</i>	<i>Grade II Listed</i>	<i>ST9613,4312</i>
W9-g	<i>Milestone just inside the study area boundary, c.450m from the site on the south side of the B390. Late 18th century. Limestone pillar with semi-circular headed top, incised lettering to front: XC miles from London and XII from Amesbury. It also has an</i>	<i>313510</i>	<i>Grade II Listed</i>	<i>ST9775,4333</i>

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
	<i>incised benchmark below.</i>			

Heritage Assets within the Site

Cropmarks (**W9-h**) associated with one heritage asset recorded on the WSMR extend within the site boundary.

Table B.4.9.2.2 - Heritage Assets within the Site

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W9-h	<i>An extensive and undated field-system was plotted by the RCHME from aerial photographs in 1995. This cropmark complex encompasses an area of c.250ha and is not restricted to the site area. It is probably associated with W9-a (SM 33522) to the south of the site, and also W9-b (SM 31668) and W9-c to the south-west and north respectively, though none of these assets lies within the site boundary and both the latter lie outside the study area.</i>	ST94SE624	None	ST9750,4365

Heritage Assets within or close to the Study Area

Table B.4.9.2.3 - Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W9-i	<i>An undated trackway which flanked the field-system and settlement. 1m deep by 2.2m wide at the bottom with a bank on the east side c.0.3m high. Very good condition with some localised erosion.</i>	ST94SE671	None	ST9675,4456
W9-j	<i>Possible multiple undated trackways visible on aerial photographs as cropmarks.</i>	ST94SE696	None	ST9731,4344
W9-k	<i>Part of a probable undated field-system.</i>	ST94SE625	None	ST9614,4324
W9-l	<i>Excavation in advance of the Southern Range Road construction in 1999. A possible Late Bronze Age settlement site comprising pits, post-holes, a gully and a few sherds of Roman pottery discovered in the fill of a disturbed Bronze Age pit. A small assemblage of flints and Late Bronze Age pottery, animal bone, a quernstone and some pieces burnt stone was also recovered.</i>	ST94SE151; ST94SE318	None	ST9704,4410

Asset No.	Asset Name & Description	WSMR No	Designation	OS Ref
W9-m	<i>A field-system associated with two Romano-British settlements. An area of lynchets was targeted by evaluation in 1998 in advance of the Southern Range Road construction in 1999. A single sherd of Late Bronze Age pottery, worked bone and burnt flint was recovered along with some worked flint. This asset predominantly comprises a complex of cropmarks and is associated with a Scheduled Monument to the northwest of the study area (WI 10227), Knook Castle and Hillfort, and associated prehistoric – Romano-British landscape. This designated asset does not lie within the study area.</i>	ST94SE623	None	ST9626,4421

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

The study area and the landscape around it retain quite extensive remains of surviving agricultural, settlement and ritual features, both surviving as earthworks and evident as extensive cropmarks. There are nine barrows that lie on the periphery of the study area (**W9-c**, **W9-d** and **W9-e**), all of which have been designated as Scheduled Monuments. In addition, Late Bronze Age deposits were recorded in 1998 and 1999 to the north-west and north of the site. A single lynchet was recorded at one site along with a few worked flints and a single sherd of pottery (**W9-m**) whilst more extensive remains comprising chiefly pits and post-holes were recorded at another (**W9-l**). A small assemblage of flints and Late Bronze Age pottery, animal bone and stone artefacts were also recovered from the latter suggesting evidence of a small settlement (Wessex Archaeology, 1999).

The Iron Age (700 BC – AD 43)

No specific Iron Age remains have been recorded within the study area. However, a number of sites comprise extensive and probable multi-period field-systems, surviving in part as earthworks and as cropmark complexes recorded on aerial photographs. A number of these are designated Scheduled Monuments and whilst they lie outside the study area are probably associated with cropmark complexes that extend into the study area and within the site boundary. Three of these sites are designated as Scheduled Monuments (W9-a, W9-b, W9-c). The first (W9-a) lies partially within the study area, whilst both (W9-b and W9-c) lie outside it. It is possible that the remains of Iron Age field systems also survive within the palimpsest of below ground remains. Elsewhere, sites (W9-k, W9-j, W9-i and W9-h), the latter within the site boundary, represent extensive remains of probable prehistoric and later field-systems. These are not designated though may well be contemporary with surrounding designated sites.

The Roman Period (AD 43 – AD 450)

Excavation has yielded little evidence of activity, though this comprises only a few intrusive pot sherds found in a Late Bronze Age pit. The remainder of evidence for the period comprises extensive, probably multi-period field-systems, surviving in part as earthworks and as cropmark complexes recorded on aerial photographs. As in the case of possible Iron Age remains

(described above), the three sites that are designated as Scheduled Monuments (**W9-a**, **W9-b**, **W9-c**) and the undesignated sites (**W9-k**, **W9-j**, **W9-i** and **W9-h**) represent extensive remains of probable prehistoric and later field-systems. The likelihood is that some buried remains, those indicated by cropmarks may well in part date to the Roman period.

The Early Medieval Period (AD 450 – AD 1066)

No Early Medieval heritage assets are recorded on the WSMR within the study area.

The Medieval Period (AD 1066 – AD 1547)

No Medieval heritage assets are recorded on the WSMR within the study area.

The Post-medieval Period (AD 1547 – c.1900)

Two 18th century milestones survive along the stretch of the B390 that passes through the southern part of the study area. One milestone (**W9-f**) lies just outside the study area boundary in the south-west, whilst the other (**W9-g**) lies inside the boundary in the south-east. Both survive in reasonable condition though the former has a slightly damaged top. Both are situated close to the modern grass verge, within 1.0m of the carriageway. Historic Ordnance Survey maps (1:10,000 – 1889 onwards and 1:2,500 – 1888 onwards) reveal a landscape comprising predominantly unenclosed downland. No features are shown within the site boundary until the modern period.

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded on the WSMR within the study area. Historic Ordnance Survey maps (1:10,000 – 1889 onwards and 1:2,500 onwards) show the landscape remains as downland with the exception that on the 1997 revision of 1:2,500 sheet trackways are recorded in the eastern end of the site. These are likely to be associated with adjacent landfill operations to the east. A study of available aerial photographs at the National Monuments Record's office did not highlight any additional evidence of previously unrecorded heritage assets. Aerial photographic evidence dating to 1944 (Library number 8248) highlighted only some small modern structures in the eastern end of the site which may have been temporary farm structures. These do not appear on Ordnance Survey aerial photographs dated 1947.

Significance of Heritage Assets

This section of the report discusses the significance of the heritage assets and the potential for as yet unknown heritage assets to exist.

There is one known heritage asset within the site boundary comprising an extensive and undated cropmark complex, probably associated with former field systems. It is probably associated with designated assets **W9-a**, to the south of the site, and also **W9-b** and **W9-c** to the south-east and north respectively.

The relative condition and extent of any surviving remains within the site is unknown. Past land-use, especially ploughing and improvements to land drainage is likely to have damaged and degraded any remains associated with the cropmark complex (**W9-h**) since its abandonment. Surviving evidence could, however, take the form of artefacts and cut features such as in-filled field boundary ditches and, enclosure ditches and trackways reflecting hundreds or possibly thousands of years of settlement and management of the landscape. These remains could survive within any part of the site.

The site is of archaeological interest since it could contain evidence of prehistoric and later human activity in the region. The potential for this evidence to exist makes this site particularly archaeologically sensitive. The significance of the site is indeterminable at present and further archaeological assessment would be required to more fully understand the impact of development proposals and the nature of archaeological remains that could be affected.

Proposed future development may also affect the settings of designated assets within the study area and those assets close to it, since the settings of each contribute to their significance. This is particularly important for those sites that lie to the south and south-east of the site (**W9-a**, **W9-b** and **W9-d**) and to the north (**W9-c**). The site lies toward the bottom of a shallow valley and as

such the topography would influence any potential impact on the settings of these assets. This would, however, be contingent on the nature of any proposed development. The settings of the two Listed milestones contribute to their significance, however, both are not likely to be affected by any proposed future development.

Assessment Suitability

It is possible that remains associated with cropmark complex (**W9-h**) extend throughout the site and there is also the potential that unknown significant buried remains also survive. Ground disturbing activities associated with construction work could degrade or remove physical archaeological remains and therefore adversely affect the significance of any surviving remains. In order to understand the potential and significance of the buried archaeological remains additional archaeological assessment would be required.

The two listed milestones within and close to the study area (**W9-f** and **W9-g**) would not be physically affected by any proposed development nor would their settings be affected.

Although the nature of development on the site is currently unknown, works could potentially adversely affect the settings of designated assets within the study area and close to it. The topography of the site and its surroundings is a factor though such that any potential impact on setting would be contingent on the height and mass of any proposed buildings. This could be mitigated with appropriate screening and landscaping.

Mitigation

Further archaeological investigation would be required in order to understand the potential, extent, significance and type of possible archaeological remains on site. This is suggested from the cropmarks present and from the possible presence of a Bronze Age settlement to the north of the site. A programme of archaeological works could take the form of geophysical survey and / or trial trenching. However, the scope of any programme of archaeological works would need to be agreed in advance with the Wiltshire County Archaeologist. This archaeological evaluation would reveal whether further archaeological works would be required in advance of ground disturbing works for future development.

Recommendations

This assessment has identified that potential buried archaeological remains could survive within the site (**W9-h**). We recommend that further archaeological works should be undertaken as outlined above in the Mitigation section.

Conclusion

Based on current information it is recommended that further archaeological investigation is required to better understand the significance and extent (or location within the site) of these possible remains.

Further investigations could take the form of a programme of field surveys comprising geophysical survey followed by trial trenching. The results of these investigations could be used to inform a mitigation strategy. This strategy could involve the locating of ground disturbing works away from known areas of significant buried remains. The scope of any programme of archaeological investigations should be agreed in advance with the Wiltshire County Archaeologist.

The study area includes one designated Scheduled Monument and several others are located close to the study area to the north, south-west and south-east. It is likely that any development within the site would affect the settings of these assets though topography suggests this would be contingent on the height and mass of any proposed development. This could be mitigated with appropriate screening and landscaping.

B.4.9.3 Landscape and Visual Impact

Introduction

Greenfield site located to the south-west of the village of Chitterne on the B390, adjacent to a landfill site. The site is currently improved grassland, set within a wider setting of rolling open arable fields within a chalk landscape.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Salisbury Plain and West Wiltshire Downs

Key characteristics relevant to the site:

- Extensive open, rolling Chalk plateau dominated by large arable fields.
- Scattered copses and shelterbelts.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: High Chalk Plain

Landscape Character Area: Salisbury Plain East

Key characteristics relevant to the site:

- Very large scale and open, exposed landscape.
- Rolling plateau land form with panoramic views over the surrounding lowlands creating a sense of elevation.
- Large regular arable fields are bounded mainly by ditches or fences with occasional hedgerows.
- Steep and incised slopes down to the surrounding river valleys and numerous dry valleys.
- Copses and woodland belts, at various stages of growth occur throughout the area with sinuous older plantations contrasting with more recent tree planting in geometrical blocks.
- Many sites of historic and archaeological importance, often preserved due to military use
- Sparse settlement limited to nucleated villages, military camps and isolated farmsteads.
- Areas outside MOD control are predominantly intensively farmed and arable.

Due to military activity the area retains large amounts of chalk grassland, and WCC judge the overall condition of the *Chalk High Plain* Landscape Type to be 'good', with a 'strong' character due to its vast scale and openness. The overall management strategy is to 'conserve' the open and isolated character of the plain along with the vast areas of calcareous grass land and sites of historic interest.

District Landscape Character Assessment: N/A

Landscape Designations and policies:

- Special Landscape Area
- Imber Range Perimeter path to the north

Baseline Landscape Character and Features: Site Survey

The site lies within a relatively remote rural area of open rolling arable fields. The chalk geology has led to the predominance of free draining calcareous soils and a lack of surface water and the site is situated on the lower northern slope of a dry valley. A strong belt of mature trees runs to the north of the site and also along its southern perimeter. An area of young woodland planting has also been planted to the north of the site. It is possible that an ancient field system lies in the vicinity of the site, although this was not apparent on the ground. The majority of the site has

been recently enclosed with stockproof fencing and consists of improved grassland, grazed by cattle at the time of the survey.

To the east of the site there is a large scale inert landfill / landraise site. The B390 runs to the south of both of both sites, along a ridgeline. From here, there are views across the dry valley to the northern part of the proposed site, although the landfill facility is less visible, at least during the summer, due to the presence of roadside vegetation.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: High
Capacity to Accept Change: Medium

Although the site is low in biodiversity it forms an integral part of a wider rural landscape. The southern, valley bottom, part of the site is relatively well concealed and of poorer quality due to the presence of an access road and disturbed ground. This could accommodate change with little impact. The northern part of the site is more elevated and here, change would be more visible.

Potential Landscape Impacts

- Harm to mature trees and new planting along site boundaries
- Erosion of rural character of wider area, especially when viewed from B390
- Potential harm to ancient field system

Potential Landscape Mitigation Measures

- Planting of 15m woodland buffer around site boundaries to screen views into the site, integrating it with surrounding rural character. The woodland should connect with existing trees and planting within the area.
- Strategic off-site hedgerow planting, along the B390 to reduce perceptions of the erosion of the rural landscape character of the area.

The following ‘Broad Management Objective’ for the High Chalk Plain landscape type in the Wiltshire Landscape Character Assessment is relevant to the site:

- Conserve the sense of remoteness and isolation, with sparse settlement and road network and limited visible development.

Table B.4.9.3.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Impact on Receptor	Potential Visual Mitigation Measures
Users of the B390	Low	Slight adverse	15m woodland buffer around site boundaries Location of most visually obtrusive elements to southern area of site
Visitors/employees at the existing landfill site	Low	No change	
Agricultural workers	Low	Slight adverse	

Summary: Residual Landscape and Visual Impacts

This is a greenfield site in an open, rural location that is designated as a Special Landscape Area. Its use for waste facilities would therefore contribute to the erosion of the countryside. With strategically placed, substantial woodland buffers, the visual impact of the proposals could be reduced however. Due to its remote location, few visual receptors would be significantly affected, although until vegetative screens establish, users of the B390 would have glimpses of the site.

Recommended further Landscape and Visual Surveys

- Visual survey from Imber Range Perimeter path to north of site
- Further investigation into potential ancient field system.
- Night-time visual surveys.

B.4.9.4 Noise

Introduction

The site at Chitterne Waste Management Facility, Chitterne has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Inert Waste Recycling/Transfer;
- Composting;
- Treatment.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- To the west of Valley Farm, located approximately 950m to the east of the allocated site.

The proposed site is located within land that is currently a waste management facility, with the B390 located approximately 200m to the south. The surrounding area around the site is farm land.

Baseline

Background noise measurements were undertaken on 4th February 2010, with meteorological conditions being overcast with westerly winds. The current noise environment around the allocated site is dominated by road traffic on the B390.

Consecutive background noise measurements were taken at the monitoring location. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.4.9.4.1 - Valley Farm - Background Noise Levels (File AU1_0041)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
17:10:00	00:04:00	51.7	56.3	41.9	55.0	50.9	45.0
17:14:00	00:05:00	50.3	56.8	41.2	53.5	49.1	44.2
17:19:00	00:05:00	51.3	58.9	41.2	54.1	50.4	44.8
17:10:00	00:14:00	51.1	58.9	41.2	54.4	50.0	44.7

The average background noise level (L_{A90}) at the east of Valley Farm is taken as being 44.7 dB.

Assessment Suitability

The site is an existing waste management facility.

There is little or no screening from the proposed site but the site is considered suitable with respect to noise for the proposed uses.

Mitigation

No mitigation measures are required.

Recommendation

The site is deemed suitable for the intended uses with respect to noise.

B.4.9.5 Air Quality and Odour

The site is located north of the B390 and approximately 6 kilometres east of Chitterne Village. There are no AQMAs, properties or ecological sites within 500 metres of the site. Consequently there will be negligible air quality impacts associated with this site.

B.4.9.6 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

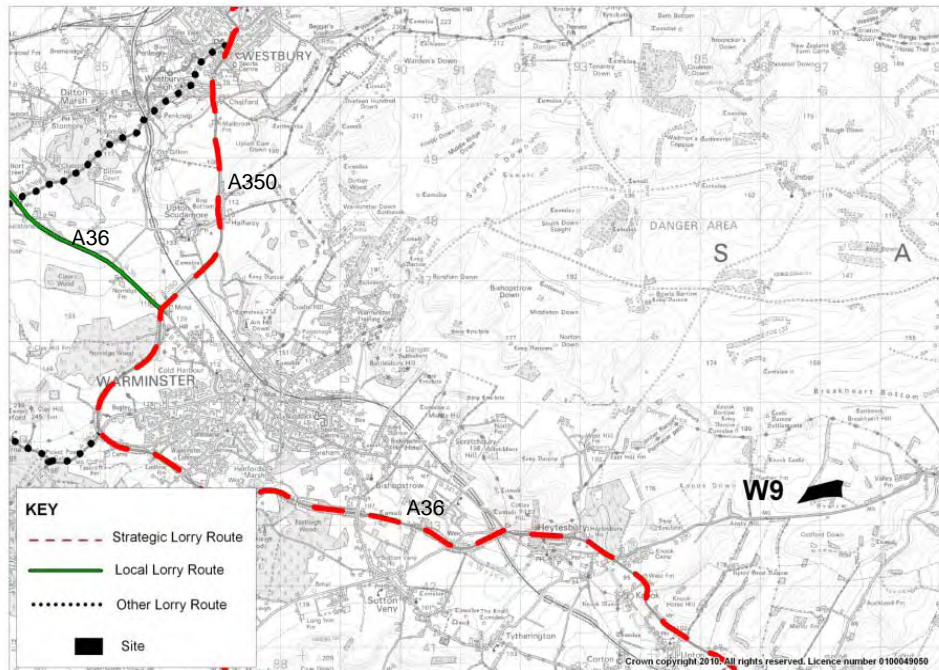
This 16 ha site is currently agricultural land. It is located 300m north of the B390 which links the village of Chitterne (2.2km east) to the A36 at Knook (4km west). The site is accessed via a 500m long single track road from the B390. The site is also gated and an adjacent plot is currently in use as a landfill. The site is allocated for local scale waste uses.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.4.9.6.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.4.9.6.1 shows that the site is accessed via the B390 and is 4km east of the A36 (strategic lorry route). The B390 is not designated as a lorry route.

Figure B.4.9.6.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Treatment (T);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Composting (C).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.4.9.6.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.4.9.6.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
Composting	10,000	80	Staff levels at a Composting site are likely to be minimal

Assessment Suitability

Existing/Potential Access Junctions

Access to the site is gained from the B390 via a priority T-junction located to the southeast of the site, which links to a 500m long access road. The B390 is single carriageway, 6-6.5m wide and

subject to the national speed limit. The access junction is 8.5m wide at its narrowest point; although the access road itself is approximately 5-5.5m wide beyond the gates located 40m west of the B390/site access junction. The access road widens to more than 6m in parts, and provides an opportunity for HGVs to pass each other unopposed. *Manual for Streets*⁶⁷ states that 5.5m should provide enough room for two HGVs to pass at low speeds, and this demonstrates that whilst there is a lack of width, providing speeds on the access road are low it is possible for two HGVs to pass.

DMRB⁶⁸ recommends a visibility of 215m for a road of this type. There are no visibility issues to the east as visibility exceeds 250m due to the straight nature of the carriageway (**Figure B.4.9.6.2**). However, there is the possibility of overgrown vegetation partially restricting visibility to the west of the site access (**Figure B.4.9.6.2**), which if removed, would achieve the required visibility. On site observations suggested that although traffic flows were low, speeds often exceeded the speed limit. The existing access has a tight 180° turn when approaching the site from the west. The angle of the road would make access for HGVs difficult should another HGV be exiting the junction at the same time. It appears the access road has been widened into the site for exiting HGVs in order to alleviate this problem however it does require HGVs to follow an appropriate line (next to the kerb) when leaving the site. Should swept path analysis demonstrate that current geometries at the access are unsuitable for the proposed size of vehicles that require access to the site, mitigation may be required.

Figure B.4.9.6.2 - Visibility from Site Access along B390



Visibility to the East

Visibility to the West

Transport Environmental Impacts

As stated previously, the site is located in a rural area, over 2km from the nearest settlement (Chitterne). There is however a farm located approximately 600m east of the site, and although accessed from a different road, the contours of the land mean that the activities on the proposed site are not screened from view. The site is adjacent to an inert landfill site which currently uses the existing access.

There is a 18T environmental weight restriction in the village of Chitterne, as well as on-street parking and narrow road widths (often less than 6m). This means that all HGVs to the site should route via the A36 and B390.

There is no footway or cycling facilities provided along the B390 or in proximity to the site.

Off Site Highway Network

The A36/B390 junction is located 4km west of the site. It takes the form of a priority T-junction with a deceleration lane for vehicles exiting the A36 eastbound to join the B390. The A36 experiences relatively high traffic flows, but few vehicles use the B390, hence no right turn ghost island is currently provided. Although the speed limit along the B390 and the rest of the A36 is the national

⁶⁷ *Manual for Streets*, Chapter 7 (pg. 79)

⁶⁸ *Design Manual for Roads and Bridges*, Volume 6, Section 2, Part 6 (TD 42/95)

speed limit, it is in fact reduced at the junction to 50mph with warning signs for speed cameras. The junction is located at the crest of a hill which increases visibility for vehicles on the B390 waiting to join the A36.

To the east of Chitterne, the B390 joins the A360 (an 'other' lorry route) at Shrewton, 9km east of the site. This junction is a priority T-junction with a segregated (by a grass island) off slip for northbound vehicles on the A360 to access the B390. This provides a large turning radius for vehicles turning left onto the B390. Traffic flows were low here during site observations.

Whilst the A360 junction with the B390 at Shrewton to the east of Chitterne is acceptable for use by HGVs, we would discourage the use of this junction to access the site as it would require travelling through the village of Chitterne which is unsuitable for HGV traffic. Furthermore, the A360 is only an "other" lorry route, suitable where it is essential to gain access, whilst the A36 is a strategic lorry route.

Accessibility by Sustainable Modes

There is no footway or cycling facilities provided along the B390 or in proximity to the site. The nearest bus stops are located several kilometres away at the village of Knook (on the A36 to the west) and in Chitterne (to the east).

Constraints

The main constraints identified at this site were:

- The site access is a concealed entrance, which is difficult to spot from more than 30m away due to the verge, and is therefore easily missed (requires signing);
- There is a 18T weight restriction in the village of Chitterne;
- The turning radius into the site access is very tight;
- Observed speeds on the B390 were high; and
- The site is not accessible by sustainable modes.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/W9/001** in **Appendix D**.

Mitigation

It is recommended that improvements are made to the site access in the form of widening of the access mouth to the east to remove the pinch point near the junction with the B390, and an increase in the width to the rear of the site access to accommodate the tight turning radius of HGVs turning left into the site from the west along the B390. This should allow two HGVs to be accommodated at the junction at the same time, and therefore cater for the expected increase in traffic. The site access road itself is wide enough for vehicles to pass.

Signs are required at the access both to highlight the presence of the access and to indicate the location of the site as there are no safe turning points before the village of Chitterne. Seasonal trimming of vegetation on the verge may also be necessary to fulfil the visibility requirements.

As traffic levels using the A36/B390 junction would increase should this site be developed, mitigation would need to be considered here also. The provision of a right turn ghost island may be required should capacity assessments indicate the junction is not suitable to accommodate the proposed traffic volumes. Although unlikely, signalisation of the junction (which would also require a speed limit reduction to 40mph) may be required depending on the number of right turning vehicles out of the B390 onto the A36 heading west towards Warminster and the subsequent delays incurred by vehicles at the junction.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£60k** - for the improvements to the access junction;

- **£150k** - for a right turn ghost island at the A36/B390 junction; and
- **£500k** - to signalise the A36/B390 junction with associated mitigation.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- It is located in a rural area, with no residential properties in the immediate vicinity;
- It has an existing site access;
- The site access achieves the recommended visibility; and
- The site is located close to the strategic lorry network.

The following issues/constraints have been identified:

- The site is not accessible by sustainable modes;
- Visibility may be partially restricted to the west from the site access by overgrown vegetation;
- Observations suggest that speeds on the B390 may be above the posted speed limit;
- The site access may be too narrow to accommodate a HGV entering and leaving the site at the same time;
- The site access requires a tight 180° turning manoeuvre for vehicles entering the site from the west (direction of A36); and
- The village of Chitterne is subject to a 18T weight restriction, meaning that all vehicles should only route via the A36 to access the site.

In conclusion, the proposed site is considered appropriate for the proposed uses with consideration of the mitigation measures as set out in this report.

B.4.9.7 Water Quality / Environment

Introduction

NGR: 396750, 143500

Location: Chitterne

Site Area: 15.5 hectares

Data Source: Landmark Envirocheck Report 30093952_1_1 (8th Feb 2010) unless otherwise referenced

Table B.4.9.7.1 - Chitterne Waste Management Facility Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is the Chitterne Brook approximately 1080m to the south east of the site. The Chitterne Brook flows in a south westerly direction draining into the River Wylye.</p> <p>The Chitterne Brook has an ecological classification in line with the Water Framework Directive as Good¹.</p>	<p>Impact on the Chitterne Brook flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the Chitterne Brook quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site comprises of superficial deposits of sandy silty clay, locally gravelly, chalky and flinty in the valleys, these deposits are underlain by the Upper Cretaceous Chalk (West Lewes Nodular Chalk Formation⁶⁹.</p>	<p>There is a potential pathway for contamination to reach groundwater.</p>		<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are predominantly underlain by a primary aquifer (Major Aquifer) highly permeable.</p>	<p>Possible contamination of the primary aquifer.</p> <p>Changes to the groundwater flow regime of primarily shallow aquifers during construction if</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p>

⁶⁹ BGS 1:50 000 Drift geological map (Sheet No. 282, Devizes)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
		foundations intercept groundwater or if pumping is required for excavations.	Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).	Review runoff treatment requirements.
Hydrogeology: Groundwater – Source Protection Zone	The EA website shows that the site is not located within a SPZ area, however an SPZI area extending approximately 1890m to north east, an SPZII area extends 1140m to north east and SPZIII areas extend up to 774m to north east and 200m to west of the site.	No risk posed to public water supply; but local private abstractions may exist (<20m ³).	Good working practices and EA guidance during construction.	Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a south/south westerly direction towards the River Wylfe.	No risk posed.		
Discharges: Surface water – Discharge Consents	No discharge consents with 1km of the site.	No risk to works.	-	-
Discharges: Groundwater – Discharge Consents	No discharge consents with 1km of the site.	No risk to works.	-	-
Discharges: Pollution Incidents	Oils –Category 3 (minor incident), 270m north west.	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	There are no abstractions within 1km of the site.	No risk posed.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Abstractions: Groundwater – Abstractions	One abstraction for general farming and domestic use, 846m north west of the site.	Contamination of drinking water supply.	<p>Surface water drainage plan including runoff collection system and design of infiltration devices.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices – EA guidance during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Monitoring boreholes (may be required for obtaining operating permit).</p> <p>Surface Water Management Plan.</p>
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	No risk of fluvial flooding but the potential for pluvial and groundwater flooding should be investigated.	<p>Sustainable Drainage Systems (SuDS) within design.</p> <p>Infiltration devices.</p> <p>Surface Water Management Plan.</p>	A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.
Land Uses	<p>Chitterne Landfill accepting soil/subsoil, (now closed).</p> <p>Licensed Waste Management Facility: Chittern accepting non biodegradable waste (not construction) 141m east.</p>	<p>Risk during construction of contaminated ground at site with possible runoff</p> <p>Risk during construction of contaminated ground at site with contamination of aquifer.</p>	Site Waste Management Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	None recorded within 1km of the site.	Not applicable.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility, Inert Waste Recycling and Transfer Station, Composting Facility or a Waste Treatment site at **Chitterne Waste Management Facility, Wiltshire** falls within the below category.

- Few / no significant issues identified – progress waste site to next stage of assessment

This initial screening indicates that:

- The site is underlain by a Primary Aquifer and therefore there are potential groundwater contamination issues
- There is a risk of pluvial or groundwater flooding
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

Further assessment and work to be required include a flood risk assessment and surface water control plan and contamination assessment.

B.5 Swindon

B.5.1 Chapel Farm, Blunsdon (Site Ref: SW1)

B.5.1.1 Introduction

The site extends to 3.4 ha and is located approximately 1.0 km north of Blunsdon and 7.5 km north of Swindon town centre. The proposed site is accessed via a dedicated tarmac access road leading to the A419. The site comprises of gently sloping grade 3 agricultural land enclosed by hedgerow within open countryside. To the north-west of the site is an active landfill and to the west a recycling facility. There are also a number of residential properties located in the vicinity of the site, a residential bungalow which is located to the north west and there are properties along the A419 and to the south. The site is adjacent to the River Ray but not identified to be in an area of flood risk.

The site is located in proximity to a number of designated sites which includes the Upper Widhill Copse Wildlife Site, which is located approximately 300m south-east of the site and there is an area of Ancient Woodland nearby. The site lies within The Great Western Community Forest area although there are no known landscape designations in the vicinity of the site.

The site is not allocated for development within the adopted Swindon Borough Local Plan. The emerging Swindon Core Strategy does not propose any land use designations on the site however a large mixed development area (Policy SSP9: Tadpole Farm) is located to the south of the site, it stretches right up to the site's border.

A number of planning consents have been granted within 500m of this site since 2006. These relate only to intensification of existing uses, such as extensions to existing dwellings. An informal BMX site is situated adjacent to the site. No planning consent was available for the use of this site.

B.5.1.2 Cultural Heritage

Introduction

Chapel Farm is located to the north of Swindon off the A419 at Blunsdon. The site comprises 3.4ha of agricultural land adjacent to an existing landfill site and recycling facility and is proposed for Strategic Waste Treatment, Composting, Materials Recovery Facility / Waste Transfer Station, Inert Waste Recycling / Transfer and Local Recycling.

There are no known heritage assets within the site boundary. The study area encompasses an extensive area of known but undesignated archaeological remains and there are also three Listed

Buildings within the study area (**SW1-e**, **SW-F** and **SW-1g**), none of which are visible from the proposed development site. A former Roman road, Ermin Street (**SW1-d**), runs past the site on its east side and passes through the eastern part of the study area.

Baseline

Approach

The study area comprises a 500m radius from the edge of the potential site boundary. For the purpose of this report, all recorded heritage assets have been ascribed a unique asset number (i.e. **SW1-a**, **b**, **c**, etc). A full methodology for the assessment of cultural heritage issues reported in the document is set out in Chapter 3.

Designated Heritage Assets within the Site

There are no designated heritage assets within the site boundary.

Designated Heritage Assets within or close to the Study Area

There are three Grade II Listed Buildings the study area

Table B.5.1.2.1 - Designated Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
SW1-e	<i>Upper Widhill Farmhouse - late 17th century / early 18th century. Two storeys rubble with stone tile roof. Recorded 400m southeast of the site.</i>	318219	Grade II LB	SU1367,9062
SW1-f	<i>5410 Blunsdon Hill – 18th century milestone. Recorded c.500m east of the site.</i>	318218	Grade II LB	SU1374,9096
SW1-g	<i>Chapel Farmhouse – 18th century, altered mid-to-late 19th century. Two storey building with square hipped modern tile roof. Named after a Chapel of Ease of Cricklade St Sampson's (ruins of this structure said to be incorporated in farmyard to south). Recorded c.500m northwest of the site.</i>	318221	Grade II LB	SU1268,9124

Heritage Assets within the Site

There are no known recorded heritage assets within the site however; the proximity of the site to extensive and significant buried archaeological remains is an indication that as yet unrecorded remains could survive within the site. This is discussed in more detail below.

Recorded Heritage Assets within or close to the Study Area

Table B.5.1.2.2 - Recorded Heritage Assets within or close to the Study Area

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
SW1-a	<i>Two undated parallel curvilinear features running north-south, showing as cropmark through ridge and furrow fields. Recorded c. 100m east of the site.</i>	SU19SW632	None	SU1341,9094
SW1-b	<i>Shrunken Medieval settlement known as Widehille in AD1086.</i>	SU19SW450	None	SU1270,9119

Asset No.	Asset Name & Description	WSMR / LB No.	Designation	OS Ref
	<i>Features visible on aerial photographs, including extensive extant ridge and furrow fields. The edge of an earthwork was revealed during an evaluation in 1987. 12th-14th century sherds were found, as well as floor surfaces. Recorded 300m northwest of the site, although part of the site appears to extend southwards into the proposed site.</i>			
SW1-c	<i>Undated complex of rectilinear features visible as cropmarks and plotted from aerial photographs. Recorded c.450m southeast of the site.</i>	SU19SW633	None	SU1386,9069
SW1-d	<i>Ermin Street - Weavers Bridge. Roman road from Corinium to Calleva Atrebatum sectioned at SU107938 and SU10929358 showing road to be 24ft (11m) wide with a side ditch. Road metalling survives. Recorded c.400m northeast of the site.</i>	SU19SW300	None	SU1000,9450

Summary Site History

The Palaeolithic (500, 000 BC – 8,000 BC) and Mesolithic (8,000 BC – 4,000 BC) Periods

No Palaeolithic or Mesolithic heritage assets are recorded on the WSMR within the study area.

The Neolithic (4000 BC – 2,200 BC) and Bronze Age (2,200 BC – 700 BC) Periods

No Neolithic or Bronze Age heritage assets are recorded on the WSMR within the study area.

The Iron Age (700 BC – AD 43)

No Iron Age heritage assets are recorded on the WSMR within the study area.

The Roman Period (AD 43 – AD 450)

The site lies within 300m of Ermin Street (**SW1-d**), the Roman road that led between *Corinium (Cirencester)* and *Calleva Atrebatum* (Silchester), and now incorporated within the existing A419. No related Roman period features are recorded within the study area.

The Early Medieval Period (AD 450 – AD 1066)

No Early Medieval heritage assets are recorded on the WSMR within the study area.

The Medieval Period (AD 1066 – AD 1547)

Aerial photography has identified extensive cropmark features between 350 and 500m north-west of the site (**SW1-b**). These are thought to relate to a medieval settlement recorded as Widehille in the Domesday Book of AD 1086. Archaeological evaluation undertaken in 1987 revealed evidence of earthworks, floor surfaces and 12th – 14th century pottery sherds. Aerial photography indicates that part of this feature extends into the site, possibly a ditch or a boundary feature. No evidence is visible on the ground. Medieval ridge and furrow is also recorded in the area. The cropmarks recorded c.100m east of the site (**SW1-a**) are undated, but may be related to the Medieval settlement.

Chapel Farm (**SW1-g**) is thought to have been named after the Chapel of Ease of Cricklade St Sampson's, the ruins of which are reputedly incorporated in the farmyard to the south. This may

be the only surviving, upstanding Medieval feature relating to the former settlement recorded to the north-west of the site (**SW1-b**).

The Post-medieval Period (AD 1547 – c.1900)

There are a number of Post-medieval structures within the study area. Chapel Farm farmhouse is a Grade II Listed Building (**SW1-g**). It is thought to incorporate elements of an earlier Medieval chapel structure (see above). Upper Widehill Farmhouse (**SW1-e**), also Grade II listed, lies c.400m to the southeast of the site. The one other Post-medieval feature within the study area is an 18th century milestone (**SW1-f**), 300m to the north-east of the site, on the line of the A419. As each of these assets are screened from the site by planting and other structures, the site does not form part of their setting.

Cartographic evidence records that the site was in agricultural use throughout the later part of the Post-medieval period (including up until today).

The Modern Period (c.1900 – to present)

No modern heritage assets are recorded within the study area.

Significance of Heritage Assets

Although no known heritage assets lie within the boundary of the site, potential buried archaeological remains associated with a medieval settlement (**SW1-b**), lying 200m to the north-west, could survive within the site. There is the potential that evidence from earlier periods of activity survives within the site; however, the likelihood is judged to be low.

The relative condition and extent of any surviving remains within the site is unknown. The land-use of the site in the past 700 years, specifically ploughing, improvements to the drainage, and the reuse (or 'robbing') of easily accessible building materials, is likely to have further damaged and degraded remains associated with the settlement since its abandonment in the 14th century. Surviving evidence could take the form of fragmented remains of floors and wall foundations of houses, agricultural and industrial buildings; building debris, artefacts and other features such as in-filled field boundary ditches reflecting several hundred years of settlement and management of the landscape. These remains could survive within any part of the site.

The significance (archaeological interest) of any surviving remains is unknown; however, any significance would be associated with the potential that the remains are a source of evidence of former uses of the site and the surrounding area.

The Listed Buildings within the study area are of moderate significance. Widehill Farmhouse (**SW1-e**) and the milestone on the A419 (**SW1-f**) are screened from the site by vegetation and other existing structures; the site therefore does not form part of their setting. Chapel Hill Farmhouse (**SW1-g**) is currently screened from the site by other existing buildings. The site, therefore, does not form part of its setting.

Assessment Suitability

Although no known archaeological remains have been recorded within the site there is the potential that significant buried remains survive. Ground disturbing activities associated with construction work could adversely affect the significance of any surviving remains. Based on current information these potential remains are unlikely to be worthy of designation, would not warrant preservation in situ and should not preclude any potential development within the site. However, further information is required to substantiate this statement. The potential scope for additional investigations is discussed below.

Providing existing screening remains in place, the setting of the historic buildings within the study area would not be adversely affected by the development.

Mitigation

Depending on the results of any further archaeological evaluation, such as geophysical survey and trial trenching, a programme of archaeological works might be required to mitigate the potential adverse affects of development on significant buried remains. A proportionate and

industry standard response to mitigate the potentially adverse impacts on the archaeological interest of the heritage assets could be for an archaeological excavation to take place in advance of ground disturbing works. This excavation would allow for archaeological recording of any discovered remains and the removal and retention of any recovered artefacts to take place. The scope of any programme of archaeological works should be agreed in advance with the Wiltshire County Archaeologist.

Providing the existing screening remains in place, the Listed Buildings would not be affected by development and no mitigation would be required.

Recommendations

This assessment has identified that potential buried archaeological remains could survive within the site. Further information is required to better understand the significance and extent (or location within the site) of these remains.

Further investigations could take the form of a programme of field surveys comprising geophysical survey followed by trial trenching. The results of these investigations could be used to inform a mitigation strategy. This strategy could involve the locating of ground disturbing works away from known areas of significant buried remains. The scope of any programme of archaeological works should be agreed in advance with the Wiltshire County Archaeologist.

Conclusions

There are no heritage assets recorded within the site (although part of one asset recorded within study area could extend into the site). Four undesignated archaeological sites and three Grade II Listed Buildings are recorded within the study area.

The possible archaeological feature recorded within the site should be subject to archaeological evaluation in advance of development. Further mitigation may be required depending on the outcome of the evaluation.

The Listed Buildings within the study area would be screened from development by vegetation and tree cover. Providing the existing screening remains in place, they would not be adversely affected by development and no mitigation would be required.

B.5.1.3 Landscape and Visual Impact

Introduction

The site is located to the north of Swindon, off the A419 accessed via a newly completed junction underpass to the A419. The site comprises a large agricultural field occupying a relatively flat, low lying position. The surrounding land uses include an active landfill to the north-west and a recycling facility immediately to the west. There are also a number of residential properties located along the old route of the A419 and to the south along the ridge.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales on the cusp of Midvale Ridge

Key characteristics relevant to the site:

- Large geometrically spaced field divided by regular pattern of hedgerows and trees supporting both arable and pastoral farming
- Low irregular wooded limestone ridge contrasting surrounding low lying clay vales.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Open Clay Vale

Landscape Character Area: Thames Open Clay Vale

Key characteristics relevant to the site:

- Level land form with wide open skies and views to ridges and downs

- Pastoral land use with some arable
- Large scale geometric fields with hedgerows or open drainage channels defining boundaries
- Presence of rivers, tributaries, drainage channels and open water bodies
- Settlement pattern varies from large towns and small scattered villages to sparse farmsteads linked by a network of minor roads
- Buildings in varied material of brick, render and stone

Generally the condition of the landscape character area is considered by WCC to be 'moderate', with a 'moderate' strength of character.

The strategy for the area is to conserve the elements that contribute to the rural, tranquil landscape and improve elements in decline such as hedgerows and hedgerow trees

North Wiltshire Landscape Character Assessment (North Wiltshire Borough Council)

Landscape Character Area: Thames Valley Lowland

Key characteristics relevant to the site:

- Low, level or undulating ground
- Continuous hedges with many mature oak and ash
- Field sizes vary from small and irregular to medium sized and regular shaped, predominantly pasture
- Dispersed or nucleated settlement on higher ground using vernacular materials of stone and local brick
- General absence of woodland

Landscape Designations and Rights of Way:

- There are no known landscape designations or public rights of way within the vicinity of the site.

Baseline Landscape Character and Features: Site Survey

The proposed site comprises an open rolling agricultural landscape character with a ridge running east – west to the south. The A419 cuts through the landscape, introducing incongruous landscape elements such as street lighting, signage and traffic. The recently completed works to the A419 and new access road create a highly prominent cut through the landscape to the east; however the extensive screen planting to the new road embanks will likely establish into a substantial visual and acoustic screen over time.

The site is immediately adjacent to an existing landfill site and recycling centre, south of Chapel Farm which is an historic farmhouse. The site comprises an open pasture rising to the southwest. The field is bounded by mature hedgerows with intermittent deciduous hedgerow trees to the south and east. To the north and west the hedgerows are lower, allowing views out of the site. A tarmac access road to the landfill and recycling centre runs adjacent to the north of the site and is busy with landfill traffic including HGVs.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Ordinary

Capacity to Accept Change: Medium – High

The site is immediately adjacent to a landfill site and recycling centre and is close to the busy A419. The site is a well managed agricultural landscape, isolated by several significant offsite detractors giving it a moderate landscape quality. The wider topography limits the potential to locate site works so as to reduce the impact on overall landscape character; however mitigation measures could enhance the locally characteristic hedgerow field boundaries. Therefore the site has a medium - high capacity to accommodate change.

Potential Landscape Impacts

- Further erosion of the rural character

Potential Landscape Mitigation Measures

- Sensitive site planning –facilities to be located to utilise the surrounding topography to prevent intrusion into the rural character
- Facilities to be in keeping with the local vernacular/agricultural style
- Use of native and evergreen hedgerows and trees and native woodland planting to site boundaries to screen views into the site and strengthen rural character

The following 'Broad Management Objectives' for the Open Clay Vale in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Retain and manage the hedgerow network and nurture new hedgerow trees
- Promote appropriate management of arable land including retaining area of fallow land and maintaining an unploughed margin around fields
- Minimise small scale incremental change such as signage or fencing which could change the rural peaceful character of the landscape
- Ensure both future construction and changes to existing buildings are designed to integrate with the existing character and structure of settlements
- Screen views to intrusive urban edges through planting new woodland

The following Enhancement Priorities proposed for the Thames Valley Lowland landscape character area in the *North Wiltshire Landscape Character Assessment* are relevant to the site:

- Conserve hedgerows and mature trees, including planting new trees in existing hedges and planting specimen trees in field corners
- Encourage planting of new woodland copses
- Discourage development which would detract from the tranquil rural character

Table B.5.1.3.1 - Visual Impact and Mitigation

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Newlands Farm Residents	High	Moderate adverse	Facilities to be located to maximise natural screening provided by the surrounding topography Facilities to be in keeping with the local vernacular / agricultural style Use of native hedgerows and trees and native woodland planting to site boundaries to screen views into the site
Widhill House Residents	High	Moderate adverse	
Upper Widhill Farm Residents	High	Moderate adverse	
Marshfield Cottages Residents	High	Moderate adverse	
Residential properties along the A419	High	Moderate adverse	
A419 Road Users	Low	No change	Structure planting around site boundary
Recycling Centre	Low	No change	

Summary: Residual Landscape and Visual Impacts

Due to the a relatively open wider landscape and rolling topography with a significant rise to the south of the site there is limited opportunity to develop the site in manor to minimise adverse impact on the local and surround character and visual receptors. However, due to the disturbed nature of the surrounding landscape and potential for vegetation screening for which the precedent has been set by the historic hedgerow patterns and recent roadwork's to the A419.

Therefore the site has a medium to high ability to accommodate change. The main visual impacts, on surrounding residences and farms, could be almost entirely mitigated through sensitive site planning and screen planting.

Recommended further Landscape and Visual Surveys

- Night-time visual surveys.

B.5.1.4 Noise

Introduction

The site at Chapel Farm, Blunston has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Inert Waste Recycling/Transfer;
- Composting;
- Treatment

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- To the south of Chapel Farm, located on the east or north western boundary of the respective allocated sites.

The proposed site is located within land that is currently farm land, with the A419 located approximately 225m to the east. The surrounding area around the site is farm land, with a landfill site and a recycling facility to the west.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions being overcast with westerly winds. The current noise environment around the allocated site is dominated by road traffic on the A419, with noise from the existing waste management facility also perceptible.

Consecutive background noise measurements were taken at the monitoring location. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.5.1.4.1 - Chapel Farm - Background Noise Levels (File AU1_0003)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:45:00	00:05:00	54.4	59.2	48.5	57.1	53.6	50.8
12:50:00	00:05:00	55.6	61.6	48.1	58.6	54.9	50.1
12:55:00	00:05:00	54.3	59.2	49.4	56.8	53.0	51.4

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
12:45:00	00:15:00	54.8	61.6	48.1	57.7	53.7	50.6

The average background noise level (L_{A90}) at the south of Chapel Farm is taken as being 50.6 dB.

Assessment Suitability

The site is currently farm land with residential properties on the north east boundary.

There is little or no screening from the proposed site but with appropriate screening and siting of the facility the site is considered suitable with respect to noise for the proposed uses.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 5 - 10 dB(A) reduction is required and the facility should be sited towards the west of the site away from residential buildings with a minimum separation distance of 150 metres.

Recommendation

With mitigation the southern site is deemed suitable for the intended uses with respect to noise the northern site would require further assessment.

B.5.1.5 Air Quality and Odour

Introduction

The site currently comprises of agricultural land within open countryside. The site is close to farm dwellings and adjacent to the existing Chapel Farm landfill site and recycling facility.

Potential uses include materials recovery facility, waste transfer site, local recycling, treatment, composting and IWR/T.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 14.5µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 10.9µg/m3 NO2 (standard 40µg/m3);
- 15.3µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

Potentially sensitive receptors are isolated farms and residential properties between 250 and 500 metres of the sites. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic on the A419, B4534 and minor roads; gas/oil/solid fuel space heating for scattered buildings; Chapel Farm landfill (additional potential emissions of dust, NH₃ and odour). Agricultural activities in the area are potential sources of dust, bioaerosols, NH₃ and odour.

Table B.5.1.5.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (5 properties)	1 (1)	1 (1)	N/A	N/A	N/A	1 (1)	2 (2)
Residential within 250m only (0 Properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>Notes:</p> <p>1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)</p> <p>2 = moderate risk, further assessment is recommended, mitigation should be required</p> <p>3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated</p> <p>Values in brackets denote potential 'in-combination' or cumulative effects</p> <p>N/A = risk is not applicable in these circumstances</p> <p>* Bioaerosol high risk is limited to within 250m of the site</p>							

Mitigation

Dust, bioaerosol and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low to moderate without mitigation. Dust, bioaerosol and odour mitigation is recommended. Detailed assessment is recommended for bioaerosols and odour with account for local topography. Further assessment should be undertaken for PM₁₀ and dust.

B.5.1.6 Transport

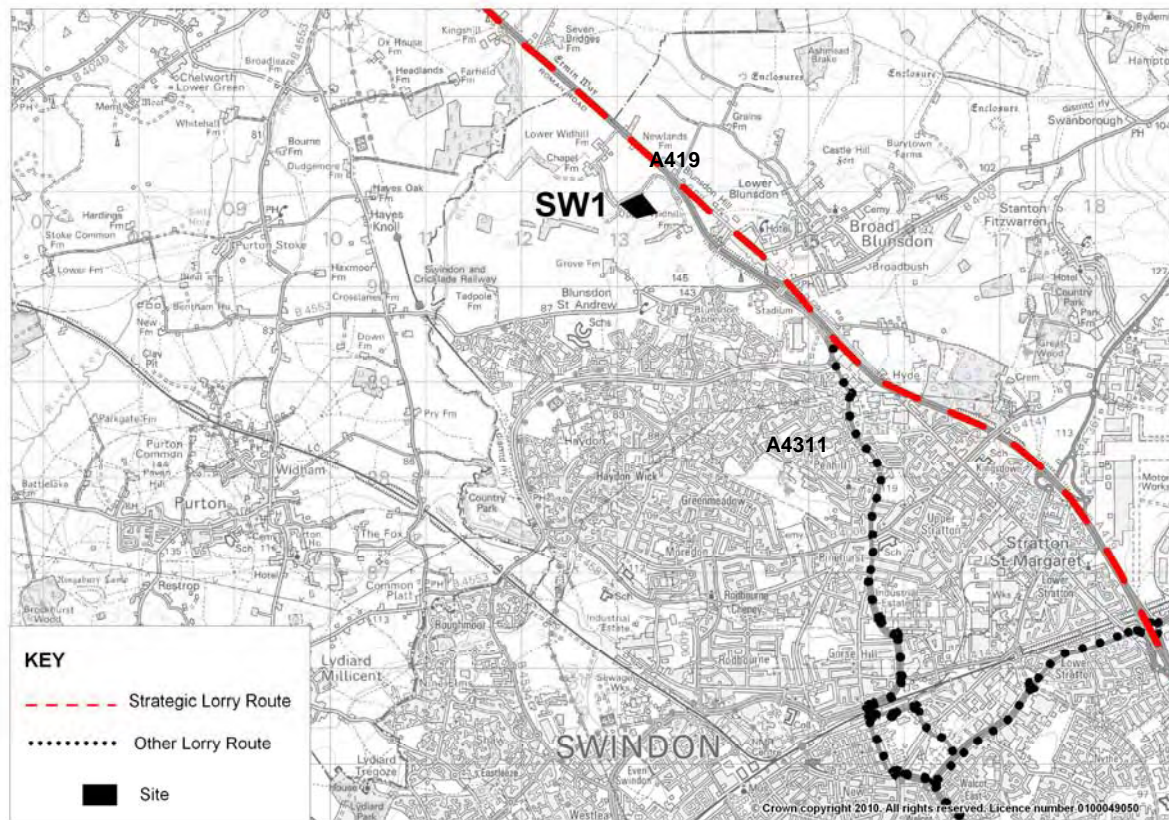
Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site. The 3.4ha site is located in a rural location approximately 5km north of Swindon Town Centre. The site is currently vacant grassland and is owned by Swindon Borough Council. Landfill and recycling uses currently exist near to the site.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.5.1.6.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.5.1.6.1** below shows that the site is located adjacent to the A419, which forms part of a strategic lorry route / part of the strategic route network.

Figure B.5.1.6.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Waste Treatment (T);
- Materials Recovery Facility (MRF);
- Waste Transfer Station (WTS); and
- Composting (C).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location, and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.5.1.6.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.5.1.6.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they are likely to impact on either the AM or PM highway peak period.
	45,000	500	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	
WT	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	
Composting	10,000	80	Staff levels at a Composting site are likely to be minimal

Assessment Suitability

Existing/Potential Access Junctions

Whilst no direct formal access into the site is currently provided, the site can be connected to an existing private access road if sufficient infrastructure is provided. The existing private access road runs adjacent to the northeastern boundary of the site. This private access road is 6.5m wide and is subject to a 20mph speed limit. This private access road provides a link to the highway network via Blunsdon Hill.

The adopted highway (Blunsdon Hill) starts just west of the nearby underpass (east of the site) and is 6.5m wide and subject to a 40mph speed limit. Both the private access road and Blunsdon Hill are currently used by numerous HGVs accessing a nearby site to the south of the Chapel Farm site (the operation of this other existing site is currently unknown). There are currently no road markings on the private access road or Blunsdon Hill to the west of the underpass.

Transport Environmental Impacts

A number of residential properties are currently located along Ermin Street to the northeast of the site. These properties are set back from the carriageway and are segregated from the main carriageway by a parallel running residential access road. Numerous HGVs currently use this road to access a nearby site and therefore the impact on these properties from additional HGVs is likely to be minimal. In addition, Ermin Street use to form part of the A419 (i.e. the Strategic Lorry Network) and therefore the impact of additional HGVs would actually be negligible compared to the previous volume of traffic/HGVs.

There are no other settlements located near to the site or along the route to the Strategic Lorry Network.

Off Site Highway Network

The above mentioned private access road used to be linked directly to the A419 via a large priority junction, with a deceleration lane and segregated right turn bay on the A419.

Recently the A419 has been realigned to bypass a linear length of residential properties, which were previously located fronting onto the old A419. The new A419 bypass section reconnects to the old A419 section in the location of the old private access road / A419 priority junction. The private access road has therefore now been extended, to run parallel with the A419 towards the southeast, where it connects to an adopted section of highway (Blunsdon Hill). Blunsdon Hill then passes under the new A419 and connects to the end of the old A419 further to the east. The old A419 has been renamed as Ermin Street.

Ermin Street links directly to the southbound on-slip of the A419 via a network of signalised junctions. Access to the northbound on-slip is gained by crossing over the A419, travelling south, and parallel to the A419 along the A4311, and then joining the on-slip via a large signalised three-arm junction. This network of signalised junctions was observed to cause a noticeable level of delay during an off-peak site visit. A capacity assessment will therefore be required to confirm if the impact of any waste facility will have a material impact on this network of junctions during a peak period. Atkins is aware that the Highways Agency has an existing traffic model for this area of the highway network. This model would need to be obtained to help determine the impact of the waste facility site in traffic terms.

Accessibility by Sustainable Modes

No footways exist along the private access road or the first section of Blunsdon Hill and therefore the site is not very accessible by foot. However, it is unlikely that the general public will walk to the site given the distance from the nearest settlement (Broad Blunsdon) and the general operation of the proposed site.

The nearest bus stop is located approximately 2km northeast of the site at the junction between Broad Bush and Ermin Street.

A segregated cycle/footway is located along Ermin Street and a section of Blunsdon Hill and links to the rest of the main highway network. However, this segregated cycle/footway does not extend under the A419 onto the private access road.

Constraints

The main constraints identified at the site are:

- A brand new access to the site will need to be constructed;
- No transport infrastructure exists on the site as it is currently agricultural land; and
- Capacity may be an issue at the network of signalised junctions that link the site to the A419. The impact on capacity in this location will need to be analysed as part of a Transport Assessment.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/SW1/001** in **Appendix D**.

Mitigation

Road markings will need to be provided on the existing private access road between the A419 bridge and the proposed site.

A new direct site access will need to be provided off the existing private access road into the site. The recommended layout of this access would be a simple three-arm priority give-way. There is no need for any right turn bay into the site as all vehicles will be turning left in and right out.

An indicative access design is presented as drawing number **5044619.017/TP/SW1/002** in **Appendix D**. It should be noted that a formal access design would be required when submitting a planning application. The design would require a capacity assessment to be carried out. In addition, highway boundary data would need to be obtained to determine the extent of highway land. Any mitigation will need to be subject to a road safety audit at the detailed design stage or earlier.

No off-site mitigation is currently recommended. However, further capacity analysis is required at the signalised network of junctions between the A419 and A4311. The need for mitigation measures may arise from this capacity analysis.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£35K** - to provide a simple priority access into the site from the private access road.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Note also that the cost to provide the access only includes for the provision of a bell mouth access and therefore additional costs will arise in terms of extending each access into the site.

Recommendation

The site offers the following advantages:

- The only sensitive area located along the route between the site and the A419 (Strategic Route Network) is the line of residential properties located adjacent to Ermin Street. These properties are offset from the carriageway and are segregated by a separate parallel residential access;
- Recycling and landfill facilities are already located near to the site;
- The private access road leading to the site is currently utilised by numerous HGVs accessing other nearby sites (uses unknown); and
- Good quality off-site transport infrastructure already provides close links from the site to the Strategic Lorry Network.

The following issues/constraints have been identified:

- A brand new access to the site will need to be constructed;
- Capacity may be an issue at the network of signalised junctions that link the site to the A419. The impact on capacity in this location will need to be analysed as part of a Transport Assessment; and
- The Highways Agency may have a negative view of any increase in traffic accessing the A419 at the Lady Lane junction, which will be inevitable if a waste facility is located on the Chapel Farm site.

In conclusion, the proposed site is considered appropriate, in transport terms, for the proposed uses with consideration of the mitigation measures as set out in this report.

B.5.1.7 Water Quality / Environment

Introduction

NGR: 413230, 190850

Location: Swindon

Site Area: 5.55 hectares

Data Source: Landmark Envirocheck Report 30098667_1_1 (8th Feb 2010) unless otherwise referenced

Table B.5.1.7.1 - Chapel Farm Blunsdon Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is a drain 16m to the north west, there is also a drain 223m to the north east of the site, a drain 610m to the north west, a small pond 990m to the south and the River Ray 1609m to north west.</p> <p>The EA identify that the River Ray watercourse has a chemical and biological quality of Fairly Good.</p> <p>The River Ray has an ecological classification in line with the Water Framework Directive as Moderate⁷⁰.</p>	<p>Impact on the River Ray flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Ray quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p> <p>Site Waste Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The geological map⁷¹ indicates that the site is underlain by the Jurassic Oxford Clay Formation.</p>	<p>Not applicable.</p>		<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are underlain by unproductive strata (non aquifer)</p>	<p>No risk posed.</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p>	<p>Environmental management during construction</p> <p>Determine monitoring requirements with EA</p>
<p>Hydrogeology: Groundwater – Source Protection Zone</p>	<p>The site is not located within or near to a Groundwater Source Protection Zone (SPZ).</p>	<p>No risk posed to public water supply; but local private abstractions may exist (<20m³)</p>	<p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded</p>	<p>Produce working plan for site</p> <p>Review runoff treatment</p>

⁷⁰ River Basin Management Plan South West River Basin District

⁷¹ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Hydrogeology: Groundwater – Vulnerability	Aquifer is not vulnerable.		storage areas, designated liquid handling areas etc.). Good working practices and EA guidance during construction.	requirements Surface Water Management Plan.
Hydrogeology: Groundwater – Direction of Flow	If groundwater is present it is most likely to be flowing in a north westerly direction towards the River Ray.	No risk posed.		
Discharges: Surface water – Discharge Consents	One discharge of Sewage – final/treated effluent to a tributary of the River Ray, 466m to the east.	No risk to works	-	-
Discharges: Groundwater – Discharge Consents	None within 1km of site.	Not applicable.	-	-
Discharges: Pollution Incidents	Specific Waste Material:, Category 2 (significant incident) to water; Category 3 (minor incident) to land; 39m to the west. Miscellaneous; Category 3 to land; 170m north west and 921m south.	No risk posed.		To be considered as possible source of contamination if any found during monitoring
Abstractions: Surface Water – Abstractions	None within 1km of site.	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	None within 1km of site.	No risk posed.		
Flood Risk	The site is in Flood Zone 1. The site is greater than 1 ha in size.	No risk of flooding but the potential for pluvial and groundwater flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Land Uses	<p>Chapel Farm Landfill, household, commercial and industrial wastes, 1m and 223m to the west (closed).</p> <p>Chapel Farm Waste Management Facility, household, commercial & industrial transfer station, 501m to north west and 793m to west.</p> <p>Chapel Farm Landfill Site, Incinerator, 684m to west.</p>	<p>Risk during construction of contaminated ground at site with possible runoff.</p> <p>Risk during construction of contaminated ground at site with contamination of aquifer.</p>	<p>Site Waste Management Plan to specify how excavated material is to be handled, stored and disposed of.</p>	<p>To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.</p>
Conservation Designations	<p>None within 1km of site.</p>	<p>No risk posed.</p>		
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	<p>The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.</p>	<p>-</p>	<p>-</p>	<p>-</p>

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility, Inert Waste Recycling and Transfer Station, Waste Treatment site or a Composting Facility at **Chapel Farm, Blunsdon** falls within the below category:

- Few / no significant issues identified – progress waste site to next stage of assessment

This initial screening indicates that:

- There are surface water features within 1km of the site therefore there is the potential for changes to their quality
- There is a risk of pluvial flooding
- There are potentially contaminating land uses in the area
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required include flood risk assessment, surface water management plan and contamination assessment.

B.5.2 Waterside Park, Swindon (Site Ref: SW2)

B.5.2.1 Introduction

The site extends to 9.1 ha and is located in the Cheney Manor Industrial Estate, 3.5 km north-west of Swindon town centre. The site comprises of a number of uses including offices, warehousing, manufacturing and waste management uses. The site has an existing access on Darby Close which allows access to the wider road network of the employment area although the site is approximately 6 km from the A3102 or A419, which are both part of the Wiltshire HGV Route Network. The site is bounded to the north by playing fields, to the east by the Cheney Manor Key Employment Area. The southern boundary is delineated by a railway line and open space and the railway to the west. There are residential areas 0.5 km north east and east of the site.

A review of the Environmental Agency flood maps indicates that part of the site may be at risk of flooding with the western edge and a segment of the southern part falling in Flood Zone 3 and the southern half of the site is in Flood Zone 2. No Public Rights of Way are present on the site.

The site is located in proximity to a number of designated sites which includes Swindon Sewage Treatment Works Lagoons Wildlife Site situated approximately 150 meters to the south west beyond the local railway line, Cheney Manor Ponds Wildlife Site which is approximately 280 meters south east of the site and Moredon Meadow 2 Wildlife Site located is approximately 300 meters north west of the site

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/02/1940 Former Swindon Services Site (now B & Q), Redevelopment of Council Depot to provide Non-food retail building (Class A1) with ancillary garden on land at Barnfield Road, Roadbourne, Swindon Wilts SN2 2DW

Reference: T/TP/96/1296 Use of land as a recycling centre on land at Galton Way, Kendrick Industrial Estate, Swindon, Wilts

Reference: S/08/0644 Erection of a food store and 2no. bulky goods retail unit on the former allotment gardens on land at Barnfield Road / Great Western Way, Swindon, Wilts

Reference: S/08/2385 Amendment to previous permission S/08/0644 for a Lidl foodstore and 2 no. non-food bulky goods on land at Barnfield Road / Great Western Way, Swindon, Wilts

Reference: S/02/0021 Use of land for the storage of fridges and freezers on former Incinerator Site, on land at Barnfield Road, Swindon SN2 2DJ

Reference: S/06/2474 Demolition of existing buildings and erection of up to 350 residential units, open space (including play area) on land at former Moredon Infants and Junior School and Herod Parkway Akers Way, Swindon Wilts SN2 2NL

B.5.2.2 Landscape and Visual Impact

Introduction

The site is located immediately west of the Cheney Manor Industrial Estate. The site is accessed from Darby Close is home to the Swindon Commercial Services depot and a range of waste management activities, including a household recycling centre, a materials recovery facility and a composting facility.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales (108) on the cusp of Midvale Ridge (109)

Key characteristics relevant to the site:

- Broad belt of open, gently undulating lowland farmland on Upper Jurassic clays containing a variety of contrasting landscapes. Includes the enclosed pastures of the clay lands and the wet valley bottoms and the more settled open arable lands of the gravel.
- The valley bottoms, with open floodplain landscapes displaying gravel workings and flooded pits, a regular and well-ordered field pattern, willow pollards and reedbeds along the water courses.

Key characteristics of Midvale Ridge relevant to the site:

- Low irregular wooded limestone ridge giving way to a series of isolated steep-sided tabular hills in the east which rise from the surrounding clay vales.
- Large geometrically spaced fields divided by regular pattern of hedgerows and trees supporting both arable and pastoral farming.
- Spring-line settlements associated with blocks of ancient woodland along the ridge. Contrast between the moderately elevated limestone hills and ridges and the surrounding low-lying clay vales.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Limestone Ridge (8)

Landscape Character Area: Swindon – Lyneham Limestone Ridge (8A)

Key characteristics relevant to the site:

- Rolling upland landscape formed by a linear outcrop of Stanford and Coral Rag Formation limestone.
- Level hill tops contrast with steep slopes down to the surrounding clay lowland.
- Large fields with a network of hedgerow with numerous hedgerow trees.
- Scattered tree clumps and woodland blocks, with some ancient woodland.
- A settled landscape with a number of large villages, several smaller settlements and scattered farmsteads.
- A variety of building styles from distinctive stone buildings in historic village centres to modern development using a mix of materials.
- Urban influences due to the proximity of Swindon and other settlements, military complexes and the busy A3102 road.

- Panoramic views from higher ground, particularly from the western scarp slopes.

The characteristics listed are typical of the countryside to the west of the site, forming a shallow valley flanked to the north and south by developed ridges. As the site is increasingly developed, this visual connection with its rural surroundings will diminish, and its industrial/commercial character will predominate.

The condition of the Limestone Ridge is judged by WCC to be generally 'good' away from urban areas and the main transport routes as well cared for pastoral farmland. However, closer to settlement the landscape becomes more degraded with areas of flailed hedgerows and urban fringe land uses, such as horse pasture. The overall condition of the *Limestone Ridge* Landscape Type is therefore considered to be moderate.

The overall management strategy for the Limestone Ridge is to conserve the elements that contribute to its character or are important in their own right, such as the network of hedgerows and the village centres while enhancing those areas, such as the urban fringes, that are becoming degraded.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- Close proximity to Cheney Manor Ponds and Moredon Meadow 1,2 and 3 Wildlife Sites.
- Series of public rights of way to the west of the site and following the northern boundary.

Baseline Landscape Character and Features: Site Survey

This is a large, relatively flat site nearly in entirety comprising hardstanding and large industrial style buildings within a secure boundary of palisade fencing. The recycling centre experiences reasonably high levels of users and the site has a generally active, hectic feel. To the east of the site is the Cheney Manor Industrial Estate which comprises a range of building and user types, with several taller (4+ storey) buildings in the area.

To the west of the site is the River Ray Parkway which comprises the Cheney Manor Ponds and Moredon Meadow wildlife sites with playing fields in a well vegetated green corridor along the railway linking to the wider open landscape beyond the Swindon urban fringe. The railway forms the southern boundary of the site, running along a raised embankment with several industrial units also at a raised vantage over the site. Due to the open valley topography of the landscape a number of residential properties on Akers Way (B4587) to the north of the site overlook the site along its western boundary, though views are limited by distance and intervening vegetation.

There is a lack of important vegetation on the site; however the adjacent parkland is a significant resource. The scrub growth to the railway embankment provides a notable level of visual screening and aids the establishment of a sense of enclosure.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor

Capacity to Accept Change: Medium – High

Given the open views to the west some areas of the site will be less able to accept change, however given its current industrial condition and existing use there is potential to redevelop the site in a manner to reducing the significance of its effects on the landscape. Sensitive site planning and enhancements may result in a beneficial impact through redevelopment.

Potential Landscape Impacts

- Further encroachment on the landscape to the west
- Introduction of additional notable features to views from the west

Potential Landscape Mitigation Measures

- 15m wide woodland planting buffer along the western site boundary, with high proportion of riparian species such as willow and alder

- Bund with native tree and hedgerow planting around site boundary
- Low development avoiding vertical elements

The following ‘Broad Management Objectives’ for the Limestone Ridge landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Encourage repair, replanting and extension of the hedgerow network, improved maintenance of the existing hedgerows and nurture new hedgerow trees.
- Conserve existing trees and encourage the planting of new hedgerow trees and woodland belts, especially around larger settlements where they are being lost or could break up harsh urban edges.
- Limit further uncontrolled spreading of settlement and ribbon development concentrating new development within existing settlements.
- Discourage intrusive development along the visually sensitive ridgeline.
- Reduce the impact of urban influences on roads such as the proliferation of signage and hard edging to encourage a more rural atmosphere.

Table B.5.2.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residents in Moredon	High	No change – slight adverse due to distance and intervening vegetation	Retain existing vegetation and plant additional boundary planting to soften views into site
Residents in Roughmoor			
Public Right of Way Users	Medium	Slight adverse	Plant 15m woodland buffer along western boundary of site
Commercial Properties in Moredon	Low	No change – slight adverse	
College	Low	No change – slight adverse	
Cheney Manor Industrial Estate workers	Low	No change – slight adverse	Minimise the height of development and vertical elements, in particular lighting

Summary: Residual Landscape and Visual Impacts

Due to the existing condition and use of the site, the significance of impacts related to the development of the site for waste management purposes is likely to be slight. Given the urban fringe location of the site and proximity of some residential properties and footpaths however, it is essential that sensitive site planning and visual mitigation measures are incorporated.

Recommended further landscape and visual surveys

- Summer-time footpath surveys to west of site
- Night time visual survey

B.5.2.3 Noise

Introduction

The site at Waterside Park, Swindon has been allocated the following uses, and as such has been assessed in regard to noise from the following;

- Local Recycling;
- Inert Waste recycling/Transfer;
- Treatment.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site's suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On the grass opposite 26 Akers Way, approximately 380m from the site's northern boundary; and
- Meadow Road located approximately 780m from the southern site boundary.

The proposed site is located within land currently occupied by industrial units, within a large industrial estate. Given the current usage, background noise levels were made with current activities occurring. The site at Waterside Park is bounded to the south by a railway line and surrounded by industrial buildings.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on the B4587 and B4006, and noise from industrial units.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.5.2.3.1 - Opposite 26 Akers Way - Background Noise Levels (AU1_0005)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:17:00	00:05:00	59.3	64.5	52.3	61.9	58.7	54.3
14:22:00	00:05:00	59.6	68.5	50.9	61.9	59.1	53.7
14:27:00	00:05:00	59.7	66.9	52.3	62.4	58.7	54.2
14:17:00	00:15:00	59.5	68.5	50.9	62.1	58.8	54.2

Table B.5.2.3.2 - Meadow Road - Background Noise Levels (AU1_0006)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:40:00	00:05:00	61.5	67.7	56	63.3	61.2	58.7
14:45:00	00:05:00	60.6	65.2	56.4	62.6	60.1	58.2
14:50:00	00:05:00	60.6	66.2	54.7	62.6	60.1	57.6
14:40:00	00:15:00	60.9	67.7	54.7	62.9	60.5	58.1

The average background noise levels (L_{A90}) opposite 26 Akers Way and Meadow Road are taken as being 54.2 dB and 58.1 dB, respectively.

Assessment Suitability

The site is part of an existing industrial estate with properties at a distance to the north.

The site is considered suitable with respect to noise.

Mitigation

No mitigation is deemed to be required.

Recommendation

The site is deemed suitable for the intended uses with respect to noise.

B.5.2.4 Air Quality and Odour

Introduction

Waterside Park is located within an industrial setting in Swindon’s urban area. The site is an existing municipal depot and a range of waste management activities, including a household recycling centre, a materials recovery facility and a composting facility.

Potential uses include local recycling, inert waste recycling/transfer and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 20.6µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 12.1µg/m3 NO2 (standard 40µg/m3);
- 15.1µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are 55 residential properties located approximately 400 metres north of the site. Property surrounding the site is industrial and business use. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic from the A36 and from minor roads and gas/oil/solid fuel space heating for scattered buildings. Other sources include BTR Graphic Products Ltd (PM₁₀ and VOC) on Cheney Manor Industrial Estate; Thames Water Utilities Ltd sewage treatment works (additional potential emissions of odour, NH₃ and bioaerosols).

Table B.5.2.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (55 properties)	1	1	N/A	N/A	N/A	1	1
Residential within 250m only (0) Properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500 metres of site (River Avon SSSI/SAC)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential ‘in-combination’ or cumulative effects
 N/A = risk is not applicable in these circumstances

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
* Bioaerosol high risk is limited to within 250m of the site							

Mitigation

Dust and odour control measures are recommended. See ‘Air Emissions Mitigation Options’ in **Appendix C**.

Recommendation

Due to sites existing use and setting the risks associated with the potential uses are low. No requirement for further assessment.

B.5.2.5 Transport

Introduction

This technical note presents a review of the transport and traffic issues relating to the proposed waste uses at the above named site.

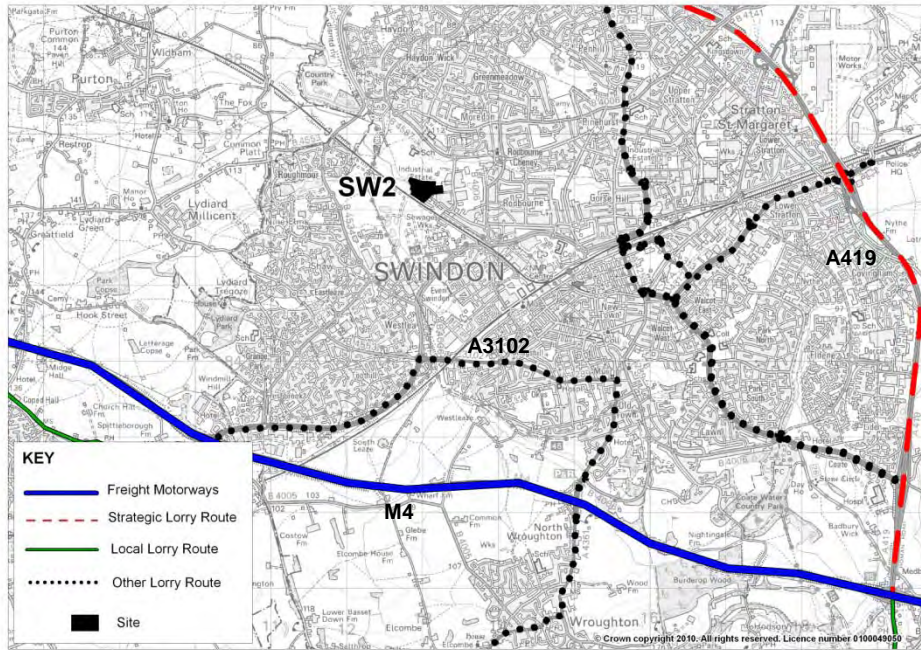
It is proposed that this development location will be used as a strategic waste site. The site currently serves as a Household Waste Recycling Centre (HRC) and is located to the west of Swindon town centre within an industrial area. The industrial estate is surrounded by residential areas. Access into the site is off Darby Close which links the B4006 to the south and the B4587 to the north.

As the existing site already has waste uses associated with it, the surrounding highway network will likely be suitable to support the proposed waste facilities.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.5.2.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.5.2.5.1** shows that the closest link to the Wiltshire strategic freight network is located to the south of the site via the A3102. This is a designated ‘other’ lorry route which should only be used where it is essential to gain access. Access to the A3102 is gained from the B4006 which is not part of the Wiltshire HGV Route Network.

Figure B.5.2.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T); and
- Treatment (T).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.5.2.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.5.2.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
T	EfW 60,000	220	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	MBT 60,000	320	

Assessment Suitability

Existing/Potential Access Junctions

Access to the site is off Darby Close which runs into the existing development site. Darby Close is approximately 7.2m wide with 3m footways on both sides. The access currently serves the existing HRC and therefore caters for HGVs. A mini roundabout is located on the corner of Darby Close to the east of the site entrance. All vehicles would have to negotiate this junction to gain access to the site.

The mini roundabout has a humped central island which is not kerbed, therefore allowing large vehicles to overrun it when entering the access road. The access road also has double yellow lines along its length which means there is no obstruction caused by parked vehicles.

However, the onsite road layout would have to be arranged so that vehicles do not stack back out of the site on to Darby Close.

Transport Environmental Impacts

Residential dwellings are located to the north and south of the industrial estate. In order for HGVs to reach the strategic network they must pass the outskirts of the residential areas. Only one small stretch of road to the A3102 has dwellings fronting onto the main carriageway. Therefore the impact on the local residential area would be relatively low.

Access onto the A4311, which is part of the strategic network, is available to the north of the development. However, in order to access this road the route passes a dense residential area, with on street parking and, in some areas, traffic calming. It is recommended that operational vehicles are not routed this way.

Therefore, provided HGV movements are routed to the south of the development the impact on noise, vibration, severance or fear and intimidation for pedestrians would be minimal.

Off Site Highway Network

As previously mentioned the site is located in an industrial area. East of the site on the corner of Darby Close is a mini roundabout junction. The central island is not kerbed meaning HGVs can easily negotiate the junction. Darby Close also acts as a route for vehicles heading north to south in order to avoid the residential areas.

Capacity issues were observed at the Rodbourne Road / Darby Close roundabout junction during the AM peak. Traffic queues were viewed stacking back onto Darby Close as far as the mini roundabout located near to the site. However, the proposed facilities are unlikely to generate a large amount of operation trips during the highway peak periods. Staff levels are likely to be low for Local Recycling sites however, they may be more considerable for a Treatment site, and therefore capacity assessments would be required to determine the impact of the proposed traffic generation on the local highway network.

A roundabout junction with a kerbed central island is also located at the northern end of Darby Road. This roundabout has an Inscribed Circle Diameter (ICD) of approximately 22m which would suggest large HGVs may have difficulty negotiating it. However, it would be advised that HGVs do not approach the site from the north as it consists of dense residential areas.

Accessibility

The access road leading up to the site has 3m footways on both sides of the road. This provides good pedestrian access into the site. Bus stops are located along Darby Close to the east of the

site, approximately 550m from the site entrance. Carriageways in the vicinity of the site are approximately 7m wide or more which provides ample room for cyclists to share the road.

Constraints

The main constraint for the development would be access from the north of the site. The roundabout to the north of the site at the Darby Close/Akers Way (B4587) junction is relatively small with an ICD of 22m. According to the Design Manual for Roads and Bridges (DMRB) 28m is the smallest ICD which will allow the turning circle of a large articulated vehicle. Although the majority of the vehicles visiting the proposed waste facility will not be large articulated vehicles it is still an area for concern.

In addition the route to the HGV network to the north of the site runs through a residential area with parked cars and traffic calming in places and as such this is not considered to be a suitable route for HGVs. Capacity issues were identified through observations on the local highway network during peak periods.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/SW2/001** in **Appendix D**.

Mitigation

No specific junction amendments have been identified at this point. However it is recommended that a full Transport Assessment (TA) is carried out in order to establish the impact of the development on the capacity of the highway network in the immediate vicinity of the site. However, due to the nature of the waste facilities proposed for this site it is unlikely there will be a large increase in trips on the highway network generated during the AM and PM highway peak periods.

It would also be recommended that all HGV vehicles accessing the site from the HGV strategic network do so from the A3102 to the south of the site. This will ensure a minimal impact on the residential area surrounding the industrial site.

Recommendation

The site offers the following advantages:

- The site is located in an industrial area and already has an existing waste facility on site. Therefore the site access and local network is suitable for HGVs;
- The site is not expected to generate large amounts of trips in the AM and PM highway peaks; and
- The site benefits from good accessibility. Wide footways are provided leading into the site and bus stops are located just 550m from the proposed development.

The following issues/constraints have been identified:

- The Darby Close / Akers Lane roundabout has a small ICD meaning larger articulated vehicles may struggle to negotiate around it;
- The area to the north of the site is mainly residential making it unsuitable for HGVs; and
- Traffic capacity issues exist on the highway network in the vicinity of the site. Further investigation would be required.

In conclusion, this proposed site provides an ideal location for a new waste facility given that the site currently operates as an existing HRC and is situated in an industrial area. Planning issues related to transport should therefore be minimal. The site provides good access and the traffic impact is unlikely to unduly affect capacity in the area, however capacity assessments would be required.

B.5.2.6 Water Quality / Environment

Introduction

NGR: 413030, 186280

Location: Swindon

Area: 9.1 hectares

Data Source: Landmark Envirocheck Report 30098714_1_1 (8th Feb 2010) unless otherwise referenced

Table B.5.2.6.1 - Waterside Park Water Environment

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrology: Surface Water	<p>The River Ray runs alongside the western edge of the site. The ecological and current overall status of the river is moderate. The chemistry and biology GQA grades are Fairly Good, and the level of nutrients High to Very High.</p> <p>There are a number of other water bodies within 500m of the site including a stream 550m north that is a tributary to the River Ray.</p>	Impact on River Ray quality as a result of contaminated runoff from site entering river during construction and operation.	<p>Surface drainage plan inc. runoff collection system and use of SuDS in design.</p> <p>Consider limiting types of waste handled at site.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc), including reference to EA Pollution Prevention Guidelines (PPGs).</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p>
Geology: Stratigraphy	The site is underlain by the Upper Jurassic Kimmeridge Clay below which is the Lower Corallian formation consisting of Red Down Sand and Clay, the "Coral Rag" and silt and sands. The site is on the downthrown side of a normal fault trending in a west-east direction ⁷² .	There is the potential for the creation of a pathway for contaminants to reach the groundwater.	-	To be considered during further assessment.
Hydrogeology: Groundwater – Hydrogeological Units	A little over half the site is on unproductive strata (non-aquifer) but the remainder overlies Secondary (Minor) Aquifer.	Contamination of Aquifer Changes to the groundwater flow regime of primarily shallow aquifers during construction if pumping required for excavations	<p>Surface drainage plan inc. runoff collection system and use of SuDS in design.</p> <p>Consider limiting types of waste handled at site.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc), including reference to EA PPGs.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Monitoring boreholes (may be required for obtaining operating</p>
Hydrogeology: Groundwater – Source Protection Zone	The site is not in or near a SPZ.	No risk to public water supply, but there may be small private abstractions of less than 20m ³ per day		
Hydrogeology:	No information on direction of flow.	-		

⁷² BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Groundwater – Direction of Flow				permit).
Hydrogeology: Groundwater – Vulnerability	The aquifer is highly vulnerable.	Contamination of Aquifer.		
Discharges: Surface Water - Discharge Consents	Water company final / treated effluent; to River Ray, 211m, 425m south-west. Water company pumping station sewage discharge; to Railway Lagoon Brook, 261m south-east. Water company storm overflow; 414m south-west. Site drainage; to tributary of River Ray, 318m south; and to Lydiard Brook, 735m west.	No risk posed.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	Final / treated effluent; to “coral rag”, 715m east	No risk posed.	-	To be considered during further assessment.
Discharges: Pollution Incidents	Category 3, minor incident; oils, 10m north-west; oils, up to 993m north-west, 32m to 668m west, 594m north, 915m to 995m south. Misc pollution, 475m east, 658m south, 831m north-east and 885m east. Chemical incidents, 432m and 789m east. Sewage, 279m to 528m south-west, 225 to 395m north-east. Category 2, significant incident; oils, 65m west; sewage, 418m south-west; oils, 506m north-west; unknown chemicals, 539m south-east; misc., 679m south-east; final effluent, 362m south-west; landfill leachate, 509m west; landfill leachate, 918m west Category 1, major incident; oils, 743m north-east	No risk posed.	-	To be considered as possible source of contamination if any is detected during monitoring.

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Abstractions: Surface Water Abstractions	There are no registered surface water abstractions within 1km of the site.	No risk posed.	-	-
Abstractions: Groundwater Abstractions	There are no registered groundwater abstractions within 1km of the site.	No risk posed.	-	-
Flood Risk	The site is in Flood Zone 1 with the exception of the central/southern part of the site which is in Zone 2. The western margin and a small area in the southernmost part of the site are in Zone 3.	Risk of fluvial and pluvial flooding and potentially groundwater flooding.	Engineered flood defence, SuDS design to control runoff.	A Flood Risk Assessment in line with PPS 25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Landuses	There is an area of landfill sites to the west that extends from 60m to 1km away; there is a landfill site 891m north-west; one 412m south-east; 736m south-east. There are several waste management facilities within or very close to the site, and several c. 300m south. The site itself is within Cheney Manor Industrial Estate, with Kendrick Industrial estate to the south and Rivermead Industrial Estate to the south-west. All these sites house a variety of industries including potentially contaminating ones.	Risk during construction of contamination leaching to aquifer or running off to surface waters.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is handled, stored and disposed of.	To be considered as source of contamination if any found during monitoring.
Conservation Designations	There are no statutory conservation designations within 1km of the site.	No risk posed	-	-
Drainage: Current Surface Water /Foul Drainage Systems –	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Capacity				

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Local Recycling centre, Inert Waste and Recycling plant or Waste Treatment centre at **Waterside Park, Swindon** falls within the following category:

- Several potentially significant issues identified – review further assessment requirements for site

The initial screening indicates that:

- The River Ray immediately adjacent to the site and therefore there is the potential for changes to its flow and quality
- A Secondary Aquifer beneath the site and therefore there are potential groundwater contamination issues
- Pluvial and groundwater flooding associated with the River Ray
- Potentially contaminating industrial and waste activities at and near the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further work and assessment that will be required include a flood risk assessment, surface water management plan and a contamination assessment.

B.5.3 Brindley Close / Darby Close (Site Ref: SW3)

B.5.3.1 Introduction

The site extends to 1.2 ha and is located in the Cheney Manor Industrial Estate, 3.5 km north-west of Swindon town centre. This site is an industrial estate within the Swindon urban area and comprises of several small business and industrial units which include scrap yards and waste transfer stations. The site has an existing access on Brindley Close which allows access to Darby Close and the wider road network of the employment area. To the north, east and west of the site is the Waterside Park and Cheney Manor Industrial Estate which small businesses including small manufacturing, engineering businesses and some waste uses. The site is flanked to the south by the local railway line beyond which lies the Kendrick Industrial Estate and Barnfield Sewerage Works. There are residential areas situated within 0.7 km north and east of the site. The northern tip of the site are in Flood Zone 2.

The site is located in proximity to a number of designated sites which includes Swindon Sewage Treatment Works Lagoons Wildlife Site is identified as Priority Habitat and is approximately 250 metres to the south west beyond the local railway line, Cheney Manor Ponds Wildlife Site is which located within 20 metres of the southern part of the site.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/02/1940 Former Swindon Services Site (now B & Q), Redevelopment of Council Depot to provide Non-food retail building (Class A1) with ancillary garden on land at Barnfield Road, Roadbourne, Swindon Wilts SN2 2DW

Reference: T/TP/96/1296 Use of land as a recycling centre on land at Galton Way , Kendrick Industrial Estate, Swindon, Wilts

Reference: S/08/0644 Erection of a food store and 2no. bulky goods retail unit on the former allotment gardens on land at Barnfield Road / Great Western Way, Swindon, Wilts

Reference: S/08/2385 Amendment to previous permission S/08/0644 for a Lidl food store and 2 no. non-food bulky goods on land at Barnfield Road / Great Western Way, Swindon, Wilts

Reference: S/06/2474 Demolition of existing buildings and erection of up to 350 residential units, open space (including play area) on land at former Moredon Infants and Junior School and Herod Parkway School Akers Way, Swindon Wilts SN2 2NL

B.5.3.2 Noise

Introduction

The site at Brindley Close / Darby Close, Swindon has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On the grass opposite 26 Akers Way, approximately 660m from the sites northern boundary; and
- Meadow Road located approximately 650m from the southern site boundary.

The proposed site is located within land currently occupied by industrial units, within a large industrial estate. Given the current usage, background noise levels were made with current activities occurring. The site at Brindley Close is bounded to the south by a railway line and surrounded by industrial buildings.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on the B4587 and B4006, and noise from industrial units.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.5.3.2.1 - Opposite 26 Akers Way - Background Noise Levels (AU1_0005)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:17:00	00:05:00	59.3	64.5	52.3	61.9	58.7	54.3
14:22:00	00:05:00	59.6	68.5	50.9	61.9	59.1	53.7
14:27:00	00:05:00	59.7	66.9	52.3	62.4	58.7	54.2
14:17:00	00:15:00	59.5	68.5	50.9	62.1	58.8	54.2

Table B.5.3.2.2 - Meadow Road - Background Noise Levels (AU1_0006)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:40:00	00:05:00	61.5	67.7	56	63.3	61.2	58.7
14:45:00	00:05:00	60.6	65.2	56.4	62.6	60.1	58.2
14:50:00	00:05:00	60.6	66.2	54.7	62.6	60.1	57.6
14:40:00	00:15:00	60.9	67.7	54.7	62.9	60.5	58.1

The average background noise levels (L_{A90}) opposite 26 Akers Way and Meadow Road are taken as being 54.2 dB and 58.1 dB, respectively.

Assessment Suitability

The site is part of an existing industrial estate and sited well away from residential dwellings and hence is suitable for the proposed uses with respect to noise.

Mitigation

No mitigation is assumed to be necessary.

Recommendation

The site is deemed suitable for the intended uses with respect to noise.

B.5.3.3 Air Quality and Odour

Introduction

The site currently comprises a number of small scrap yards, skip hire businesses and general industrial units. The setting is industrial within the Swindon urban area, adjacent to the Cheney Manor Industrial Estate.

Potential uses include materials recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 20.6µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 17.3µg/m3 NO2 (standard 40µg/m3);
- 15.8µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 7 sensitive receptors approximately 400 metres to the west of the site at Telford Pond. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 1km of the site: road traffic on the B4006, B4534, B4587 and minor roads; gas/oil/solid fuel space heating for buildings; BTR Graphic Products Ltd (PM₁₀ and VOC) on Cheney Manor Industrial Estate; Thames Water Utilities Ltd sewage treatment works (additional potential emissions of odour, NH₃ and bioaerosols).

Table B.5.3.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (9 properties)	1 (1)	1 (1)	N/A	N/A	1 (1)	1 (1)	1 (2)
Residential within 250m only (0 Properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500 metres of site	N/A	1 (1)	1 (1)	1 (1)	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol *	Nuisance dust	Odour
2 = moderate risk, further assessment is recommended, mitigation should be required 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated Values in brackets denote potential 'in-combination' or cumulative effects N/A = risk is not applicable in these circumstances * Bioaerosol high risk is limited to within 250m of the site							

Mitigation

Dust and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low to moderate (in-combination) without mitigation. Dust and odour mitigation is recommended. Further assessment should be undertaken for odour.

B.5.3.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

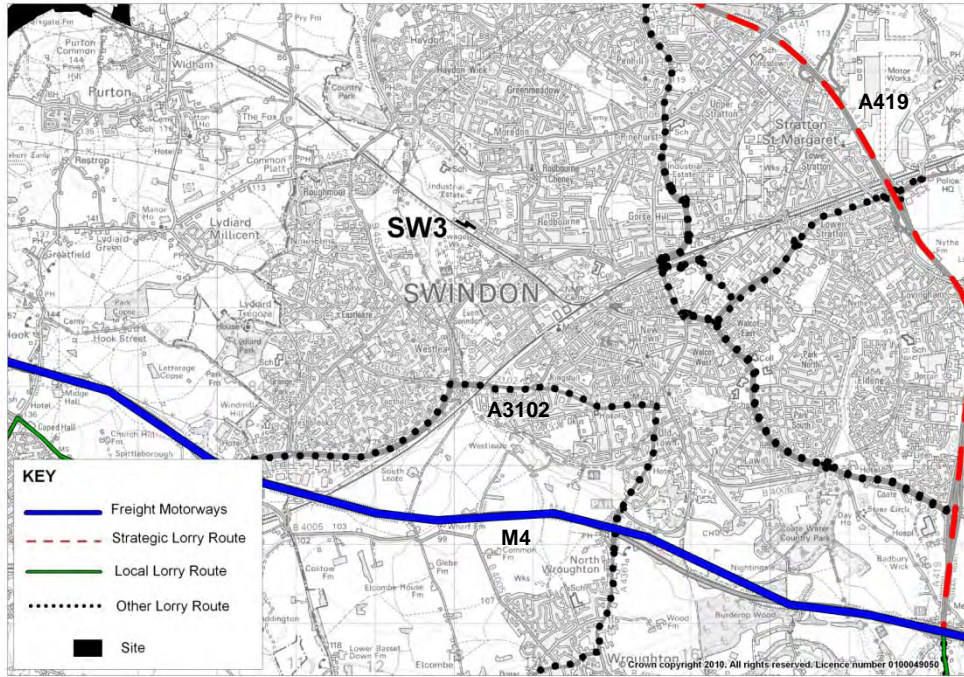
The site has been designated for local use. The existing land is used for industrial purposes including a car service centre and skip hire depot. The site is located on an existing industrial site with access being gained via Darby Close.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.5.3.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.5.3.4.1 shows that the closest link to the Wiltshire strategic freight network is located to the south of the site via the A3102. This is a designated 'other' lorry route which should only be used where it is essential to gain access. Access to the A3102 is gained from the B4006 which is not part of the Wiltshire HGV Route Network.

Figure B.5.3.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.5.3.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.5.3.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

Existing access into the site is gained from Brindley Close which runs into the heart of the site. Brindley Close is a minor side road which varies in width. Brindley Close forms a priority junction with Darby Close which connects the site with the rest of the industrial area. This junction takes the form of a priority junction. Darby Close is subject to a 30mph speed limit.

Visibility from this junction is excellent in both directions. Brindley Close is approximately 10m wide where it meets Darby Close, however the kerbed radii is tight compared to standard priority junctions. When HGVs were observed accessing the site they used the whole width of Brindley Close and it would therefore be recommended that the radii are increased to provide easier access into the site.

There is a gated access into an existing industrial unit on the opposite side of Darby Close immediately to the west of Brindley Close. However, this access is rarely used and no conflict is envisaged with the proposed site access to the waste facility.

Transport Environmental Impacts

Residential dwellings are located to the north and south of the industrial estate. In order for HGVs to access the strategic network they must pass the outskirts of the residential areas. Only one small stretch of road on route to the A3102 has dwellings fronting onto the main carriageway. Therefore the impact on the local residential area if taken as a whole would be relatively low.

Access to the strategic network to the north of the development is available via the A4311. However in order to access this road, the route passes a dense residential area, with on-street parking and, in some areas, traffic calming. It is recommended that operational vehicles are not routed this way.

Therefore, provided HGV movements are routed to the south of the development, the impact on noise, vibration, severance or fear and intimidation for pedestrians would be minimal.

Off Site Highway Network

As previously stated the site is located in an industrial area. East of the site on the corner of Darby Close there is a mini roundabout junction. The central island is not kerbed meaning HGVs can easily negotiate the junction. Darby Close also acts as a route for vehicles heading north to south to the west of Swindon town centre in order to avoid the residential areas.

Capacity issues were observed at the Rodbourne Road / Darby Close roundabout junction during the AM peak. Traffic queues were viewed stacking back onto Darby Close as far as the mini roundabout located near to the site. However, the proposed facilities are unlikely to generate a large amount of operational trips during the highway peak periods. Staff levels are likely to be low for LR sites however; there may be more for a WTS/MRF site. As such capacity assessments would be required to determine the impact of the proposed traffic generation has on the local highway network.

Double yellow lines are also located on Darby Close which means that the road is clear from obstructions caused by parked vehicles.

A roundabout junction with a kerbed central island is also located at the northern end of Darby Close. This roundabout has an Inscribed Circle Diameter (ICD) of approximately 22m which

would suggest large HGVs may have difficulty negotiating it. However, it would be advised that HGVs do not approach the site from the north as it consists of dense residential areas.

Accessibility by Sustainable Modes

The access road leading up to the site has 3m footways on both sides of the road. This provides good pedestrian access into the site. Bus stops are located along Darby Close to the east of the site, approximately 400m from the site entrance. Carriageways in the vicinity of the site are approximately 7m wide or more which provides ample room for cyclists to share the road with motor vehicles.

Constraints

A plan showing the constraints is presented as drawing no. **5044619.017/TP/SW3/001** in **Appendix D**. One constraint relating to the site is the roundabout with a kerbed central island at the Darby Close/Akers Way (B4587) junction which has a relatively small ICD of 22m. According to the Design Manual for Roads and Bridges (DMRB) 28m is the smallest ICD which will cater for the turning circle of a large articulated vehicle. Although the majority of the vehicles visiting the proposed waste facility will not be large articulated vehicles it is still an area for concern.

In addition the route to the HGV network to the north of the site runs through a residential area with parked cars and traffic calming in places and as such this is not considered to be a suitable route for HGVs. Capacity issues were identified through observations on the local highway network during peak periods.

Mitigation

The existing site access serves the site well, however it is recommended that the kerbed radii at the Brindley Close / Darby Close junction is increased to allow easier access into the site without having to use the whole width of Brindley Close. It is also recommended that a full Transport Assessment (TA) is carried out in order to establish the impact of the development on the capacity issues existing on the highway network in close vicinity to the site. However, due to the nature of the waste facilities proposed for this site it is unlikely there will be a large increase in trips generated during the AM and PM highway network peak periods.

It would also be recommended that all HGV vehicles accessing the site from the strategic lorry routes do so via the A3102 to the south of the site. This will ensure a minimal impact on the residential area surrounding the industrial site.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- Amending the kerbed radii at the Brindley Close / Darby Close access junction - **£25k (it is likely that there will be public utility diversions which will result in increased costs)**

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is located in an existing industrial area and already has HGV vehicles visiting the site;
- The site is not expected to generate large amounts of trips in the AM and PM highway peaks; and
- The site benefits from good accessibility. Wide footways are provided leading into the site and bus stops are located just 400m from the proposed development.

The following issues/constraints have been identified:

- The Darby Close / Akers Lane roundabout has a small ICD meaning larger articulated vehicles may struggle to negotiate around it;
- The area to the north of the site is mainly residential making it unsuitable for HGVs; and
- Traffic capacity issues exist on the highway network in the vicinity of the site. Further investigation would be required.

In conclusion, this proposed site provides an ideal location for a new waste facility. As the site is situated in an industrial area planning issues related to transport should be minimal. Therefore, provided operational vehicles access the site via the south, rather than the north, the site will provide a suitable location for a waste facility.

B.5.3.5 Water Quality / Environment and Contaminated Land

Introduction

NGR: 413150, 186050

Location: Swindon

Area: 1.2 hectares

Data Source: Landmark Envirocheck Report 30098742_1_1 (8th Feb 2010) unless otherwise referenced

Table B.5.3.5.1 - Brindley Close - Darby Close - Water Environment and Contaminated Land

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Hydrology: Surface Water</p>	<p>A drain is immediately adjacent to the site to the east, and there are numerous ponds within 500m.</p> <p>The River Ray runs past the site 200m to the west (current overall and ecological status is Moderate – Environment Agency (EA) data for the River Ray between Lydiard Brook and the Thames; GQA chemistry and biology grades are Fairly Good).</p>	<p>Impact on the River Ray flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Ray and ponds/ditches quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design.</p> <p>Consider limiting types of waste handled at the site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas, etc)</p> <p>Good working practices and EA guidance driving construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review run off treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site is underlain by the Upper Jurassic Kimmeridge Clay below which is the Lower Corallian formation consisting of Red Down Sand and Clay, the “Coral Rag” and silt and sands. There are alluvial deposits directly west of the site. The site is on the downthrown side of a normal fault trending in a west-east direction.⁷³</p>	<p>There is the potential for creating a pathway for contamination to reach the groundwater.</p>	<p>-</p>	<p>To be considered during further assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>The western half of the site is on a Secondary (Minor) Aquifer with the remainder on unproductive strata (non-aquifer).</p>	<p>Contamination of aquifer.</p> <p>Changes to the groundwater flow regime</p>	<p>Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design.</p> <p>Consider limiting types of waste handled at</p>	<p>Environmental Management during construction.</p>

⁷³ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrogeology: Groundwater – Source Protection Zone	The site is not within 1km of a SPZ.	of primarily shallow aquifers during construction if pumping required for excavations.	the site e.g. only solid waste, only inert waste. Pollution Incident Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas, etc).	Produce working plan for site. Review run off treatment requirements.
Hydrogeology: Groundwater – Vulnerability	The Secondary Aquifer is classified as being highly vulnerable.	No risk posed to public water supply, but local private abstractions may exist (<20m ³ / day).	Good working practices and EA guidance during construction.	Monitoring boreholes (may be required for obtaining operating permit).
Hydrogeology: Groundwater – Direction of Flow	It is assumed that groundwater flows toward the River Ray i.e. approximately to the west.	-		Surface Water Management Plan.
Discharges: Surface Water - Discharge Consents	Pumping station sewage discharge; to Railway Lagoon Brook, 123m east; and to the River Ray, 428m south-west. Site drainage to a tributary of River Ray, 198m south. Final / treated effluent; to River Ray, approx. 275m west and 400m south-west.	Not applicable.	-	To be considered during impact assessment.
Discharges: Groundwater – Discharge Consents	Final / treated effluent to coral rag, 881m north-east.	Not applicable.	-	To be considered during impact assessment.
Discharges: Pollution Incidents – to land	Category 3 (minor incident); dust, 21m north-west; oils, 385m south; “smoke”, 688m north-west; landfill leachate, 779m west.	No risk posed.	-	-
Discharges: Pollution Incidents – to water	Category 1 (major incident), oils; 925m north-east. Category 2 (significant incident), oils; between 368m and 873m north-west.	Not applicable.	-	To be considered as potential source of contamination if contamination is

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
	<p>Chemicals; 386m south-east. Sewage; between 368m and 432m south-west. Miscellaneous; 524m south-east. Landfill leachate; 779m west.</p> <p>Category 3 (minor incident), oils; 265m to 373m north-west; 648m to 887m north; 385m to 897m south. Sewage; 290m to 428m south-west; 468m north-east; 590m west; 617m north. Chemicals; 460m east; 722m east; 926m north-east. Miscellaneous; 485m south; 642m to 995m north-east.</p>			<p>found during site investigation and monitoring.</p>
Abstractions: Surface Water Abstractions	<p>There are no registered surface water abstractions within 1km of the site.</p>	-	-	-
Abstractions: Groundwater Abstractions	<p>There are no registered groundwater abstractions within 1km of the site.</p>	-	-	-
Flood Risk	<p>The western part of the site is in flood zone 2 associated with the River Ray. The remainder of the site is in zone 1.</p>	<p>Being in zone 2 means that there is some risk of fluvial flooding to part of the site; however there is also a risk of pluvial and groundwater flooding.</p>	<p>Surface Water Management Plan, SuDS design to control runoff.</p>	<p>A Flood Risk Assessment in line with PPS25 is required to determine level of flood risk for the site and appropriate mitigation measures.</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
<p>Landuses: Waste sites</p>	<p>There are small historic landfill sites 196m and 515m south-east, and two large sites 248m and 633m to the west.</p> <p>Licensed waste management facilities are present on the site (vehicle breakers) with a number of other sites within 150m.</p>	<p>There is a significant risk that past and present landuses will have led to contamination of the ground.</p>	<p>A Site Waste Management Plan and a Pollution Incident and Control Plan should specify how excavated material is to be handled, stored and disposed of.</p>	<p>Geoenvironmental investigation is required to determine the nature and extent of any contamination that may be present at the site.</p>
<p>Landuses: Historical landuse</p>	<p>1886: The railway is present, running along the southern edge of the site. The western half of the site overlaps with a rifle range.</p> <p>1900: Filter beds are shown 200m south-west of the site.</p> <p>1923: The sewage works has expanded to close to 100m from the site</p> <p>1941-2: The former rifle range area now appears to be some kind of pit or tip.</p> <p>1963-4: Factories have been built adjacent to the site and structures are shown on the site.</p> <p>1971-4: Structures on site are shown as depot, tanks and engineering works.</p> <p>1983-91: An electrical substation is marked adjacent to the site.</p>	<p>The risk this presents is the excavation and exposure of contaminated material during construction which could open pathways to site staff via direct contact and controlled waters via leaching to the aquifer or runoff to the River Ray.</p>		
<p>Landuses: Trade directory</p>	<p>There are many trade directory entries both in and near the site, including potentially contamination activities such as car breakers, paint manufacturers, cleaners and manufacturers.</p>			
<p>Conservation Designations</p>	<p>There are no statutory designated sites within 1km of the site.</p>	<p>No risk posed.</p>	<p>-</p>	<p>-</p>
<p>Drainage:</p>	<p>The Drainage Authorities have been</p>	<p>-</p>	<p>-</p>	<p>-</p>

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Current Surface Water /Foul Drainage Systems – Capacity	contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.			

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Materials Recovery Facility / Waste Transfer Station or Local Recycling centre at **Brindley Close / Darby Close, Swindon** falls within the following category:

- Several potentially significant issues identified – review further assessment requirements

The initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Secondary Aquifer and therefore there are potential groundwater contamination issues
- The site is at risk from fluvial, pluvial and groundwater flooding
- There are potentially contaminative land uses at the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.

B.5.4 Land at Kendrick Industrial Estate, Swindon (Site Ref: SW4)

B.5.4.1 Introduction

The site extends to 3 ha and is located Rodbourne, 3.5 km west of Swindon town centre. The site is a developed industrial estate located within the Swindon urban area and adjacent to the Cheney Manor Industrial Estate the site support uses such as a number of small scrap yards, skip hire businesses and general industrial units. The site is accessed via Galton Way which is in turn accessed from the Great Western Way dual carriage way via a priority T junction with a central island. The north eastern boundary of the site is defined by a local railway line, the south eastern extent is delineated by a retail warehousing development. Barnfield sewage works lies adjacent to the south west and Shaw Landfill Site, which is currently under restoration, forms the north western boundary.

The residential areas of Mannington Park and Even Swindon are located approximately 0.3km to the south east of the site, schools in the vicinity are Even Swindon School to the south-east and Nova Hreod to the north-west. The site is in proximity to an area prone to flooding and designated as a Flood Zone 3 area. The national cycle route 45 passes the Galton Way junction.

The site is located in proximity to a number of designated sites which includes Swindon Sewage Treatment Works Lagoons Wildlife Site which 0.5 km to the west of the site, is identified as Priority Habitat. Cheney Manor Ponds Wildlife Site which is 40m to the north of the site beyond the local railway and Moreton Meadow 0.9km to the north west of the site.

The site is not allocated in the adopted Swindon Local Plan.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/02/1940 Former Swindon Services Site (now B & Q), Redevelopment of Council Depot to provide Non-food retail building (Class A1) with ancillary garden on land at Barnfield Road, Roadbourne, Swindon Wilts SN2 2DW

B.5.4.2 Noise

Introduction

The site at Kendrick Industrial Estate, Swindon has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling;
- Inert Waste Recycling/Transfer.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On the grass opposite 26 Akers Way, approximately 820m from the site’s northern boundary; and
- Meadow Road located approximately 340m from the south eastern site boundary.

The proposed site is located within land currently occupied by industrial units, within a general industrial area. Given the current usage, background noise levels were made with current activities occurring. The site at Kendrick is bounded to the south by a railway line and surrounded by industrial buildings.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on the B4587 and B4006, and noise from industrial units.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.5.4.2.1 - Opposite 26 Akers Way - Background Noise Levels (AU1_0005)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:17:00	00:05:00	59.3	64.5	52.3	61.9	58.7	54.3
14:22:00	00:05:00	59.6	68.5	50.9	61.9	59.1	53.7
14:27:00	00:05:00	59.7	66.9	52.3	62.4	58.7	54.2
14:17:00	00:15:00	59.5	68.5	50.9	62.1	58.8	54.2

Table B.5.4.2.2 - Meadow Road - Background Noise Levels (AU1_0006)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:40:00	00:05:00	61.5	67.7	56	63.3	61.2	58.7
14:45:00	00:05:00	60.6	65.2	56.4	62.6	60.1	58.2
14:50:00	00:05:00	60.6	66.2	54.7	62.6	60.1	57.6
14:40:00	00:15:00	60.9	67.7	54.7	62.9	60.5	58.1

The average background noise levels (L_{A90}) opposite 26 Akers Way and Meadow Road are taken as being 54.2 dB and 58.1 dB, respectively.

Assessment Suitability

The site is part of an existing industrial estate and sited well away from residential dwellings and hence is suitable for the proposed uses with respect to noise.

Mitigation

No mitigation is deemed to be necessary

Recommendation

The site is deemed suitable for the intended uses with respect to noise.

B.5.4.3 Air Quality and Odour

Introduction

The site currently is home to a number of small scrap yards, skip hire businesses and general industrial units. The setting is industrial within the Swindon urban area, adjacent to the Cheney Manor Industrial Estate.

Potential uses include materials recovery facility, waste transfer site, local recycling, inert waste recycling and treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 23.5µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 16.6µg/m3 NO2 (standard 40µg/m3);
- 15.7µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 440 sensitive residential receptors within 500 metres. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic on the B4006, B4534, B4587 and minor roads; gas/oil/solid fuel space heating for buildings; BTR Graphic Products Ltd (PM₁₀ and VOC) on Cheney Manor Industrial Estate; Thames Water Utilities Ltd sewage treatment works (additional potential emissions of odour, NH₃ and bioaerosols).

Table B.5.4.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (440 properties)	1 (1)	1 (1)	N/A	N/A	1 (2)	1 (1)	1 (2)
Residential within 250m only (0 Properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
satisfactorily mitigated Values in brackets denote potential 'in-combination' or cumulative effects N/A = risk is not applicable in these circumstances * Bioaerosol high risk is limited to within 250m of the site							

Mitigation

Dust and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low to moderate (in-combination). Mechanical Biological Treatment (MBT) increases the risk to bioaerosols and odour; further assessment is recommended. As a minimum, basic dust and odour mitigation is recommended. Detailed assessment should not be necessary.

B.5.4.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

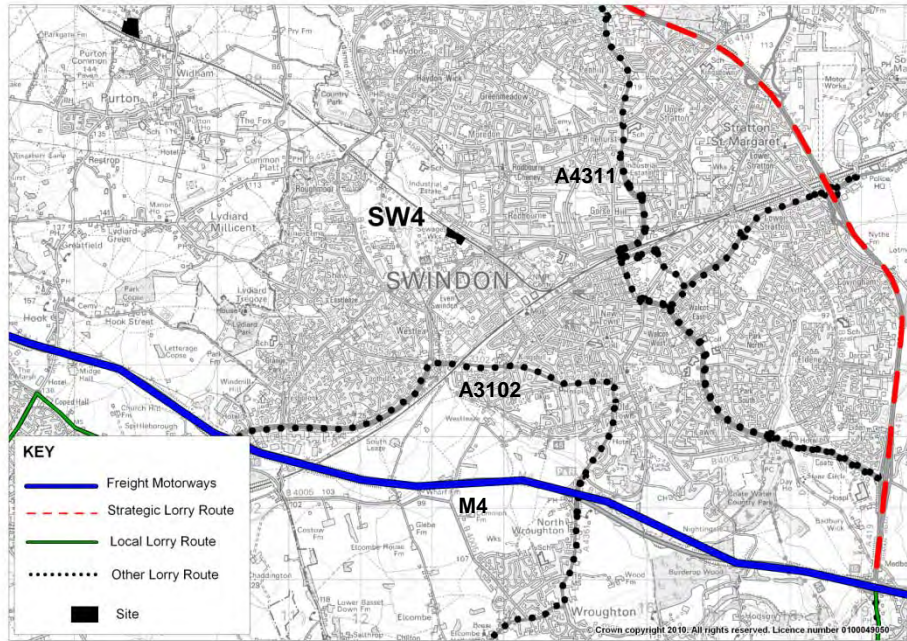
The site has been identified for local use. The land currently has industrial uses on site including scrap yards, a WTS and general recycling. The site is located in an industrial area to the west of Swindon town centre.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.5.4.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.5.4.4.1 shows the closest designated lorry route to the site is the A3102 located to the south of the site. This is a designated 'other' lorry route according to the Wiltshire HGV Route Network and as such should only be used where it is essential to gain access. The A3102 links the site to junction 16 of the M4. The B4006 which links the site to the A3102 is not a designated lorry route.

Figure B.5.4.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Inert Waste Recycling/Transfer (IWR/T);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear; there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.5.4.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.5.4.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
IWR/T	50,000 stand alone site	150 to 250	Staff trips are expected to be minimal as the majority of the processes are machine operated.
	At landfill site	No additional HGV trips	

Assessment Suitability

Existing/Potential Access Junctions

Access into the site is currently gained via Galton Way which is between 5.5m and 6m wide and subject to a 20mph speed limit. Galton Way is uneven and has no wearing course. The access junction takes the form of a left in left out priority junction onto Great Western Way. The national cycle route 45 passes the Galton Way junction on the footway with ‘elephant footprint’ markings across the junction mouth to alert drivers as to the likely presence of cyclists at the junction, as demonstrated in **Figure B.5.4.4.2**.

Figure B.5.4.4.2 - Site Access Junction



Visibility from the junction is very good. The access junction is located approximately 40m west of Great Western Way / B4289 roundabout junction. Vehicles wishing to travel south along Great Western Way would need to perform a U-turn at the roundabout in order to do so. A pedestrian crossing is located between the access and roundabout junction, approximately 20m east of the junction. The pedestrian crossing can be clearly seen from the site access junction.

Great Western Way provides a primary route into Swindon and therefore traffic flows are relatively high. As such, vehicles turning out of the access junction may struggle to find gaps in the traffic during peak times. It is recommended that a capacity assessment be carried out on the junction and off site junctions in the area to determine what impact (if any) the proposed waste facility would have on the local highway network.

Transport Environmental Impacts

Residential dwellings are located to the north and south of the industrial estate. However, in order for HGVs to access the strategic network via the A3102 they do not have to pass any dwellings fronting onto the highway and therefore the impact on the local residential area would be low.

Access to the strategic network to the north of the development is available via the A4311; a designated 'other' lorry route. However in order to access this road, the route passes a dense residential area, with on street parking and, in some areas, traffic calming. It is recommended that operational vehicles are not routed this way.

Provided HGV movements are routed to the south of the development the impact on noise, vibration, severance or fear and intimidation for pedestrians would be minimal. It is recommended that Galton Way is re-surfaced to prevent the impact of dust in the summer and dirt on the carriageway.

Off Site Highway Network

It is unlikely that the site will generate large amounts of trips during the AM and PM highway peak periods. However, capacity issues were observed in the area and any potential impact caused by an increase in trips from the proposed waste facilities would need to be investigated further.

Accessibility by Sustainable Modes

Pedestrian footways are located on both sides of Great Western Way leading up to the site access junction. However, Galton Way does not have any footways or pedestrian facilities. Pedestrian crossings are located in the immediate vicinity of the site on Great Western Way.

Bus stops are located on residential roads in the vicinity of the site and national cycle route 45 passes the site access junction. Therefore, accessibility via sustainable modes is relatively good; however improvements to Galton Way may be required, although this road is not currently adopted highway.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/SW4/003** in **Appendix D**

Constraints

Access to the strategic freight network to the north of the site is considered unsuitable due to residential roads and traffic calming. In addition the access road is uneven and has no wearing course. Potential issues have been identified regarding the capacity of the local highway network which may need to be addressed.

A plan showing relevant information regarding the site is presented as drawing no. **5044619.017/TP/SW4/001** in **Appendix D**.

Mitigation

It is recommended that Galton Way is resurfaced as well as providing better pedestrian facilities along the road. It should be noted that this is considered to be non essential works as the existing surface may be considered appropriate for the proposed uses. It is also recommended that capacity assessments are carried out on the site access and off site junctions in the vicinity of the

site to ensure the proposed level of traffic can be accommodated without the need for further mitigation.

Cost of Mitigation

The cost of the mitigation proposed is estimated to be:

- **£80k** - Resurfacing Galton Way

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is located in an existing industrial area with good access to a designated lorry route;
- The existing access junction is suitable to serve the proposed development in terms of visibility and geometry; and
- The environmental impact on the surrounding area would be minimal providing appropriate routing was agreed.

The following issues/constraints have been identified:

- Potential capacity issues located in vicinity of the site;
- Poor standard of access road; and
- No pedestrian facilities along Galton Way, however the demand for this will be low.

Access to the strategic freight network can be gained via the A3102; however, some issues regarding capacity would require further investigation. However, in general the site would provide a good location to provide waste facilities with mitigation as set out in this report.

B.5.4.5 Water Quality / Environment

Introduction

NGR: 413310, 185800

Location: Swindon

Site Area: 2.92 hectares

Data Source: Landmark Envirocheck Report 30098523_1_1 (8th Feb 2010) unless otherwise referenced

Table B.5.4.5.1 - Land at Kendrick Industrial Estate Water Environment

Feature – Attribute/ Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>There is a drain on site and one immediately adjacent to it following the southern boundary. The River Ray is 455m to the west of the site.</p> <p>The EA identify that the River Ray watercourse has a chemical and biological quality of Fairly Good.</p> <p>The River Ray has an ecological classification in line with the Water Framework Directive as Moderate.</p>	<p>Impact on the River Ray and local drain flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Ray and local drain quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The site is underlain by the Upper Jurassic Kimmeridge Clay below which is the Upper and Lower Corallian formation consisting of Red Down Sand and Clay, the “Coral Rag” and silt and sands. The site is on the downthrown side of a normal fault trending in a west-east direction⁷⁴.</p>	<p>Potential for pathway being created between contamination and groundwater.</p>	<p>-</p>	<p>To be considered during further assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological Units</p>	<p>Site and surroundings are predominantly underlain by unproductive strata (non-aquifer); only the north west tip of the site is underlain by a Secondary (Minor) Aquifer of alluvium deposits.</p>	<p>Possible contamination of the Secondary aquifer.</p> <p>Changes to the groundwater flow regime of primarily shallow aquifers during</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Pollution Incident and Control Plan to be</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p>

⁷⁴ BGS 1:50 000 Drift geological map (Sheet No 252, Swindon)

Feature – Attribute/ Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
		construction if foundations intercept shallow groundwater or if pumping is required for excavations.	implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.	Produce working plan for site. Review runoff treatment requirements.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a westerly direction towards the River Ray.	Not applicable.		
Discharges: Surface water – Discharge Consents	Trade Effluent Discharge – Site Drainage to a tributary of the River Ray, 20m to west. Sewerage discharge – pumping station to Railway Lagoon Brook, 160m to north east. Sewerage discharge of STW storm overflow to River Ray, 391m and 480m west and final/ treated effluent to the River Ray, approximately 450m west.	No risk posed.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge Consents	Final / treated effluent to coral rag, 964m north-east	No risk posed.	-	To be considered during further assessment.
Discharges: Pollution	Chemicals unknown one Category. 2 (significant incident) 142m east, three	No risk posed.		To be considered as possible source of

Feature – Attribute/ Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Incidents	<p>Category. 3 (minor incident) from 487m north east, to 982m north east.</p> <p>Oils - two Category 2 from 625m north west to 913m south west, fourteen Category. 3 from 522m north west to 980m south.</p> <p>Unknown sewage two Category. 2 from 480m west to 995m south. Seven Category. 3 from 390m west to 903m south east.</p> <p>Miscellaneous one Category. 2 251m east, three Category. 3 from 201m south to 986m north east.</p>			contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	None within 1km of site.	Not applicable.	-	-
Abstractions: Groundwater – Abstractions	None within 1km of site.	Not applicable.	-	-
Flood Risk	A small proportion of the site lies within Zone 2 of the River Ray floodplain. The site is greater than 1 ha in size.	<p>Fluvial, pluvial or groundwater flooding could interrupt operations and cause pollution to spread from the site, although only a fraction of the site is at risk.</p> <p>The site could increase the flood risk to surrounding sites.</p>	<p>Sustainable Drainage Systems (SuDS) within design.</p> <p>Infiltration devices.</p> <p>Surface Water Management Plan.</p>	A FRA in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/ Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Land Uses	<p>There are 3 historic landfills with 732m of the site dealing with inert, household, industrial, commercial, special waste & liquid sludge.</p> <p>Licensed Waste Treatment Facilities within 1km include: HCI Waste TS & treatment, metal recycling, Swindon Incinerator, Sewage Sludge treatment, Household, commercial and industrial transfer station, special waste transfer stations</p> <p>4 Waste transfer sites within 935m of site, household, commercial and industrial waste.</p> <p>3 Local Authority landfills accepting industrial, commercial, household waste 493m and 761m north west and 715m west and 1 BGS recorded landfill accepting Inert, Industrial, Commercial, Household, Special waste and Liquid Sludge, 732m to west.</p>	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	There are no designated sites within 1km of site.	Not applicable.		
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station, Local Recycling Facility, or an Inert Waste Recycling and Transfer Station at **Land at Kendrick Industrial Estate, Swindon** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- The site is underlain by a Secondary Aquifer and therefore there are potential groundwater contamination issues
- There is pluvial, fluvial and groundwater flooding risk
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and contamination assessment.

B.5.5 Transfer Bridge Industrial Estate, Swindon (Site Ref: SW5)

B.5.5.1 Introduction

The site extends to 3.1 ha and is located on the fringe of Gorse Hill within the Swindon urban area and approximately 1.7 km east of Swindon town centre. The site is currently used for various B1, B2 and sui-generis uses, the larger warehouse occupying the site has been subdivided into smaller units. There are railway sidings still connected to the network. The site is currently accessed from a mini-roundabout on Octal Way which is connected via a short link to a roundabout on the A4259 County Road.

The main London to Bristol railway line forms the northern boundary of the site beyond which lies the A4311 and Gorse Hill, to the south east is a new residential area. Immediately to the south of the site is a supermarket beyond which is a cricket and sports ground and a football stadium. To the south west of the site are unoccupied commercial units and further residential areas. The site falls in an area identified as Flood Zone 1.

The site is located in proximity to one designated sites which is the River Cole Wildlife Site located approximately 700 metres to the east.

The site is allocated as a Rail Freight Protection area (Policy T9) in the adopted Swindon Local Plan and there are several housing allocations in the vicinity of the site, the nearest sites are located approximately 0.3 km to the east and south east. The site has been identified in the Wiltshire and Swindon Rail Aggregate Depot study as a preferred area for a rail aggregates facility.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: T/90/0153 Erection of doctors surgery on land at Great Western, surgery Farriers Close, Marshgate, Swindon SN1 2QU

Reference: S/06/2915 Erection of extension to existing sports and social club

B.5.5.2 Noise

Introduction

The site at Transfer Bridges Industrial Estate, Swindon has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- Outside 31 Farriers Close, located approximately 18m to the south east of the site boundary; and
- To the east of 43 Colbourne Street, located approximately 80m to the south west of the site boundary.

The allocated site is located within land currently used as a railway depot. Given the current usage, background noise levels were made with these activities occurring. The allocated site is bounded to the north by the A4311 (Cirencester Way) and Ocotal Way to the south. The surrounding area to the north and south west are residential, with a supermarket directly to the south of the site.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is made up of local road traffic from Ocotal Way and commercial car parks, with transient noise from trains on the adjacent railway.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.5.5.2.1 - 31 Farriers Close - Background Noise Levels (AU1_0007)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:06:00	00:05:00	56.0	62.1	52.8	57.1	55.7	54.4
15:11:00	00:05:00	56.5	62.5	52.5	58.0	56.0	54.3
15:16:00	00:05:00	56.4	61.5	52.3	58.1	56.0	54.8
15:06:00	00:15:00	56.3	62.5	52.3	57.7	55.9	54.5

Table B.5.5.2.2 - Colbourne Street - Background Noise Levels (AU1_0008)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:27:00	00:05:00	56.4	64.9	49.6	59.9	54.6	51.3
15:32:00	00:05:00	57.1	71.3	49.2	59.9	54.3	50.2
15:37:00	00:05:00	53.2	62.7	49.0	55.3	51.7	50.0
15:27:00	00:15:00	55.9	71.3	49.0	59.2	53.3	50.3

The average background noise levels (L_{A90}) at Farriers Close and Colbourne Street are taken as being 54.5 dB and 50.3 dB, respectively.

Assessment Suitability

The allocated site is currently used as an existing industrial estate, and is adjacent to residential properties. The A4311 and railway line are to the north.

Mitigation

Even with careful siting and screening the site is considered too close to the residential properties with respect to noise.

Recommendation

The site is not deemed suitable for the intended uses with respect to noise.

B.5.5.3 Air Quality and Odour

Introduction

Transfer Bridges industrial estate is located within the urban area of Swindon and bounded by railway lines to the north and Ocotal Way to the south. It is currently an estate for general industrial and warehousing use.

Potential uses include materials recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 30.3µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 20.6µg/m3 NO2 (standard 40µg/m3);
- 16.4µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are approximately 2700 residential properties located around the site. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic from Ocotal Way and from minor roads and gas/oil/solid fuel space heating for buildings. The railway may also contribute to emissions of NOx and PM₁₀ if diesel trains use the line.

Table B.5.5.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (200 properties)	2	2	N/A	N/A	2	2	2
Total residential between 100 and 500m (2500 properties)	1	1	N/A	N/A	2	1	1
Residential within 250m only (1030) Properties)	N/A	N/A	N/A	N/A	2	N/A	N/A
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
2 = moderate risk, further assessment is recommended, mitigation should be required 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated Values in brackets denote potential 'in-combination' or cumulative effects N/A = risk is not applicable in these circumstances * Bioaerosol high risk is limited to within 250m of the site							

Mitigation

Dust and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low to moderate. As a minimum, basic dust and odour mitigation is recommended. Detailed assessment should not be necessary.

B.5.5.4 Transport

Introduction

The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

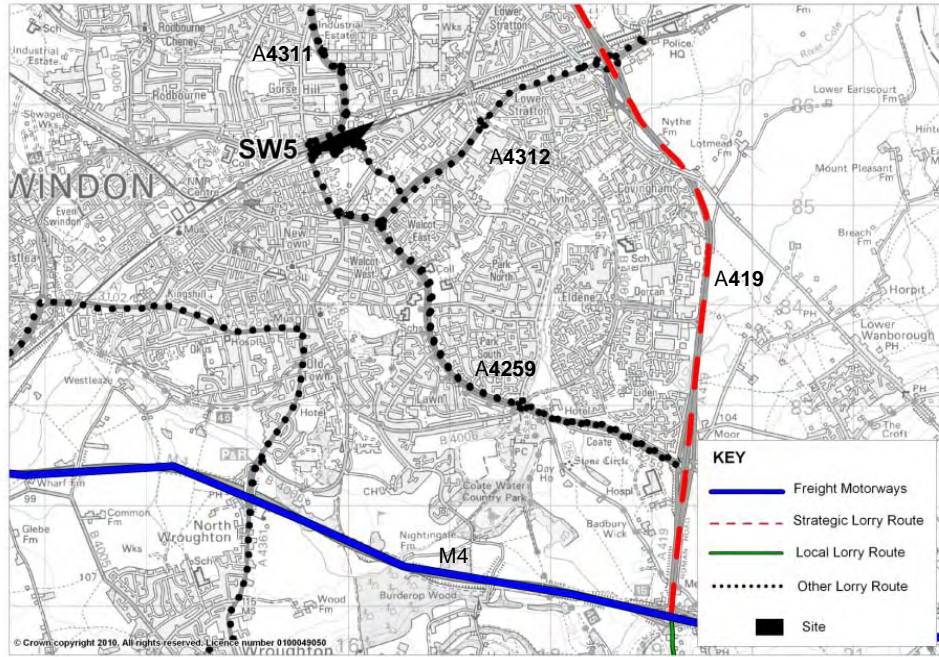
This 3.1 ha site is allocated as a local scale waste facility in the draft DPD. It is located approximately 1.2km north east of Swindon town centre and 600m north of the County Ground. It is adjacent to the London to Bristol (Great Western) railway line. The site covers some disused railway sidings and various industrial uses.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.5.5.4.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available).

Figure B.5.5.4.1 shows that access to the site is gained via a mini-roundabout 40m from the A4259 which is designated as an 'other' lorry route and should therefore only be used where it is essential to gain access. Access onto the A419 (strategic lorry route) located 2.8km to the east of the site is gained via the A4312 (an 'other' lorry route). An alternative route exists to the A419 (strategic lorry route) via the A4259 (an 'other' lorry route) 5km to the south. Ocotol Way, from which the site is accessed, is not designated as a local lorry route.

Figure B.5.5.4.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.5.5.4.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.5.5.4.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	10,000	115	collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed from Ocotal Way via a 4-arm mini-roundabout. Ocotal Way is largely single carriageway except the short link towards the A4259, and is subject to a speed limit of 40mph. Ocotal Way at this location is 7.3m wide to the east (single carriageway) and two carriageways of 6m wide to the west. Ocotal Way is connected via a short link to a roundabout on the A4259 County Road. The A4259 at this location is a single two lane carriageway with a 30 mph speed limit. An industrial estate/retail park, which lies immediately to south of the site, shares the same access from the A4259.

The access road itself is approximately 10m wide. Visibility from the access is restricted to a maximum of approximately 40m to the left and to the next junction to the right. The visibility to the left is restricted by a slight incline from the access, which is compounded by the position of the "Give Way" markings and the nature of the landscaping and relief of the land to the south of the site (east of the mini roundabout). There is also a dedicated left turn lane into the site from the west, although observations indicated that vehicles tend to ignore the provision of two lanes and drive between both lanes, with the majority of traffic going ahead. On site observations also showed that due to the lack of deflection at the roundabout, and lack of traffic from the southern arm (and northern arm to an extent), vehicles failed to reduce their speed on approach to the island. **Figure B.5.5.4.2** below shows the A4259 roundabout from the site access. **Figure B.5.5.4.3** shows the site access and the mini roundabout on Ocotal Way.

Figure B.5.5.4.2 - A4259 Roundabout from Ocotal Way



Figure B.5.5.4.3 - Site Access via Mini-Roundabout on Ocotal Way from A4259 Roundabout

Transport Environmental Impacts

As stated previously, the site is located close to Swindon Town Centre. There are no residential properties within the immediate vicinity of the site, although there are properties located to the north and west, separated from the site by the A4259 and the railway. Therefore, any impact on the residential amenity of the area is minimal, particularly as the existing land use is industrial.

The A4259 has a shared use cycle track of varying width on the east side, nearest to the site. There is an informal crossing on the eastern arm (Ocotal Way) of the A4259 roundabout for cyclists. The footway/cycleway would appear to serve commuter desire lines and is likely to be used by experienced cyclists. The width and location of the footway/cycleway provides sufficient separation of the users from the traffic and any increase in traffic associated with the proposals is unlikely to lead to increased fear and intimidation for vulnerable road users.

Providing the routing of development traffic is taken from the south via either of the two local lorry routes (A4312 or A4259) to the A419 the impact on noise, vibration, severance or fear and intimidation for pedestrians would be minimal.

Off Site Highway Network

Ocotal Way is connected to the A4311 to the west of the site by way of a 4 arm roundabout. This roundabout is part of a dumbbell arrangement of two roundabouts, the other being to the north and beyond the railway bridge, and providing access to the Ring Road to the west and A419 to the east. This forms part of Swindon's Ring Road system and is of dual carriageway standard to the north of the roundabout. This provides direct links to the A419 at Blunsdon (north) and Great Western Hospital (via the A4259 to the south).

Although traffic flows are relatively high in the area, particularly so due to the large Tesco Extra store located 100m south of the site also taking access off Ocotal Way, it is felt that capacity at this junction will not be adversely affected. This is in part due to its size and importance within the local highway network. Notwithstanding this, a junction capacity assessment would be required if/when development plans are finalised to ensure the local highway network can accommodate the proposed traffic volumes.

Accessibility by Sustainable Modes

Ocotal Way has a shared use footway and cycle track in excess of 3m in width to the west of the site access. This links to the A4259 roundabout and continues under the railway bridge northwards. To the south at the roundabout is a footway in excess of 2m and an on-road cycle lane. The nearest bus stops are located to the south of the site on a roundabout on Ocotal Way to serve Tesco. This roundabout is approximately 150m east of the mini roundabout on Ocotal Way from where the site takes its access.

Constraints

The main constraints identified at this site are:

- The site access junction (mini roundabout on Ocotol Way) is not suitable for the proposed uses at present due to the lack of visibility of the roundabout dome;
- The speed of vehicles along Ocotol Way is high; and
- There is a lack of deflection off the mini roundabout (site access junction) on Ocotol Way.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/SW5/001** in **Appendix D**.

Mitigation

It is recommended that improvements to the mini roundabout on Ocotol Way are considered. At this access, mitigation could be in the form of a central bollard on the east approach to the mini roundabout, and an increase in the visibility of the dome of the roundabout by raising its height. These would help to address the issue of speed approaching the junction.

Cost of Mitigation

The cost of mitigation proposed is estimated to be:

- **£140k** - to include the raised dome and a central bollard on the eastern approach. Additional works (not costed for) would be required should the facility be used as a Local Recycling Centre.

Due to the nature of the feasibility study, these cost estimates are indicative. The estimates cover the approximate capital cost of undertaking the construction of the proposals and do not include cost of detailed design, public utility diversions, land acquisition costs (if any) or site supervision.

Recommendation

The site offers the following advantages:

- The site is located just off the A4259 which is a dedicated lorry route and provides good access to the strategic lorry network;
- Potential replacement of existing light industrial uses, therefore the net increase in traffic is likely to be minimal. However, the composition of the traffic is likely to change (more HGVs).
- There are unlikely to be any capacity issues associated with the proposals. However, it is recommended that a Transport Assessment is undertaken to assess the impacts on the local highway network and the mini roundabout.

The following issues/constraints have been identified:

- The access junction on Ocotol Way experiences issues with approach speed due to the nature of the main traffic movements and a lack of visibility of the junction. It is not considered appropriate for the proposed uses in its current form.

In conclusion, the site is considered appropriate for the proposed uses. However, consideration of the mitigation measures as set out in this report is required to ensure the site access is fit for purpose.

B.5.5.5 Contaminated Land

Introduction

NGR: 415960, 185680

Location: Swindon

Site Area: 7 hectares

Data Source: Landmark Envirocheck Report 30172372_1_1 (15th Feb 2010) unless otherwise referenced

Table B.5.5.5.1 - Transfer Bridges Industrial Estate - Contamination

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Hydrology: Surface Water – Flow and Quality	<p>The nearest surface water feature according to the Envirocheck report is 210m south east.</p> <p>The closest river is the River Cole 540m to the south east. There are drains to the north, the closest of which is 300m away.</p>	<p>Impact on the River Cole flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Cole quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface drainage plan including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design,</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.)</p>	<p>Environmental Management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p>
Geology: Stratigraphy	<p>The site is underlain by the Upper Jurassic Kimmeridge Clay below which is the Lower Corallian formation consisting of Red Down Sand and Clay, the “Coral Rag” and silt and sands⁷⁵.</p>	<p>There is the potential for the creation of a pathway for contamination to reach groundwater.</p>	-	<p>Consideration of geology within impact assessment.</p>
Hydrogeology: Groundwater – Hydrogeological Units	<p>Site and surroundings are underlain by unproductive strata (non-aquifer).</p>	<p>No risk posed</p>	-	-
Hydrogeology: Groundwater – Source Protection Zone	<p>The site is not located within or near to a Groundwater Source Protection Zone (SPZ).</p>	<p>No risk posed.</p>	-	-
Hydrogeology: Groundwater –	<p>Not applicable.</p>	<p>No risk posed.</p>	-	-

⁷⁵ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Vulnerability				
Hydrogeology: Groundwater – Direction of Flow	Not applicable.	No risk posed.	-	-
Discharges: Pollution Incidents	<p>Oils: 16 Category.3 (minor incidents) from 75m south west to 992m to the north east. There have been 5 Category.2 (significant incidents) from 552m north to 856m to the south west.</p> <p>Chemicals: 7 Category 3 from 588m north to 891m to the north west. There have been 3 Category.2 from 496m east to 852m to the north west.</p> <p>Unknown Sewage: 4 Category.3 from 662m south east to 937m east.</p> <p>Miscellaneous – unknown); 7 Category.3 from 236m north to 936m to the east. There was 1 Category.2, 237m to north.</p> <p>General, 2 Category.3 from 653m north to 991m to north east.</p>	No risk posed	-	To be considered as possible source of contamination if any found during monitoring
Abstractions: Surface Water – Abstractions	No surface water abstractions recorded within 1km of the site.	No risk posed.	-	-
Abstractions: Groundwater – Abstractions	No surface water abstractions recorded within 1km of the site.	No risk posed.	-	-
Flood Risk	The site is within Flood Zone 1. The site is greater than 1 ha in size.	No risk of fluvial flooding but the potential for pluvial flooding should be investigated.	Sustainable Drainage Systems (SuDS) within design. Infiltration devices. Surface Water Management Plan.	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements
Land Uses: Historical Land Use	<p>1887-9: The Great Western Railway is already present, passing through the site.</p> <p>1900-1: The southern side of the site is a goods shed and sidings; with a brick works nearby.</p> <p>1925: Sidings in the site and nearby have become more extensive; and there is a gas works adjacent to the site to the north.</p> <p>1938-43: There is a factory immediately south of the site.</p>	<p>There is a significant risk that past and present land uses will have led to contamination of the ground.</p> <p>The risk this presents is the excavation and exposure of contaminated material during construction which could open pathways to site staff via direct contact, or controlled waters via runoff.</p>	<p>Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.</p>	<p>To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.</p>
Land Uses: Waste Sites.	<p>3 licensed : household, industrial & commercial transfer stations, 168m to north east and 342m and 586m to east.</p> <p>Metal recycling site, 213m north east.</p> <p>Physical treatment facility 631m east.</p> <p>4 licensed Waste Transfer Stations, located between 184m and 419m north east and 524m east.</p> <p>Non specified licensed waste facility 816m north west.</p>			
Land Uses: Trade Directory	<p>There are a variety of manufacturers, suppliers/users of chemicals and other potentially contaminating industries in the vicinity of the site.</p>			
Conservation Designations	<p>There are no statutorily designated sites within 1km of the site.</p>	<p>No risk posed.</p>	<p>-</p>	<p>-</p>

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of either a Materials Recovery Facility, Waste Transfer Station or Local Recycling Facility **Transfer Bridges Industrial Estate, Swindon** falls within the below category.

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There are surface water courses within 1km of the site and therefore there is the potential for changes to their flow and quality
- Significant risk of extensive contamination from past and present land uses
- With the implementation of appropriate mitigation within the design of the site the risks to the environment from the proposed scheme options would be minimised.

The further assessment and work that will be required includes a flood risk assessment, surface water management plan and contamination assessment.

B.5.6 Barnfield Sewerage Treatment Works (Site Ref: SW6)

B.5.6.1 Introduction

The site extends to 25 ha and is located adjacent to the Cheney Manor Industrial Estate within the Swindon urban area and approximately 3.7 km west of Swindon town centre. The site is an existing sewage treatment works with an existing access off of Great Western Way, which is a dual carriageway and forms part of the main road network for Swindon. The site is approximately 5 km from the A3102 (part of the Wiltshire HGV Route Network).

The northern boundary of the site is defined by the Shaw Farm Landfill Site which is currently being restored and Kendrick Industrial Estate, beyond which lies a local railway line. To the east of the site is a retail warehousing development and the southern boundary is formed by industrial units on Barnfield Road and the residential area to the south of the Great Western Way. The River Ray and the Swindon Sewerage Treatment Works Lagoons Wildlife Site forms the western boundary of the site, consequently half of the site is identified as falling within Flood Zone 3.

The site is located in proximity to a number of designated sites which includes the Swindon Sewerage Treatment Works Lagoons Wildlife Site abuts the western boundary and the Cheney Manor Ponds Wildlife Site is north east of the local railway line.

The site is not allocated in the adopted Swindon Local Plan although it identifies two allocations one employment site (Policy 4/12) adjacent to the southern boundary and one housing allocations (Policy H2/7) approximately 0.4 km to the north east of the site. The emerging Swindon Core Strategy (Policy CP2A) identifies the need for expansion of the existing treatment works at Barnfield to meet future needs.

A number of planning consents have been granted within 500m of this site since 2006. Some relate only to intensification of existing uses, such as extensions to existing dwellings, change of use others of particular note include:

Reference: S/02/1940 Former Swindon Services Site (now B & Q), Redevelopment of Council Depot to provide Non-food retail building (Class A1) with ancillary garden on land at Barnfield Road, Roadbourne, Swindon Wilts SN2 2DW

Reference: S/08/0644 Erection of a food store and 2no. bulky goods retail unit on the former allotment gardens on land at Barnfield Road / Great Western Way, Swindon, Wilts

Reference: S/08/2385 Amendment to previous permission S/08/0644 for a Lidl food store and 2 no. non-food bulky goods on land at Barnfield Road / Great Western Way, Swindon, Wilts

B.5.6.2 Noise

Introduction

The site at Barnfield Sewerage Works, Swindon has been allocated the following use, and as such has been assessed in regard to noise from the following:

- Waste Water Treatment

Background noise measurements were undertaken at noise sensitive receptors that are at the greatest risk of potential noise impact from the allocated use of the site.

In order to assess the site’s suitability for the above use in relation to the potential noise impact, background noise surveys were undertaken at the following locations:

- On the grass opposite 26 Akers Way, approximately 890m from the sites northern boundary; and
- Meadow Road located approximately 140m from the south eastern site boundary.

The proposed site is located within land currently occupied by a sewage works, within area of open land and industrial units. Given the current usage, background noise levels were made with current activities occurring.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions overcast and light winds. The current noise environment around the allocated site is dominated by road traffic on the B4587 and B4006, and noise from industrial units.

Consecutive background noise measurements were taken at the location of the most sensitive receptors. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the tables below.

Table B.5.6.2.1 - Opposite 26 Akers Way - Background Noise Levels (AU1_0005)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:17:00	00:05:00	59.3	64.5	52.3	61.9	58.7	54.3
14:22:00	00:05:00	59.6	68.5	50.9	61.9	59.1	53.7
14:27:00	00:05:00	59.7	66.9	52.3	62.4	58.7	54.2
14:17:00	00:15:00	59.5	68.5	50.9	62.1	58.8	54.2

Table B.5.6.2.2 - Meadow Road - Background Noise Levels (AU1_0006)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
14:40:00	00:05:00	61.5	67.7	56	63.3	61.2	58.7
14:45:00	00:05:00	60.6	65.2	56.4	62.6	60.1	58.2
14:50:00	00:05:00	60.6	66.2	54.7	62.6	60.1	57.6
14:40:00	00:15:00	60.9	67.7	54.7	62.9	60.5	58.1

The average background noise levels (L_{A90}) opposite 26 Akers Way and Meadow Road are taken as being 54.2 dB and 58.1 dB, respectively.

Assessment Suitability

The site is located within land currently occupied by a sewerage works, with open land and industrial units on the boundaries.

The site is part of an existing industrial estate and sited well away from residential dwellings and hence is suitable for the proposed uses with respect to noise.

Mitigation

No mitigation is deemed to be necessary.

Recommendation

The site is deemed suitable for the intended uses with respect to noise.

B.5.6.3 Air Quality and Odour

Introduction

Barnfield Sewage Works is an existing site within Swindon. The site is set within the industrial area to the north west of Swindon.

Potential use as waste water treatment.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 30µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 13.4 µg/m3 NO2 (standard 40µg/m3);
- 15.2µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality, typical of rural areas. There are no Air Quality Management Areas within 500 metres.

There are approximately 550 residential properties located within 500 metres of the site all beyond 100 metres. There are no ecologically sensitive sites within 500 metres.

Air pollutant sources within 500 metres of the site: road traffic from Ocotal Way and from minor roads and gas/oil/solid fuel space heating for buildings. Other sources include BTR Graphic Products Ltd (PM₁₀ and VOC) on Cheney Manor Industrial Estate. The works at the Thames Water Utilities Ltd sewage treatment will be an existing potential emissions of odour, NH₃ and bioaerosols.

Table B.5.6.3.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (0 properties)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total residential between 100 and 500m (550 properties)	1	1	N/A	N/A	2(3)	N/A	3(3)
Residential within 250m only (75) Properties)	N/A	N/A	N/A	N/A	2(3)	N/A	3(3)
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
N/A = risk is not applicable in these circumstances							
* Bioaerosol high risk is limited to within 250m of the site							

Mitigation

Mitigation for odour and bioaerosols required See ‘Air Emissions Mitigation Options’ in **Appendix C**.

Recommendation

All air quality risks for the intended use are high without mitigation. Bioaerosol and odour mitigation is recommended. Detailed assessment should not be necessary as the site is currently used for water treatment.

B.5.6.4 Water Quality / Environment

Introduction

NGR: 413010, 185680

Location: Swindon

Site Area: 17.32 hectares

Data Source: Landmark Envirocheck Report 30098782_1_1 (8th Feb 2010) unless otherwise referenced

Table B.5.6.4.1 - Barnfield Sewerage Works Water Environment

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
<p>Hydrology: Surface Water – Flow and Quality</p>	<p>The nearest surface water feature is the River Ray which forms the western boundary of the site. There are drains along the eastern edge of the site and 64m to the east. There are a series of small ponds from 40 to 150m west of the site.</p> <p>The EA identify that the River Ray watercourse has a chemical and biological quality of Fairly Good.</p> <p>The River Ray has an ecological classification in line with the Water Framework Directive as Moderate.</p>	<p>Impact on the River Ray flow as a result of increases in areas of hardstanding and runoff volumes during construction and operation.</p> <p>Impact on the River Ray quality as a result of potential runoff contamination during construction and operation.</p>	<p>Surface water drainage scheme including runoff collection system and utilisation of Sustainable Drainage Systems (SuDS) within design.</p> <p>Consider limiting types of waste handled at site e.g. only solid waste, only inert waste.</p> <p>Design of the scheme to limit the potential for risk to surface water in terms of hardstanding, bunding, landscaping and ground levels.</p> <p>Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.).</p> <p>Good working practices and EA Pollution Prevention Guidelines (PPGs) during construction.</p>	<p>Environmental management during construction.</p> <p>Determine monitoring requirements with EA.</p> <p>Produce working plan for site.</p> <p>Review runoff treatment requirements.</p> <p>Surface Water Management Plan.</p>
<p>Geology: Stratigraphy</p>	<p>The west part of the site has a covering of alluvium which is not laterally continuous. The site is underlain by the Upper Jurassic Kimmeridge Clay which overlies the Lower Corallian formation consisting of Red Down Sand and Clay, the “Coral Rag” and silt and sands. The site is on the downthrown side of a normal fault trending in a west-east direction⁷⁶.</p>	<p>Potential for the creation of a pathway for contamination to reach the groundwater.</p>	<p>-</p>	<p>Consideration of geology within impact assessment.</p>
<p>Hydrogeology: Groundwater – Hydrogeological</p>	<p>The eastern half of the site and the surrounding area are underlain by unproductive strata (non-aquifer); the</p>	<p>Possible contamination of the Secondary Aquifer.</p> <p>Changes to the</p>	<p>Surface water drainage plan including runoff collection system and infiltration device design.</p>	<p>Environmental management during construction.</p>

⁷⁶ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Units	west part of the site is underlain by a Secondary (Minor) Aquifer of alluvium deposits.	groundwater flow regime of primarily shallow aquifers during construction if foundations intercept shallow groundwater or if pumping is required for excavations.	Consider limiting types of waste handled at site e.g. only solid waste, only inert waste. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc.). Good working practices and EA PPGs during construction.	Determine monitoring requirements with EA. Produce working plan for site. Review runoff treatment requirements. Monitoring boreholes (may be required for obtaining operating permit). Surface Water Management Plan.
Hydrogeology: Groundwater – Source Protection Zone	The site is not located within or near to a Groundwater Source Protection Zone (SPZ).	No risk posed to public water supply; but local private abstractions may exist (<20m ³).		
Hydrogeology: Groundwater – Vulnerability	Aquifer is highly vulnerable.			
Hydrogeology: Groundwater – Direction of Flow	Groundwater is most likely to be flowing in a westerly direction towards the River Ray.	Not applicable.	-	-
Discharges: Surface water – Discharge Consents	Discharges of final treated effluent to the River Ray on site and 16m to the north west, Discharges of storm overflow to the River Ray 25m west . Discharge at a pumping station to a tributary of the Railway Lagoon Brook 254m north east. Discharge of trade effluent to a tributary of the River Ray 9m north east (to a tributary of the Elcombe Brook) 822m south,(to the Lydiard Brook) 877m north west.	No risk to works.	-	To be considered during further assessment.
Discharges: Groundwater – Discharge	There are no groundwater discharge consents within 1km of the site	No risk posed.	-	-

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Consents				
Discharges: Pollution Incidents	<p>Between 1989 to 1999 Oils: 21 Category. 3 (minor incidents) from 206m south west to 899m to the south east, 3 Category. 2 (significant incidents) from 340m north to 780m north west.</p> <p>Chemicals: 3 Category.3 from 577m north east to 905m south east. 1 Category.2 270m to east.</p> <p>Unknown Sewage: 11 Category.3 from on site to 960m west and 2 Category. 2 from 26m west to 823m south east.</p> <p>Miscellaneous 2 Category.3 from on site to 831m to the north east, 1 Category. 2, 348m east.</p>	No risk posed.	-	To be considered as possible source of contamination if any found during monitoring.
Abstractions: Surface Water – Abstractions	There are no surface water abstractions within 1km of the site.	Not applicable.	-	-
Abstractions: Groundwater – Abstractions	There are no surface water abstractions within 1km of the site.	Not applicable.	-	-
Flood Risk	<p>The western half of the site lies within Flood Zones 2 and 3 of the River Ray flood plain.</p> <p>The site is greater than 1 ha in size.</p>	<p>Flooding could interrupt operations and cause pollution to spread from the site, although only a fraction of the site is at risk.</p> <p>The site could increase the flood risk to surrounding sites.</p>	<p>Sustainable Drainage Systems (SuDS) within design.</p> <p>Infiltration devices.</p> <p>Surface Water Management Plan.</p>	A Flood Risk Assessment in line with PPS25 is required to determine the level of flood risk for the site and appropriate mitigation measures.

Feature – Attribute/Service	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements/Design Considerations
Land Uses	<p>There are 3 historic landfills with 815m of the site dealing with household, inert, industrial, commercial, special waste & liquid sludge.</p> <p>Licensed Waste Treatment Facilities within 1km include: Sewage sludge treatment, Metal recycling. HCI Waste & TS & treatment. Household, commercial & industrial transfer stations, and Special waste transfer station.</p> <p>There are 3 registered local authority landfills within 279m of site accepting commercial, industrial waste and subsoils.</p> <p>A registered landfill, 322m north west.</p> <p>2 waste transfer sites at 93m north east and 180m north. Waste treatment site 189m to north.</p>	Mobilisation of contaminants during construction.	Site Waste Management Plan and Pollution Incident Control Plan to specify how excavated material is to be handled, stored and disposed of.	To be considered as possible source of contamination if any found during monitoring in terms of contaminated land, human health and controlled waters.
Conservation Designations	There are no statutorily designated sites within 1km of the site.	Not applicable.	-	-
Drainage: Current Surface Water /Foul Drainage Systems – Capacity	The Drainage Authorities have been contacted with regard to the current capacities of the drainage systems and they are unable to supply information to inform this section.	-	-	-

Summary of Site Findings

The findings from this initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However it is anticipated that the creation of a Waste Water Treatment plant at **Barnfield Sewage Works, Swindon** falls within the category below:

- Several potentially significant issues identified – review further assessment requirements of site

This initial screening indicates that:

- There is a surface water course adjacent to the site and therefore there is the potential for changes to its flow and quality
- There is a Secondary Aquifer beneath the site and therefore there are potential groundwater contamination issues
- There is a risk of fluvial, pluvial and groundwater flooding
- Risk of presence of contamination from past and present land uses
- With the implementation of appropriate mitigation within the design of the site is the risks to the water environment from the proposed scheme options would be minimised.

The further assessment and work that will be required includes a flood risk assessment, surface water management plan, and contamination assessment.

B.5.7 Land within Dorcan Industrial Estate (Site Ref: SW7)

B.5.7.1 Introduction

The site extends to 3.6 ha and is located within Dorcan Industrial Estate on the eastern edge of the Swindon urban area, approximately 5 km east of Swindon town centre. The site is currently vacant. It is surrounded by other industrial premises. The site has two established access points on to Edison Roas, which allows access to the A419. The site is bounded to the north, east and west by existing industrial buildings. The southern extent of the site is defined by Edison Road, with an industrial building to the south east and residential dwellings to the south west. Beyond the industrial estate lies a number of potential receptors which include residents in Dorcan, Eldene, Liden and Covingham including a school and shops, leisure facilities located at the school and a hospital. Environment Agency flood risk maps indicate the site is located in Flood Zone 1.

The site is located in proximity to a number of designated sites which includes the River Cole County Wildlife Site situated approximately 0.6 km south east and north of the site and the River Cole and Wanborough Meadows which are located within 1km. A number of Scheduled Ancient Monuments are located approximately 0.8 km north of the site.

The site is allocated as an Employment Area (Policies E4/18) in the adopted Swindon Local Plan which also identifies two housing allocations (Policy H2/17, H2/18 and H2/13) in excess of 0.5 km to the north and east of the site. The emerging Swindon Core Strategy designates the site as part of a larger Key Employment Area (Policy CP3) and beyond is the Eastern Development Area (Policy SSP8) a large mixed use urban extension.

A number of planning consents have been granted within 500m of this site since 2006. These relate only to intensification of existing uses, such as extensions to existing dwellings.

B.5.7.2 Landscape and Visual Impact

Introduction

The site is located within Dorcan Industrial Estate, south-east Swindon and is accessed from Edison Road to the south. The site comprises an area of Brownfield land with concrete hard standing associated with previous buildings which have been demolished along with an electrical substation.

Baseline Landscape Character and Designations: Desk Survey

Countryside Character Volume 8 South West (Countryside Agency):

Landscape Character Area: Upper Thames Clay Vales (108)

Key characteristics relevant to the site:

- Broad belt of open, gently undulating lowland farmland on Upper Jurassic clays containing a variety of contrasting landscapes. Includes the enclosed pastures of the clay lands and the wet valley bottoms and the more settled open arable lands of the gravel.
- The valley bottoms, with open floodplain landscapes displaying gravel workings and flooded pits, a regular and well-ordered field pattern, willow pollards and reedbeds along the water courses.

Wiltshire Landscape Character Assessment (Wiltshire County Council (WCC)):

Landscape Type: Limestone Ridge (8)

Landscape Character Area: Swindon – Lyneham Limestone Ridge (8A)

Key characteristics relevant to the site:

- Large fields with a network of hedgerow with numerous hedgerow trees.
- Scattered tree clumps and woodland blocks, with some ancient woodland.
- A settled landscape with a number of large villages, several smaller settlements and scattered farmsteads.
- A variety of building styles from distinctive stone buildings in historic village centres to modern development using a mix of materials.
- Urban influences due to the proximity of Swindon and other settlements, military complexes and the busy A3102 road.

The characteristics listed are typical of the countryside to the east of the site beyond the A419. The wider area comprises low lying ground with extensive floodplains. However the site is fully contained within an industrial estate and bounded to the south by the B4006, there is no discernable visual or landscape connection with its rural surroundings and its industrial/commercial character is predominate.

The condition of the Limestone Ridge is judged by WCC to be generally 'good' away from urban areas and the main transport routes as well cared for pastoral farmland. However, closer to settlement the landscape becomes more degraded with areas of flailed hedgerows and urban fringe land uses, such as horse pasture. The overall condition of the *Limestone Ridge* Landscape Type is therefore considered to be moderate.

The overall management strategy for the Limestone Ridge is to conserve the elements that contribute to its character or are important in their own right, such as the network of hedgerows and the village centres while enhancing those areas, such as the urban fringes, that are becoming degraded.

District Landscape Character Assessment: N/A

Landscape Designations and Rights of Way:

- There are no identifiable designated landscapes or public rights of way within the vicinity of the site.

Baseline Landscape Character and Features: Site Survey

This is a medium sized, flat site comprising hard standing with an area of brownfield scrubland to the east all contained within a secure boundary of weld mesh and palisade fencing and original palisade fencing running through the site. There is no current occupier of the site apart from an

electrical substation located within the southern section of the site, which is in use by the nearby businesses on the industrial park.

The site comprises scattered rough scrub and trees, with a denser row of scrub and mature tree species to the length of the eastern boundary forming a visual screen to the east.

The site is surrounded to the north, east and west by the Dorcan Industrial Estate. This comprises a mix of building types, hardstanding and areas of unimproved grassland. There are some mature trees within the site which could be considered to be notable species.

Landscape Quality, Condition and Capacity to Accommodate Change: Site Survey

Landscape Quality and Condition of site: Poor - Medium

Capacity to Accept Change: High

Though the site is visually exposed to the north and with some views in from residential housing to the south, given its current industrial condition and existing use in an industrial context there is potential to redevelop the site in a manner to reducing the significance of its effects on the landscape. Sensitive site planning and enhancements may result in a beneficial impact through redevelopment.

Potential Landscape Impacts

- Further degradation of the landscape
- Further domination of the character of the area through industrial / large facilities.

Potential Landscape Mitigation Measures

- Improved woodland planting buffer along the eastern site boundary
- Landscape enhancements to improve the frontage to the site to the B4006.
- Low development avoiding vertical elements

The following ‘Broad Management Objectives’ for the Limestone Ridge landscape type in the *Wiltshire Landscape Character Assessment* are relevant to the site:

- Encourage repair, replanting and extension of the hedgerow network, improved maintenance of the existing hedgerows and nurture new hedgerow trees.
- Conserve existing trees and encourage the planting of new hedgerow trees and woodland belts, especially around larger settlements where they are being lost or could break up harsh urban edges.
- Limit further uncontrolled spreading of settlement and ribbon development concentrating new development within existing settlements.
- Discourage intrusive development along the visually sensitive ridgeline.
- Reduce the impact of urban influences on roads such as the proliferation of signage and hard edging to encourage a more rural atmosphere.

Table B.5.7.2.1 - Visual Receptors

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Dorcan Industrial Estate workers	Low	No change – slight adverse	Retain existing vegetation and plant additional boundary planting to soften views

Visual Receptor	Sensitivity of Receptor	Potential Residual Impact on Receptor	Potential Visual Mitigation Measures
Residents of properties on Forester close to the south of the site	High	Slight adverse	into site and improve the frontage to Edison Road
Walkers on footpath along the southern boundary of the site, along Edison road	Moderate	No change	Minimise the height of development and vertical elements, in particular lighting Sensitive location of facility away from receptors
Users of Liden drive and Edison road (B4006)	Low	No change	Woodland buffer planting around facility

Summary: Residual Landscape and Visual Impacts

Due to the existing condition of the site and surrounding character of the Dorcan Industrial Estate, the significance of impacts related to the development of the site for waste management purposes is likely to be slight to negligible, however care will need to be taken to ensure impacts on residents to the south are minimised. Landscape enhancements may provide a beneficial impact for the site and character of the Dorcan Industrial Estate as a whole.

Recommended further Landscape and Visual Surveys

- Night time visual survey (low importance due to existing use on and surrounding the site).

B.5.7.3 Noise

Introduction

The site at Land within Dorcan Industrial Estate has been allocated the following uses, and as such has been assessed in regard to noise from the following:

- Household Recycling Centre;
- Materials Recovery Facility/Waste Transfer Station;
- Local Recycling.

Background noise measurements were undertaken at the noise sensitive receptor that is at the greatest risk of potential noise impact from the allocated uses of the site.

In order to assess the site’s suitability for the above uses in relation to the potential noise impact, a background noise survey was undertaken at the following location:

- North of residential properties on Galsworthy Close, located approximately 50m to the south west of the site boundary.

The proposed site is located within land that is currently unoccupied and is dominated with noise from the surrounding area. The allocated site is bounded to the south by the B4006 (Edison Road). The surrounding area to the north and east of the site is industrial buildings, and a residential estate is located to the south west.

Baseline

Background noise measurements were undertaken on 2nd February 2010, with meteorological conditions being overcast with westerly winds. The current noise environment around the allocated site is dominated by road traffic on the B4006 and the industrial estate.

Consecutive background noise measurements were taken at the monitoring location. The sound level meter was located in a free-field location and at a height of 1.5m above ground level. The meter was calibrated before and after measurements and no significant deviation was found. The measured noise levels are displayed in the table below.

Table B.5.7.3.1 - Galsworthy Close - Background Noise Levels (File AU1_0009)

Start time	Duration	L _{Aeq} (dB)	L _{Amax} (dB)	L _{Amin} (dB)	L _{A10} (dB)	L _{A50} (dB)	L _{A90} (dB)
15:58:00	00:05:00	55.8	60.4	52.0	58.2	55.2	53.2
16:03:00	00:05:00	56.1	63.1	52.5	57.6	55.8	53.7
16:08:00	00:05:00	56.1	61.3	52.4	58.1	55.7	53.4
15:58:00	00:15:00	56.0	63.1	52.0	57.9	55.6	53.4

The average background noise level (L_{A90}) at the Galsworthy Close is taken as being 53.4 dB.

Assessment Suitability

The site is an existing industrial estate with little or no screening to residential properties to the south west.

The site is sufficiently large to enable adequate separation between the proposed facility and the surrounding residential dwellings to render the site suitable with respect to noise.

Mitigation

Acoustic screening in the form of bunds, buildings or fences to achieve 10 dB(A) reduction is required. The facility should be sited as far away from the south east boundary as practical and no closer than 150m from the nearest receptor (i.e. the proposed development should be located in the north eastern corner of the proposed site). By careful siting and placing activities in buildings a greater area can be utilised.

Recommendation

With mitigation the site is deemed suitable for the intended uses with respect to noise In the north eastern corner of the site.

B.5.7.4 Air Quality and Odour

Introduction

The site currently includes land and buildings associated with a former electricity board depot within the Dorcan Industrial Estate on the eastern edge of Swindon.

Potential uses include household recycling centre, materials recovery facility, waste transfer site and local recycling.

Baseline

Estimated background annual mean levels of priority pollutants for 2010 and comparable standards are:

- 30.1µg/m3 NOx (standard for protection of vegetation 30µg/m3);
- 22.2µg/m3 NO2 (standard 40µg/m3);
- 18.6µg/m3 PM10 (standard 40µg/m3).

The levels indicate good air quality. There are no Air Quality Management Areas within 500 metres.

Potentially 993 sensitive residential receptors within 500 metres of the site. There are no ecologically sensitive sites within 500 metres of the site.

Air pollutant sources within 500 metres of the site: road traffic on the A419, B4006 and minor roads; gas/oil/solid fuel space heating for buildings; Dorcan Industrial Estate including Romney Packaging Operator (PM₁₀). Agricultural activities to the east are potential sources of dust, bioaerosols, NH₃ and odour.

Table B.5.7.4.1 - Assessment Suitability

Potentially Sensitive Receptor	NO ₂	PM ₁₀	NO _x	NH ₃	Bio-aerosol*	Nuisance dust	Odour
Total residential within 100m of site (43 properties)	2	2	N/A	N/A	2	1	2
Total residential between 100 and 500m (950 properties)	1	1	N/A	N/A	1	1	1
Residential within 250m only (200 Properties)	1	1	N/A	N/A	1	1	1
Ecological designation within 500 metres of site	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
 1 = low risk, no further assessment required, a basic level of mitigation is recommended (at least)
 2 = moderate risk, further assessment is recommended, mitigation should be required
 3 = high risk, detailed assessment should be undertaken to confirm whether or not effects could be satisfactorily mitigated
 Values in brackets denote potential 'in-combination' or cumulative effects
 N/A = risk is not applicable in these circumstances
 * Bioaerosol high risk is limited to within 250m of the site

Mitigation

Dust and odour control measures are recommended. See 'Air Emissions Mitigation Options' in **Appendix C**.

Recommendation

All air quality risks for the intended use are low to moderate. As a minimum, basic dust and odour mitigation is recommended. Detailed assessment should not be necessary.

B.5.7.5 Transport

Introduction

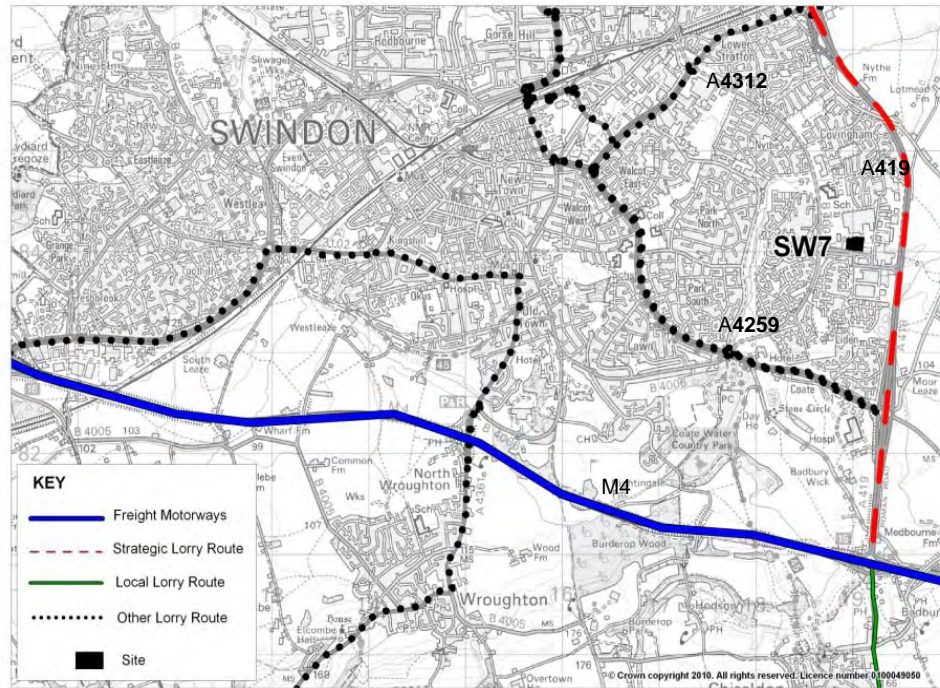
The following presents a technical review of the transport and traffic issues relating to the proposed waste uses at the above named site.

This 2.4 ha site is allocated as a local scale waste facility in the draft DPD. It is located approximately 4km east of Swindon town centre and 3km north of the M4 at its junction with the A419 (junction 15). The site is currently unoccupied.

Baseline

The location of the site in relation to the strategic and local freight routes is shown in **Figure B.5.7.5.1**. For the purposes of this assessment it has been considered that access for HGVs should be made via the nearest available strategic lorry route, then by a designated local lorry route (where available). **Figure B.5.7.5.1** shows that access to the site is gained directly off Edison Road which is an urban dual carriageway, but not designated as a lorry route. The site access is a priority junction. Edison Road connects to the A419 (strategic lorry route) 500m east of the site via a large gyratory junction encompassing Faraday Road, Wheatstone Road, Liden Drive and Edison Road.

Figure B.5.7.5.1 - Site Location in Relation to Freight Network



Potential Uses

This site has been identified for the following potential uses:

- Local Recycling (LR);
- Household Recycling Centre (HRC);
- Materials Recovery Facility (MRF); and
- Waste Transfer Station (WTS).

Traffic Generation

There is often significant variation in traffic generation at sites depending on size, location and catchment, nature of work and mode of collection/transfer. As such traffic generation estimates are intended to provide general guidance only.

As a rule of thumb, the traffic inputs are unlikely to be linear, there would be some peak periods. Traffic also depends on different parameters, namely process, technology used, operating hours, etc. **Table B.5.7.5.1** provides an estimate of the trip generation for each of the proposed site uses. Further details of traffic generation for the potential site uses are contained in **Appendix D**.

Table B.5.7.5.1 - Estimated Trip Generation Summary

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
MRF	15,000	170	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	500	
WTS	15,000	95	Staff usually operate on a shift basis, therefore they may impact on either the AM or PM highway peak period.
	45,000	285	
HRC	7,000	40	Staff levels at HRCs are generally minimal; however, trips generated by

Waste Facility Type	Tonnage per Annum (TPA)	HGVs per Week	Staff / Public Trips
	12,000	70	the public are considerable. At the weekend up to 105 trips per hour can be generated at peak times.
LR	500	10	Staff levels at LR centres are generally minimal. They are not expected to generate as many trips as an MRF but are likely to have a similar traffic profile. Peak times for access by waste collection vehicles would be during a week day typically outside with waste collection vehicles arriving in the week typically outside of network peak hours.
	10,000	115	

Assessment Suitability

Existing/Potential Access Junctions

The site is currently accessed from Edison Road via two priority T-junctions. Edison Road is a two lane dual carriageway with a central reservation which is linked to the A419 to the east, and to Dorcan Way at a 4-arm roundabout 300m to the west. Access to the site from Edison Way is taken from the eastbound carriageway only due to no gaps in the central reservation, with access coming via the roundabout of Edison Way/Dorcan Way irrespective of direction of travel to the site. The eastern access is located on the gyratory junction, near to where Liden Drive adjoins Edison Road. It is also a priority T-junction and can be accessed directly from the gyratory, removing the need to use the Dorcan Way/Edison Road roundabout. Both access roads are approximately 6m wide.

The speed limit within the industrial estate is 30mph on all roads until the A419 where the national speed limit applies. Visibility from the western access is over 100m (**Figure B.5.7.5.2**), which exceeds the minimum standard of 70m for a 30mph speed limit as set out in DMRB⁷⁷. However, for the eastern access, visibility is restricted to the right to approximately 60m due to the proximity of the northwest side of the gyratory (**Figure B.5.7.5.3**). Although this is only 10m less than the DMRB standard, the eastern access is considered unsuitable as it is located too close to the northwest corner of the gyratory where there are conflicting traffic movements as the gyratory becomes two lanes (**Figure B.5.7.5.3**). The allowance of an additional traffic movement on the gyratory would only serve to further complicate the junction.

On site observations showed that the local roads appear to have low traffic levels, with a high proportion of HGVs due to the nature of the local land use.

Figure B.5.7.5.2 - View Westwards along Edison Road from the Western Access



⁷⁷ Design Manual for Roads and Bridges, Volume 6, Section 2, Part 6 (TD 42/95)

Figure B.5.7.5.3 - Visibility from the Eastern Access Looking West along Edison Road and Gyratory

Transport Environmental Impacts

The site is located within the Dorcan Industrial Estate. However, to the west and south lie large residential estates. These are partially screened by the line of trees seen above in **(Figure B.5.7.5.2)**. The screening by the trees and the provision of good standard highway links means the impact on the amenity of the nearby residential areas is likely to be minimal, particularly as the existing land uses around the site are industrial.

Liden Drive is located to the south of the gyratory and the site. It leads to a roundabout with Dorcan Way, albeit further south than that on Edison Road. It requires a larger detour also to access Dorcan Way, but there is a bus only access onto the A4259, 1km northwest of its junction with the A419. Although this is a bus only access, it is not a bus gate with physical infrastructure to stop other vehicles from using it, whilst Satellite Navigation Systems may also show this to be a shortcut to access the A4259 or A419. Liden Drive is unsuitable due to the residential estates located both sides of the carriageway. Since the site visit was carried out, Atkins has been informed by Swindon Borough Council that a new 7.5T weight restriction has been implemented on Liden Drive. Weight restriction signs have been located at each on Liden Drive along with traffic signs directing HGV traffic to use Dorcan Way.

Along the northern side of Edison Road is a shared cycle track/footway of approximately 4.5m. This links to a larger network of shared use paths at the Dorcan Way/Edison Road roundabout which provides links throughout the residential area and beyond. To the east, the cycle track joins the carriageway on Faraday Road and heads north, while the footway remains. The width and location of the shared use footway/cycleway provides sufficient separation for the users from the traffic, and any increase in traffic associated with the proposals is unlikely to lead to increased fear or intimidation for vulnerable users.

Off Site Highway Network

Edison Road is connected to the A419 to the east of the site via the gyratory and a single carriageway link (Wheatstone Road). Access to the A419 is taken from a northbound on-slip onto the dual carriageway, and a northbound off-slip when exiting. No southbound slips are available. For vehicles heading southbound, the alternative route is via the gyratory in order to travel south along Dorcan Way at the roundabout with Edison Road. This meets the A4259 at a signalised roundabout. The A4259 at this point is designated an "other lorry route" which is for local access only. This leads to the A419 2km east where there are slip roads for both north and southbound traffic. It is important that Liden Drive is not used as a through route for access to the south. For traffic heading to the site from the north, exit can be taken off the A419 (strategic lorry route) at Stratton Park, then via the A4312 Oxford Road (other lorry route) and Dorcan Way. Dorcan Way is not designated as a lorry route, but is designed to a suitable standard with a width of 7.3m.

Traffic flows appeared low during site observations. It is therefore felt that capacity in the area is unlikely to be affected. Notwithstanding this, junction capacity assessments would be required if/when development plans are finalised, to ensure the local highway network can accommodate the proposed traffic volumes.

Accessibility by Sustainable Modes

A shared use footway/cycleway is provided along the northern side of Edison Road. There are no formal crossing facilities for pedestrians or cyclists in the locale, although dropped kerbs are usually provided where appropriate.

Bus stops are located in the local area along Edison Road (near to Dorcan Way) and three around the gyratory. One of the three on the gyratory is located outside the eastern access to the site.

Accessibility planning software, Accession has been used to calculate geographical areas within specified journey time thresholds by a direct bus service. The Accession model has used up-to-date bus data (October 2009), with the calculations based on the following assumptions:

- Travelling between 0700-0900 on a Monday;
- A maximum 400m walk from the origin to the bus stop and a maximum 400m walk from the bus stop to the site;
- 10, 20, 30, 45 and 60 minute journey time thresholds; and
- Direct bus services only (no interchanges).

A plan the accessibility of the site presented as drawing no. **5044619.017/TP/SW7/003** in **Appendix D**.

Constraints

The main constraint identified at this site is:

- The eastern access to the site on Edison Road is located on the gyratory near to where Liden Drive adjoins Edison Road. At this point merging traffic is likely to take place and the location of an access would only serve to further complicate the junction. The impact will be less if the access is used only as an exit from the site.

A plan showing the constraints is presented as drawing no. **5044619.017/TP/SW7/001** in **Appendix D**.

Mitigation

No mitigation is required at this site. It is recommended that the existing western access is used for entrance to and exit from the site. The eastern access can be considered for use, but only as an exit from the site due to its location on the gyratory and proximity to the merge of Edison Road with the gyratory.

Routing agreements should be sought to ensure that HGVs route via Edison Road and Dorcan Way only to access suitable lorry routes (either the A419, A4259 or A4312).

Recommendation

The site offers the following advantages:

- It has two existing accesses, one of which (the western access) is to standard and requires no mitigation;
- The site has easy access to the A419 (strategic lorry route) northbound;
- The site is well served by both public transport and sustainable modes with bus stops and shared cycleway/footway in the immediate vicinity;
- The local highway network has low levels of traffic; and
- The site is located in an industrial estate already used by a significant level of HGVs.

The following issues/constraints have been identified:

- The eastern access to the site is located close to the merge of Edison Road and the gyratory where lane change manoeuvres are likely to occur;

- Access to the south may encourage additional HGV traffic on Liden Drive if not appropriately managed;and
- To the south and west lie large residential estates, through which some trips would be routed to gain access to the strategic network.

In conclusion, the site is considered appropriate for the proposed uses. It is recommended that the western access be used as the main site access, and that the eastern access can be considered for use as an exit only for the site.

B.5.7.6 Contaminated Land

Introduction

NGR: 419030, 184080

Location: Swindon

Area: 2.4 hectares

Data Source: Landmark Envirocheck Report 30098805_1_1 (8th Feb 2010) unless otherwise referenced

Table B.5.7.6.1 - Land within Dorcan Industrial Estate – Contamination

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Hydrology: Surface Water	A drain comes within 28m of the site to the north-west; and another runs alongside the A419 400m to the east – this latter drain connects with Dorcan Stream, which is 600m to the north. Liden Brook, 500m to the south-east, has current and ecological status of Moderate according to the EA; and a chemical classification of Fairly Good.	Runoff of contaminated material to surface waters.	Surface drainage plan including runoff collection system and use of Sustainable Drainage Systems (SuDS) within the design. Consider limiting types of waste handled on site. Pollution Incident and Control Plan to be implemented by contractors (e.g. bunded storage areas, designated liquid handling areas etc).	Environmental Management during construction. Produce working plan for site. Review runoff treatment requirements.
Geology: Stratigraphy	The site is underlain by the Kimmeridge Clay Formation below which is the Upper and Lower Corallian formation consisting of Red Down Sand and Clay, the “Coral Rag” and silt and sands ⁷⁸ .	-	-	-
Hydrogeology: Groundwater – Hydrogeological Units	The site is on unproductive strata (non-aquifer).	No risk posed.	-	-
Hydrogeology: Groundwater – Source Protection Zone	The site is not on or near a SPZ.			
Hydrogeology: Groundwater – Vulnerability	Not applicable.			
Hydrogeology: Groundwater –	No information available.			

⁷⁸ BGS 1:50 000 Drift geological map (Sheet No. 252, Swindon)

Feature	Summary of Available Information	Potential Risk	Possible Risk Mitigation	Further Assessment Requirements and Design Considerations
Direction of Flow				
Discharges: Pollution Incidents – to land	There are no pollution incidents to land recorded within 1km of the site.	No risk posed.	-	-
Abstractions: Surface Water Abstractions	There are no surface water abstractions within 1km of the site.	-	-	-
Abstractions: Groundwater Abstractions	There are no groundwater abstractions within 1km of the site.	-	-	-
Flood Risk	The site is in flood risk zone 1.	The site is greater than 1ha so there is a risk of pluvial flooding that should be investigated.	Surface Water Management Plan, SuDS design to control runoff.	A Flood Risk Assessment in line with PPS25 is required to determine level of flood risk for the site and appropriate mitigation measures.
Landuses: Historical landuse	1973-8: Factories and works are shown to the east and north of the site. 1978-90: There is a factory on the site and more industrial and residential development has occurred, mainly to the south.	There is a significant risk that past and present landuses will have led to contamination of the ground. The risk this presents is the excavation and exposure of contaminated material during construction which could open pathway to site staff via direct contact, or controlled waters via runoff to the ditch near the site.	A Site Waste Management Plan and a Pollution Control and Incident Plan should specify how excavated material is to be handled, stored, and disposed of.	Geoenvironmental investigation is required to determine the nature and extent of any contamination that may be present at the site.
Landuses: Waste sites	There are no landfill or waste sites recorded within 1km of the site.			
Landuses: Trade directory	The site is surrounded by factories and depots, including vehicle manufacturers, engineers and other potentially contaminating industries.			
Conservation Designations	There are no statutory designated sites within 1km of the site.	No risk posed.	-	-

Summary of Site Findings

The findings from the initial screening are limited due to the information available and the limited details regarding the design proposals for the site. However, it is anticipated that the creation of a Household Recycling Centre, Materials Recovery Facility / Waste Transfer Station or Local Recycling centre at **Land within Dorcan Industrial Estate, Swindon** falls within the following category:

- Potentially significant issues identified – review further assessment requirements of the site

The initial screening indicates that:

- There are watercourses within 1km of the site and therefore there is the potential for changes to their flow and quality
- There is a history of potentially contaminative land use on the site
- With the implementation of appropriate mitigation within the design of the site the risks to the water environment from the proposed scheme options would be minimised

The further assessment and work that will be required include a flood risk assessment, surface water management plan and contamination assessment.