

**Wiltshire and Swindon Minerals Development
Control Policies Development Plan Document**

**Sustainability Appraisal for the Submission Draft
Document**

July 2008

**Appendix Volume 1:
Appendices A - B**

CPR070

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Introduction

This document consists of supporting information to the documents entitled 'Wiltshire and Swindon Minerals Development Control Policies– Sustainability Appraisal Report for the Submission Draft Document'. The information in the appendices is in the form of tables and should be read in conjunction with the Sustainability Appraisal Report.

The following appendices are included:

Appendix A: Review of other Plans and Programmes

Appendix B: Wiltshire and Swindon SA/SEA Baseline Information

Appendix A. Review of other Plans and Programmes

A.1 Air Quality and Noise

Directive 1996/62/EC on Ambient Air Quality and Management
This Directive covers the revision of previously existing legislation and the introduction of new air quality standards for previously unregulated air pollutants, setting the timetable for the development of daughter directives on a range of pollutants. The list of atmospheric pollutants to be considered includes sulphur dioxide, nitrogen dioxide, particulate matter, lead and ozone – pollutants governed by already existing ambient air quality objectives- and benzene, carbon monoxide, poly-aromatic hydrocarbons, cadmium, arsenic, nickel and mercury.
Objectives, Targets and Indicators
Establishes mandatory standards for air quality and sets limits and guides values for sulphur and nitrogen dioxide, suspended particulates and lead in air.
Directive 2002/49/EC relating to the assessment and management of environmental noise (The Environmental Noise Directive)
The aim of the Environmental Noise Directive (END) is to define a common approach across the European Union with the intention of avoiding, preventing or reducing on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise. Until May 2005 DEFRA consulted on the implementation of the Directive into UK law.
Objectives, Targets and Indicators
This will involve: <ul style="list-style-type: none">• Informing the public about environmental noise and its effects;• Preparing of strategic noise maps for: large urban areas (referred to as 'agglomerations' in the END and in this document), major roads, major railways and major airports as defined in the END; and• Preparing action plans based on the results of the noise mapping exercise. Such plans will aim to manage and reduce environmental noise where necessary, and preserve environmental noise quality where it is good.
PPG 24 – Planning and Noise
This PPG gives guidance to local authorities in England on the use of their planning powers to minimise the adverse impact of noise. It outlines the considerations to be taken into account in determining planning applications both for noise sensitive developments and for those activities which will generate noise and introduces the concept of noise exposure categories, recommending appropriate levels for exposure to different sources of noise; and advising on the use of conditions to minimise the impact of noise.
Objectives, Targets and Indicators
Noise-sensitive developments should be located away from existing sources of significant noise (or programmed development such as new roads) and that potentially noisy developments are located in areas where noise will not be such an important consideration or where its impact can be minimised.

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2007)

The UK Government and the devolved administrations have published a new strategy for air quality. This Air Quality Strategy sets out air quality objectives and policy options to further improve air quality in the UK from today into the long term. As well as direct benefits to public health, these options are intended to provide important benefits to quality of life and help to protect our environment.

The Strategy:

- Sets out a way forward for work and planning on air quality issues;
- Sets out the air quality standards and objectives to be achieved;
- Introduces a new policy framework for tackling fine particles; and
- Identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives.

Objectives, Targets and Indicators

The strategy sets National air quality objectives for 10 pollutants, including particulates (pm₁₀ and pm_{2.5}), ozone, nitrogen dioxide, sulphur dioxide, 1,3-butadiene benzene, carbon monoxide, polycyclic aromatic hydrocarbons and lead.

How the Minerals Local Development Document should address air quality and noise

MLDD should include consideration of how site management can positively contribute to air quality and noise especially through HGV management policies. The plan should have regard for PPG24 when developing policies, particularly with regard to site selection, design, site management and monitoring. Site selection should also take into account air quality impacts where possible. The MLDD needs to include air quality policies for instance with regard to dust, and emissions from machinery and vehicles.

Relevant objectives for the plan and the SA

- Minimise emissions to air; and
- Minimise nuisance from minerals working and HGV traffic (including the effects of noise).

A.2 Climatic Factors

Kyoto Protocol on Climate Change

Signing up to the 1997 Kyoto Protocol, 38 Countries (plus the EU) have committed to individual, legally-binding targets to limit or reduce their greenhouse gas emissions. These add up to a total cut in greenhouse-gas emissions of at least 5% from 1990 levels in the commitment period 2008-2012. The UK has committed to an 8% reduction (base year = 1990).

Objectives, Targets and Indicators

Achieve a reduction in anthropogenic CO₂ levels to at least 5% below 1990 levels by 2012. Consider afforestation and reforestation as carbon sinks.

Our Energy Future – Creating a Low Carbon Economy
The White paper defines a long-term strategic vision for energy policy combining our environmental, security of supply, competitiveness and social goals.
Objectives, Targets and Indicators
Stimulate new, more efficient sources of power generation, and cut emissions from the transport and agricultural sector.
PPS 1: Planning and Climate Change Supplement to Planning Policy Statement 1
PPS1 sets out the overarching planning policies on the delivery of sustainable development through the planning system. This supplementary document indicates how spatial planning should contribute to reducing emissions and stabilising climate change (mitigation) and take into account the unavoidable consequences (adaptation).
Objectives, Targets and Indicators
Regional planning bodies, and all planning authorities should prepare and deliver spatial strategies that: <ul style="list-style-type: none"> • Make a full contribution to delivering the Government’s Climate Change Programme and energy policies, and in doing so contribute to global sustainability; • In enabling the provision of new homes, jobs, services and infrastructure and shaping the places where people live and work, secure the highest viable standards of resource and energy efficiency and reduction in carbon emissions; • Deliver patterns of urban growth that help secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, overall, reduce the need to travel, especially by car; • Secure new development and shape places resilient to the effects of climate change in ways consistent with social cohesion and inclusion; • Sustain biodiversity, and in doing so recognise that the distribution of habitats and species will be affected by climate change; • Reflect the development needs and interests of communities and enable them to contribute effectively to tackling climate change; and, • Respond to the concerns of business and encourage competitiveness and technological innovation.
Climate Change: The UK Programme.
The UK’s programme is a significant contribution to the global response to climate change. It sets out a strategic, far reaching package of policies and measures across all sectors of the economy, to achieve the targets set.
Objectives, Targets and Indicators
Cutting UK Carbon Dioxide emissions by 60% by 2050.
A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England
This is an integrated strategic framework, endorsed by the South West Assembly, for the promotion of the sustainable economic, social and environmental well-being of the South West. It provides a set of sustainable development guidelines for all organisations within the region. The main themes and objective are summarised as follows:
Objectives, Targets and Indicators
Theme: Climate Change

Efficient use of affordable energy, reducing energy demand, increased role of renewable energy and Combined Heat and Power (CHP), reducing the adverse environmental impacts of energy production, reduce risk from climate change and sea level rise, minimise flooding risk.

How the Minerals Local Development Document should address climatic factors

The plan should have regard to climate change when developing policy options. The SA of the plan should contain objectives for reducing emissions and coping with the effects of climate change. The MLDDS could contribute to UK greenhouse gas reduction targets, for instance through encouraging industrial efficiency, procurement of renewable energy, and more sustainable transport of materials and personnel. The proximity principle in particular needs to be built into site selection for the MLDDS.

Relevant objectives

- Encourage the use of sustainable transport options for minerals;
- Where possible, adopt the proximity principle when siting facilities;
- Minimise the impact of mineral workings through implementing effective measures to control emissions to air;
- Sustain biodiversity, recognising the fact that habitats and species will be affected by climate change; and
- Reduce the risk of flooding by siting developments away from floodplains.

A.3 Human health and safety

A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England

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Objectives, Targets and Indicators

Theme: Health & Well-Being

- Health and wellbeing;
- Reduce health inequalities; and
- Improve key determinants of health.

How the Minerals Local Development Document should address human health and safety

The plan should take account of the needs to conserve green areas for informal and formal recreation, and to site development away from communities, where possible, in order to minimise those affected by air (inc. dust), noise, and vibration.

Relevant objectives

- Maintain or where possible enhance the quality of life for people affected by mineral working and/or ancillary development;
- Ensure robust consideration is given to the proximity of mineral workings and/or ancillary development to developments and individual properties; and
- Protect rights of way, open space and common land.

A.4 Population

Our Swindon, Our Community, Our Future: A Community Strategy for Swindon 2004-2010

This strategy sets out some challenging priorities for Swindon, in order to make it a safer, healthier, more prosperous and attractive place.

Objectives, Targets and Indicators

Key objectives:

- A place which values its environment;
- Creating an economically prosperous place;
- A healthy and caring place;
- A learning and creative place; and
- Keeping Swindon safe.

Creating a County Fit for our Children: A Strategy for Wiltshire 2004-2010

A community strategy for Wiltshire, where the vision 'a County fit for our children' is described in social, economic and environmental terms. The two main themes of the strategy are 'access to public services' and 'Governance'.

Objectives, Targets and Indicators

Key objectives:

- Social Care and Health e.g. to meet the needs of the growing numbers of elderly people;
- Countryside and Land-based issues e.g. to increase recycling of waste and reduce waste to landfill, and, to maintain and improve access to rural goods and services;
- Housing and The Built Environment e.g. to increase supply of affordable housing;
- The Wiltshire Economy e.g. to raise productivity through innovation and sustainable development;
- Transport e.g. to maintain an integrated and efficient public transport network;
- Crime and Community Protection e.g. to reduce anti social and nuisance behaviour;

- Education, Skills and Learning; and
- Culture e.g. to keep Wiltshire's heritage, landscape, local diversity and distinctive character special.

How the Minerals Local Development Document should address population

The plan should pay due regard to the targets set for housing by the Community Strategy for Wiltshire, and help provide and contribute towards making Swindon and economically prosperous place, without detracting from its environment.

Relevant objectives

- Ensure that sub regional aggregate apportionment is met to ensure adequate materials for house building.

A.5 Landscape, Open Space and Recreation

European Landscape Convention

The European Landscape Convention was developed by the Council for Europe and came into force in 2004. It was signed by the UK in February 2006. The aims of the convention are to promote European landscape protection, management and planning and to organise European co-operation on landscape issues. Nations that sign the Convention agree to take action to raise the standing given to landscape in public policy.

Objectives, Targets and Indicators

The ELC sets out four general measures and five specific measures:

- To recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity;
- To establish and implement landscape policies aimed at landscape protection management and planning;
- To establish procedures for participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of landscape policies;
- To integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect on landscape;
- Awareness-raising: involves increasing awareness among civil society, private organisations and public authorities of the values of landscape, their role and the changes to them;
- Training and education: involves promoting: training for specialists in landscape appraisal and operations, multidisciplinary training programmes in landscape policy, protection, management and planning;
- Identification and assessment: involves mobilising the interested parties with a view to improving knowledge of the landscape and guiding the landscape identification and assessment procedures through exchanges of experiences and methodology. Each Party should: identify its own landscapes, analyse their characteristics and the forces and pressures transforming them, take note of change and assess the identified landscapes;
- Landscape quality objectives: involves framing landscape quality objectives for the identified landscapes; and
- Implementation: involves introducing instruments aimed at protecting, managing and/or planning the landscape.

PPG 17 – Planning for Open Space, Sport, and Recreation

This PPG comprises the guidance to support outdoor and recreational activities which contribute to the delivery of broader sustainable development objectives such as the support of urban renaissance and rural renewal, the promotion of social inclusion and community cohesion, health and well being.

Objectives, Targets and Indicators

The recreational quality of open spaces can be eroded by insensitive development or incremental loss. In considering planning applications - either within or adjoining open space - local authorities should weigh any benefits being offered to the community against the loss of open space that will occur. Accessibility should be promoted by sustainable modes of transport (including disabled facilities).

PPG 21 – Tourism

This PPG outlines the economic significance of tourism and its environmental impact, and therefore its importance in land-use planning. It explains how the needs of tourism should be dealt with in development plans and in development control.

Objectives, Targets and Indicators

Ensure land use is distributed and managed in such a way that it supports the qualities that underpin the tourism industry.

Countryside and Rights of Way Act 2000 (CRoW)

CROW extends the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. It creates a new statutory right of access to open country and registered common land, modernise the rights of way system, give greater protection to Sites of Special Scientific Interest (SSSIs), provide better management arrangements for Areas of Outstanding Natural Beauty (AONBs), and strengthen wildlife enforcement legislation.

Objectives, Targets and Indicators

Emphasises the public's right of access to open country and common land, and gives additional protection to Sites of Special Scientific Interest (SSSI). The Act imposes a duty on public bodies, including WCC to have regard to the conservation and enhancement of the AONBs in the County.

A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England

This is an integrated strategic framework, endorsed by the South West Assembly, for the promotion of the sustainable economic, social and environmental well-being of the South West. It provides a set of sustainable development guidelines for all organisations within the region. The main themes and objective are summarised as follows:

Objectives, Targets and Indicators

Theme: Food & farming

- Promote high quality local food and drink;
- Improve the viability of mixed family-run farms;
- Raise the skills and aspirations of the farming and food workforce;
- Reconnect farmers and food producers with local communities; and
- Enhance the quality of farmland landscapes and habitats.

The State of the Countryside in the South West (Countryside Agency)
Concise overview of facts and trends about the social, economic and environmental issues for the rural areas within the region.
Objectives, Targets and Indicators
Not applicable
Cotswolds AONB Management Plan
This plan is primarily about conserving and enhancing the AONB, and provides a guide to everyone who lives, works and enjoys the Cotswolds AONB.
Objectives, Targets and Indicators
Key objectives: <ul style="list-style-type: none"> • To conserve and enhance the landscape of the AONB (including historic features and ecological diversity); • Promote quiet enjoyment of AONB; and • Involving the public and stakeholders.
Cranborne Chase and West Wiltshire Downs AONB Management Plan
The management plan sets out a vision for the Cranborne Chase and West Wiltshire AONB, a policy framework and an action plan under 3 themes, environment theme, rural economy theme and community theme.
Objectives, Targets and Indicators
Community theme vision: "...sustainable villages offer key facilities and services that are accessible to local needs..." Economy vision: "A diverse thriving and sustainable economy in which agriculture, forestry and tourism are viable sectors..." Environment vision: "A unique, tranquil and evolving landscape..."
North Wessex Downs AONB Management Plan
This plan identifies the issues affecting the AONB and then suggests how they might be addressed. It offers a vision for the future and practical actions that can be taken to achieve this vision.
Objectives, Targets and Indicators
Key objectives: <ul style="list-style-type: none"> • Conserve and enhance landscape character, heritage, and biodiversity within the AONB; and • Sustain natural resources (e.g. soils) and promote low carbon economy.

How the Minerals Local Development Document should address landscape, open space and recreation

The MLDDS should take into account PPG 17 and PPG 21 in preserving the quality of open space and hence avoiding the adverse impacts on areas like the Cotswold AONB. Proposed new mineral sites must take account of the CRoW Act and should not, where possible, hinder accessibility to open country and common land.

The plan should aim to reduce the impacts on agricultural land of mineral developments and take into account the objectives of the North Wessex Downs and Cotswold AONBs particularly relating to landscape and natural resources.

Relevant objectives

- Ensure that future quarrying proposals within AONBs are only permitted for cases of overriding national need and when alternative sources outside the AONBs have been fully considered;
- Reduce visual intrusion from mineral working and/or ancillary development;
- Ensure effective restoration of all mineral sites and areas affected by mineral working;
- Protect and improve the quality of the countryside in proximity to mineral working and/or ancillary development; and
- Maintain and enhance access to the countryside for residents and visitors.

A.6 Cultural Heritage including Architectural and Archaeological Heritage

Convention for the Protection of the Architectural Heritage of Europe 1985

This European Convention sets a common policy for the conservation and enhancement of the architectural heritage.

Objectives, Targets and Indicators

Objectives include:

- To take statutory measures to protect architectural heritage;
- To make provision for the protection of monuments, groups of buildings and sites; and
- To make the conservation, promotion and enhancement of the architectural heritage a major feature of cultural, environmental and planning policies.

European Convention on the Protection of Archaeological Heritage 1992

This convention recognises that archaeology is seriously threatened with deterioration because of the increasing number of major planning schemes, natural risks, clandestine or unscientific excavations and insufficient public awareness. The aim the Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.

Objectives, Targets and Indicators
<ul style="list-style-type: none"> • The maintenance of an inventory of its archaeological heritage and the designation of protected monuments and areas; • The mandatory reporting of archaeological heritage found and making them available for examination; • To apply procedures for the authorisation and supervision of excavation and other archaeological activities; • To ensure that excavations and other potentially destructive techniques are carried out only by qualified, specially authorised persons; • The modification of development plans likely to have adverse effects on the archaeological heritage; • The allocation of sufficient time and resources for an appropriate scientific study to be made of the site and for its findings to be published; • To ensure that environmental impact assessments and the resulting decisions involve full consideration of archaeological sites and their settings; and • To make provision, when elements of the archaeological heritage have been found during development work, for their conservation in situ when feasible.
PPG 15 – Planning and the Historic Environment
This PPG provides a full statement of Government policies for the identification and protection of historic buildings, conservation areas, and other elements of the historic environment. It explains the role played by the planning system in their protection. It complements the guidance on archaeology and planning given in PPG 16.
Objectives, Targets and Indicators
Objectives are for effective protection for all aspects of the historic environment. Consider opportunities to re-use derelict transport infrastructure.
PPG 16 – Archaeology and Planning
This guidance is for planning authorities in England, property owners, developers, archaeologists, amenity societies and the general public. It sets out the Secretary of State's policy on archaeological remains on land, and how they should be preserved or recorded both in an urban setting and in the countryside. It gives advice on the handling of archaeological remains and discoveries under the development plan and control systems, including the weight to be given to them in planning decisions and the use of planning conditions.
Objectives, Targets and Indicators
Development plans should reconcile the need for development with the interests of conservation including archaeology. Detailed development plans should include policies for the protection, enhancement and preservation of sites of archaeological interest and of their settings.
The Historic Environment: A Force for Our Future
This statement sets out the intention of the Government to protect the historic environment recognising its major contribution to the economy in rural and deprived communities as well as in traditional economic centres. It also states the need for the development of new policies to further realise economic and educational potential.
Objectives, Targets and Indicators
The historic environment should be protected and sustained for the benefit of our own and future generations.

A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England

This is an integrated strategic framework, endorsed by the South West Assembly, for the promotion of the sustainable economic, social and environmental well-being of the South West. It provides a set of sustainable development guidelines for all organisations within the region. The main themes and objective are summarised as follows:

Objectives, Targets and Indicators

Theme: Culture & Heritage

- Encourage increased access to, and participation in, cultural activities across the SW, capitalising on the latest developments in ICT;
- Ensure the SW remains a region of diverse and distinct cultural landscapes and townscapes; and
- Endow the region's creative capabilities and maximise their social and economic benefit.

Culture South West (2003): In Search of Chunky Dunsters – A Cultural Strategy for the South West.

This strategy sets out what the region can achieve by working together to improve the quality and range of cultural activities and creative industries available in the South West. Culture plays an important role in the economic growth of the region, and it is an integral part of the SWRDA plans.

Objectives, Targets and Indicators

Strategic themes:

- Encourage access and participation;
- Improve quality of the region's cultural facilities and activities;
- Support the regional cultural and creative industries; and
- To celebrate regional identity and the rich diversity of South West cultural life and traditions.

Local Authorities have lead responsibility for encouraging and supporting the development of local cultural strategies

Strategy for the Historic Environment (HE) in the South West (English Heritage, 2004)

This strategy emphasises the contribution of the historic environment to the quality of life, and culture of the region, and sets out a vision for the future management of this irreplaceable historic resource.

Objectives, Targets and Indicators

Priorities:

- Informed conservation of the historical environment;
- Sustainable management of HE in rural areas, including establishment of agri-environment schemes;
- Conservation of coastal and maritime environments and wetland landscapes;
- Promote design of buildings and landscape sensitive to their location;
- Promote the use of traditional conservation and management skills; and
- Remove physical, social and cultural barriers to the access, understanding and enjoyment of the HE.

English Heritage Policy Position Statement: Mineral Extraction and the Historic Environment (Consultation Draft, 2006)

This sets out English Heritage’s position on mineral extraction and the historic environment. It examines the historic significance of mining and quarrying sites and landscapes, the impacts on the historic environment that can be caused by mineral extraction together with advice on appropriate mitigation measures, and the need for and supply of natural stone and other materials required to conserve the historic environment and maintain local distinctiveness.

Objectives, Targets and Indicators

Priorities:

- Ensuring the supply of historically and technically appropriate local building stone;
- Work should continue to enhance understanding and public enjoyment of the historic legacy of extractive industries;
- Extraction should not take place if it would result in the destruction of or damage to a nationally important historic or archaeological site or listed building, or where it would have a significant adverse effect on setting;
- Ensure the environmental impacts of minerals are adequately mitigated; and
- Transport of minerals should be managed to minimise the impacts of vehicle movements (transport by rail and water will have a lower impact than transport by road).

How the Minerals Local Development Document should address cultural heritage

The MLDDS should be committed to PPG 15 and PPG 16 objectives for the effective protection of the historic environment and archaeological remains through site selection. It should also take into account the strategic aims of the South West Cultural Strategy.

Relevant Objectives

- Protect designated and, where possible, non-designated sites and monuments of cultural/archaeological importance.

A.7 Biodiversity, Fauna, Flora and Soil

EU Habitats Directive 92/43/EC

The Habitats Directive is a major European policy directive that aims to contribute towards protecting biodiversity - the variety of life - through the conservation of natural habitats and wild plants and animals. Recognising that wildlife habitats are under pressure from increasing demands made on the environment, the Directive provides for the creation of a network of protected areas across the European Union to be known as ‘Natura 2000’ sites. This network includes Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), which, on land, are already Sites of Special Scientific Interest (SSSIs). Plans or programmes need to be ‘screened’ to determine whether they are likely to affect the integrity of a Natura 2000 site. If it is decided that this might be the case an Appropriate Assessment is required. The purpose of the Appropriate Assessment is to assess the impacts of a land-use plan against the conservation objectives of a European Site and to ascertain whether it would adversely affect the integrity of that site. Where significant negative effects are identified, alternative options should be examined to avoid any potential damaging effects.

Objectives, Targets and Indicators

Maintain or restore in a favourable condition designated natural habitat types and habitats of designated species listed in Annexes I and II respectively of the Directive. If a project compromising one of these habitats must proceed in spite of negative conservation impacts due to it being in the public interest, compensatory measures must be provided for. Linear structures such as rivers/streams, hedgerows, field boundaries, ponds, etc., that enable movement and migration of species should be preserved.

The EC Directive on the Conservation of Wild Birds 79/409/EEC 1979

The Birds Directive has created a protection scheme for all of Europe's wild birds, identifying 194 species and sub-species (listed in Annex I) among them as particularly threatened and in need of special conservation measures. There are a number of components to this scheme. Within others, Member States are required to designate Special Protection Areas (SPAs) for the 194 threatened species and all migratory bird species. SPAs are scientifically identified areas critical for the survival of the targeted species, such as wetlands. The designation of an area as a SPA gives it a high level of protection from potentially damaging developments.

Objectives, Targets and Indicators

Imposes duty on Member States to sustain populations of naturally occurring wild birds by sustaining areas of habitats in order to maintain populations at ecologically and scientifically sound levels.

The Convention on Biological Diversity, Rio de Janeiro 1992

This convention was agreed among the vast majority of the world's governments and sets out their commitments to maintaining the world's biodiversity so to achieve a more sustainable economic development. The Convention establishes three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources.

Objectives, Targets and Indicators

Article 6a requires each Contracting Party to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity.

PPS 9 – Biodiversity and Geological Conservation

PPS9 sets out a series of key principles which need to be taken into consideration when preparing local development documents and regional spatial strategies:

- Decisions should be based upon up-to-date information about the environmental characteristics of the area.
- Decisions should seek to maintain, or enhance, or add to biodiversity and geological conservation interests.
- A strategic approach to the conservation and enhancement of biodiversity and geology should be taken.
- Developments seeking to conserve or enhance the biodiversity and geological conservation interests of the area should be encouraged.
- LPAs should consider whether proposed developments can be accommodated without causing harm to biodiversity and geological conservation interests.
- Where development will result in unavoidable and significant adverse impacts, planning permission for it should only be granted where adequate mitigation measures are put in place.

<ul style="list-style-type: none"> Development policies should promote opportunities for the incorporation of beneficial biodiversity and geological features within the design of development.
<p>Objectives, Targets and Indicators</p> <p>Points specific to LDDs are:</p> <ul style="list-style-type: none"> When identifying designated sites of importance for biodiversity and geodiversity on the proposals map, clear distinctions should be made between the hierarchy of international, national, regional, and locally designated sites. Biodiversity objectives that reflect both national and local priorities, including those which have been agreed by local biodiversity partnerships, should be reflected in policies in local development documents and proposals. Local planning authorities should ensure that all policies in local development documents and proposals are consistent with those biodiversity objectives. <p>Other areas covered by the guidance are:</p> <ul style="list-style-type: none"> Biodiversity interest of: <ul style="list-style-type: none"> International sites, SSSIs, regional and local sites Ancient woodlands Networks of natural habitats Previously developed sites Biodiversity within developments Species protection <p>PPS 9 includes no targets or indicators.</p>

<p>Wildlife and Countryside Act 1981 (as amended)</p> <p>The act implements the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the European Union Directives on the Conservation of Wild Birds and Natural Habitats. The Act is concerned with the protection of wildlife and their habitat (countryside, national parks and designated protected areas).</p> <p>Objectives, Targets and Indicators</p> <p>Addresses the problem of species protection and habitat loss by setting out the protection that is afforded to wild animals and plants in Britain.</p>

<p>Natural Environment and Rural Communities (NERC) Act 2006</p> <p>The act is designed to help achieve a rich and diverse natural environment and thriving rural communities through modernised and simplified arrangements for delivering government policy.</p> <p>Objectives, Targets and Indicators</p> <p>The Act makes provision about bodies concerned with the natural environment and rural communities; makes provision in connection with wildlife, SSSIs and National Parks; amends the law relating to rights of way; makes provision as to the Inland Waterways Amenity Advisory Council and provides for flexible administrative arrangements in connection with functions relating to the environment and rural affairs and certain other functions. Of particular note is the Biodiversity Duty in section 40 of the Act, which requires that 'every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'.</p>

UK Biodiversity Action Plan
The UK BAP was published in response to the requirements of the Convention on Biological Diversity (1992).
Objectives, Targets and Indicators
It highlights a number of priority habitats and species with associated action plans.
'Working with the Grain of Nature': A Biodiversity Strategy for England (2002)
The Strategy seeks to ensure biodiversity considerations become embedded in all main sectors of public policy and sets out a programme for the next five years to make the changes necessary to conserve, enhance and work with the grain of nature and ecosystems rather than against them.
Objectives, Targets and Indicators
Ensures biodiversity considerations are embedded in all main sectors of economic activity. (It is the principal means by which the government will comply with duties under section 74 of the CRoW Act).
A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England
This is an integrated strategic framework, endorsed by the South West Assembly, for the promotion of the sustainable economic, social and environmental well-being of the South West. It provides a set of sustainable development guidelines for all organisations within the region. The main themes and objective are summarised as follows:
Objectives, Targets and Indicators
Theme: Biodiversity & Landscapes Protect and enhance habitats and species Promote biodiversity as a regional asset Protect and enhance the region's urban and rural landscapes
South West Biodiversity Partnership and the Association of Local Government Ecologists. A biodiversity guide for the planning and development sectors in the SW.
Illustrates cases of best practice in the following areas: <ul style="list-style-type: none"> • Action for habitats and species; • Community action for nature; • Nature and the economy; • Improving quality of life; and • Ecosystem and landscape management.
Objectives, Targets and Indicators
No specific objectives of relevance.
South West Biodiversity Partnership – South-West Biodiversity Implementation Plan (July 2004)

This plan has been developed to provide a more coordinated approach to delivering biodiversity related action across the South-West. It sets out a framework of policy, priorities and actions to assist in a more joined up approach to biodiversity delivery, and updates those actions included in the SWBAP. It identifies key programmes of work which are designed to:

- Help meet biodiversity targets for priority habitats and species in the South West;
- Ensure regional strategic plans incorporate biodiversity issues for the South West;
- Provide a strategic framework for the work undertaken by regional and local biodiversity partnerships in conserving biodiversity and promoting the sustainable use of biological resources; and
- Develop wider support and active engagement by increasing awareness and understanding of the importance of biodiversity to the region's health, quality of life and economic productivity.

The BIP identifies key programmes of work, both for those directly involved and for those who can enable these, under five specific sectors:

- Farming and Food;
- Water and Wetlands;
- Woodlands and Forestry; and
- Towns, Cities and Development.

Headline objectives of the BIP are:

Ensure we meet:

- Our international commitments, in particular to halt biodiversity loss by 2010;
- The Defra Public Service Agreement Target to “Care for our natural heritage, make the countryside attractive and enjoyable for all and preserve biological diversity” by
 - reversing the long-term decline in the number of farmland birds by 2020, as measured annually against under-lying trends;
 - and, bringing into favourable condition by 2010 95% of all nationally important wildlife sites”.
- Continuing and sustained improvement in the status of terrestrial and marine species and habitats listed on the Biodiversity Action Plan.

Farming and food Objectives:

- Assist the continued development of high quality support services for land managers to develop and adopt best practice for biodiversity action as part of their farming business;
- Promote ongoing dialogue to establish a better shared understanding between stakeholders in the biodiversity and land-owning/farming communities;
- Ensure that Environmental Land Management Schemes (ELMS) deliver maximum biodiversity gain;
- Integrate resource protection on farmed land with delivery of biodiversity;
- Ensure that the conservation of farmland biodiversity is an integral part of all relevant regional policies, strategies and programmes.
- Improve outcomes for biodiversity and the environment from food chain action in the region; and
- To develop a regional approach to the environmental challenges of improved grassland farming so that biodiversity is rebuilt in this land use.

Water and Wetlands Objectives:

- Manage water and wetlands using an integrated and sustainable approach to increase biodiversity;
- Continue improvements in water quality, including minimising diffuse pollution by reducing run off of water and soil from farmland;
- Ensure regional policies and strategies promote the conservation and enhancement of rivers, wetlands and coasts;
- Restore degraded rivers and wetlands to provide multiple social, economic and environmental benefits, and open up opportunities for tourism and

- recreation linked to the water environment; and
 - Raise awareness of the value of green spaces alongside rivers through our towns and cities resulting in the creation of urban river corridors.
- Woodlands and Forestry Objectives:
- Protect native woodland from unnecessary damage;
 - Enhance, extend and restore the existing native woodland resource;
 - Manage non-native woodland to improve biodiversity in the wider landscape; and
 - Realise the broader social and economic benefits of woodland biodiversity.
- Towns, Cities and Development Objectives:
- Ensure that planning decisions take full account of biodiversity and avoid negative outcomes;
 - Co-ordinate the management and enhancement of natural green spaces;
 - Improve access to natural green spaces;
 - Enhance people's awareness of wildlife in the urban area; and
 - Involve communities in biodiversity creation and management in their own areas.

South West Biodiversity Partnership – South-West Biodiversity Action Plan (1997)

Contains action plans for 12 species and 18 habitat types. Each action plan contains objectives and proposed targets. The following symbols indicate where action plans are also included in the Wiltshire (*), Swindon (#), and Cotswold Water Park (\$) BAPs.

Objectives, Targets and Indicators

<p>Species Action Plans:</p> <ul style="list-style-type: none"> • Early Gentian <ul style="list-style-type: none"> ○ 2 known sites in Wiltshire • Marsh Fritillary <ul style="list-style-type: none"> ○ 56 known sites in Wiltshire • White Clawed Crayfish (\$) <ul style="list-style-type: none"> ○ 26 known sites in Wiltshire (2 Avon, 24 Thames) • Great Crested Newt <ul style="list-style-type: none"> ○ 24 known sites in Wiltshire • Sand Lizard • Nightjar <ul style="list-style-type: none"> ○ 17 known sites in Wiltshire • Water Vole (\$) • Pipistrelle Bat (*)(#) • Southern Damselfly 	<p>Habitat Action Plans</p> <ul style="list-style-type: none"> • Ash Maple Woodland (*)(#) • Arable farmland (*)(#) • Calcareous Grassland (*)(#) • Hedgerows (*)(#) • Lowland Heathland • Wood Pasture and Parkland (*)(#) • Reedbeds • Rivers, Streams and Associated Habitats (*)(#) • Standing Open Water (*)(#)(#) • Upland heath • Upland oakwood • Urban Areas (*)(#)
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Swindon Biodiversity Action Plan (March 2005)

This plan outlines the vision and strategy for protecting and enhancing the borough's biodiversity over the next ten years, along with a series of specific

actions and targets for delivering the strategy.

Objectives, Targets and Indicators

Key objectives:

- Protection of nationally and locally designated sites, as well as strategic green corridors;
- Enhancement of wildlife in the wider landscape;
- Protect and enhance populations of protected species; and
- Involve the public and stakeholders wherever possible.

Target is to have 100% of the Borough Phase 1 Habitat surveyed by 2007.

Most of the action plans include objectives for improving education, raising awareness, and introducing improved management practices.

Habitat Action Plans (NB: Action plans marked * have a corresponding SW BAP action plan)

Farmland Habitats

- Arable Habitat Action Plan*
- Hedgerow Habitat Action Plan*
 - 21% of English hedges lost between 1984 and 1990. No data for Swindon;
 - 20km of new hedgerow planting by 2010; and
 - Favourable management of 25km of ancient and species rich hedgerows by 2010.

Water and Wetland Habitats

- Standing Open Water Habitat Action Plan*;
 - Swindon Borough has suffered a greater loss of ponds than the national average. South Marston parish had 36 ponds listed in 1880, but now has only one; and
 - Target to create 10 new ponds per annum.
- Urban Ponds Habitat Action Plan
 - Target to create 100 new garden ponds per annum.
- Rivers and Streams Habitat Action Plan*
 - Over 175km of rivers and streams in Swindon Borough. 100km is designated as 'Main River' under the Environment Agency's Flood Defence remit;
 - Target to improve 2 otter kill black spots by 2008; and
 - Coordinated mink trapping programme by 2006.
- Wetlands Habitat Action Plan
 - Identify two sites per annum for wetland restoration or creation projects; and
 - Create two wetland LNRs by 2010.

Grassland Habitats

- Amenity Grassland Habitat Action Plan
 - Currently 1,348 Ha of amenity grassland in Swindon Borough;
 - Area of amenity grassland has decreased in recent years; and

- Target for 80% of homes to be within 300m of amenity grassland by 2010.
- Neutral Grassland Habitat Action Plan
 - 98% of lowland meadows have been lost in the UK since World War II;
 - Known sites in Swindon Borough amount to 120ha; and
 - Target to designate 2 LNR sites by 2010.
- Downland Habitat Action Plan*
 - 22 chalk grassland sites covering 432ha;
 - Nationally between 50-90% of chalk grassland has been lost since WWII;
 - Target to increase the extent of calcareous grassland to 150% of the 2005 baseline by 2010;
 - Restore 25% of existing sites by 2010.

Urban Habitats*

- Built-up Areas and Gardens Habitat Action Plan
 - 50% of all planning applications to incorporate biodiversity into building design by 2009;
 - Create one new urban wildlife site per annum;
 - Improve greenspace connectivity by 50% by 2010;
 - 85% of schools to have a wildlife area by 2010.
- Development Sites Habitat Action Plan
 - 100% of new open spaces to have a provision for wildlife.

Woodland Habitats

- Woodland Habitat Action Plan*
 - 10 years ago the Borough had only 560ha of woodland (2% of land area);
 - Currently there are 925ha (4%) following the creation of the Great Western Community Forest (GWCF);
 - Allow creation of 20ha of woodland by natural succession by 2010; and
 - Increase woodland cover in line with the GWCF objectives.
- Scrub Habitat Action Plan
 - No Swindon or national figures to demonstrate amount of scrub or trends;
 - 5 sites per annum to have beneficial scrub management plans; and
 - Create 2 new scrub habitat sites per annum.
- Parkland Habitat Action Plan*
 - No information available for the extent of this habitat in Swindon;
 - 100% of sites to have new plantings by 2009; and
 - Plant 15ha of parkland by 2009.

Species Action Plans

- Bats Species Action Plan*
 - Seven species of bat recorded in Swindon Borough at present (Brown Long-Eared, Daubenton's, Lesser Horseshoe, Natterer's, Noctule, Pipistrelle, and Serotine);
 - Put up 1,000 bat boxes by 2010; and
 - Encourage the use of bat bricks in new developments and restorations.

Wiltshire Biodiversity Action Plan (2008)

This plan is a vision document for positive action for biodiversity within the county. It aims to develop a number of local habitat and species action plans.

Objectives, Targets and Indicators

The revised BAP contains 11 Habitat Action Plans including a new Plan for Orchards, and 1 Species Action Plan for Bats.

Habitat Action Plans (NB: Action plans marked * have a corresponding SW BAP action plan)

- Woodland*
 - Create new native woodland
 - Restore ancient woodlands (200ha in 2005)
 - Favourable condition in 100% of SSSI
- Wood-pasture, parkland and ancient trees*
 - Determine current extent of habitat
 - Protect and maintain
 - Create and expand
- Rivers, streams and associated habitats*
 - Maintain and enhance
 - Restore to a favourable condition those rivers adversely affected by past activities
 - Restore habitats
- Standing open water*
 - Determine current extent of habitat
 - Maintain and enhance
 - Restore
 - Create new water bodies
- Orchards*
- Built Environment
- Farmland Habitats*
 - No further loss or degradation
 - Favourable management
 - Raise awareness
 - Meet needs of priority species
- Hedgerows*
 - Determine current extent of habitat
 - Manage
 - Restore
 - Increase the number of hedgerow trees

- Create
- Calcareous grassland*
 - Protect remaining areas
 - Restore
 - Create new areas
 - Reduce habitat fragmentation
- Unimproved neutral grassland
 - Protect remaining areas
 - Secure favourable management
 - Restore semi-improved and degraded areas.
 - Determine extent of semi-improved and degraded areas to inform the restoration programme
- Urban areas*
 - Safeguard wildlife habitats in urban areas
 - Create biodiversity gain
 - Greenspace network

Species Action Plan

- Bats Species Action Plan*
 - Five species of bat included (Barbastelle, Bechstein's, Lesser Horseshoe, Greater Horseshoe, and Pipistrelle)

Cotswold Water Park Biodiversity Action Plan

This plan represents a review and roll-forward of the policies and actions set out in the Cotswold Water Park (CWP) Nature Conservation Strategy. It will help ensure the sustainable development of the Water Park.

Objectives, Targets and Indicators

Key objectives:

- The CWP should be a premier site for nature conservation where the requirements of industry, leisure, people and wildlife are successfully integrated; and
- To focus resources from local partnerships on the conservation and enhancement of biodiversity in the Water Park.

Habitat Action Plans (NB: Action plans marked * have a corresponding SW BAP action plan)

- Standing open water*
 - Create large lakes where conditions allow
 - Maintain, create and enhance small ponds, shorelines, islands
- Marshes and swamps
 - Create large reedbeds and small areas of marsh or swamp
 - Maintain and enhance existing resource
- Unimproved neutral grassland
 - Maintain area

- Create new lowland wet grassland
- Rivers and streams*
 - Maintain and enhance water quality
 - Maintain and enhance habitats
 - Reduce impacts of abstraction
- Canals
 - Maintain and enhance habitats
- Boundaries
 - Favourable management of species rich hedgerows and pollarded trees
 - Maintain and enhance ditches and grassland verges
- Cereal field margins
 - Increase the extent of margins
- Woodlands*
 - Maintain existing designated woodland
 - Increase the area of woodland, particularly wet woodland
 - Manage woodland fringing lakes

Species Action Plans

- Otter, Water vole, Bittern, Tufted duck, Pochard, Gadwall, Reed bunting, Freshwater white clawed crayfish*, Lesser bearded stonewort.

River Avon cSAC Conservation Strategy (2003)

This strategy has been developed as part of the “Life in UK Rivers” project, and aims to define issues affecting the river, to note and assess the effectiveness of mechanisms already in place to address these issues, and to identify any further action required.

Objectives, Targets and Indicators

Action plans have been developed to focus on 24 specific issues affecting the cSAC:

- Existing point source discharges
- New discharges
- Agricultural diffuse pollution
- Road runoff
- Current and future abstractions
- Recreational fishery management
- Exploitation of salmon stocks
- Operation of eel traps
- Escapes from fish farms
- Flood defence operations and maintenance
- Water level management
- Catchment flood-risk management

- Non-native invasive plant species
- Mute swan grazing
- Avian predation
- Signal crayfish
- Planning and development
- Habitat rehabilitation
- Accessibility
- Data management
- Boundary of the cSAC
- Survey and monitoring
- Climate change

How the Minerals Local Development Document should address biodiversity, fauna, flora and soil

The MLDDS should accept the primacy of nature conservation objectives and pay particular regard to designated habitats and linear habitat structures. If developments that impact upon protected species or designated sites are necessary, then compensation measures and mitigation is required. Mitigation should be pro-active through site selection, timing, and consideration of alternatives. In particular, attention should be paid to the Biodiversity Action Plans and Geodiversity Action Plans for Swindon, Wiltshire, and the Cotswold Water Park as well as the UK and South West Biodiversity Action Plan, with minerals operations encouraged to adopt their own Biodiversity Action Plans. The River Avon cSAC Conservation Strategy should be consulted if mineral developments fall within the cSAC boundaries.

The restoration of old mineral working sites provides an opportunity to create some of the habitats prioritised in local Biodiversity/Habitat Action Plans. The MLDDS should be developed bearing in mind the objectives, targets, and indicators contained within the South West Biodiversity Implementation Plan.

Relevant Objectives

- Avoid minerals development which would impact on sites of international or national importance;
- Avoid minerals development on identified sites of county/local importance, BAP habitats and other habitats of notable ecological value;
- Avoid the effects of minerals development on populations of protected or notable species; and
- To enhance biodiversity through the restoration and creation of habitat.

A.8 Water / Flooding

Directive 2000/60/EC Establishing a Framework for the Community Action in the Field of Water Policy (The Water Framework Directive)

The Water Framework Directive has the following key aims:

- Expanding the scope of water protection to all waters, surface waters and groundwater;
- Achieving "good status" for all waters by a set deadline;
- Water management based on river basins;
- "Combined approach" of emission limit values and quality standards;
- Getting the prices right;
- Getting the citizen involved more closely; and
- Streamlining legislation.

Objectives, Targets and Indicators

Requires all Member States to achieve 'good ecological status' of inland water bodies by 2015, and limits the quantity of groundwater abstraction to that portion of overall recharge not needed by ecology.

Urban Waste Water Treatment Directive (91/271/EEC)

This Directive was adopted by member states in May 1991 and transposed into legislation across the UK by the end of January 1995. Its objective is to protect the environment from the adverse effects of sewage discharges. It sets treatment levels on the basis of sizes of sewage discharges and the sensitivity of waters receiving the discharges. By the end of 1998 the UK had stopped all disposal of the sewage sludge left over from treatment processes at sea or to other surface waters in accordance with its requirements.

Objectives, Targets and Indicators

- The main objective of the Urban Waste Water Treatment Directive (UWWTD) is to ensure that all significant discharges of sewage are treated, whether the discharge is to inland surface water, groundwaters, estuaries or coastal waters. For the purposes of the Directive, significant discharges are those to fresh waters or to estuaries serving communities with a population equivalent (pe) of more than 2,000; or those to coastal waters serving communities of more than 10,000 pe.
- The Directive sets secondary treatment as the norm for all significant discharges, but provides the possibility of lower levels of treatment for discharges into areas identified as less sensitive, and requires higher levels of treatment for discharges into identified sensitive areas. For smaller discharges the Directive requires "appropriate treatment".
- Secondary treatment must be provided by 31 December 2000 for discharges above 15,000 pe to inland and estuarial and coastal waters. Discharges to inland and estuarial waters of between 2,000 and 15,000 pe and discharges of between 10,000 and 15,000 pe to coastal waters must receive secondary treatment by 2005. Smaller discharges must receive "appropriate treatment" by 2005.
- The Government has now decided to adopt a more precautionary approach and ensure that secondary treatment should always be applied to significant coastal discharges. This decision, which will deliver universal treatment at least to secondary level for all such discharges in England and Wales, reflects the Government's strong commitment to fulfilment of our environmental obligations both at home and in Europe.
- The Directive provides for an extension of the deadline for installation of secondary treatment, in cases where exceptional technical difficulties have been encountered.
- Sensitive Areas. The Directive requires Member States to review designations of eutrophic sensitive areas every four years. On the basis of advice from the EA, which is responsible for reviewing the state of waters which may have the potential to become eutrophic, the Government has identified a further 47 sensitive areas in England and Wales and extended three of the previously identified areas.
- Once an area has been identified, sewage treatment works greater than 10,000 pe discharging into the designated areas are required to meet the

Directive's treatment standards for nutrient removal, unless it can be demonstrated that the removal will have no effect on the level of nitrification. In the case of new and extended designations, nutrient removal will have to be installed by the end of 2004. In inland sensitive areas, phosphorus is required to be removed because it can cause algal growth in freshwaters; in coastal waters, nitrogen is required to be removed because it can cause algal growth in saline waters.

- The Directive also requires identification of sensitive areas (nitrate) where surface waters intended for the abstraction of drinking water contain or could contain more than the limit laid down under the provisions of Directive 75/440/EEC on the abstraction of drinking water.
- Intermittent Discharges. The Urban Waste Water Treatment Directive requires member states to take action to limit pollution from storm water overflows.
- Appropriate Treatment. The EA considers appropriate treatment for discharges to freshwater (inland waters and groundwaters) to be dependent upon the size of the discharge relative to the receiving watercourse or aquifer.

Nitrates Directive (91/676/EEC)

The Directive addresses water pollution by nitrates from agriculture. It seeks to reduce or prevent the pollution of water caused by the application and storage of inorganic fertiliser and manure on farmland. It is designed both to safeguard drinking water supplies and to prevent wider ecological damage in the form of the eutrophication of freshwater and waters generally.

Objectives, Targets and Indicators

Every four years member states shall report on polluted or likely to be polluted waters and designed vulnerable zones, and measures and actions taken to reduce the pollution from nitrates.

Polluted waters are:

- Surface freshwaters, in particular those used or intended for the abstraction of drinking water, that contain or could contain, than the concentration of nitrates laid down in accordance with Directive 75/440/EEC;
- Ground-water containing or that could contain more than 50 mg/l nitrates; and
- Natural freshwater lakes, other freshwater bodies, estuaries, coastal waters and marine waters found or likely to be eutrophic.

PPS 25 – Development and Flood Risk (DCLG, 2006)

PPS25 replaces PPG25. PPS25 sets out Government policy on development and flood risk. It's aims are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe, without increasing flood risk elsewhere, and, where possible, reducing flood risk overall.

Objectives, Targets and Indicators

The aims of planning policy on development and flood risk are to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and where possible, reducing flood risk overall. Regional planning bodies (RPBs) and local planning authorities (LPAs) should prepare and implement planning strategies that help to deliver sustainable development by:

Appraising risk

- Identifying land at risk and the degree of risk of flooding from river, sea and other sources in their areas; and
- Preparing Regional Flood Risk Appraisals (RFRAs) or Strategic Flood Risk Assessments (SFRAs) as appropriate, as freestanding assessments that contribute to the Sustainability Appraisal of their plans;

Managing risk

- Framing policies for the location of development which avoid flood risk to people and property where possible, and manage any residual risk, taking account of the impacts of climate change; and
- Only permitting development in areas of flood risk when there are no reasonably available sites in areas of lower flood risk and benefits of the development outweigh the risks from flooding.

Reducing risk

- Safeguarding land from development that is required for current and future flood management eg conveyance and storage of flood water, and flood defences;
- Reducing flood risk to and from new development through location, layout and design, incorporating sustainable drainage systems (SUDS); and
- Using opportunities offered by new development to reduce the causes and impacts of flooding eg surface water management plans; making the most of the benefits of green infrastructure for flood storage, conveyance and SUDS; re-creating functional floodplain; and setting back defences.

A partnership approach

- Working effectively with the Environment Agency, other operating authorities and other stakeholders to ensure that best use is made of their expertise and information so that plans are effective and decisions on planning applications can be delivered expeditiously; and
- Ensuring spatial planning supports flood risk management policies and plans, River Basin Management Plans and emergency planning.

The Urban Waste Water Treatment (England and Wales) (Amendment) Regulations 2003

The Urban Waste Water Treatment (England and Wales) Regulations 1994 transposed the requirements of the European Council Urban Waste Water Treatment Directive (91/271/EEC) into UK law. These set standards and deadlines for the treatment of sewage according to the population served by sewage treatment works, and the sensitivity of receiving waters to their discharges.

Water Resources for the Future – a Strategy for the South West Region. Environment Agency March 2001

This strategy is designed to provide sufficient water for human use in the South West, whilst at the same time protecting the environment.

The main points to come out of the strategy are: change bullets to round)

- In parts of the Region, water can be a scarce resource. In some places, environmental improvements are necessary.
- Continued availability of a reliable public water supply is essential. EA recommend the enhancement of supply by about 5 per cent over the next 25 years by improving existing schemes and developing some new resources;
- Water efficiency should be actively promoted;
- Over the next 25 years household water metering should be expected to become widespread, in the context of the Government's broader social and environmental policies including the protection of vulnerable households;
- Continued progress in leakage control will be necessary;
- Agriculture must focus on using available water to best effect; and

- Commerce and industry should pay increasing attention to water efficiency.

Catchment Abstraction Management Strategies (CAMS)

The Environment Agency is responsible for safeguarding water resources and managing abstraction through Catchment Abstraction Management Strategies (CAMS). Surface and groundwater sources are used for a number of uses which can place significant stress on these systems.

There are 6 CAMS that may influence or be influenced by policies developed for the MWDF. These are:

- Bristol Avon; Dorset Stour; Cotswold; Hampshire Avon; Kennet and Pang; and Vale of White Horse

The majority of the river and groundwater units within these catchments are over-abstracted or have no water available.

Wiltshire County Council and Swindon Borough Council – Strategic Flood Risk Assessment Level 1 2008

This SFRA will allow a sequential approach (ie to steer development towards areas of lowest risk) to the allocation of Minerals sites within the study area. The aim of the SFRA is to provide information for the Minerals Development framework, in accordance with the policies and guidance presented in PPS25.

Objectives, Targets and Indicators

The aim of the MWDF Level 1 SFRA will be met through the following objectives:

- To provide an assessment of the impact of all potential sources of flooding in accordance with PPS25, including an assessment of any future impacts associated with climate change;
- Enable planning policies to be identified to minimise and manage flood risks;
- To provide the information needed to apply the Sequential Test for identification of land suitable for development in line with the principles of PPS25;
- To provide baseline data to inform the SA/SEA of Development Plan Documents (DPDs) with regard to catchment-wide flooding issues which affect the Study Area;
- To allow Wiltshire County and Swindon Borough Council to assess the flood risk for specific Minerals and Waste proposal sites, thereby setting out the requirements for site specific FRAs;
- To enable the relevant authorities to use the SFRA as a basis for decision making at the planning application stage;
- Where necessary, to provide technical assessments and assistance to the authorities to demonstrate that development located in flood risk areas are appropriate in line with the requirements of the Exception Test.

Groundwater Protection: Policy and Practice (EA, 2007)

In this document, the EA describes their aims and objectives for groundwater, their technical approach to its management and protection, the tools they use to do their work and their policies and approach to the application of legislation. The documents also provide a route map to other policies, strategies, procedures and technical resources related to groundwater.

Objectives, Targets and Indicators

Our aims for the GP3 are:

- to provide a framework for our statutory role – to ensure we use our powers in a consistent and transparent manner;
- to encourage co-operation between ourselves and other bodies with statutory responsibilities for the protection of groundwater. These include national and local government, water companies, Natural England and the Countryside Council for Wales;
- to promote our policies, so that land-users and potential developers may anticipate how we are likely to respond to a proposal or activity;
- to influence the decisions of other organisations on issues we are concerned about but which we do not regulate;
- to ensure that groundwater protection and management are consistent with our Vision for the environment and a sustainable future;
- to provide vital information and background on groundwater protection in England and Wales.

How the Minerals Local Development Document should address water availability, pollution and flooding

The MLDDS should ensure that potential contaminated runoff from mineral working sites and associated developments are considered, along with the impacts of mineral developments on groundwater in their vicinity. The MLDDS should have regard to PPS 25, through ensuring minerals operations do not increase flood risk in sensitive areas, and through ensuring minerals operations (for instance in riverbed gravel areas) are not threatened by flooding. Liaison with the Environment Agency is recommended. Efficiency in water use by mineral extraction operations should also be considered within the plans. The MWDF will have to consider the implications of water availability when assessing locations for minerals and waste development. Consultation with the EA will be essential in determining the right development in the right location.

Relevant Objectives

- Reduce risk of flooding (of mineral developments and as a consequence of mineral developments);
- Minimise any adverse impacts on water resources at all stages of mineral working through effective site design and management; and
- Protect and where possible improve surface, groundwater and drinking water quality.

A.9 Material Assets

Waste Framework Directive (91/156/EEC)

The Waste Framework Directive (WFD) requires Member States of the EU to establish both a network of disposal facilities and competent authorities with responsibility for issuing waste management authorisations and licenses. Member States may also introduce regulations which specify which waste recovery operations and businesses are exempt from the licensing regimes and the conditions for those exemptions.

An important objective of the WFD is to ensure the recovery of waste or its disposal without endangering human health and the environment. Greater emphasis is also placed on the prevention, reduction, re-use and recycling of waste.

Objectives, Targets and Indicators

Article 4.

Member States shall take the necessary measures to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment, and in particular:

- Without risk to water, air, soil and plants and animals;
- Without causing a nuisance through noise or odours; and
- Without adversely affecting the countryside or places of special interest.

Council Directive 1999/31/EC on the Landfill of Waste

The Directive aims at reducing the amount of waste landfilled, to promote recycling and recovery and to establish high standards of landfill practice across the EU and, through the harmonisation of standards, to prevent the shipping of waste from one Country to another. The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment from the landfilling of waste, by introducing stringent technical requirements for waste and landfills.

The Directive also intends to prevent or reduce the adverse effects of the landfill of waste on the environment, in particular on surface water, groundwater, soil, air and human health. It defines the different categories of waste (municipal waste, hazardous waste, non-hazardous waste and inert waste) and applies to all landfills, defined as waste disposal sites for the deposit of waste onto or into land.

Objectives, Targets and Indicators

Reduction of the amount of biodegradable municipal waste sent to landfill to 75% of the total generated in 1995 by 2010, 50% by 2013 and 35% by 2020. These targets have now been interpreted by DEFRA and issued as specific targets for each Waste Disposal Authority requiring a step-wise reduction year on year of BMW to landfill as introduced by the Landfill Allowance Trading Scheme.

PPS10: Planning for Sustainable Waste Management (2005)

The overall objective is to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Through more sustainable waste management, moving waste up the hierarchy (reduce, re-use, recycle) aims to break the link between economic growth and the environmental impact of waste.

Objectives, Targets and Indicators

- Drive waste up the hierarchy, with disposal as the last option – but an option which must be catered for;
- Provide a framework in which communities take more responsibility for their own waste, and enable sufficient and timely provision of waste management facilities to meet the needs of their communities;
- Targets provided by the national waste strategy required under European legislation i.e. Waste Management Licensing Regulations 1994;
- Help secure the recovery or disposal of waste without endangering human health and without harming the environment;
- Enable waste to be disposed of in one of the nearest appropriate installations;
- Reflects concerns and interests of stakeholders;
- Protect green belts but recognise the particular location needs of some types of waste management facilities; and
- Ensure layout and design of new development supports sustainable waste management.

A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England
This is an integrated strategic framework, endorsed by the South West Assembly, for the promotion of the sustainable economic, social and environmental well-being of the South West. It provides a set of sustainable development guidelines for all organisations within the region. The main themes and objective are summarised as follows:
Objectives, Targets and Indicators
Theme: Economic Development Circulation of wealth, greater integration within key economic sectors, infrastructure to support more sustainable economy, community involvement in local economies.
Theme: Natural Resources & Waste Reduce pollution and improve water, land and air quality; Ensure water, land, minerals, soils, forestry and other natural resources are used efficiently and with least environmental damage; and Promote wise use of waste resources whilst reducing waste production and disposal.
Regional Economic Strategy for the South West of England 2003-2012
The strategy is centred on three strategic objectives; each assigned a number of strategic actions with priorities and targets, from national to regional.
Objectives, Targets and Indicators
Strategic objectives: <ul style="list-style-type: none"> • To raise business productivity; • Increase economic inclusion; and • Improve regional communications and partnerships.
South West Regional Waste Strategy
The documents set out the vision and the overall objective of waste management strategy for the region. It provides a series of policies and targets to ensure sustainable management of waste in the SW. Also contains sub-regional indicative capacity allocations for the Counties.
Objectives, Targets and Indicators
Target: to ensure that by the year 2020 over 45% of waste is recycled and reused and less than 20% of the waste produced in the Region will be landfilled. LA to ensure the integration of strategies and proposals for waste management with the regional waste strategy. Policies P7.1 to P10.9 set specific duties on the waste plans to provide for household, commercial and industrial (including C&DW) waste recycling, treatment or disposal under the principle of sustainable management of waste. This includes, within others: ensure that new developments have facilities for recycling; waste management facilities are close to the point of waste arisings; the waste hierarchy is followed, and in particular only waste that cannot be reused or recycled will be incinerated or disposed of to landfill.
Wiltshire and Swindon Waste Local Plan 2011 (adopted March 2005)
Sets out policy basis against which planning permission will be granted or refused for waste related planning applications. This policy basis aims to ensure

that an adequate network of waste management facilities is provided for the area.

Objectives, Targets and Indicators

Key objectives:

- Adopting an integrated approach to waste management;
- Pursuing the Best Practicable Option (BPEO), and maximising energy recovery, re-use, recycling, composting and reducing of waste arisings;
- Protecting human health and the environment;
- Promoting development of innovative recovery technologies;
- Reducing quantity and potency of hazardous waste; and
- Promoting public participation on waste issues.

Management of Waste from Extractive Industries (2006/21/EC)

This Directive applies to waste resulting from the extraction, treatment and storage of mineral resources and the working of quarries. Waste covered by this Directive no longer falls within the scope of Directive 1999/31/EC on the landfill of waste. This particular waste must be managed in specialised facilities in accordance with specific rules. In accordance with Directive 2004/35/EC, operators of such facilities are subject to liability in respect of environmental damage caused by their operation.

Objectives, Targets and Indicators

Member States must ensure that waste facility operators draw up a waste management plan, to be reviewed every five years. The objectives of the plan must be as follows:

- to prevent or reduce the generation of waste and its negative impact;
- to encourage waste recovery through recycling, re-use or reclaiming;
- encourage the short and long-term safe disposal of waste.

The plan must include at least the following:

- a description of the waste and its classification, a description of the substances used to process the mineral resources, the method of disposal and the system used for waste transport;
- a description of the operation generating this waste;
- the control and monitoring procedures;
- where applicable, the classification of the waste facility;
- the closure plan and the after-closure procedures;
- measures for the prevention of water and soil pollution;
- a survey of the condition of the land to be affected by the waste facility.

The competent authority must satisfy itself that waste facility operators have taken the measures necessary to prevent water and soil contamination, in particular by:

- evaluating leachate generation (leachate means any liquid percolating through the deposited waste, including polluted drainage);
- preventing leachate generation and preventing surface water or groundwater from being contaminated by the waste;
- treating contaminated water and leachate in order to ensure their discharge.

When placing extractive waste back into the excavation voids for rehabilitation and construction purposes, operators must take appropriate measures to secure the stability of the waste, monitor it and prevent soil and water pollution.

How the Minerals Local Development Document should address material asset factors

The MLDDS should take into account the waste reduction, recovery and recycling targets contained with the Council Directive 1999/31/EC on the Landfill of Waste and Waste Framework Directive, when considering waste from minerals developments. Alternative options need to be tested as part of the MLDDS considering efficient resource use and use of recycled / secondary materials.

The Plan needs to consider the potential minerals resource requirements needed to pursue the objectives of the Regional Economic Strategy and Regional Sustainable Development Framework for the South West.

Please note that the final PPS 10 should be reviewed before the MLDDS Sustainability Report is finalised

Relevant Objectives

- Minimise the amount of waste produced per tonne of saleable mineral; and
- To reduce reliance upon primary, land-won minerals in favour of increasing the contribution made by secondary and/or recycled materials.

A.10 Sustainable Development / Environmental Policy

The Johannesburg Declaration of Sustainable Development 2002

This declaration was signed at the World Summit on Sustainable Development, where the principles of international commitment to sustainable development were reaffirmed, 30 years after the Stockholm Summit and ten years after the Stockholm Declaration of 1992.

Objectives, Targets and Indicators

Undertake to strengthen and improve governance at all levels, for the effective implementation of Agenda 21.

Environment 2010: Our Future, Our Choice (EU Sixth Environment Action Programme)

The latest Environment Action Programme gives a strategic direction to the Commission's environmental policy over the next decade, as the Community prepares to expand its boundaries.

The new programme identifies four environmental areas to be tackled for improvements:

- Climate Change;
- Nature and Biodiversity;
- Environment and Health and Quality of Life; and
- Natural Resources and Waste.

Objectives, Targets and Indicators

Recognises that land use planning and management decisions in the Member States can have a major influence on the environment, leading to fragmentation of the countryside and pressures in urban areas and the coast. Also includes objectives on stabilising greenhouse gases, halting biodiversity loss, reducing pollution and resource use. Under the EAP framework, Thematic Strategies are being developed on:

- Air Quality;
- Soil Protection;

- Sustainable use of Pesticides;
- Waste Prevention and Recycling;
- Sustainable Use of Natural Resources; and
- Urban Environment.

PPS1: Delivering Sustainable Development

The document sets out the key policies and principles and the Government's vision for planning. It includes high level objectives and sets out the framework for specific policies further developed in the thematic Planning Policy Statements which will substitute the current PPG documents.

Objectives, Targets and Indicators

Sustainable development is the purpose of planning. Communities need to be actively involved in the planning process, which is not simply regulations and control but must become a proactive management of development.

These overarching objectives inform specific objectives such as promotion of urban and rural regeneration, of local economies, of inclusive, healthy and safe communities.

Defra (2005): Securing the Future: The Government's Sustainable Development Strategy

This is a review of the original sustainable development strategy produced in 1999

Objectives, Targets and Indicators

The new objectives included within the strategy are:

- Living within environmental limits;
- Ensuring a strong healthy and just society;
- Achieving a sustainable economy;
- Promoting good governance; and
- Using sound science responsibly.

South West Regional Environmental Strategy

Sets out a vision for the region where people benefit from an excellent environment to live and work in, now and for the future.

Objectives, Targets and Indicators

Contains separate objectives for landscape and the historic environment, resource use, nature conservation, and social issues.

How the Minerals Local Development Document should address Sustainable Development/Environmental Policy

Local Authorities should consider how their plans are addressing the four pillars of sustainable development by including relevant sustainability objectives both for the plan and the SA. This is expected to be a challenge in the case of the MLDDS due to exacting regional requirements and environmental constraints including AONB. Strategies that planners need to be aware of when developing the Plan include: The South West Regional Environmental Strategy, The Governments Sustainable Development Strategy, PPS1, the EU Sixth Environment Action Programme, and the Johannesburg Declaration of Sustainable Development (2002).

Relevant Objectives

- None (already covered by other objectives).

A.11 Minerals Policy

Minerals Planning Statement - Planning and Minerals (MPS1) and associated Practice Guidance (DCLG, 2006)

Minerals Policy Statement 1 (MPS1) is the overarching planning policy document for all minerals in England. It provides advice and guidance to planning authorities and the minerals industry. It aims to ensure that the need by society and the economy for minerals is managed in an integrated way against its impact on the environment and communities. MPS1 is accompanied by the 'Planning and Minerals: Practice Guide'. This Guide should be read alongside Minerals Planning Statement 1: Planning and Minerals. It sets out how the policies in the Statement might best be implemented.

Objectives, Targets and Indicators

The national objectives of MPS 1 are:

- To ensure, so far as practicable, the prudent, efficient and sustainable use of minerals and recycling of suitable materials, thereby minimising the requirement for new primary extraction;
- To conserve mineral resources through appropriate domestic provision and timing of supply;
- To safeguard mineral resources as far as possible;
- To prevent or minimise production of mineral waste;
- To secure working practices which prevent or reduce as far as possible, impacts on the environment and human health arising from the extraction, processing, management or transportation of minerals;
- To protect internationally and nationally designated areas of landscape value and nature conservation importance from minerals development, other than in the exceptional circumstances detailed in paragraph 14 of this statement;
- To secure adequate and steady supplies of minerals needed by society and the economy within the limits set by the environment, assessed through sustainability appraisal, without irreversible damage;
- To maximise the benefits and minimise the impacts of minerals operations over their full life cycle;
- To promote the sustainable transport of minerals by rail, sea or inland waterways;
- To protect and seek to enhance the overall quality of the environment once extraction has ceased, through high standards of restoration, and to safeguard the long-term potential of land for a wide range of after-uses;

- To secure closer integration of minerals planning policy with national policy on sustainable construction and waste management and other applicable environmental protection legislation; and
- To encourage the use of high quality materials for the purposes for which they are most suitable.

MPG 2: Applications, Permissions and Conditions (July 1998)

MPG2 provides advice on those aspects of the development control system of particular relevance to minerals and on the preparation and determination of individual planning applications.

Objectives, Targets and Indicators

When considering the environmental aspects of minerals developments. MPAs should consult MPG2 and decide whether or not they will warrant Environmental Assessment. This will depend upon the 'sensitivity of the location, size, working methods, proposals for disposing of waste, the nature and extent of processing and ancillary operations, and the arrangements for transporting products away from the site and proposals for restoration and aftercare'.

MPS 2: Controlling and mitigating the environmental effects of mineral extraction in England

Sets out the policies and considerations that Mineral Planning Authorities in England are expected to follow when preparing development plans and considering applications for minerals development. This MPS supersedes MPG11.

Objectives, Targets and Indicators

MPAs should incorporate the objectives of sustainable development in minerals planning. These objectives recognise the potential conflict between the exploitation of resources and environmental aims. In order to reconcile such conflicts, MPAs should aim to:

- Conserve minerals as far as possible, whilst ensuring an adequate supply to meet the needs of society;
- Ensure that the environmental impacts caused by mineral operations and the transport of minerals are kept to an acceptable minimum;
- Minimise production of waste and to encourage efficient use of materials, including appropriate use of high-quality materials, and recycling of waste;
- Encourage sensitive working, restoration and aftercare practices during minerals extraction and to conserve or enhance the overall quality of the environment once extraction has ceased;
- Safeguard the long-term capability of best and most versatile agricultural land, and conserve soil resources for use in a sustainable way; and
- Protect areas of nationally-designated landscape or archaeological value, cultural heritage or nature conservation from mineral development, other than in exceptional circumstances where it has been demonstrated that the proposed development is in the public interest.

Development plan policies and proposals for minerals extraction and associated development should take into account:

- The impacts of mineral working, such as visual intrusion, dewatering, water pollution, noise, dust and fine particulates, blasting and traffic;
- The impacts on landscape, agricultural land, soil resources, ecology and wildlife, including severance of landscape and habitat loss, and impacts on sites of nature conservation, archaeological and cultural heritage value;
- The benefits such as providing an adequate supply of minerals to the economy and hence for society (including construction materials needed for the development of national infrastructure and the creation of sustainable communities), creating job opportunities, and the scope for landscape, biodiversity and amenity improvements through mineral working and subsequent restoration; and
- The methods of control through planning conditions or agreements to ensure that impacts are kept to an acceptable minimum.

Policies and proposals should take into account the level of existing activity and impacts, the duration and nature of proposals for new or further working, and the extent of impacts which a particular site, locality, community, environment or wider area of mineral working can reasonably be expected to tolerate over a particular or proposed period. MPAs should also have regard where relevant to cumulative impacts of simultaneous and/or successive working of a number of sites in a wider area of commercially-viable deposits. These may affect communities and localities over an extended period, depending on the nature, age and size of the site(s).

MPG 5 – Stability in Surface Mineral Workings and Tips

Instability at minerals workings disrupts extraction, poses a health and safety risk to people in and around the quarry and can interfere with restoration schemes. The beneficial and sustainable extraction of minerals, therefore, requires particular attention to stability matters.

Objectives, Targets and Indicators

This guidance is aimed at local authorities, landowners, mineral operators and other developers, and attempts to ensure that:

- The operation and restoration of surface mineral workings is not detrimentally affected by instability;
- Instability does not impact on neighbouring land;
- On cessation of active working, surface mineral workings are left in a safe and stable condition; and
- Development in, on or near disused and abandoned workings takes due account of potential instability.

MPG 7: Reclamation of Mineral Workings

MPG 7 deals with policies, consultations and conditions which are relevant to achieving effective reclamation of mineral workings. The guidance:

- Sets out the contribution which reclaimed mineral sites can make to the Government's policies for sustainable development and mineral working, and for land use and other policies in the wider countryside;
- Advises on the scope of information which should be provided with applications for new mineral developments, to enable relevant planning conditions to be drawn up and resulting site reclamation to be achieved;
- Provides some advice on preparation of schemes of conditions for restoration, aftercare and after-use which owners/operators of older mineral sites may need to draw up for future reviews of such sites;
- Emphasises the importance of the roles played by the management of site activities by mineral operators and by development control monitoring and enforcement by local authorities, in achieving successful site reclamation;
- Advises on financial provision in relation to securing restoration of mineral workings; and
- Contains more detailed advice, in Annexes, on soils, reclamation, aftercare and after-use.

Objectives, Targets and Indicators

Key objectives will be to minimise the adverse impacts, and to utilise opportunities for positive contributions which a reclaimed site can make to the landscape.

MPG 10: Provision of Raw Material for the Cement Industry

MPG 10 provides advice to mineral planning authorities (MPAs) on the exercise of planning control over the provision of raw material for the cement industry. It indicates the national policy considerations which need to be taken into account in drawing up minerals policies for the industry in their

development plans and some of the other factors that need to be taken into account when determining applications for planning permission.

Objectives, Targets and Indicators

It is important that short term gains should not be achieved by creating environmental debts for future generations. The encouragement of cement production must therefore be balanced against important environmental and conservation interests.

Ensure that any environmental damage or loss of amenity caused by mineral working is kept to an acceptable level.

The cement industry can make a contribution to the objective of sustainable development necessary to have an adequate and continuous supply of raw material to maintain production of cement.

MPG 12 – Treatment of Disused Mine Openings and Availability of Information on Mined Ground

This MPG outlines problems which may occur due to disused mine openings and the uses to which they can be put after abandonment, including underground storage and maintenance for pumping or ventilation purposes. The use of planning controls in these cases are explored.

Objectives, Targets and Indicators

Key objectives not available online.

MPG 14 – Environment Act 1995: Review of Mineral Planning Permissions

The Environment Act 1995 requires regular review and update of mineral planning permissions, particularly in the light of evolving environmental legislation.

Objectives, Targets and Indicators

Mineral workings are restricted in location (by source of minerals), therefore mineral working sites are often found in environmentally sensitive areas. The temporary nature of mineral workings provides opportunity for environmental enhancement by effective restoration. Hence mineral workings are likely to have significant environmental consequences and permissions for these developments need to be regularly reviewed so as to ensure all legislative requirements are being met.

Capita Symonds Limited (April 2005): Technical and Strategic Assessment of Current Aggregate Reserves and Potential Use of Secondary & Recycled Aggregates in the South West Region. Report prepared for the South West Regional Assembly.

The purpose of this report is provide context and inform the debate on the relative sustainability *and feasibility* of alternative aggregate supply scenarios for the South West to fulfil the need for factual information on the availability of alternative aggregate supply sources and on the demands likely to be placed on these from both within and outside the region. The aims of the research are to provide:

- An overview of current reserves and resources of primary aggregates in the region;
- An assessment of current sub regional apportionment and opportunities for re-apportionment to address shortfalls in supply and to mitigate for unacceptable environmental aspects of future working, including commentary on market demand for aggregates in the region up to 2026;
- A technical assessment of substitution of primary aggregates between both adjacent MPAs and across the region (specifically the substitution of sand & gravel by crushed rock);
- An assessment of the existing arisings of construction and demolition wastes and the potential processing capacity of this resource; and
- An assessment of the current wharf capacity for both land won and marine aggregates and the future potential of this facility.

Objectives, Targets and Indicators

Under scenario 1, the shortfall in Wiltshire of sand and gravel is 18.4 million tonnes

Scenario 2 and 3 are alternatives designed to meet the shortfall in sand and gravel by substituting with crushed rock – this would mean no new permission in Wiltshire to 2016 (scenario 2) or subsidised importation of aggregate into South West ports (scenario 3).

Scenario 4 is hybrid scenario which includes:

- Further increasing the use of CD&E waste arisings as aggregates, especially in higher value applications such as concrete;
- Increasing the use of marine dredged aggregates, particularly from existing South Coast licence areas to replace land-won sand & gravel, especially in Dorset;
- Minimising the necessity to substitute natural sand & gravel with crushed rock, because of the transport impacts and increased cement requirements involved, and also because of the potential conflict with water resources in limestone aquifers;
- Minimising the necessity for sand & gravel extraction within the most sensitive areas - i.e. those within or adjacent to national and international designations;
- Anticipating major objections (particularly on the grounds of birdstrike risks to MOD facilities) to future sand & gravel extraction in the Cotswold Water Park area;
- Avoiding further permissions for Carboniferous Limestone extraction within the Forest of Dean (with a resulting increased output from such quarries in South Gloucestershire and perhaps in South Wales to substitute for the shortfall); and
- Exploring the use of fiscal measures to stimulate the increased use of china clay aggregates within the Region (but not to implement this immediately).

However, further work is needed before this can be adopted including a review of known and potential sand & gravel resources within Wiltshire and a detailed assessment of the extent to which these could be worked, using best practice mitigation techniques, without adverse effects on environmental designations, other major planning restrictions, and the risk of birdstrike to MOD facilities.

Wiltshire and Swindon Minerals Local Plan 2001-2006

This Plan sets out detailed policies and guidance on minerals development, in order to provide a framework on which planning decisions can be made on all minerals currently worked within the Plan Area.

Objectives, Targets and Indicators

Key objectives:

- Provide planning framework for Mineral Planning Authorities which balances society's needs for minerals and the need to protect the environment; and
- Provide information to the public and minerals industry concerning the location and extent of future minerals development in the Plan Area.

How the Minerals Local Development Document should address Sustainable Development/Environmental Policy

The MLDDS must make allowance for the principles of MPS1 and MPS2 through local development policy in particular through the selection of suitable plan objectives and through site selection. The MLDDS will need to include policies that require a consideration of detailed matters such as the economic, environmental, nature conservation, agricultural, landscape, traffic, site restoration and other effects of the proposal that are relevant to the planning decision.

Relevant Objectives

- Ensure the sub regional apportionments are met.

A.12 Other Spatial Development Policy

European Commission White Paper on the European Transport Policy (2001)

This paper describes what has been achieved so far both at the Union and the Member State levels and what should be done in the near future.

Objectives, Targets and Indicators

The principal measures suggested in the White Paper include:

- Revitalising the railways
- Improving quality in the road transport sector
- Striking a balance between growth in air transport and the environment
- Turning inter-modality into reality
- Improving road safety
- Adopting a policy on effective charging for Transport
- Recognising the rights and obligations of users
- Developing high-quality urban transport
- Developing medium and long-term environmental objectives for a sustainable transport system

European Spatial Development Perspective 1999

By adopting the ESDP, the Member States and the Commission reached agreement on common objectives and concepts for the future development of

<p>the territory of the European Union.</p> <p>The aim of spatial development policies is to work towards a balanced and sustainable development of the territory of the European Union. The ESPD aims to ensure that the three fundamental goals of European policy are achieved equally in all the regions of the EU:</p> <ul style="list-style-type: none"> • Economic and social cohesion; • Conservation and management of natural resources and the cultural heritage; and • More balanced competitiveness of the European territory.
<p>Objectives, Targets and Indicators</p> <p>European cultural landscapes, cities and towns, as well as a variety of natural and historic monuments are part of the European Heritage. Its fostering should be an important part of modern architecture, urban and landscape planning in all regions of the EU.</p> <p>A big challenge for spatial development policy is to contribute to the objectives, announced by the EU during international conferences concerning the environment and climate, of reducing emissions into the global ecological system.</p>

<p>PPG 2 – Green Belts</p>
<p>The Guidance indicates the underpinning aims of the Green Belt policy and its contribution to sustainable development objectives.</p>
<p>Objectives, Targets and Indicators</p> <p>There should be a general presumption against inappropriate development in the Green Belt. When any large scale development or redevelopment occurs within the Green Belt, it should contribute towards the objectives provided in para. 1.6 of the guidance note.</p>

<p>PPS 3 – Housing</p>
<p>PPS3 underpins the delivery of the Government’s strategic housing policy objectives and the goal to ensure that everyone has the opportunity to live in a decent home, which they can afford in a community where they want to live.</p>
<p>Objectives, Targets and Indicators</p> <ul style="list-style-type: none"> • High quality housing that is well-designed and built to a high standard; • A mix of housing, both market and affordable, particularly in terms of tenure and price, to support a wide variety of households in all areas, both urban and rural; • A sufficient quantity of housing taking into account need and demand and seeking to improve choice; • Housing developments in suitable locations, which offer a good range of community facilities and with good access to jobs, key services and infrastructure; and • A flexible, responsive supply of land – managed in a way that makes efficient and effective use of land, including re-use of previously-developed land, where appropriate.

<p>PPS 7 – Sustainable Development in Rural Areas</p>
<p>Quality of life and the environment in rural areas need to be enhanced through the sustainable development of communities and their environment.</p>
<p>Objectives, Targets and Indicators</p> <p>Requires that development within and outside existing villages should be permitted where it meets local economic and community needs, where it</p>

maintains or enhances the environment and does not conflict with other policies. Priority should be given to the conservation of the natural beauty of the landscape in AONBs and National Parks.

PPS 11 – Regional Spatial Strategies

PPS11 provides policies that need to be taken into account by Regional Planning Bodies in their preparation of revisions to RSSs.

Objectives, Targets and Indicators

The Regional Spatial Strategy should provide for a fifteen to twenty year period, taking into account the following matters:

- Identification of the scale and distribution of provision for new housing;
- Priorities for the environment, such as countryside and biodiversity protection; and
- Transport, infrastructure, economic development, agriculture, minerals extraction and waste treatment and disposal.

PPS 12 – Local Development Frameworks

Outlines a new style of land use planning, streamlining programme for policy agreement and ensuring community engagement throughout the process

Objectives, Targets and Indicators

The MLDDS should accord with national guidance. No relevant objectives, targets and indicators. The LTP should be consistent with the regional transport strategy, and the policies in the Minerals Development Framework and District / Borough wide Local Development Frameworks.

PPG 13 – Transport

The objectives of this guidance are to integrate planning and transport at the national, regional, strategic and local level to promote more sustainable transport choices for both people and for moving freight, so to enhance accessibility by public transport and reduce the need to travel, especially by car.

Objectives, Targets and Indicators

Actively manage the pattern of urban growth and the location of major travel generating development to make the fullest use of public transport, and to encourage walking and cycling.

Land use planning should facilitate a shift in transport of freight from road to rail and water. Attention should be paid to the value of disused transport sites and effort made to prevent their loss to different land uses.

Traffic management measures should be designed to reduce environmental/social impacts, whilst fiscal measures should be used for tackling congestion.

PPG14 – Development of Unstable Land

PPG14 examines the impacts of instability on development and land use. How instability should be tackled in the planning process and how it might be treated by development plans and in considering planning applications is also included.

Objectives, Targets and Indicators

The MLDDS should accord with national guidance. No objectives, targets and indicators.

PPS 22 Renewable Energy
This Statement sets out the Government's planning policies for renewable energy, which planning authorities should have regard to when preparing local development documents and when taking planning decisions.
Objectives, Targets and Indicators
Regional spatial strategies and local development documents should contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources. Except where these developments are likely to have an adverse effect on designated conservation sites (historic and natural), or designated landscapes. Targets: should be expressed as the minimum amount of installed capacity for renewable energy in the region, expressed in megawatts, and may also be expressed in terms of the percentage of electricity consumed or supplied. Targets should be set for achievement by 2010 and by 2020. Regional targets have been set and these have been expressed for each strategic planning authority.
PPS 23 – Planning and Pollution Control
This Guidance advises on matters relating to how the development control process should deal with pollution which may arise from or may affect land use.
Objectives, Targets and Indicators
A strategic approach should be taken to the location of potentially polluting developments and the location of sensitive developments. Development presents the opportunity of remediation and developing on contaminated land in order to reduce the risks currently posed by such land. Where new potentially polluting activities are planned a proactive approach should be taken between the developer and the pollution control authorities.
There are no specific targets or indicators.
Sustainable Communities Plan (Sustainable Communities: Building for the Future) 2003
The Plan sets out a long-term programme of action for delivering sustainable communities in both urban and rural areas. It aims to tackle housing supply issues in the South East, low demand in other parts of the country, and the quality of our public spaces.
Objectives, Targets and Indicators
To transform Regional Planning Guidance into a Regional Spatial Strategy which increases delivery and targets for brown field development; affordable housing issues; in rolling forward annual new housing provision; identifies strategic employment locations; clearly defines transport priorities; addresses waste and renewable energy and reinforces urban and rural renaissance. The South West suffers the double impact of higher than average house prices and lower than average incomes in the region. This creates particular difficulties for key workers and young people starting out.
DETR (2000): Government Urban White Paper: Our Towns, Our Cities, the Future. Delivering an urban renaissance.
Sustainable economic growth is based on thriving towns and cities, which are the economic hubs of large areas.
Objectives, Targets and Indicators
To arrest urban decline by taking a joined approach to policies on housing, planning, transport and education in and for cities and town.

DETR (2000): Government Rural White Paper: Our Countryside, the future – A deal for rural England
To maintain and protect a living and vibrant countryside, the government has identified a number of key actions, all informed by the principles of sustainable development.
Objectives, Targets and Indicators
There are five objectives, which will be transposed into the PSA and Service Delivery Agreements: <ul style="list-style-type: none"> • Facilitate sustainable economies; • Maintain and stimulate communities ensuring fair access to services; • Conserve rural landscape and wildlife; • Increase opportunities to enjoy the countryside; and • Promote collaboration amongst all Government tiers to ensure responsiveness to local communities' requests.
A Sustainable Future for the South West: The Regional Sustainable Development Framework for the South West of England
This is an integrated strategic framework, endorsed by the South West Assembly, for the promotion of the sustainable economic, social and environmental well-being of the South West. It provides a set of sustainable development guidelines for all organisations within the region. The main themes and objective are summarised as follows:
Objectives, Targets and Indicators
Theme: Development & Planning Conservation and wise use of land and other resources, balanced and safe communities with adequate housing, employment and other facilities, diverse and distinctive heritage and landscape, affordable housing, reflects local distinctiveness and meets the needs of the community.
Regional Spatial Strategy for the South West 2006 – 2026: Possible development strategies for the Region
This consultation report sets three illustrative development strategies for the region, which will form the Core Development Strategy. They all embed the RPG10 'urban focussed' strategy.
Objectives, Targets and Indicators
Alternative 1: continue with RPG10 (eleven PUAs) Alternative 2: concentrate on fewer PUAs Alternative 3: recognise the difference between the north and south of the SW and centralise development in the PUAs in the North, whilst subdividing development of the south between PUAs and rural areas.
South West Regional Planning Guidance (RPG10)
RPG10 is the regional spatial strategy, providing the spatial framework for other strategies and within which local plans (LDFs and transport included) need to be prepared. RPG10 is being further developed in the Regional Spatial Strategy (RSS10).
Objectives, Targets and Indicators
Key objectives: <ul style="list-style-type: none"> • The level, distribution and nature of the development need to be well integrated with the characteristics of the Region and need to benefit the

environment;

- The existing natural, cultural and built environment need to be protected;
- The economy of the region needs to be improved through better use of existing resources and development of new skills and business opportunities;
- Economic development should be enabled and supported so to maximise contribution to regional, national and local needs;
- Social exclusion and economic disadvantage need addressing through careful regeneration and redistribution;
- Efforts should focus in ensuring that the housing, working and services needs of the population of the region are met; and
- An integrated, efficient and environmentally appropriate transport and communications systems to meet local, regional, national, and international priorities.

Creating Sustainable Communities in the South West

Introduces the work being done to create sustainable communities in the South West

Objectives, Targets and Indicators

Sustainable communities in the South West are created through:

- Delivering a better balance between housing supply and demand;
- Ensuring people have decent places to live;
- Tackling disadvantage;
- Delivering better services through strong effective local government; and
- Promoting the development of the region.

Wiltshire Structure Plan 2001 – 2011 (Adopted 2001)

This Plan sets the broad framework for the future of the Wiltshire area, outlining a strategy for its future development and the conservation of its heritage.

Objectives, Targets and Indicators

Key aims with selected objectives:

Minerals

- To achieve environmentally acceptable extraction of minerals where the assessed need cannot be met by use of secondary aggregates (according to national and regional strategies); and
- To encourage sensitive restoration and after use of sites.

Waste Management

- To encourage waste minimisation, reuse, recycling and recovery to Reduce reliance on landfill/land raising and minimise the risks.

Community Development

Integration of Land-Use and Transport

- To reduce overall reliance upon private motorised transport.

Energy Efficient Land Uses

- To encourage land-use changes needed to reduce energy use, absorb carbon dioxide, provide renewable energy and increase recycling of resources.

<p>Rural Communities – Industry and Employment</p> <ul style="list-style-type: none"> To create sufficient jobs for Wiltshire’s growing population, and increase the viability of existing and new centres of employment within the Plan Area. <p>Quality of Employment Regeneration of Small Towns Re-use of Developed Land and Buildings Amenity of Settlements The Countryside</p> <ul style="list-style-type: none"> To protect the areas biodiversity and rural environment, including the best agricultural land and mineral resources. <p>The Regional Balance of Development Efficient and Safe Use of Roads</p> <ul style="list-style-type: none"> To improve safety and control congestion on the Plan Area’s roads. <p>Infrastructure and Services Water</p> <ul style="list-style-type: none"> To protect the Plan Area’s water resources. <p>Recreation and Leisure Hazard, Noise and Light Pollution</p>

Wiltshire Structure Plan 2016: Deposit Draft Alteration (October 2003)

Since the original structure plan was adopted in 2001, the Government has issues new Regional Planning Guidance for the South West (RPG10) covering a period until 2016. This alteration to the structure plan takes into account this guidance, and rolls forward the plan until 2016.

Objectives, Targets and Indicators

Alterations relevant to minerals developments include:

- DP3 – In the plan area provision should be made for 60,000 net additional dwellings and 720 hectares of additional strategic employment land;
- DP10B – Identifying the main areas for development within the Swindon Principle Urban Area;
- DP10C – Provision for new University Campus by Swindon Urban Area; and
- T11 – Improvements to the Strategic Network will be progressed to support other policies in the Structure Plan and Local Transport Plans.

Wiltshire Structure Plan 2016; Examination in Public June-July 2004; Report of the Panel (October 2004)

The report first considers the strategic matters of development strategy, development provision and distribution, and transport strategy, and then goes on to consider the geographical area of Swindon.

Objectives, Targets and Indicators

The report aims to ensure that the Structure Plan is clear, and prescriptive where needed, so that it can be used in the formulation of local development documents.

Swindon Borough Local Plan 2011 – Revised deposit draft

This Local Plan forms part of the statutory development plan system, setting out Swindon Borough Council's policies and proposals for development and land use in the administrative area of the Borough for the plan period (2001-2011).

Objectives, Targets and Indicators

Key objectives:

- To ensure that all development of land takes place in the public interest;
- Accommodating environmental, social, and economic development needs – and addressing the balance between these needs where they compete;
- Providing the opportunity for environmental improvement through development;
- Protect and enhance the qualities of the built environment, archaeology and historic areas within the Borough;
- To protect and where appropriate enhance, important environmental assets and natural resources;
- To maintain rural buffers to protect the separate identity of rural settlements by preventing coalescence with Swindon;
- To protect and enhance rural environment and character while enabling essential development which meets the social and economic needs of local communities;
- To provide open space for recreation and access to countryside through green corridors (whilst protecting wildlife interests within them); and
- To minimise the need to travel, especially by car.

Salisbury District Council Local Plan

This Local Plan has been produced in order to achieve a balance between the need for new development against the desire to conserve the natural environment and historic fabric of the area. It provides detailed guidance concerning the use and development of land up to the end of the year 2011.

Objectives, Targets and Indicators

Key objectives:

- To promote the principles and practice of sustainable development;
- To promote a healthy economy that provides standards of living at least equal to that currently enjoyed by the people of the District;
- To protect and enhance the natural and built environment;
- To promote a high quality of life for the people of this District without compromising the quality of life for others;
- To provide a level of certainty to all interested parties about where development is to take place, and what kind of development it is to be;
- To strike a balance between preserving and enhancing the quality and character of the countryside in terms of the landscape and nature conservation, promoting a healthy, modern and sustainable rural economy and ensuring a high quality of life for rural communities;
- To maintain and enhance the traditional character of the New Forest through planning policy whilst ensuring the social and economic well-being of all those who live and work in the area; and
- To implement a sustainable transportation and land use strategy for the District in partnership with the County Council, which minimises the need to travel, reduces reliance on the private vehicle and encourages the use of environmentally friendly modes of transport such as public transport, walking and cycling whilst providing good accessibility and promoting economic vitality within the District.

Kennet District Council Local Plan

This Local Plan identifies land within the district to be used for development, protects the districts environment, and manages the districts traffic.

Objectives, Targets and Indicators

Key Objectives:

- Minimise waste, then re-use or recover it through recycling, composting or energy recovery, and finally sustainably dispose of what is left;
- Limit pollution to levels which do not damage natural systems;
- Ensure access to good food, housing and fuel at a reasonable cost;
- Support the provision of local facilities in villages;
- Ensure that the three main settlements improve the viability of their Town Centres (Devizes, Marlborough, and Tidworth);
- Protect and enhance where possible, the diverse range of landscape, ecology and cultural assets and allow them to be enjoyed by all; and
- Provide means to reduce the dependence on private cars whilst improving access for all sections of society.

North Wiltshire District Council Local Plan – Revised deposit draft 2004

The local plan sets out detailed policies to guide development in North Wiltshire. It aims to offer a vision for the District that balances the protection of natural assets with the needs of the community.

Objectives, Targets and Indicators

Key objectives:

- To facilitate a sustainable pattern of land uses to reduce the consumption of natural resources whilst making best use of existing assets;
- To protect, enhance and provide the housing and facilities the community needs;
- To facilitate good quality design and protect existing amenities;
- Enhance the quality of life of residents and visitors to North Wiltshire through the conservation of the built and natural environment;
- To facilitate sustainable business development for a prosperous and robust economy;
- Promotes or maintains socially inclusive communities and their access to community infrastructure;
- Promotes or maintains the quality of the natural and the historic environment; and
- Demonstrates the prudent use of natural resources and incorporates, where relevant, recycling, renewable energy and energy conservation measures.

West Wiltshire District Plan 1st Alteration. June 2004.

This plan is guided by the following strategies:

- The District Council will encourage the continued and sustainable regeneration of the economic and physical fabric of the West Wiltshire towns in the A350 corridor, in particular Trowbridge, Melksham and Westbury, through a concentration of resources, development and positive planning measures;
- In Bradford on Avon, Warminster, the villages and rural areas, the District Council will seek to achieve a sustainable balance between the competing demands for development and environmental protection; and
- The District Council will place particular emphasis on environmental conservation and the protection and enhancement of features of

acknowledged international, national and local importance whilst continuing to meet the essential development needs of the local economy and community.

Objectives, Targets and Indicators

Environmental objectives:

- To protect, conserve and enhance both the natural and manmade environment;
- To protect and conserve the Western Wiltshire Green Belt, Areas of Outstanding Natural Beauty, areas of nature conservation and/or scientific importance, conservation areas, listed buildings, scheduled ancient monuments and areas designated as open space in and around the towns as appropriate. Policies are included to cover:
 - Maintaining the quality and variety of the countryside, the water environment, the rural landscape and wildlife,
 - AONBS
 - Special Landscape Areas.
 - Landscape setting of Bradford-On-Avon and Warminster
 - Internationally designated sites
 - Sites of Special Scientific Interest
 - Areas of High Ecological Value, Regionally Important Geological or Geomorphological Sites, and Sites on Nature Conservation Interest
 - Landscape features such as hedges, woodlands, parklands etc.
 - Protected Species
 - Woodlands
 - Rivers
 - Military and ex-military land
 - Archaeological sites including Scheduled Ancient Monuments
 - Conservation areas and listed buildings
 - Street scene, shop fronts
 - Historic parks and gardens
 - Recycling and renewable energy
 - Contaminated land
 - Tree planting
 - Noise and nuisance
 - Areas of Opportunity
- Targets make reference to the Biodiversity Action Plan and the AONB Management plans.

Transport aims:

- To encourage the provision and maintenance of efficient, land-use integrated transport networks throughout West Wiltshire, which contribute towards continued economic vitality, social inclusion and allow for sustainable growth;
- To require access by all transport modes to proposed developments, which where appropriate, incorporate benefits to the adjacent highway network;
- To reduce the length of motorised journeys and the reliance on the private car in favour of public transport, walking and cycling and to encourage the carriage of freight by rail; and
- To encourage transport arrangements that minimise harm to the natural and built environment, ensure that air quality is maintained and help to

improve safety for all travellers.

Wiltshire Local Transport Plan 2006/7 – 2010/11

This local plan will focus in the next few years to develop Wiltshire In a county fit for children, to become the healthiest county to live in by 2014 and to improve Wiltshire's street scene.

Objectives, Targets and Indicators

Primary Objectives:

Transport aims:

- To improve access to goods, services and employment opportunities for all sections of the community, particularly those living in rural areas or without access to a car;
- To respond to the continuing growth in car ownership, and inappropriate use, by improving choice for local trips;
- To improve safety for all travellers and to reduce the number of people killed or seriously injured on Wiltshire's roads;
- To reduce the real and perceived threats of road traffic speed in towns and villages;
- To reduce the proportion of the principal (A) road network requiring significant maintenance;
- To maintain and integrated and efficient public transport network;
- To provide greater access to demand responsive bus services across the county;
- To improve facilities for cyclists and pedestrians, particularly in urban areas;
- To encourage schools to have School Travel Plans;
- To encourage business to adopt effective Workplace Travel Plans;
- To reduce the impact of traffic on people's quality of life and Wiltshire's built and natural environment, and to manage the transport network in a sensitive and appropriate manner;
- To reduce the volume of traffic entering Salisbury compared with 1999;
- To increase cycling and pedestrian flows to/from Salisbury city centre compared with 2001;
- To improve access to Salisbury for shoppers by increasing the number of Park & Ride sites and reducing long-stay public off-street central spaces;
- To limit the growth in traffic in the Western Wiltshire Sustainable Transport Strategy area compared to 1999; and
- To improve business confidence in the transport network and inward investment in the Western Wiltshire Sustainable Transport Strategy area by reducing variations in A350 journey times.

Secondary Objectives:

Social Care and Health:

- To reduce the incidence of preventable illness, and to encourage people to adopt more active lifestyle; and
- To provide health and social care services which are integrated, timely and easy to access.

Countryside and Land-Based Issues:

- To maintain a working, attractive and wildlife rich, countryside;
- To assess and take appropriate action in relation to the impact of climate change on Wiltshire, both by adjusting to the changes that are already underway, and by minimising our collective contribution to the future global situation; and

- To tackle social and rural exclusion in rural areas.

Housing and the Built Environment:

- To improve Wiltshire's street scene; and
- To ensure that housing is provided within the context of sustainable communities.

The Wiltshire Economy:

- To raise productivity through innovation and sustainable development; and
- To increase investment in jobs and services

Crime and Community Protection:

- To engage with communities to promote cohesion and reassurance, and to reduce fear of crime.

Culture:

- To increase local people's access to, and participation in, Wiltshire's cultural activities and opportunities;
- To keep Wiltshire's heritage, landscape, local diversity and distinctive character special; and
- To identify barriers to access and participation and issues of social inclusion, with particular regard to cultural activities in rural areas.

Better Access to Services, making the Best use of ICT and E-Government:

- To ensure every citizen can access public information, services and decision-making.

Swindon Local Transport Plan 2006/7 – 2010/11

This Local Transport Plan for Swindon will focus to be a leading regional centre, offering a high quality of life due to its location; the surrounding outstanding countryside; the leisure and cultural facilities it offers (including a renewed and revitalised town centre); the quality of its architecture, particularly its housing; the vibrancy of its economy, the range of careers on offer, and the quality and breadth of education.

Objectives, Targets and Indicators

- To support the regeneration of the town centre and other neighbourhood renewal areas by improving access to, and travel round, these areas;
- To manage the impact of traffic growth by implementing sustainable mitigation measures;
- To maintain and make best use of the existing transport infrastructure to provide the optimum level of service for all users, with selective infrastructure improvements where an acceptable level of service cannot otherwise be achieved;
- To improve road safety;
- To promote travel choices and increase opportunities for travel by public transport, cycling and walking;
- To work with the strategic transport authorities (Highways Agency, DfT Rail Group, etc.) to maintain an appropriate level of service on the strategic networks;
- To manage the impact of transport on the built and natural environment;
- To develop orbital and other route networks and road hierarchies that acknowledge the complex journey patterns within the urban area and reflect the locations of significant trip attractions;
- To improve rights of way to, from and within Swindon's urban fringe and rural buffer, to enhance access to the countryside and improve pedestrian/cycle links with the urban networks; and
- To tackle issues of social exclusion and accessibility resulting from economic disparities in order to improve the quality of life.

How the Minerals Local Development Document should address Spatial Development Policy

The MLDDS must take into account various Planning Policy Guidance Notes, ensuring wherever possible that mineral developments do not compromise the openness of green belt land, take into consideration its impacts on traffic through transportation of materials and personnel, and avoiding adverse impacts on rural and urban communities (for example through maintaining a high-quality environment and providing local economic benefits). The Plan should encourage the use of renewable energy and also consider the uses of secondary and recycled aggregates. Potential pollution risks from mineral developments should be tackled in line with PPS23.

At a regional and local level, the Plan will need to consider the resource requirements imposed by the Wiltshire Structure Plan and Swindon Borough Local Plan. These spatial plans may also have implications for possible resource sterilisation which will need to be considered within the MLDDS. Environmental Objectives within Local Plans to do with specific designated areas must also be taken into account. These include the New Forest National Park, AONBs, cSACs, and Cotswold Water Park.

The Freight Action Plan in the Wiltshire's LTP includes policies that may influence movement of minerals in Wiltshire. Implementation and the progress of the policies is explained in the table in the Appendix 3 of the Wiltshire Local Transport Plan.

Relevant Objectives

- None (already covered by other objectives)

A.13 Other

Århus Convention

The Århus Convention establishes a number of rights of the public (citizens and their associations) with regard to the environment. Public authorities (at national, regional or local level) are to contribute to allowing these rights to become effective. The Convention provides for:

- The right of everyone to receive environmental information that is held by public authorities. This can include information on the state of the environment, but also on policies or measures taken, or on the state of human health and safety where this can be affected by the state of the environment. Public authorities are obliged, under the Convention, to actively disseminate environmental information in their possession;
- The right to participate from an early stage in environmental decision-making. Arrangements are to be made by public authorities to enable citizens and environmental organisations to comment on, for example, proposals for projects affecting the environment, or plans and programmes relating to the environment; and
- The right to challenge, in a court of law, public decisions that have been made without respecting the two aforementioned rights or environmental law in general.

Objectives, Targets and Indicators

The Convention creates obligations in three fields or 'pillars':

- Public access to environmental information;
- Public participation in decision-making on matters related to the environment: provision; and
- Access to justice (i.e. administrative or judicial review proceedings) in environmental matters.

RSS SSA Appraisal Framework

This document highlights the framework for appraisal of the RSS.

Objectives, Targets and Indicators

List of objectives that will be used to assess the sustainability of the RSS, from high level down to detailed level.

How the Minerals Local Development Document should address Other Policy

In line with the Aarhus Convention, public consultation and access to information supporting the decision-making process must be introduced in the procedures for the drawing up of the Plan in respects of matters covered by the legislation and Directives mentioned. The SEA Directive requires that public consultation is carried out on the Draft Plan and its accompanying Environmental Report.

The South West Regional Assembly believes that local level appraisals may be more efficiently and effectively carried out if LPAs adopt a similar framework of sustainability objectives as used in the SSA Appraisal Framework document, when undertaking their appraisals.

Relevant Objectives

- The RSS SSA objectives have been taken into account in the selection of the SEA objectives.

Appendix B. Wiltshire and Swindon SEA/SA Baseline Information

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints
Topic: Population					
<p>Total number of people</p> <p>(NB: 1991 census figures for Swindon refer to what was the Thamesdown District of Wiltshire before Swindon became a unitary authority in 1997)</p>	1 2 3 7 4	<p>(2001 Census) Swindon UA: 180,051 Wiltshire: 432,973</p> <p>Wilts CC Figures for Wiltshire (2004) 445,150 (2003) 440,660 (2002) 437,320</p>	<p>(2001 Census) South West: 4,928,434 (1991) South West: 4,609,424 Wiltshire: 393,621 Swindon: 170,850</p> <p>(2001) Wiltshire: 432,973</p>	<p>In the period 1991-2001 population in: South West increased by over 300,000 Wiltshire: increased by 39,352. Swindon Borough: increased by 9,201</p> <p>Provisional short term population projections for 2006 based on the 2001 census are: Wiltshire: 451,100 Swindon: 187,550</p>	Population increasing in South West, Wiltshire and Swindon.
Aged 0 to 15	1 2	<p>(2001 Census) Wiltshire: 88,636 (20.5%) Swindon UA: 37,747 (21%)</p>	<p>(2001) South West: 938,570 (19.0%) (1991) South West: 871,642 (18.9%) Wiltshire: 78,105 (19.8%) Swindon: 35,708 (20.9%)</p>	In the period 1991-2001 the number of 0-15 year olds in the South West, Wiltshire, and Swindon, increased, and the proportion of this age bracket also increased slightly.	
Aged 16 to 74	1 2	<p>(2001 Census) Wiltshire: 310,124 (71.6%) Swindon UA: 131,072 (72.8%)</p>	<p>(2001) South West: 3,534,458 (71.7%) (1991) South West: 3,251,506 Wiltshire: 286,728 (72.8%) Swindon: 125,916 (73.7%)</p>	In the period 1991-2001 the number of 16-75 year olds in the South West, Wiltshire and Swindon, increased, but the overall proportion of this age bracket decreased.	
Aged 75 and over	1 2 5	<p>(2001 Census) Wiltshire: 34,213 (7.9%) Swindon UA: 11,232 (6.2%)</p> <p>Wilts CC Figures for Wiltshire (2004) 36,080</p>	<p>(2001) South West: 455,406 (9.3%) (1991) South West: 486,294 (10.6%) Wiltshire: 28,751 (7.3%) Swindon: 9,055 (5.3%)</p>	Between 1991 and 2001, the number and proportion of the population aged 75 and over, has increased in both Swindon and Wiltshire, but has decreased in the South West. Nevertheless, Wiltshire and Swindon still had a lower proportion of people aged 75	80-84 year old numbers will increase by 2016 by 22%. 85-89 year old numbers will increase by 2016 by 28%, and 90+ numbers will increase by 16%.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints
		(2003) 35,480 (2002) 34,920		and over, then the South West on average (in 2001).	
Density (number of people per hectare)	¹ ²	(2001) Wiltshire: 1.3 Swindon UA: 7.8	(2001) South West: 2.1 (1991) South West: 1.93 Wiltshire 1.62	Density in South West increased between 1991-2001 1991 and 2001 figures are not comparable due to Swindon being separated from Wiltshire in between the two censuses.	Wiltshire figures for 1991 include Swindon, but 2001 figure excludes Swindon.
Employment (all people aged 16-74)					
Employed		(2001) Wiltshire: 211,296 (68.1%) Swindon UA: 91,003 (70.1%)	(2001) South West: 2,205,441 (62.4%)		1991 census data not comparable as only male economic activity available; no trend. Wiltshire and Swindon have had higher employment percentages than the South West.
Unemployed		Wiltshire(2001): 6,111 (2.0%) Swindon: 3229 (2.5%) Swindon (2003) 2.3%	(2001) South West: 90,803 (2.6%)	Swindon unemployment appears to have decreased very slightly between 2001 and 2003.	1991 census data not comparable; no trend. Despite Swindon having greater % employment than Wiltshire, it also has higher unemployment.
Long-term unemployed		(2001) Wiltshire: 1,315 (0.4%) Swindon UA: 632 (0.5%)	(2001) South West: 24,221 (0.7%)		1991 census data not comparable; no trend. Wiltshire and Swindon have less long-term unemployed than the South West.
Student (economically active)		(2001) Wiltshire: 6,458 (2.1%) Swindon UA: 3249 (2.5%)	(2001) South West: 90,022 (2.5%)		1991 census data not comparable; no trend.
Retired		(2001) Wiltshire: 42,650 (13.8%) Swindon UA: 15,723 (12.0%)	(2001) South West: 547,082 (15.5%)		1991 census data not comparable; no trend. Wiltshire, and particularly Swindon, have a lower proportion of retired people than the South West.
Student (economically inactive)		(2001) Wiltshire: 7,988 (2.6%) Swindon UA: 2,659	(2001) South West: 137,947 (3.9%)		1991 census data not comparable; no trend.

Indicator	Data Source	Current Data	Comparators and targets	Trend	Issues/Constraints
		(2.0%)			
Looking after home/family		(2001) Wiltshire: 19,505 (6.3%) Swindon UA: 7,021 (5.4%)	(2001) South West: 215,714 (6.1%)		1991 census data not comparable; no trend. Wiltshire has a higher proportion of carers than Swindon.
Permanently sick or disabled		(2001) Wiltshire: 9,556 (3.1%) Swindon UA: 4981 (3.8%)	(2001) South West: 159,564 (4.5%)		1991 census data not comparable; no trend. Wiltshire and Swindon have a lower proportion of permanently sick or disabled people than the South West.
Other inactive		(2001) Wiltshire: 6,560 (2.1%) Swindon UA: 3,207 (2.4%)	(2001) South West: 87,885 (2.5%)		1991 census data not comparable; no trend. Wiltshire and Swindon have a lower proportion of 'other inactive' than the South West.

Topic: Human Health					
Number of people experiencing a limiting long-term illness	¹	(2001) Wiltshire: 65,261 (15.1%) Swindon UA: 27,476 (15.3%)	South West (2001): 892,034 (18.1%) (1991) South West: 11.63% Wiltshire: 9.88%	Long term illness in Wiltshire and the South West has increased in the period 1991-2001. Cannot determine trend for Wiltshire since 1991 Wiltshire data includes Swindon.	Wiltshire and Swindon have a lower percentage of people with long term illness than the South West as a whole.
General health 'not good'	¹	(2001) Wiltshire: 28,704 (6.6%) Swindon UA: 13,780 (7.7%)	(2001) South West: 419,407 (8.5%)		1991 census data requested but not received to date: unable to identify trend.
Life expectancy	⁵ ⁶	Wiltshire 2003: Female = 81 years, Male = 76.7	(1997-1999) Swindon UA: F= 79.55 M = 75.36 South West: F= 81.25 M = 76.46		Data not comparable, unable to identify trend.
Infant mortality	⁵ ⁷	Wiltshire 2003: 5 deaths per 1000 live births	England 2003: 5.6 deaths per 1,000 live births Wiltshire 1999: 3.5 deaths per 1,000 live births	Infant mortality in Wiltshire has increased in the period 1999-2003.	Wiltshire has a lower infant mortality rate than the national average.

The most common causes of death in Wiltshire (Standardised Mortality Ratio (SMR) - summary measure of a community's mortality, taking account of the age and sex structure of the population. The SMR of England and Wales = 100. Areas with less than 100, have fewer deaths than would be expected, those with more, have a greater number) (actual average per year is given in brackets)					
Standardised Mortality Ratios (SMRs)	5	SMR Category	Wiltshire 2003 SMR	Wiltshire 2003 Average	Wiltshire experiences less deaths than would be expected against the national average, for all of the causes, except for breast cancer and road traffic accidents. Gaps - Trends, Swindon data, and illnesses per social grouping.
		Coronary heart disease	91.1	866	
		Stroke	91.8	476	
		All cancers	87.4	1,032	
		... lung cancer	71.3	176	
		... colorectal cancer	97.1	124	
		... breast cancer	100.9	101	
		... prostate cancer	97.4	79	

Topic: Social Exclusion					
IMD Extent (proportion of a district's population living in the most deprived Super Output Areas (SOAs) of the country)	8 9 3	2004: Kennet: 0% North Wiltshire: 0% Salisbury: 0.01% West Wiltshire: 2% Swindon: 13%	2000: Kennet: 0% North Wiltshire: 00 Salisbury: 0% West Wiltshire: 00 Swindon: 9.63%	The IMD Extent has increased (more people living in SOAs) in West Wiltshire and Swindon between 2000 and 2004.	Swindon has the highest percentage of people living in SOAs in comparison with Wiltshire and the South West.
IMD Extent Rank (ranking of IMD extent, on national scale. A Rank of 1 is the most deprived, and 354 the least deprived) NB: some ranks are duplicated due to identical scores for this category	8 9 3	2004: Kennet: 298 North Wiltshire: 298 Salisbury: 242 West Wiltshire: 232 Swindon: 132	2000: Kennet: 158 North Wiltshire: 158 Salisbury: 158 West Wiltshire: 158 Swindon: 106	The IMD Extent rank for Swindon, North and West Wiltshire, Kennet and Salisbury, has increased (meaning these wards are now less deprived in comparison with others countryside).	Assuming compatible methodologies between study years, this indicator has improved since 2000 in each area. Swindon remains the most deprived on this indicator.
IMD Income Scale (the number of people who are income deprived)	8 9 3	2004: Kennet: 4,736 North Wiltshire: 7,951 Salisbury: 7,792 West Wiltshire: 9,398 Swindon: 17,487	2000: Kennet: 9,071 North Wiltshire: 15,045 Salisbury: 15,004 West Wiltshire: 16,944 Swindon: 30,549	The number of income deprived people has decreased. In North and West Wilts and Kennet and Salisbury, numbers appear to have nearly halved.	Swindon has approximately double the number of income deprived people in comparison with West Wiltshire.
IMD Income Scale Rank (see explanation of ranking above)	8 9 3	2004: Kennet: 315 North Wiltshire: 244 Salisbury: 249 West Wiltshire: 213 Swindon: 108	2000: Kennet: 314 North Wiltshire: 228 Salisbury: 245 West Wiltshire: 210 Swindon: 103	Assuming compatible methodologies between 2000 and 2004, each area has improved at least marginally in relation to other districts.	

IMD Employment Scale (number of people who are employment deprived)	8 9 3	2004: Kennet: 2,124 North Wiltshire: 3,404 Salisbury: 3,507 West Wiltshire: 4,174 Swindon: 7,516	2000: Kennet: 2,152 North Wiltshire: 3,276 Salisbury: 3,472 West Wiltshire: 3,923 Swindon: 7,539	Employment deprivation in North and West Wilts and Salisbury has increased. In Swindon and Kennet it has decreased marginally.	Swindon has markedly more employment deprived people than West Wiltshire, North Wiltshire, Salisbury and Kennet.
IMD Employment Scale Rank	8 9 3	2004: Kennet: 317 North Wiltshire: 255 Salisbury: 251 West Wiltshire: 221 Swindon: 122	2000: Kennet: 313 North Wiltshire: 257 Salisbury: 245 West Wiltshire: 223 Swindon: 116		There has been little change in employment scale deprivation ranking, but some indication of slight deterioration in North and West Wiltshire and Swindon. Slight improvement in Kennet and Salisbury. Swindon is lowest ranked (i.e. most employment deprived).
People living in households where at least one person in receipt of housing benefit or council tax rebate	5	Wiltshire: 40,695 (9.4% of population)			
Children living in poverty	5	In nearly 20% of Wiltshire wards one quarter of children are living in poverty. The worse affected wards are (2000): Bemerton (Salisbury), Westbury with Storridge, Warminster West, John of Gaunt (Trowbridge) and Amesbury.			

Topic: Housing																																																						
Average dwelling prices, 2002	9 10	<table border="1"> <thead> <tr> <th rowspan="2">Types of Housing</th> <th colspan="6">Area and average dwelling price for 2002/2005</th> </tr> <tr> <th>Swindon 2002</th> <th>Swindon 2005</th> <th>Wiltshire 2002</th> <th>Wiltshire 2005</th> <th>South West 2005</th> <th>England 2005</th> </tr> </thead> <tbody> <tr> <td>Detached house</td> <td>215,695</td> <td>237,597</td> <td>251,861</td> <td>303,877</td> <td>296,576</td> <td>227,842</td> </tr> <tr> <td>Semidetached house</td> <td>137,628</td> <td>155,194</td> <td>145,750</td> <td>183,702</td> <td>182,458</td> <td>130,577</td> </tr> <tr> <td>Terraced house</td> <td>116,390</td> <td>134,867</td> <td>126,886</td> <td>159,333</td> <td>159,190</td> <td>110,485</td> </tr> <tr> <td>Flats/maisonettes</td> <td>97,451</td> <td>120,000</td> <td>98,116</td> <td>127,763</td> <td>143,437</td> <td>143,615</td> </tr> <tr> <td>Average price for all dwellings</td> <td>139,599</td> <td>153,652</td> <td>: 175,355</td> <td>212,359</td> <td>199,362</td> <td>148,184</td> </tr> </tbody> </table>					Types of Housing	Area and average dwelling price for 2002/2005						Swindon 2002	Swindon 2005	Wiltshire 2002	Wiltshire 2005	South West 2005	England 2005	Detached house	215,695	237,597	251,861	303,877	296,576	227,842	Semidetached house	137,628	155,194	145,750	183,702	182,458	130,577	Terraced house	116,390	134,867	126,886	159,333	159,190	110,485	Flats/maisonettes	97,451	120,000	98,116	127,763	143,437	143,615	Average price for all dwellings	139,599	153,652	: 175,355	212,359	199,362	148,184
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		Average house price change in last year (prior to March 2005) Swindon: +3.2% Wiltshire: +10.7% S West: +13.2% House prices in the South West as a whole increased more than in Wiltshire and substantially more than in Swindon. The average Swindon dwelling costs less than the average national, and Wiltshire dwelling			
Percent increase 2001/02 (all dwellings)		Swindon UA: 12.9 Wiltshire: 23.8	England: 21.5 2005: Swindon: Wiltshire: England:	Wiltshire house prices increased more between 2001 and 2002, than the national average, and Swindon average (which represents a substantially lower margin of increase).	
Stock of dwellings (thousands)	⁹	2004 Swindon UA: 79 Wiltshire: 183	2004 South West: 2,173 England: 21,361		
Average household size	¹	Wiltshire: 2.38 Swindon UA: 2.38	South West: 2.31		
Vacant household spaces	¹	Wiltshire: 5,800 (3.2%) Swindon UA: 2,199 (2.8%)	South West: 61,601 (2.8%)		
Owner occupied	¹	Wiltshire: 127,205 (72.0%) Swindon UA: 55,320 (73.6%)	South West: 1,524,122 (73.1%)		

Topic: Economy and Employment

Wiltshire employment structure 2001

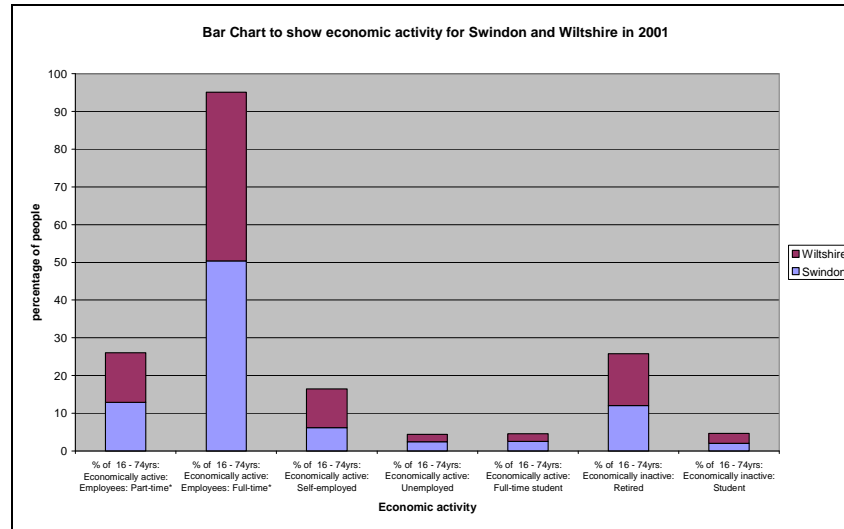
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Sector	Total	Percentage
Public administration, education and health	44,500	25.0%
Distribution, hotels and restaurants	44,000	24.8%
Banking, finance, insurance etc.	36,500	20.6%
Manufacturing	27,600	15.5%
Construction	8,800	5.0%
Other services	7,700	4.2%
Transport and communications	7,300	4.1%
Agriculture (probably an underestimate)	900	0.5%
Energy and water	500	0.3%

Manufacturing employment has declined from 20% in 1998 to 15.5% in 2001.

Economic Activity Swindon & Wiltshire 1

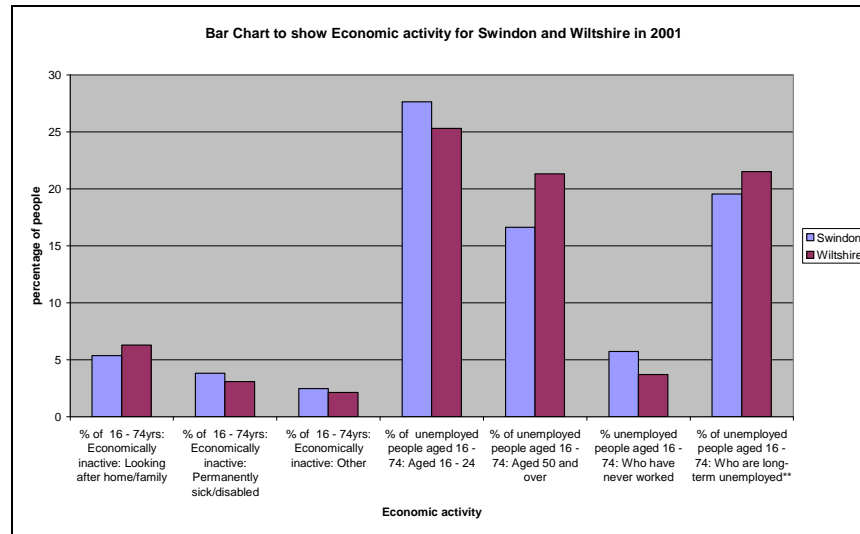
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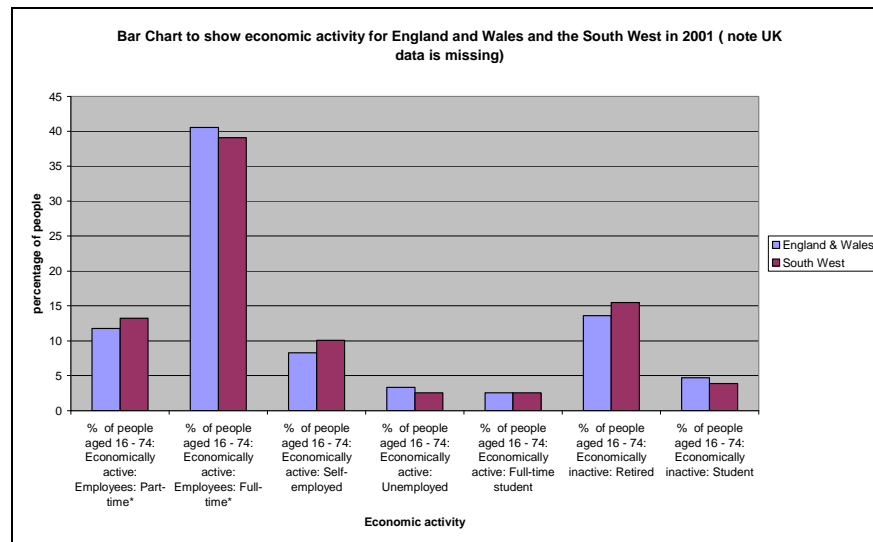
Data only available for Swindon, Wiltshire, South West and England and Wales. UK data not available.

Due to different types of economic activity two bar charts have been produced for each set of comparators.

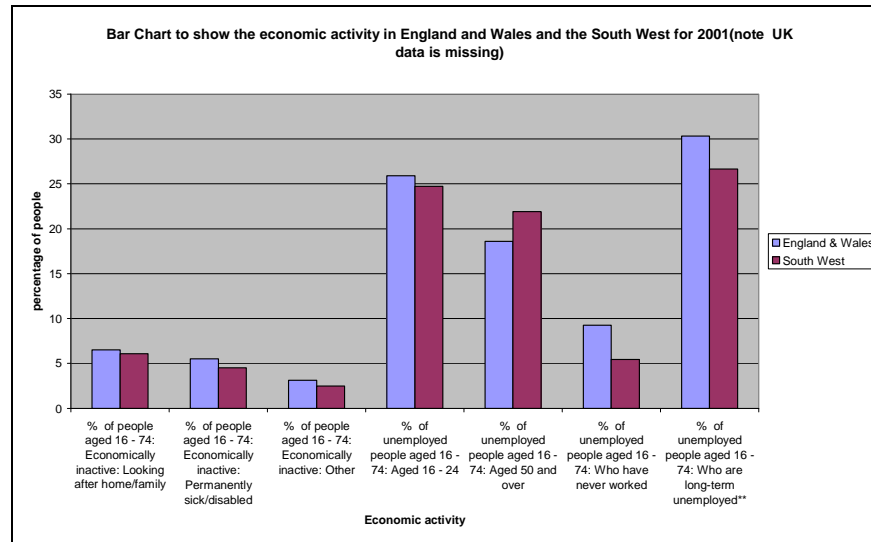
**Economic Activity
Swindon & Wiltshire 2**



**Economic Activity
England and Wales 1**



**Economic Activity
England and Wales 2**



Gross Value Added (GVA) per head.

1

Area	GVA £ per head	
	2000	2002
Swindon	22,433	24,113
Wiltshire	12,640	13,861
South West	12,902	14,286
UK	13,867	15,273

Results show that the GVA £ per head for Swindon is almost double that of Wiltshire and is almost double the UK and South West average. The GVA £ per head across all areas shows a positive trend.

Unemployment Rate

5

Wiltshire: June 2003. 2,790 (1.1%)

Claimant unemployed

1

Area	% of economically active 17-74yr old employees unemployed
Wiltshire	1.97
Swindon	2.46
South West	2.57
England	3.35

The table highlights that both Wiltshire and Swindon are below the national average of those unemployed.

Employment	1	<table border="1"> <thead> <tr> <th>Area</th> <th>% of economically active 17-74yr old employees in full time</th> </tr> </thead> <tbody> <tr> <td>Wiltshire</td> <td>44.75%</td> </tr> <tr> <td>Swindon</td> <td>50.46%</td> </tr> <tr> <td>South West</td> <td>39.08%</td> </tr> <tr> <td>England</td> <td>36.18%</td> </tr> </tbody> </table>	Area	% of economically active 17-74yr old employees in full time	Wiltshire	44.75%	Swindon	50.46%	South West	39.08%	England	36.18%	<p>The results show that both Swindon and Wiltshire have a higher than average percentage of economically active 17-74yr olds in employment compared to England and the rest of the South West.</p> <p>The charts show the total jobs for 1998 and 2001 in Wiltshire and Swindon. From 1998 – 2001 the total number of jobs have increased. However, comparative data with the rest of the South West and UK was not available from this data source.</p>
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7	<p><u>Wiltshire and Swindon</u></p> <p>Total employee jobs in 1998 = 273,010. Total employee jobs in 2001 = 292,800.</p>												

Topic: Transport																																																																				
Distance Travelled to work. (km) (Distance travelled to work, calculated for the 2001 census)	1	<table border="1"> <thead> <tr> <th>Distance</th> <th>% of people in the Swindon</th> <th>% of people in Wiltshire</th> <th>% of people in the South West</th> <th>% of people in England and Wales</th> </tr> </thead> <tbody> <tr> <td>Works mainly at or from home</td> <td>7.1</td> <td>11.1</td> <td>11</td> <td>9.2</td> </tr> <tr> <td>Less than 2km</td> <td>24.1</td> <td>25.1</td> <td>24.1</td> <td>20</td> </tr> <tr> <td>2km to less than 5km</td> <td>35.1</td> <td>11.4</td> <td>19.1</td> <td>20</td> </tr> <tr> <td>5km to less than 10km</td> <td>15.8</td> <td>14</td> <td>15.6</td> <td>18.2</td> </tr> <tr> <td>10km to less than 20km</td> <td>3.9</td> <td>16.3</td> <td>13.4</td> <td>15.2</td> </tr> <tr> <td>20km to less than 30km</td> <td>1.8</td> <td>6.6</td> <td>4.3</td> <td>5.4</td> </tr> <tr> <td>30km to less than 40km</td> <td>1.5</td> <td>3.7</td> <td>2</td> <td>2.4</td> </tr> <tr> <td>40km to less than 60km</td> <td>2.9</td> <td>2.3</td> <td>1.8</td> <td>2.2</td> </tr> <tr> <td>60km and over</td> <td>3.6</td> <td>4.3</td> <td>3.2</td> <td>2.7</td> </tr> <tr> <td>No fixed place of work</td> <td>3.7</td> <td>4.8</td> <td>5</td> <td>4.4</td> </tr> <tr> <td>Working outside the UK</td> <td>0.2</td> <td>0.3</td> <td>0.3</td> <td>0.3</td> </tr> <tr> <td>Working at offshore installation</td> <td>0</td> <td>0</td> <td>0.1</td> <td>0.1</td> </tr> </tbody> </table>	Distance	% of people in the Swindon	% of people in Wiltshire	% of people in the South West	% of people in England and Wales	Works mainly at or from home	7.1	11.1	11	9.2	Less than 2km	24.1	25.1	24.1	20	2km to less than 5km	35.1	11.4	19.1	20	5km to less than 10km	15.8	14	15.6	18.2	10km to less than 20km	3.9	16.3	13.4	15.2	20km to less than 30km	1.8	6.6	4.3	5.4	30km to less than 40km	1.5	3.7	2	2.4	40km to less than 60km	2.9	2.3	1.8	2.2	60km and over	3.6	4.3	3.2	2.7	No fixed place of work	3.7	4.8	5	4.4	Working outside the UK	0.2	0.3	0.3	0.3	Working at offshore installation	0	0	0.1	0.1	<p>Results show that a higher percentage of people in Swindon travel between 2km-5km to work, in Wiltshire a higher percentage of the population travel less than 2km to work and for the whole of the South West a higher percentage of people travel less than 2 km.</p>
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		Mode	% of people from Swindon	% of people from Wiltshire	% of people in the South West	% of people in E&W	
		Driver in a car or van	59.0	60.5	58.8	55.2	
		Passenger in a car or van	7.3	6.0	6.3	6.3	
		Bus, mini-bus, or coach	7.7	2.8	5.1	7.4	
		Train	0.9	1.7	0.9	4.1	
		Underground, metro, light rail or tram	0.04	0.1	0.1	3.0	
		Motorcycle, scooter or moped	1.8	1.2	1.5	1.1	
		Taxi	0.6	0.3	0.3	0.5	
		Bicycle	5.1	3.6	3.3	2.8	
		Walk	10.3	12.2	12.2	10.0	
		Other	0.3	0.5	0.6	0.5	
		Work from home	7.1	11.1	11.0	9.2	
People killed or seriously injured on roads.	¹¹	Wiltshire 2003: 351	Wiltshire 2002: 322 2001: 351 Target: 40% reduction by 2010.	Not on track to meet target.			
Number of children killed or seriously injured on roads.	¹¹	Wiltshire 2003: 24	Wiltshire 2002: 14 2001: 29 Target: 50% reduction by 2010.	Fluctuating trend but indicator remains on track to meet target. 1994-98 mean = 33			
Cyclists casualties	¹¹	Wiltshire 2003: 83	Wiltshire 2002: 82 1994-98 mean = 145 Target: Reduce to 73 by 2010	On track to meet target.			
Pedestrian Casualties	¹¹	Wiltshire 2003: 141	Wiltshire 2002: 158 1994-98 mean = 191 Target: Reduce to 153 by 2010	Positive trend.		From 2004 trunk road casualties will be included, but the target will remain the same.	

Topic: Cultural Heritage							
World Heritage Sites	¹²	Avebury and Stonehenge World Heritage Site		The Avebury World Heritage Site includes remains of the largest stone circle in the British Isles, the longest stone avenue (West Kennet), one of the longest Neolithic burial mounds (West Kennet			

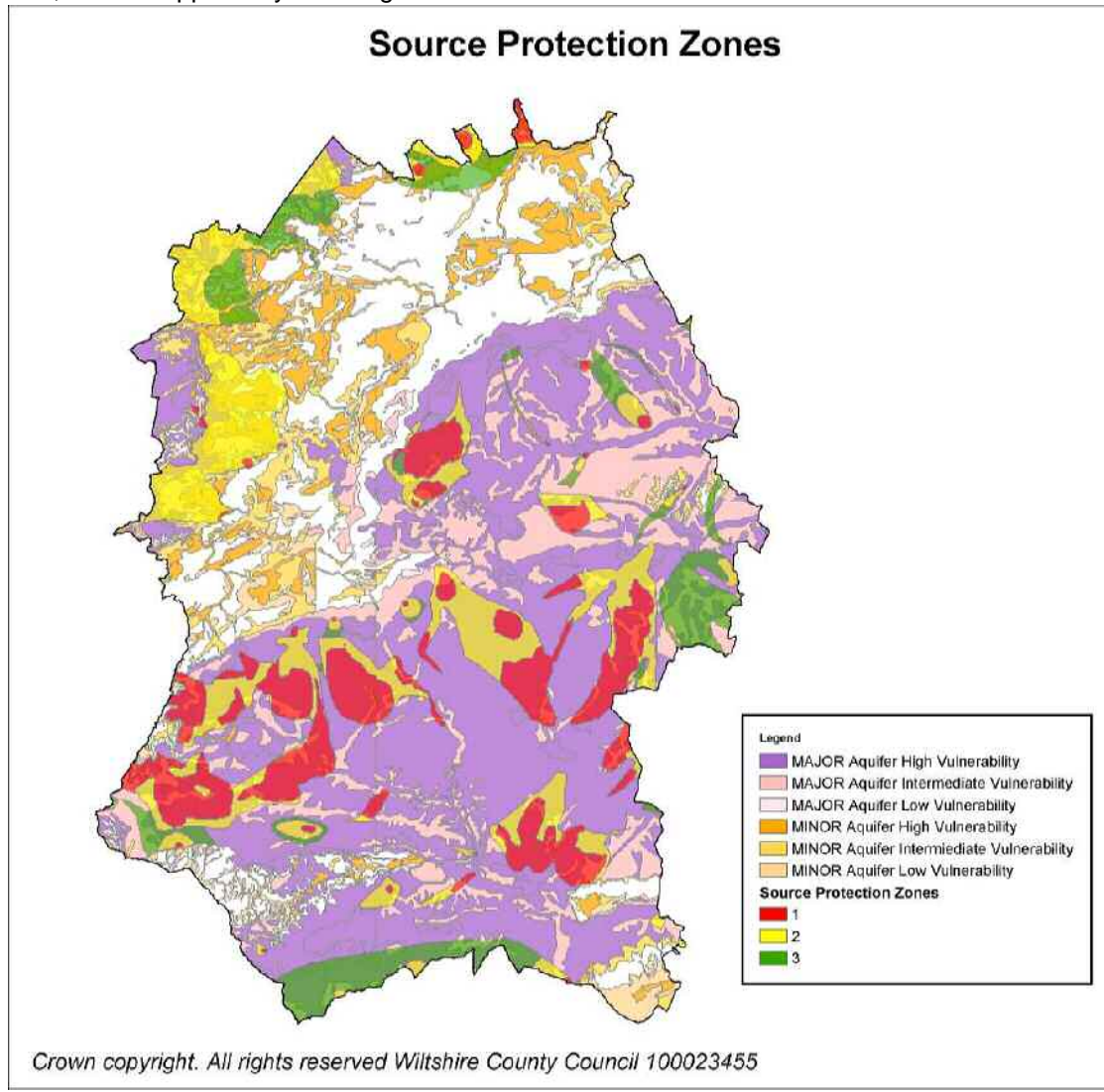
		Designated in 1987.		long barrow) , one of the largest causewayed enclosures (Windmill Hill), and the largest prehistoric mound in Europe (Silbury Hill). The Stonenenge World Heritage Site is considered to be architecturally the most complex circle of Neolithic and early Bronze Age Britain.
Number of listed buildings and monuments		Wiltshire and Swindon have approximately 14,000 listed buildings. Grade I listed buildings include Salisbury Cathedral, Wilton House and Wardour Castle.		
Number of archaeological sites of interest	³⁰	In Wiltshire there are approximately 4,500 sites of prehistoric remains, and over 14,000 sites of Roman and medieval remains, including 50 known Roman villa sites.		
Historic Battlefields	¹³	1 Historic Battlefield Site in Wiltshire. None in Swindon.	Battle of Roundway Down (1643) fought between Royalists and Parliamentarians in the English Civil War. Site is North of Devizes.	
Number of listed buildings on English Heritage “At Risk” Register	¹³	Swindon UA :2 Wiltshire: 26	S-West: 170	No trend data.
Conservation Areas	²⁶ ²⁴ ³⁰	Wiltshire and Swindon: > 250 conservation areas Swindon: 28 W.Wilts: 39		Wiltshire Structure Plan 2001 - 2011 gives priority for preserving and enhancing the special character of 22 settlements.
Historic Parks and Gardens	²⁶ ²⁴	Swindon: 3 W.Wilts: 7 (2 Grade I, 1 Grade II*, 4 Grade II)		

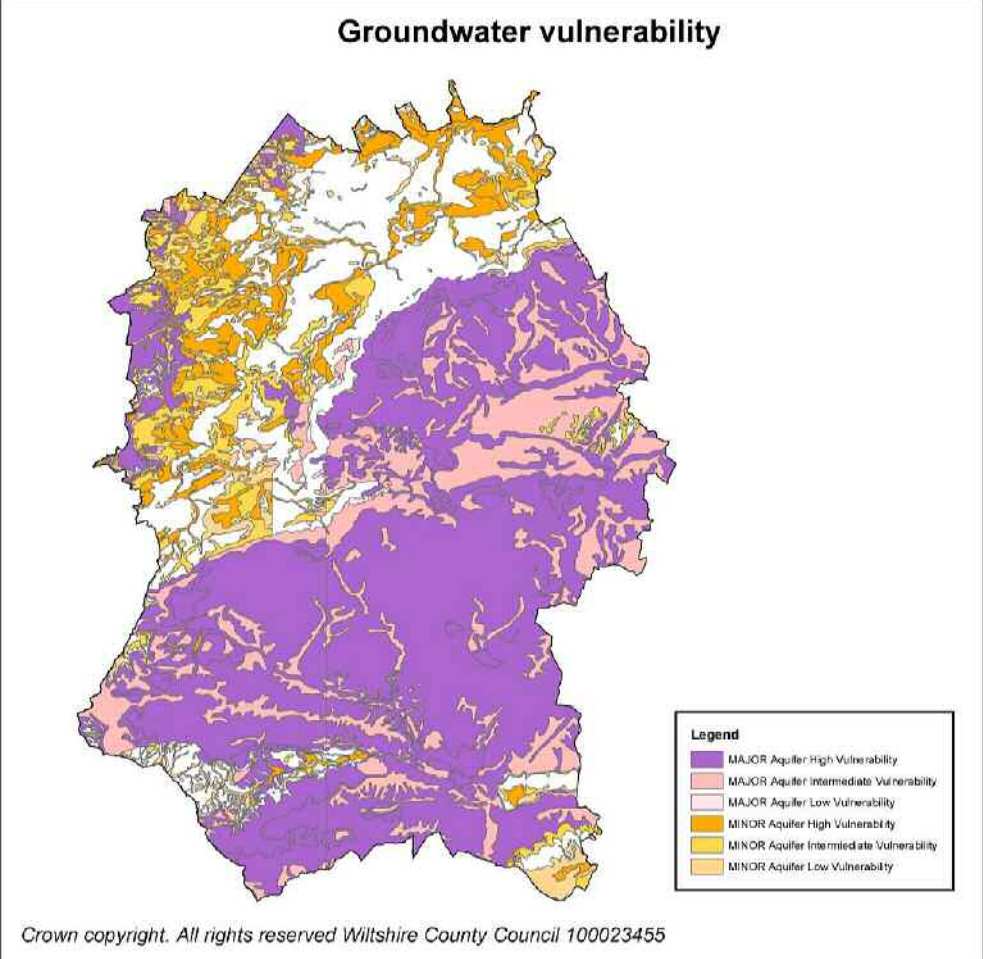
Topic: Water Resources				
Chemical river water quality G = Good F = Fair P = Poor B = Bad	¹⁴			Trends generally improving. North Wiltshire saw a reduction in quality between 2000 and 2003.

		<table border="1"> <thead> <tr> <th colspan="13">Chemical Quality</th> </tr> <tr> <th></th> <th colspan="4">1995</th> <th colspan="4">2000</th> <th colspan="4">2003</th> </tr> <tr> <th></th> <th>%G</th> <th>%F</th> <th>%P</th> <th>%B</th> <th>%G</th> <th>%F</th> <th>%P</th> <th>%B</th> <th>%G</th> <th>%F</th> <th>%P</th> <th>%B</th> </tr> </thead> <tbody> <tr> <td>Kennet</td> <td>60.5</td> <td>24.2</td> <td>15.3</td> <td>0</td> <td>64.8</td> <td>21.5</td> <td>13.7</td> <td>0</td> <td>69.3</td> <td>17.1</td> <td>13.7</td> <td>0</td> </tr> <tr> <td>N.Wilts</td> <td>50</td> <td>44.9</td> <td>4.7</td> <td>0.4</td> <td>69.1</td> <td>30.2</td> <td>0.3</td> <td>0.4</td> <td>54.7</td> <td>44.6</td> <td>0.3</td> <td>0.4</td> </tr> <tr> <td>Salisbury</td> <td>87.5</td> <td>11.4</td> <td>0</td> <td>1.1</td> <td>94.8</td> <td>3.3</td> <td>1.8</td> <td>0</td> <td>92.4</td> <td>5.9</td> <td>1.8</td> <td>0</td> </tr> <tr> <td>Swindon</td> <td>36.9</td> <td>58.9</td> <td>4.3</td> <td>0</td> <td>52.1</td> <td>43.6</td> <td>4.3</td> <td>0</td> <td>52.1</td> <td>43.6</td> <td>4.3</td> <td>0</td> </tr> <tr> <td>W. Wilts</td> <td>45.8</td> <td>34.4</td> <td>19.8</td> <td>0</td> <td>74.2</td> <td>11.1</td> <td>14.7</td> <td>0</td> <td>78.8</td> <td>14.5</td> <td>14.7</td> <td>0</td> </tr> <tr> <td>S-West</td> <td>74</td> <td>22.3</td> <td>3</td> <td>0.7</td> <td>81</td> <td>16.5</td> <td>2.5</td> <td>0</td> <td>79.8</td> <td>17.3</td> <td>2.9</td> <td>0.1</td> </tr> </tbody> </table>	Chemical Quality														1995				2000				2003					%G	%F	%P	%B	%G	%F	%P	%B	%G	%F	%P	%B	Kennet	60.5	24.2	15.3	0	64.8	21.5	13.7	0	69.3	17.1	13.7	0	N.Wilts	50	44.9	4.7	0.4	69.1	30.2	0.3	0.4	54.7	44.6	0.3	0.4	Salisbury	87.5	11.4	0	1.1	94.8	3.3	1.8	0	92.4	5.9	1.8	0	Swindon	36.9	58.9	4.3	0	52.1	43.6	4.3	0	52.1	43.6	4.3	0	W. Wilts	45.8	34.4	19.8	0	74.2	11.1	14.7	0	78.8	14.5	14.7	0	S-West	74	22.3	3	0.7	81	16.5	2.5	0	79.8	17.3	2.9	0.1	
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<p>Biological river water quality</p>	<p>14</p>	<table border="1"> <thead> <tr> <th colspan="13">Biological Quality</th> </tr> <tr> <th></th> <th colspan="4">1995</th> <th colspan="4">2000</th> <th colspan="4">2003</th> </tr> <tr> <th></th> <th>%G</th> <th>%F</th> <th>%P</th> <th>%B</th> <th>%G</th> <th>%F</th> <th>%P</th> <th>%B</th> <th>%G</th> <th>%F</th> <th>%P</th> <th>%B</th> </tr> </thead> <tbody> <tr> <td>Kennet</td> <td>86</td> <td>14</td> <td>0</td> <td>0</td> <td>89</td> <td>11</td> <td>0</td> <td>0</td> <td>78.4</td> <td>21.6</td> <td>0</td> <td>0</td> </tr> <tr> <td>N.Wilts</td> <td>79.8</td> <td>19.3</td> <td>0.9</td> <td>0</td> <td>74.6</td> <td>25</td> <td>0.5</td> <td>0</td> <td>79.7</td> <td>19.9</td> <td>0.4</td> <td>0</td> </tr> <tr> <td>Salisbury</td> <td>96.7</td> <td>3.3</td> <td>0</td> <td>0</td> <td>98.3</td> <td>1.7</td> <td>0</td> <td>0</td> <td>97.7</td> <td>2.4</td> <td>0</td> <td>0</td> </tr> <tr> <td>Swindon</td> <td>28.53</td> <td>71.1</td> <td>0.4</td> <td>0</td> <td>70.5</td> <td>25.2</td> <td>4.3</td> <td>0</td> <td>79.4</td> <td>10.6</td> <td>0</td> <td>0</td> </tr> <tr> <td>W. Wilts</td> <td>74.8</td> <td>20.1</td> <td>5.1</td> <td>0</td> <td>82.3</td> <td>16.3</td> <td>1.4</td> <td>0</td> <td>87.4</td> <td>12.6</td> <td>0</td> <td>0</td> </tr> <tr> <td>S-West</td> <td>85.8</td> <td>12.9</td> <td>0.9</td> <td>0.4</td> <td>86.4</td> <td>12.2</td> <td>1.3</td> <td>0.1</td> <td>87.8</td> <td>10.8</td> <td>1.3</td> <td>0.2</td> </tr> </tbody> </table>	Biological Quality														1995				2000				2003					%G	%F	%P	%B	%G	%F	%P	%B	%G	%F	%P	%B	Kennet	86	14	0	0	89	11	0	0	78.4	21.6	0	0	N.Wilts	79.8	19.3	0.9	0	74.6	25	0.5	0	79.7	19.9	0.4	0	Salisbury	96.7	3.3	0	0	98.3	1.7	0	0	97.7	2.4	0	0	Swindon	28.53	71.1	0.4	0	70.5	25.2	4.3	0	79.4	10.6	0	0	W. Wilts	74.8	20.1	5.1	0	82.3	16.3	1.4	0	87.4	12.6	0	0	S-West	85.8	12.9	0.9	0.4	86.4	12.2	1.3	0.1	87.8	10.8	1.3	0.2	<p>Swindon has seen significant improvements since 1995.</p> <p>Kennet saw a reduction in quality between 2000 and 2003.</p>
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<p>Groundwater Source Protection Zones</p>	<p>15</p>	<p>The map below identifies the Source Protection Zones (SPZ) in Wiltshire. SPZ are concerned with protecting the catchment area for public and private water supply from potential polluting sources.</p> <p>Zone 1 (Inner protection zone): Any pollution that can travel to the borehole within 50 days from any point within the zone is classified as being inside zone 1. This applies at and below the water table. This zone also has a minimum 50 metre protection radius around the borehole. These criteria are designed to protect against the transmission of toxic chemicals and water-borne disease.</p> <p>Zone 2 (Outer protection zone): The outer zone covers pollution that takes up to 400 days to travel to the borehole, or 25% of the total catchment area – whichever area is the biggest. This travel time is the minimum amount of time that we think pollutants need to be diluted, reduced in strength or delayed by the time they reach the borehole.</p>																																									

Zone 3 (Total catchment): The total catchment is the total area needed to support removal of water from the borehole, and to support any discharge from the borehole.

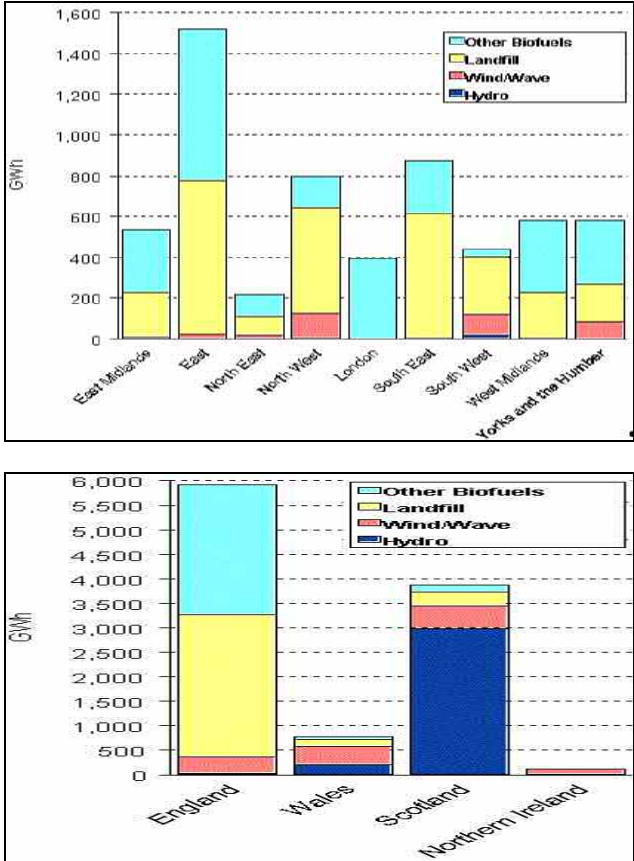


<p style="text-align: center;">Groundwater vulnerability</p>	<p style="text-align: center;">15</p>	<div style="text-align: center;"> <p>Groundwater vulnerability</p>  <p style="font-size: small;">Crown copyright. All rights reserved Wiltshire County Council 100023455</p> </div> <p>The map shows the location of aquifers within Wiltshire and gives an indication of the vulnerability to infiltration from sources on the surface.</p>
<p>General Comment</p>	<p style="text-align: center;">26</p>	<p>'Swindon is one of the most water sensitive areas of southern England' (Rural Futures – Sustainable Development, Chris Bains 2000).</p>

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<p>Air Quality Management Areas (AQMAS)</p>	16	<p>7 AQMAS declared (Reason for declaration)</p> <p>West Wiltshire DC –</p> <ul style="list-style-type: none"> Westbury. (NO₂) (Sections of Haynes Rd & Warminster Rd) Bradford on Avon (NO₂ & PM₁₀) (Masons Lane, Market St, Silver St, St Margaret's St.) <p>Salisbury DC –</p> <ul style="list-style-type: none"> Brown St. (NO₂) Fisherton St. (NO₂) Milford St. (NO₂) Minster St. (NO₂) Wilton (NO₂) 		<p>Note no AQMAS declared in Swindon, Kennet, or North Wiltshire.</p>																																																																																																																																																										
<p>Estimated background Air Pollution Data</p> <p>Figures derived by calculating the average of the predictions for all sites in each of the districts (962 Kennet, 763 N.Wilts, 1,000 Salisbury, 520 W.Wilts, and 235 Swindon)</p>	17	<table border="1"> <thead> <tr> <th rowspan="2">Pollutant</th> <th colspan="3">Kennet</th> <th colspan="3">North Wiltshire</th> <th colspan="3">Salisbury</th> <th colspan="3">West Wiltshire</th> <th colspan="3">Swindon</th> </tr> <tr> <th>2001</th> <th>2005</th> <th>2010</th> <th>2001</th> <th>2005</th> <th>2010</th> <th>2001</th> <th>2005</th> <th>2010</th> <th>2001</th> <th>2005</th> <th>2010</th> <th>2001</th> <th>2005</th> <th>2010</th> </tr> </thead> <tbody> <tr> <td>NO_x</td> <td>19.4</td> <td>16.5</td> <td>13.1</td> <td>26.8</td> <td>22.3</td> <td>17.4</td> <td>16.9</td> <td>14.3</td> <td>11.5</td> <td>21.4</td> <td>18.6</td> <td>14.7</td> <td>35.8</td> <td>29.5</td> <td>22.9</td> </tr> <tr> <td>NO₂</td> <td>14.6</td> <td>12.8</td> <td>10.3</td> <td>18.5</td> <td>16.3</td> <td>13.4</td> <td>13.1</td> <td>11.2</td> <td>9.0</td> <td>15.7</td> <td>14.0</td> <td>11.4</td> <td>22.6</td> <td>19.8</td> <td>16.6</td> </tr> <tr> <td>PM₁₀</td> <td>17.4</td> <td>16.8</td> <td>15.7</td> <td>17.9</td> <td>17.2</td> <td>16.0</td> <td>17.4</td> <td>16.8</td> <td>15.6</td> <td>18.1</td> <td>17.4</td> <td>16.2</td> <td>18.6</td> <td>17.9</td> <td>16.5</td> </tr> <tr> <td>SO₂</td> <td>2.18</td> <td>-</td> <td>-</td> <td>2.10</td> <td>-</td> <td>-</td> <td>2.08</td> <td>-</td> <td>-</td> <td>3.17</td> <td>-</td> <td>-</td> <td>2.48</td> <td>-</td> <td>-</td> </tr> <tr> <td>Benzene</td> <td>0.18</td> <td>0.16</td> <td>0.13</td> <td>0.23</td> <td>0.21</td> <td>0.17</td> <td>0.16</td> <td>0.15</td> <td>0.12</td> <td>0.24</td> <td>0.22</td> <td>0.17</td> <td>0.35</td> <td>0.31</td> <td>0.24</td> </tr> <tr> <td>CO</td> <td>0.2</td> <td>-</td> <td>-</td> <td>0.22</td> <td>-</td> <td>-</td> <td>0.19</td> <td>-</td> <td>-</td> <td>0.21</td> <td>-</td> <td>-</td> <td>0.27</td> <td>-</td> <td>-</td> </tr> <tr> <td>1,3-butadine*</td> <td>0.08</td> <td>0.07</td> <td>-</td> <td>0.11</td> <td>0.09</td> <td>-</td> <td>0.07</td> <td>0.06</td> <td>-</td> <td>0.10</td> <td>0.09</td> <td>-</td> <td>0.15</td> <td>0.13</td> <td>-</td> </tr> </tbody> </table> <p>* Figures for 1,3-butadine in the 2005 column relate to 2003.</p> <p>Units: NO_x (ugm-3 as NO₂ annual mean); NO₂ (ugm-3 annual mean); PM₁₀ (ugm-3 grav. annual mean); SO₂ (ugm-3 annual mean); Benzene (ugm-3 annual mean); CO (mgm-3 annual mean); 1,3-butadine (ugm-3 annual mean).</p> <p>Wiltshire figure averages are all lower than Swindon. More detailed analysis needs to be carried out to determine the hotspots within the Wiltshire districts based on the grid references provided with the data-sets.</p>														Pollutant	Kennet			North Wiltshire			Salisbury			West Wiltshire			Swindon			2001	2005	2010	2001	2005	2010	2001	2005	2010	2001	2005	2010	2001	2005	2010	NO _x	19.4	16.5	13.1	26.8	22.3	17.4	16.9	14.3	11.5	21.4	18.6	14.7	35.8	29.5	22.9	NO ₂	14.6	12.8	10.3	18.5	16.3	13.4	13.1	11.2	9.0	15.7	14.0	11.4	22.6	19.8	16.6	PM ₁₀	17.4	16.8	15.7	17.9	17.2	16.0	17.4	16.8	15.6	18.1	17.4	16.2	18.6	17.9	16.5	SO ₂	2.18	-	-	2.10	-	-	2.08	-	-	3.17	-	-	2.48	-	-	Benzene	0.18	0.16	0.13	0.23	0.21	0.17	0.16	0.15	0.12	0.24	0.22	0.17	0.35	0.31	0.24	CO	0.2	-	-	0.22	-	-	0.19	-	-	0.21	-	-	0.27	-	-	1,3-butadine*	0.08	0.07	-	0.11	0.09	-	0.07	0.06	-	0.10	0.09	-	0.15	0.13	-
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<p align="center">Number of days when air pollution reported as moderate or higher</p>	19	<table border="1"> <thead> <tr> <th>Region</th> <th>Site type</th> <th>2002</th> <th>2003</th> </tr> </thead> <tbody> <tr> <td>Bristol Centre</td> <td>Urban centre</td> <td>12</td> <td>48</td> </tr> <tr> <td>Somerton</td> <td>Rural</td> <td>29</td> <td>68</td> </tr> <tr> <td>England</td> <td>Urban</td> <td>19</td> <td>51</td> </tr> <tr> <td>England</td> <td>Rural</td> <td>34</td> <td>68</td> </tr> </tbody> </table>	Region	Site type	2002	2003	Bristol Centre	Urban centre	12	48	Somerton	Rural	29	68	England	Urban	19	51	England	Rural	34	68	<p>Two centres in the South West were taken (one urban and one rural to compare with the national rural and urban average).</p>							
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Topic: Climatic Factors

<p>Greenhouse gas emissions (overall / per capita)</p> <p>Headline Indicator H9</p>	<p>21</p>	<p>2001 South West = 1,500kg/capita</p> <p>England = 2,300kg/capita</p>	<p>Greenhouse gas emissions were estimated to have fallen by 14 % between 1990 and 2003.</p>		<p>Target to reduce greenhouse gas emissions by 12.5% from 1990 levels by 2008-12 and to have a 20% reduction in CO₂ by 2010.</p>
<p>Electricity generated from renewable sources (2003)</p>	<p>22</p>	 <p>The first graph demonstrates that the east generated more electricity from renewable sources in 2003 compared to other regions England.</p> <p>The second graph demonstrates that England generated more electricity from renewable sources in 2003 compared to Wales, Scotland and Northern Ireland.</p> <p>65% of the renewable electricity in the SW comes from landfill gas.</p>			<p>The first graph demonstrates that the east generated more electricity from renewable sources in 2003 compared to other regions England.</p> <p>The second graph demonstrates that England generated more electricity from renewable sources in 2003 compared to Wales, Scotland and Northern Ireland.</p> <p>65% of the renewable electricity in the SW comes from landfill gas.</p>

Topic: Biodiversity				
Special Areas for Conservation (SAC)	23	10 SACs in Wiltshire & Swindon <ul style="list-style-type: none"> ▪ Bath and Bradford on Avon Bats ▪ Chilmark Quarries ▪ Great Yews ▪ Kennet and Lambourn Floodplain ▪ New Forest ▪ North Meadow and Clattinger farm ▪ Pewsey Downs ▪ Prescombe Down ▪ River Avon ▪ Salisbury Plain 		Wiltshire holds over 50% of the UK's resource of flower rich chalk grassland. (CCFC 2004). Query: Status of Winsley Mines SSSI as a cSAC (see West Wiltshire Local Plan).
	European Designated Sites in Wiltshire (Source: Joint Nature Conservation Committee)			

Site and Area	Primary Reason/s for Designation (Habitats and/or Species)
Salisbury Plain SAC and SPA. Area: SAC: 21,466ha. SPA: 19,715ha	<p>Salisbury Plain represents the best remaining example in the UK of lowland juniper scrub on chalk.</p> <p>Salisbury Plain in central southern England is believed to be the largest surviving semi-natural dry grassland within the EU and is therefore the most important site for this habitat in the UK.</p> <p>This site probably contains the largest area of 6210 semi-natural dry grassland in the Atlantic Biogeographical Region.</p> <p>Salisbury Plain represents marsh fritillary in chalk grassland in central southern England, and contains a cluster of large sub-populations where the species breeds on dry calcareous grassland.</p> <p>Salisbury Plain SPA is important for breeding populations of Stone Curlew and over-wintering populations of Hen Harrier. It is also of importance for Quail and Hobby.</p>
Porton Down SPA Area: 1,237ha	Porton Down SPA is important for downland breeding birds and supports important numbers of Stone Curlew.
River Avon SAC Area: 490ha	<p>The Avon in southern England is a large, lowland river system that includes sections running through chalk and clay, with transitions between the two. Five aquatic <i>Ranunculus</i> species occur in the river system, but stream water-crowfoot and river water-crowfoot are the main dominants.</p> <p>There is an extensive population of Desmoulin's whorl snail along about 20 km of the margins and associated wetlands of the Rivers Avon, Bourne and Wylde.</p> <p>The Avon represents sea lamprey in a high-quality river in the southern part of its range.</p> <p>The Avon is a high-quality river that represents the southern part of the range of brook lamprey.</p> <p>The Avon in southern England represents a south coast chalk river supporting Atlantic salmon. There has been limited modification of the river course by comparison with many other southern lowland rivers in England.</p>

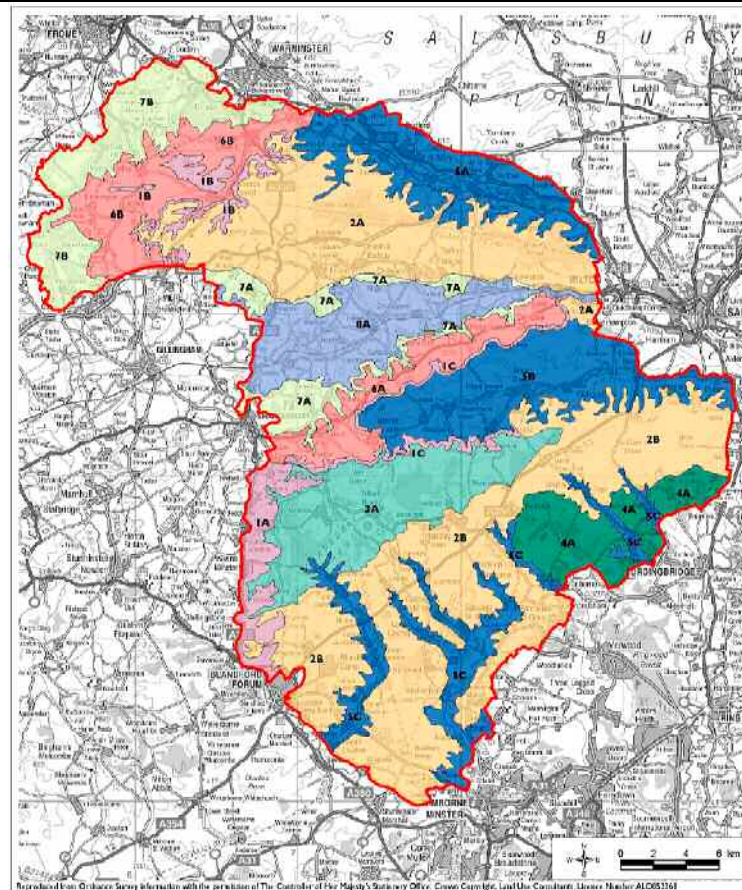
	The Avon represents bullhead in a calcareous, relatively unmodified river in the southern part of its range in England.
Bath and Bradford upon Avon Bats SAC Area: 108ha	This site in southern England includes the hibernation sites associated with 15% of the UK greater horseshoe bat population and is selected on the basis of the importance of this exceptionally large over-wintering population. Small numbers of Bechstein's bats have been recorded hibernating in abandoned mines in this area, though maternity sites remain unknown. The site is also of importance for Lesser Horseshoe Bats.
Pewsey Downs SAC Area: 154ha	This site is situated on the southern edge of the Marlborough Downs on the Wiltshire chalk and consists largely of semi-natural dry grassland. It contains a large population of the nationally scarce burnt orchid. The uncommon green-winged orchid, autumn lady's-tresses and frog orchid are also present, together with a rich assemblage of more widespread species, including bee orchid, fragrant orchid and pyramidal orchid. Pewsey Downs is one of three sites selected in the central part of the range for early gentian. It holds a very significant population of hundreds of thousands of plants growing in high-quality chalk grassland
North Meadow and Clattinger Farm SAC Area: 105ha	North Meadow and Clattinger Farm in the Thames Valley in southern England is one of two sites representing lowland hay meadows near the centre of its UK range. This site represents an exceptional survival of the traditional pattern of management and so exhibits a high degree of conservation of structure and function. This site also contains a very high proportion (>90%) of the surviving UK population of fritillary, a species highly characteristic of damp lowland meadows in Europe and now rare throughout its range.
Great Yews SAC Area: 29ha	Great Yews represents yew woods in the south-west of the habitat's range. Although it is the smallest example of the habitat within the SAC series, it is important for the presence of about 300 old trees.
Prescombe Down SAC Area: 76ha	Prescombe Down is one of three sites selected in the central part of the range for early gentian. It holds very significant populations of hundreds of thousands of plants in high-quality chalk grassland that has been sympathetically managed for many years.
Chilmark quarries SAC Area: 10ha	This complex of abandoned stone mines provides suitable hibernation conditions for a range of bat species and has a long history of usage by greater horseshoe. This complex of abandoned mines in central-southern England is regularly used by small numbers of barbastelle as a hibernation site. This complex of abandoned mines in central-southern England, is regularly used as a hibernation site by small numbers of Bechstein's bat. The site is also of importance for Lesser Horseshoe Bats.
Kennet and Lambourn Floodplain SAC Area: 115ha	The cluster of sites selected in the Kennet and Lambourn valleys supports one of the most extensive known populations of Desmoulin's whorl snail in the UK and is one of two sites representing the species in the south-western part of its range in the important chalk stream habitat.
New Forest SAC Area: 29,254ha	The New Forest covers a small area in the south east of Wiltshire. It has been primarily designated as a SAC for a variety of habitat types and species including Hatchet Pond oligotrophic waterbody

		<p>Vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea. Most extensive stands of lowland northern Atlantic wet heaths in southern England. Largest area of lowland heathland in the UK. It is particularly important for the diversity of its habitats and the range of rare and scarce species which it supports. Molinia meadows in southern England. Largest area in England of Depressions on peat substrates of the Rhynchosporion, in complex habitat mosaics associated primarily with the extensive valley bogs of this site. Largest area of mature, semi-natural beech woodland in Britain and represents Atlantic acidophilous beech forests in the most southerly part of the habitat's UK range. Largest area of mature, semi-natural beech woodland in Britain Representative of old acidophilous oak woods in the southern part of its UK range. It is the most extensive area of active wood-pasture with old oak and beech in north-west Europe and has outstanding invertebrate and lichen populations. Contains many streams and some small rivers that are less affected by drainage and canalisation than those in any other comparable area in the lowlands of England. Outstanding locality for southern damselfly, with several population centres and strong populations estimated to be in the hundreds or thousands of individuals and with a long history of records The New Forest represents stag beetle in its Hampshire/Sussex population centre, and is a major stronghold for the species in the UK. The forest is one of the most important sites in the UK for fauna associated with rotting wood, and was identified as of potential international importance for its saproxylic invertebrate fauna by the Council of Europe (Speight 1989).</p>			
Special Protection Areas (SPA)	²³ 5	2 SPAs in Wiltshire & Swindon <ul style="list-style-type: none"> ▪ Salisbury Plain ▪ Porton Down 		Salisbury Plain is the largest are of chalk grassland in NW Europe. (Over 41% of the total)	
Sites of Special Scientific Interest (SSSI)	²³	136 SSSIs <u>March 2007</u> % Area Favourable: 54.14% Unfavourable recovering: 32.75% Unfavourable no change: 5.02% Unfavourable declining : 8.08% Destroyed/part destroyed: 0%	<u>March 2005</u> % Area Favourable: 52.93% Unfavourable recovering: 24.56% Unfavourable no change: 6.32% Unfavourable declining : 16.19% Destroyed/part destroyed: 0%	English Nature target to have 95% of SSSI in Favourable or Unfavourable Recovering categories by 2010. Currently there is a positive trend.	% area meeting PSA target: 77.49%. 9 SSSIs in Swindon. 25 SSSIs have been notified for their Earth Heritage importance.
National Nature Reserves (NNR)	²³	7 NNRs in Wiltshire and Swindon <ul style="list-style-type: none"> ▪ Fyfield Down - Kennet ▪ Langley Wood and Homan's Copse - Salisbury 			

		<ul style="list-style-type: none"> ▪ North Meadow, Cricklade (Spotlight reserve) – N.Wilts ▪ Parsonage Down - Salisbury ▪ Pewsey Downs - Kennet ▪ Prescombe Down - Salisbury ▪ Wylve & Church Dean Downs - Salisbury 		
Local Nature Reserves (LNR)	23 26	<p>4 LNRs in Swindon</p> <ul style="list-style-type: none"> ▪ Coate Water ▪ Seven Fields ▪ Stanton Park ▪ Barbary Castle <p>8 LNRs in Wiltshire</p> <ul style="list-style-type: none"> ▪ Avon Valley – Salisbury ▪ Corston Quarry and Pond ▪ Bemerton Heath and Barnard's Folly - Salisbury ▪ Drews Pond Wood - Kennet ▪ Flouse Hole - Salisbury ▪ Oakfrith Wood - Kennet ▪ Scotchel Nature Reserve - Kennet ▪ Smallbrook Meadows – W.Wilts 		Radnor Street Cemetery (Swindon) is likely to be designated as an LNR.
County Wildlife Sites	24	Approximately 1,500 in Swindon and Wiltshire		
Areas of High Ecological Value (AHEVs)	24 30	<p>W.Wilts: 6 sites</p> <p>Wiltshire and Swindon total: 19 sites.</p>		
Regionally Important Geological or Geomorphological Sites (RIGS)		60 RIGS in Wiltshire and Swindon		
Protected Verges	25	<p>Wiltshire has 50 Verges which are protected for wildlife:</p> <ul style="list-style-type: none"> ▪ Kennet – 7 ▪ N.Wilts – 17 ▪ Salisbury – 20 ▪ W.Wilts - 6 		
EN Natural Areas	23	<p>Wiltshire is covered by the following English Nature Natural Areas:</p> <ul style="list-style-type: none"> ▪ Cotswolds ▪ Thames and Avon Vales ▪ Mid-Vale Ridge (very small area) ▪ Berkshire and Marlborough Downs ▪ London Basin (very small area) ▪ Hampshire Downs ▪ South Wessex Downs 		

		<ul style="list-style-type: none"> ▪ Wessex Vales ▪ New Forest <p>Swindon is covered by:</p> <ul style="list-style-type: none"> ▪ Thames and Avon Vales ▪ Mid-Vale Ridge ▪ Berkshire and Marlborough Downs 		
Swindon 'Country Wildlife Sites'	²⁶	88 Country Wildlife Sites in Swindon.		
Woodland	²⁶ ²⁷	<p>Great Western Community Forest – 36,260 Ha around Swindon extending into Wiltshire and Oxfordshire.</p> <p>Swindon 4% woodland Wiltshire 7% woodland</p>	UK: 7.7% (Europe 30%)	
<p>English Nature is leading a major four-year restoration project, which began in September 2001, called the Salisbury Plain LIFE Project to improve the conservation management at four sites: Salisbury Plain, Porton Down, Parsonage Down National Nature Reserve (NNR) and Pewsey Downs National Nature Reserve (NNR).</p> <p>The European Commission (EC) have agreed to contribute 50% of the total project cost of £2,130,000 and the other 50% is matched partner funding from Headquarters Army Training Estate (HQ ATE), Defence Estates (DE), English Nature, Defence Science Technology Laboratory (DSTL formerly DERA), the Royal Society for the Protection of Birds (RSPB), Butterfly Conservation (BC) and the Centre for Ecology and Hydrology (CEH).</p> <p>Three Biodiversity Action Plans exist for the area – Wiltshire, Swindon, and Cotswold Water Park. (See Review of Plans and Programmes for a summary).</p>				

Topic: Landscape and Townscape				
Areas of Outstanding Natural Beauty (AONB)		<p>Approximately 43% of Wiltshire lies within an AONB.</p> <p>The North Wessex Downs AONB covers a large area of Kennet, the southern portion of Swindon, and the far south-east of North Wiltshire.</p> <p>The Cotswolds AONB covers the western extreme of North Wiltshire and the north-west tip of West Wiltshire.</p> <p>The Cranborne Chase and West Wiltshire Downs AONB covers a large area of Salisbury district and the southern portion of West Wiltshire.</p>		See Review of other Plans and Programmes for a summary of the AONB Action Plans.
<p>Cotswolds AONB: The Cotswolds is the largest AONB in England and Wales covering an area of 790 sq miles extending into parts of Somerset, Wiltshire, Gloucestershire, Oxfordshire, Worcestershire and Warwickshire. Limestone gives the Cotswolds its distinctive, unified appearance, visible in the buildings and walls which blend in with their surroundings. The Cotswolds has a diverse landscape with limestone grasslands contrasting with ancient beach woodlands and intimate valleys.</p>				
<p>North Wessex Downs AONB: Is the largest AONB in the South East England and the third largest nationally, covering parts of Wiltshire, Hampshire and Oxfordshire. Although the North Wessex Downs has chalk downlands at its backbone, the AONB is made up of a variety landscape types which range from open downland, river valleys and vales and wooded plateau.</p>				
<p>Cranborne Chase & West Wiltshire Downs AONB: Covering 379 sq miles this AONB is the sixth largest in the country, and is part of the extensive chalk belt which stretches across Southern England. Chalk uplands dominate, and the AONB is made up of the rolling scenery of the West Wiltshire Downs separated from the wooded chalk landscape of Cranborne Chase by the Vale of Wardour. Nearly half of the area lies within Salisbury District, with the remainder stretching into parts of West Wiltshire, Dorset, Hampshire and Somerset.</p>				



CRANBORNE CHASE AND WEST WILTSHIRE DOWNS AONB LANDSCAPE CHARACTER ASSESSMENT

Figure B.1: Landscape Character Areas

AONB boundary	2 Open Chalk Downland	6 Greensand Terrace
1 Chalk Escarpments	2A West Wiltshire Downs	6A Fovant Terrace
1A Mollbury to Blandford	2B Southern Downland Belt	6B Kilmington Terrace
1B West Wiltshire Downs	3 Wooded Chalk Downland	7 Greensand Hills
1C Fovant and Chalke	3A Cranborne Chase	7A Dorset - Fovant
4 Downland Hills	4A Martin - Whitebury	7B Pentelwood - Longstant
5 Chalk River Valleys	5A Wyke River Valley	8 Rolling Clay Vales
5B Ebble River Valley	5C Stour and Avon Tributary Valleys	8A Vale of Wardour

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Note: Digitised data is held by the AONB Management Unit on GIS

Source: http://www.cwwdaonb.org.uk/pdfs/lca/8_Landscape_Character_AONB.pdf

National Parks		The status of the New Forest as a new National Park was confirmed on 1 March 2005.		A National Park Authority to manage the Park was established on 1 April 2005 with a limited range of statutory powers and functions. It became fully operational on 1 April 2006.
Quiet Lanes	²⁸	Pewsey Vale Quiet Lanes Network introduced in July 2004.		
Environmentally Sensitive Areas	³⁰	South Wessex Downs Avon Valley		
Landscape Character	²⁹ ²⁶	Swindon is covered by the following Countryside Agency Landscape Character Areas: <ul style="list-style-type: none"> ▪ Mid Vale Ridge ▪ Upper Thames Clay Vales ▪ Berkshire and Marlborough Downs 8 Character Areas defined for Swindon in SPG 'Landscape Character Areas': <ul style="list-style-type: none"> ▪ High Downs ▪ Downs Plain ▪ Scarp ▪ Wroughton Vale ▪ Lydiard Ridge ▪ Midvale Ridge ▪ Vale of White Horse ▪ Thames Vale 		
		Wiltshire is covered by the following Countryside Agency Landscape Character Areas: <ul style="list-style-type: none"> ▪ Cotswolds ▪ Avon Vale ▪ Mid-Vale Ridge (very small area) ▪ Upper Thames Clay Vales ▪ Berkshire and Marlborough Downs ▪ Thames Basin Heath (very small area) ▪ Hampshire Downs ▪ Salisbury Plain and West Wiltshire Downs ▪ Blackmoor Vale and the Vale of Wardour ▪ Dorset Downs and Cranbourne Chase ▪ New Forest 		
Kennet Landscape	³⁰	Kennet District has carried out a landscape character assessment and has identified 11 local landscape character areas, which sub-divide the Berkshire and Marlborough Downs, Salisbury Plain and West Wiltshire Downs, Hampshire Downs and Avon Vale National character areas into more locally specific classifications. Kennet has also identified landscape types and sub- types (eg; Type: Chalk Upland Landscape Sub-type: Open Chalk Upland) as well as devising a landscape		

enhancement classification based on the categories 'conserve', 'strengthen', and repair.

Within Wiltshire a county wide landscape classification has just been completed - see http://www.wiltshire.gov.uk/mainindex/environment/countryside/environmentcountrysidelandscape/environmentcountrysidelandscapecharacterassessment/environment-wiltshire_landscape_character_assessment_draft_document.htm

The LCA divides Wiltshire into 16 character types. These are:

Type 1: Open Downland Type 2: Wooded Downland Type 3: High Chalk Plain Type 4: Low Chalk Plain Type 5: Chalk River Valley Type 6: Greensand Terrace Type 7: Wooded Greensand Hills Type 8: Limestone Ridge Type	Type 9: Limestone Wold Type 10: Limestone Valleys Type 11: Rolling Clay Lowland Type 12: Open Clay Vale Type 13: Wooded Clay Vale Type 14: Forest-Heathland Mosaic Type 15: Greensand Vale Type 16: Limestone Lowlands
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Each of the generic landscape types has a distinct and relatively homogenous character with similar physical and cultural attributes, including geology, landform, land cover, biodiversity and historical evolution. The main character areas that have been affected by mineral development are:

- Type 12: Open Clay Vale - there has been extensive quarrying of sand, gravel and some clay (deriving from the Jurassic Limestone of the Cotswolds Hills) in area 12A: Thames Open Clay Vale. These pits flooded and the lime rich waters have formed the Marl lakes of the Cotswold Water Park;
- Type 10: Limestone Valleys – where there is some small scale quarrying activity; and
- Type 13: Wooded Clay Vale and Type 16: Limestone Lowlands where old quarries form high scientific interest for geological reasons.

Results from the Countryside Agency "Countryside Quality Counts" reports show changes in the character of the landscape character areas over the period 1990 to 1998. Changes are classified using the following categories:
Marked changes consistent with character; Marked changes inconsistent with character; Some changes inconsistent with character; Limited changes but consistent with maintaining character; and Small or limited changes consistent with character.

For the Character Areas within Wiltshire the classifications of overall change are as follows:

Marked changes inconsistent with character

- Avon Vale;
- Blackmoor Vale and the Vale of Wardour;
- Dorset Downs and Cranborne Chase;
- Salisbury Plain and West Wiltshire Downs; and
- Upper Thames Clay Vales.

Some changes inconsistent with character

- Berkshire and Marlborough Downs;

- Hampshire Downs;
- Mid-Vale Ridge (very small area in Wiltshire);
- New Forest; and
- Thames Basin Heath (very small area in Wiltshire).

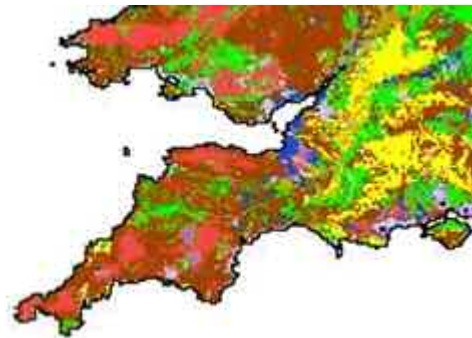
Limited changes but consistent with maintaining character

- Cotswolds.
- (Source: Countryside Quality Counts. Countryside Agency)

Topic: Soil and Minerals

31

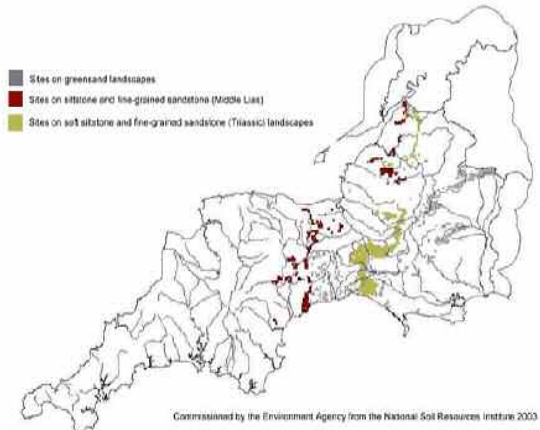
South West map showing major soil groups



- Raw gley soils
- Lithomorphous soils
- Pelosols
- Brown soils
- Podzolic soils
- Surface-water gley soils
- Ground-water gley soils
- Man-made soils
- Peat soils

Source: National Soil Resources Institute

Distribution of vulnerable soils in the South West

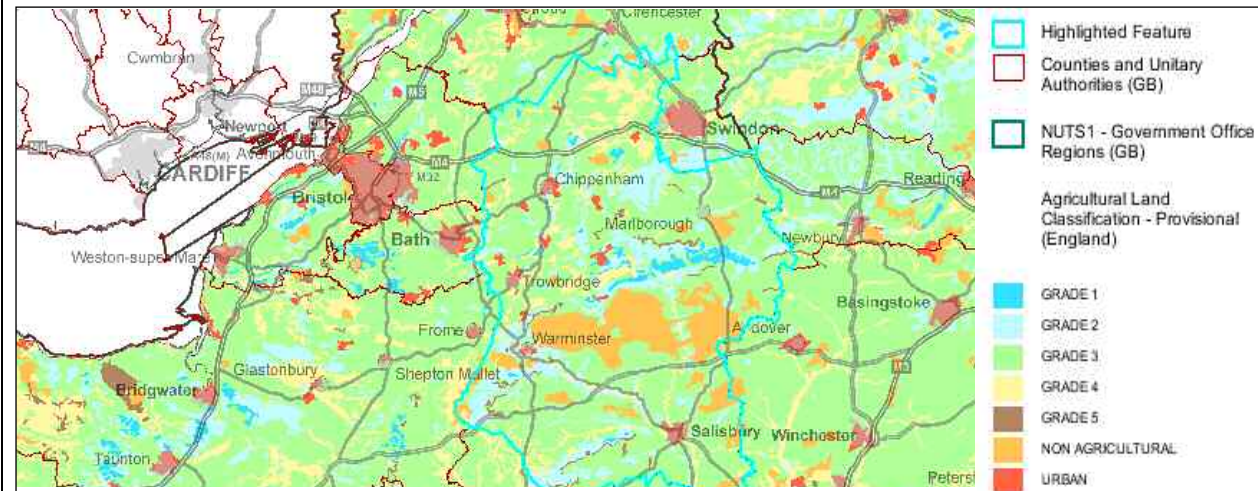


Source: National Soil Resources Institute

These areas of the Southwest soils have an inherent vulnerability to structural problems and are easily sealed by heavy rain causing local flooding, mud on roads and damage to property.

This also causes water pollution as sediment and pollutants enters rivers affecting river habitats and spawning grounds for salmon, trout and other aquatic wildlife. Incidents associated with soil structure problems increased in recent years, and this would also be made worse through the predicted changing weather patterns associated with climate change with climate change.

Agricultural Land Classification



Source: magic.gov.uk

<p>Mining and Quarrying in Wiltshire</p>	<p>³²</p>	<p>Most of the sites produce material that is used as aggregate in the construction industry, although there is some quarrying for Bath Stone and Portland Stone from the 'Stone Belt' in the north west of the county.</p> <p>There are currently 23 active mineral workings in Wiltshire and currently none in Swindon. Of these, 6 produce sand and gravel, 4 produce building sand, 2 produce chalk, 3 extract clay and 8 produce building stone (limestone and small amounts of sandstone). The County also has 10 Dormant (sand and gravel / building sand / crushed rock) and 5 temporarily inactive (sand and gravel / building sand / crushed rock / chalk) quarries. The majority of these are open-cast but some take the form of extensive underground mine complexes.</p> <p>The Upper Thames Valley has been particularly intensively and widely worked for sand and gravel, and as a result the area has the largest concentration of gravel pit lakes in Britain.</p>	<p>Historically, there have been numerous small-scale mineral workings in Wiltshire, serving local markets. In more recent years, there has been a shift towards fewer, larger sites serving wider markets.</p> <p>Swindon Borough has seen comparatively little mineral working in the past and, at present has no permitted mineral extraction sites.</p>	<p>It is expected that there will be further large-scale mineral operations here in the future.</p>																
<p>Agricultural Land Use</p>	<p>³⁰</p>	<p>Wiltshire & Swindon</p> <table border="1" data-bbox="719 820 1290 1085"> <thead> <tr> <th>Agricultural Use</th> <th>Area in hectares</th> </tr> </thead> <tbody> <tr> <td>Cropping</td> <td>122,201</td> </tr> <tr> <td>Grassland</td> <td>97,255</td> </tr> <tr> <td>Rough Grassland</td> <td>16,921</td> </tr> <tr> <td>Woodlands on Agricultural Holdings</td> <td>8,155</td> </tr> <tr> <td>Set aside</td> <td>17,300</td> </tr> <tr> <td>Other</td> <td>6,456</td> </tr> <tr> <td>Total</td> <td>268,759</td> </tr> </tbody> </table> <p>Source: June 1999 Agricultural and Horticultural Census England and Wales, Regions and Counties.</p>	Agricultural Use	Area in hectares	Cropping	122,201	Grassland	97,255	Rough Grassland	16,921	Woodlands on Agricultural Holdings	8,155	Set aside	17,300	Other	6,456	Total	268,759	<p>No trend data.</p>	
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<p>Sand and Gravel - soft sand</p>	<p>³³</p>	<p>Most county extractions from Lower Greensand east of Calne, Brickworth Quarry near Whiteparish, with traditional workings from Bagshot Sands at Pound Bottom east of Redlynch.</p>		<p>Extraction concentrated in a few areas/sites.</p>																
<p>Sand and Gravel – sharp sand and gravel</p>	<p>³⁸</p>	<p>Currently produced from 6 sites in Cotswold Water Park in the Upper Thames Valley</p>		<p>Deposits exist in the valleys of the Bristol Avon, Wylfe and Salisbury Avon but the MPAs have no data on proven resources.</p>																

Stone	³⁸	Bath Stone produced from a series of mines in the Gastard / Corsham area and Westwood. Traditional stone tiles are produced from a small open-cast quarry at Chedglow (near Malmesbury); Crushed (limestone) rock produced from Knockdown Quarry near Sherston; Portland Stone produced at Chilmark Mine and Chicks Grove Quarry. Greensand dimension stone produced from a small quarry near Fovant (Old Hurdcott Quarry).		
Clay	³⁸	Most extensive working at Westbury		
Chalk	³⁸	Greatest production at Westbury; a rarely occurring chalk marketed in UK and internationally is produced from Quidhampton near Salisbury.	In recent years number of chalk pits declined and now few larger quarries produce chalk.	
Fullers Earth	³⁸	Occurrence is extremely restricted therefore no active & permitted sites.	Were workings on Wiltshire-Bath and North East Somerset boundary.	Resource is valuable and versatile raw material.
Iron Stone	³⁸		Past quarrying at Seend and Westbury.	Outcrops limited and extraction during next plan period is not envisaged.
Hydrocarbons	³⁸	Extensive exploration revealed no workable oil and gas.		Pressure for further exploration cannot be ruled out in future.

National and Regional Guidelines for Aggregates Provision in England, for the period 2001-2016 (MPG6) June 2003	³⁴	The South West will have to provide 106 mt of sand and gravel and 453mt of crushed rock over the period. This assumes 121mt of alternative materials will be found.	These figures represent a 19% nationally in the amount of primary material needed. However, in the SW there will be great pressure to deliver the levels of sand and gravel needed.	See sub regional apportionments below.	The government envisage these figures being used in the preparation of forthcoming Minerals Local Development Documents, and the Regional Spatial Strategy.
Plan area's permitted reserves	³⁸	<ul style="list-style-type: none"> • Sharp sand and gravel = 9.04 million tonnes at start of plan ('92), to maintain existing production for eight years. • An additional 4.43 million tonnes was granted, for a further 4.2 years. The landbank extends to 2004. 		Much of the sharp sand and gravel resource in the Plan Area is highly constrained by environmental designations, is very close to settlements where mineral extraction may affect amenity or is restricted to locations with very poor access. Other important constraints include the need to avoid the pollution of water resources, the widespread loss of the best and most versatile agricultural land, and ensuring that there is no increase in the risk of flooding. Useful information would include: <ul style="list-style-type: none"> • number and area of new sites being worked • indicators of biodiversity loss, and remediation 	

			<ul style="list-style-type: none"> • area and quality of habitat loss and loss of agricultural land • indicators of social impacts (traffic, nuisance, visual, and loss of amenity space) • economic costs/benefits
	³⁹	At the national level, the new guidelines are 19% below previous MPG6 requirements due to the national requirement of 23% recycling of the total demand from aggregates. This varies on a local scale, however.	In June 2003, ODPM published draft revisions to national and regional guidelines for the provision of aggregate minerals for the 16 year period, 2001-2016. The government envisage these figures being used in the preparation of forthcoming Minerals Local Development Documents, and the Regional Spatial Strategy.
Dorset/Wiltshire Projected figures by South West RAWP, crushed rock	³⁹	<p><u>Dorset & Wiltshire</u> 5 year average production 1997-2001 (percentage of overall regional production 1997-2001): 1.7%</p> <p>Permitted Reserves 2001: 48.5 million tonnes</p> <p>Between 2001 and 2016, Dorset & Wiltshire are expected to produce 7.7 million tonnes.</p> <p>Dorset & Wiltshire surplus: 40.8 million tonnes</p> <p>Between 2001 and 2016, 0.48 million tonnes are expected to be produced by Dorset & Wiltshire ('annual expression')</p>	<p>The reduction in the overall requirement of crushed rock from the South West has resulted in there being sufficient permitted reserves to meet forecasts.</p> <p>Wiltshire can effectively be discounted from the crushed rock equation as the majority of production comes from Dorset.</p>
Wiltshire Projected figures by South West RAWP, sand and gravel	³⁹	<p><u>Wiltshire</u> 5 year average production 1997-2001 (percentage of overall regional production 1997-2001): 27.98%</p> <p>Permitted Reserves 2001: 11.26 million tonnes</p> <p>Between 2001 and 2016, Wiltshire are expected to produce 29.66 million tonnes.</p> <p>Wiltshire shortfall: 18.4 million tonnes</p> <p>Between 2001 and 2016, 1.85 million tonnes are expected to be produced by Wiltshire ('annual expression')</p> <p>Largest area of sand a gravel working in Wiltshire and Swindon is in the Cotswold Water Park.</p>	<p>Is likely to require new sites. The Wiltshire Minerals Forum has indicated that the following areas should be investigated.</p> <ol style="list-style-type: none"> 1. The Alluvium and Valley Gravel deposits associated with the UpperThames and Bristol Avon; and the Upper Greensand deposits around Calne / Compton Bassett. 2. The Upper Greensand / London Clay and Reading Beds sequence deposits associated with land around the Devizes area and further east around the Little Bedwyn / Great Bedwyn area of Kennet District; and the London Clay and Reading Beds / Bracklesham and Bagshot Beds sequences around the

				edges of the New Forest National Park and the Whiteparish area. 3. The Alluvium and Valley Gravel deposits associated with the tributaries of the Salisbury Avon; and the London Clay and Reading Beds sequence east of Whiteparish (if commercially exploitable). 4. The London Clay and Reading Beds / Bracklesham and Bagshot Beds within the New Forest National Park.	assumptions through the reviews of local plans.
Sales of land – won sand and gravel from Annual Minerals Surveys, 1985 to 2003	⁴⁰	<u>Wiltshire:</u> <u>1997 – 1.159 million tonnes</u> <u>2001 – 1.410 million tonnes</u>	South West: 1997 – 4.521 million tonnes 2001 – 5.274 million tonnes		<ul style="list-style-type: none"> In south west sand and gravel production has been steadily rising over the last decade.
Production trends	³⁵			Past production/sales show overall production steadily risen 1991-2002 (no active sites in Swindon). Note: This increase does not account for 1994 MPG6 targets for provision being met.	Total shortfall 1991 – 2002 (diff. between 1994 MPG6 requirements and 'actual supply'): 3.3 million tonnes.
Predicted 2016 Supply Shortfalls (based on past supply patterns)	⁴⁰	Revised shortfalls: Sharp sand and gravel- 12.61 mt Soft sand – 3.1 mt			These shortfalls need to be addressed.

**Wiltshire & Swindon Supply
Scenarios 2001 – 2016**
(as at 31 Dec 2001/ 1st Jan 2002)

Wiltshire & Swindon:
Undifferentiated Sand and Gravel Landbank
Projections

	Million tonnes
Sand and Gravel Landbank as at 2001 (mt)	11.65
Current MPG6 Production Rate (1)	1.35
Actual production rate over last 5 years (2)	1.25
Landbank in Years as an expression of (1)	8.6
Landbank in Years as an expression of (2)	9.3

Wiltshire & Swindon:
Sharp Sand and Gravel Landbank Projections

	Million tonnes
Sand and Gravel Landbank as at 2001 (mt)	7.92
Current MPG6 Production Rate (1)	1.038
Actual production rate over last 5 years (2)	0.964
Landbank in Years as an expression of (1)	7.6
Landbank in Years as an expression of (2)	8.2

Wiltshire & Swindon:
Soft Sand Landbank Projections

	Million tonnes
Sand and Gravel Landbank as at 2001 (mt)	3.73
Current MPG6 Production Rate (1)	0.31
Actual production rate over last 5 years (2)	0.285
Landbank in Years as an expression of (1)	12.0
Landbank in Years as an expression of (2)	13.1

At current production rates
supplies of sharp sand and
gravel will last until 2011.

At current production rates
supplies of soft sand will last
until 2015.

Annual Sales / Production of Aggregates	37		<table border="1"> <tr> <td>Mineral Type</td> <td>1991</td> <td>2003</td> </tr> <tr> <td>Sharp sand and gravel</td> <td>707254</td> <td>1203422</td> </tr> <tr> <td>Soft sand</td> <td>146741</td> <td>365916</td> </tr> <tr> <td>Total</td> <td>853995</td> <td>1569338</td> </tr> </table>	Mineral Type	1991	2003	Sharp sand and gravel	707254	1203422	Soft sand	146741	365916	Total	853995	1569338							
Mineral Type	1991	2003																				
Sharp sand and gravel	707254	1203422																				
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Production areas as % of Total Supply	42		<table border="1"> <tr> <td></td> <td>1991</td> <td>2003</td> </tr> <tr> <td>Cotswold Water Park</td> <td>83%</td> <td>77%</td> </tr> <tr> <td>Calne/ Compton Bassett</td> <td>17%</td> <td>16%</td> </tr> <tr> <td>South Wiltshire</td> <td>0%</td> <td>7%</td> </tr> </table>		1991	2003	Cotswold Water Park	83%	77%	Calne/ Compton Bassett	17%	16%	South Wiltshire	0%	7%							
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Cotswold Water Park	83%	77%																				
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% change from 2001 actual output required to meet new apportionment expectations	41	Devon & Wiltshire: Crushed rock +9.38% Wiltshire: Sand and Gravel +27.84%	South West: Crushed rock +5.37% Sand and Gravel +24.75%		Note additions to actual outputs required to meet new apportionment.																	
Preferred areas for Sharp Sand and Gravel Extraction	39	Wiltshire & Swindon: <table border="1"> <thead> <tr> <th>Preferred Area</th> <th>Area (ha)</th> <th>Resource (million tonnes)</th> </tr> </thead> <tbody> <tr> <td>Land east of Latton</td> <td>59</td> <td>1.4 (+0.1 archaeological area)</td> </tr> <tr> <td>Alex Farm</td> <td>56</td> <td>1.1 (+0.3 archaeological area)</td> </tr> <tr> <td>Land north west of Water Eaton House</td> <td>65</td> <td>0.7</td> </tr> <tr> <td>Land north of Latton</td> <td>29</td> <td>0.6</td> </tr> <tr> <td>Total</td> <td>421</td> <td>7.7 (+0.4 archaeological area)</td> </tr> </tbody> </table>		Preferred Area	Area (ha)	Resource (million tonnes)	Land east of Latton	59	1.4 (+0.1 archaeological area)	Alex Farm	56	1.1 (+0.3 archaeological area)	Land north west of Water Eaton House	65	0.7	Land north of Latton	29	0.6	Total	421	7.7 (+0.4 archaeological area)	Some of the preferred areas for extraction of sharp sand and gravel have constraints (archaeological). Resources available within preferred areas unlikely to meet requirements, therefore lesser preferred areas with more constraints may have to be identified for working.
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Total	421	7.7 (+0.4 archaeological area)																				
Estimated production of recycled aggregate from crushed hard construction, demolition and excavation arising in the South West in 2003	41	Wiltshire and Swindon: Recycled aggregate produced – 699,000tonnes; Recycled aggregate per person in sub-region, 1,140kg.	South west: Recycled aggregate produced –4,473,000 tonnes; Recycled aggregate per person in sub-region, 980kg.		Production of recycled aggregate may need to be increased to enable county to meet production requirements.																	
	41	<ul style="list-style-type: none"> • Only 8 sand and gravel sites active in Wiltshire in 2001, but scale of operations was large, especially in Cotswold Water Park in upper Thames Valley, where 80% of this production is located. • Stock of permitted reserves of soft sand and sharp sand and gravel has a total of 11.66 million tonnes, with a combined output of 1.39 million tonnes in 2001, giving a projected lifetime of 8 years. With a expected shortfall of 18 million tonnes by 2016. • Similar economic resources within Wiltshire are only 4.2 million tonnes, and all lie in sensitive river valley landscapes and their exploitation would clearly have at least local environmental impacts. 																				
	41	<ul style="list-style-type: none"> • Recommended that the MPAs should review known and potential sand and gravel resources in Dorset, Wiltshire and Gloucestershire, and a detailed assessment of the extent to which these could be worked, using best practice mitigation techniques, without adverse effects on environmental designations , other major planning restrictions, and the risk of birdstrike to MOD facilities. 																				

		<ul style="list-style-type: none"> Once completed it will be possible to define all of the policy initiatives required to stimulate the preferred supply pattern
	39	<ul style="list-style-type: none"> The government advice that 'the RPB should consult its constituent MPAs and RAWP to determine whether the regional guidelines can be met at acceptable environmental cost. The likely environmental impacts of any additional extraction should be assessed in relation to the ability of the aggregate producing areas to absorb such impacts, especially impacts on areas of international and national landscape or conservation designations, and the impacts on the populations affected.' SBC/WCC are concerned that the proposed sub-regional apportionment figure is too high and hence potentially unachievable within the context of 'the apparent lack of mineral resource and environmental constraints in the Plan area' SCC/WCC think there is little evidence that the industry or the aggregate markets are prepared to meet the proposed forecast requirements. From a purely geological perspective, Wiltshire and Swindon may have enough mineral resources to meet requirements, but a number of environmental factors are considered likely to exert constraints, such as the SAC designation affecting the Salisbury Avon system, and all other major river systems in the plan area through a combination of national and local level designations. The requirement for Wiltshire and Swindon to identify resources to maintain its supply of 28% of the Region's overall sand and gravel needs, 'is considered... an untested but potentially unreasonable and unsustainable burden upon the environment of Wiltshire and Swindon'.
	43	<p>Principal issue on minerals is future aggregates production. WCC can no longer meet their RAWP apportionment from their traditional supply area – Cotswold Water Park. They are aware that other sharp sand and gravel reserves exist in the Bristol /Avon valley system and the Salisbury /Avon valley system but these areas have more environmental constraints.</p> <p>There are no major issues associated with other minerals including building stone and cement other than the potential for building stone operations in the south of the county to impact on AONB.</p>

Topic: Waste				
	41		<p><u>South West 1999</u> Estimated total 6,807,000 construction and demolition and soil wastes. Estimated 48% recovered. 22% disposed to landfill. 30% managed at sites exempt from waste management licensing (e.g. agricultural improvements)</p>	
Industrial and Commercial Wastes-total tonnes			<p><u>1998/99</u> Industrial Wastes</p> <ul style="list-style-type: none"> Inert/Construction and Demolition = 20,000 Paper and Card = 37,000 Food = 30,000 General Industrial and Commercial = 120,000 Other General and Biodegradable = 76,000 Metals and Scrap Equipment = 38,000 	
Types of industrial and commercial wastes produced (tonnes)				

		<ul style="list-style-type: none"> • Contaminated General = 20,000 • Mineral Wastes and Residues =6,000 • Chemical and Other = 48,000 • Industry <i>Total</i>=395,000 <p>Commercial Wastes</p> <ul style="list-style-type: none"> • Inert/Construction and Demolition = 2000 • Paper and Card = 33,000 • Food = 5000 • General Industrial and Commercial = 210,000 • Other General and Biodegradable = 23,000 • Metals and Scrap Equipment = 7000 • Contaminated General = 9000 • Mineral Wastes and Residues = 0 • Chemical and Other = 5000 • <i>Commerce Total</i> = 294,000 <p>Total = 689,000</p>	
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Recorded Deposits by Waste Stream in Wiltshire and Swindon 1996/7 – 2000/1	41	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Waste Type (to disposal)</th> <th>1996/7</th> <th>1997/8</th> <th>1998/9</th> <th>1999/00</th> <th>2000/1</th> <th>Trend</th> </tr> </thead> <tbody> <tr> <td>Municipal</td> <td style="text-align: right;">218,000</td> <td style="text-align: right;">231,000</td> <td style="text-align: right;">278,000</td> <td style="text-align: right;">298,000</td> <td style="text-align: right;">319,000</td> <td>Increasing</td> </tr> <tr> <td>Industrial & Commercial</td> <td style="text-align: right;">406,000</td> <td style="text-align: right;">343,000</td> <td style="text-align: right;">374,000</td> <td style="text-align: right;">485,000</td> <td style="text-align: right;">537,000</td> <td>Increasing</td> </tr> <tr> <td>Construction and Demolition/Inerts</td> <td style="text-align: right;">107,000</td> <td style="text-align: right;">81,000</td> <td style="text-align: right;">150,000</td> <td style="text-align: right;">248,000</td> <td style="text-align: right;">193,000</td> <td>Fluctuating pattern</td> </tr> <tr> <td>Soils and Sub-soils</td> <td style="text-align: right;">328,000</td> <td style="text-align: right;">264,000</td> <td style="text-align: right;">163,000</td> <td style="text-align: center;">?</td> <td style="text-align: center;">?</td> <td>Trend unknown</td> </tr> <tr> <td>Special</td> <td style="text-align: right;">22,000</td> <td style="text-align: right;">112,000</td> <td style="text-align: right;">7,000</td> <td style="text-align: right;">49,000</td> <td style="text-align: right;">47,000</td> <td>Trend unknown</td> </tr> <tr> <td>Sewage</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right;">1,081,000</td> <td style="text-align: right;">1,031,000</td> <td style="text-align: right;">972,000</td> <td style="text-align: right;">1,080,000</td> <td style="text-align: right;">1,096,000</td> <td>Trend stable/increasing</td> </tr> </tbody> </table>						Waste Type (to disposal)	1996/7	1997/8	1998/9	1999/00	2000/1	Trend	Municipal	218,000	231,000	278,000	298,000	319,000	Increasing	Industrial & Commercial	406,000	343,000	374,000	485,000	537,000	Increasing	Construction and Demolition/Inerts	107,000	81,000	150,000	248,000	193,000	Fluctuating pattern	Soils and Sub-soils	328,000	264,000	163,000	?	?	Trend unknown	Special	22,000	112,000	7,000	49,000	47,000	Trend unknown	Sewage	0	0	0	0	0		TOTAL	1,081,000	1,031,000	972,000	1,080,000	1,096,000	Trend stable/increasing
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Percentage Composition of Waste Disposals in Wiltshire and Swindon (predicted between 1998/1999 and 2010/2011= in parentheses)				
Municipal	41			1998/99: 28.5% (36.5%%) Trend = predicted to increase
Industrial and Commercial	41			1998/99: 38.5% (36.1%) Trend = predicted to decrease slightly
Construction and Demolition	41			1998/99: 15.4% (10.8%) Trend = predicted to decrease
Soils and Subsoils	41			1998/99: 16.8% (15.8%) Trend = predicted to decrease slightly
Special	41			1998/99: 0.7% (0.7%) Trend = predicted stasis
Imports and Exports				
		110,000 tonnes of industrial and		<ul style="list-style-type: none"> • 1998/99: 208,000 tonnes • Data is not complete with regard

		commercial waste produced in Wiltshire and Swindon, is exported (date of statistic unknown).		(just over 20% of all wastes disposed of in Wiltshire and Swindon) of waste was imported into the Plan area. • Some special waste is exported, but the quantity is unknown.	to imports and exports of different waste streams. • Wiltshire and Swindon consider themselves likely to be self-sufficient with regard to disposal of <i>municipal waste</i> .																						
Estimated construction and demolition, landfill disposal capacity (Wiltshire and Swindon) (cubic metres)																											
Construction and demolition waste		2000: 1,200,000 2003: 1,286,000 (min) to 1,535,000 (max)																									
Household Waste % Recycled (BV82a)	11	<table border="1"> <thead> <tr> <th>Local Authority</th> <th>01/02</th> <th>02/03</th> <th>03/04</th> </tr> </thead> <tbody> <tr> <td>North Wiltshire DC</td> <td>11%</td> <td>7.70%</td> <td>9.90%</td> </tr> <tr> <td>West Wiltshire DC</td> <td>8.10%</td> <td>7.70%</td> <td>9.10%</td> </tr> <tr> <td>Kennet DC</td> <td>15.50%</td> <td>12.10%</td> <td>10.80%</td> </tr> <tr> <td>Salisbury DC</td> <td>19%</td> <td>16.10%</td> <td>17.40%</td> </tr> <tr> <td>Swindon UA</td> <td>9.10%</td> <td>10.20%</td> <td>11.50%</td> </tr> </tbody> </table> 	Local Authority	01/02	02/03	03/04	North Wiltshire DC	11%	7.70%	9.90%	West Wiltshire DC	8.10%	7.70%	9.10%	Kennet DC	15.50%	12.10%	10.80%	Salisbury DC	19%	16.10%	17.40%	Swindon UA	9.10%	10.20%	11.50%	Only Swindon shows a consistently increasing trend.
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Construction and demolition of waste diverted from landfill (Wiltshire and Swindon) (tonnage diverted)	11		48% of construction and demolition and soil wastes produced in the South West = recovered as a recycled aggregate or soil, or		There is a Data Gap regarding the recovery and recycling/re use of construction and demolition wastes.																						

			beneficially reused on landfill sites (date unknown).		
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Sources of Data

- ¹ National Statistics Online Census 2001 – www.nationalstatistics.gov.uk
- ² Census 1991 (Obtained from the Office of National Statistics by request)
- ³ South West Observatory – www.swo.org.uk
- ⁴ Wiltshire County Council, Department of Environmental Services. April 2005.
- ⁵ Creating a Country Fit for Our Children: A Strategy for Wiltshire 2004-2014 – http://www.wiltshire.gov.uk/macnn/strategy_for_wiltshire_07_-_a_strategy_for_wiltshire_-_strategy.pdf
- ⁶ South West Regional Assembly Consultation On the Appointment of Regional Aggregate Guidelines to mineral Planning Authorities 2004.
- ⁷ Wiltshire and Swindon Intelligence Network – www.intelligencenetwork.org.uk
- ⁸ Index of Multiple Deprivation 2004 – www.odpm.gov.uk/odpm/SOA/LASummaries2004.xls
- ⁹ Region in Figures, South West 2004. Office for National Statistics
- ¹⁰ BBC News Online: In depth – House Prices – http://news.bbc.co.uk/1/shared/spl/hi/in_depth/uk_house_prices/counties/html/county103.stm?f
- ¹¹ www.bvpi.gov.uk
- ¹² <http://www.wowheritage.org.uk/>
- ¹³ English Heritage (EH)
- ¹⁴ Defra
- ¹⁵ Wiltshire & Swindon Minerals and Waste Development Framework Draft Evidence Base. www.wiltshire.gov.uk
- ¹⁶ http://www.airquality.co.uk/archive/laqm/laqm.php?action=submit&map_name=wilts&la_id=221
- ¹⁷ <http://www.airquality.co.uk/archive/laqm/laqm.php>
- ¹⁸ http://www.airquality.co.uk/archive/detailed_zone.php?zone_id=11
- ¹⁹ <http://www.sustainable-development.gov.uk/indicators/regional/download/rqolc2003.pdf>
- ²⁰ www.naei.org.uk/emissions/postcode
- ²¹ www.sustainable-development.gov.uk/indicators/regional
- ²² www.restats.org.uk/statistics
- ²³ English Nature
- ²⁴ Wiltshire and Swindon Biological Records Centre
- ²⁵ Wiltshire County Council. Environmental Services.
- ²⁶ Sustainability Appraisal of Swindon Borough Council Local Plan: revised deposit draft. Scoping Report. Oct. 2003 (Enfusion)
- ²⁷ Swindon BA
- ²⁸ Wiltshire County Council website – www.wiltshire.gov.uk

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- ²⁹ Countryside Agency
- ³⁰ Sustainability Appraisal of Wiltshire and Swindon Waste Local Plan. Scoping Report. August 2001. (Entec)
- ³¹ South West Observatory Environment. State of the Soils http://www.swenvo.org.uk/environment/sec5_land_soil.asp (accessed 01/06/05)
- ³² 'Wiltshire and Swindon Mineral Local Plan: Deposit Draft (January 1999)' and 'Wiltshire and Swindon Mineral Local Plan: Proposed Changes (December, 1999)', Wiltshire County Council and Swindon Borough Council
- ³³ Wiltshire and Swindon Minerals Local Plan Review, 'Topic Paper: Overview of Minerals Development and Mineral Products in Wiltshire and Swindon', Wiltshire County Council and Swindon Borough Council
- ³⁴ Adopted Wiltshire and Swindon Minerals and Local Plan (adopted 2001) – <http://www.wiltshire.gov.uk/wastechapter3.pdf>
- ³⁵ Wiltshire and Swindon Minerals Local Plan Review, 'Topic paper: How much aggregate will Wiltshire and Swindon need to provide during the next plan period', Wiltshire County Council and Swindon Borough Council
- ³⁶ 'Wiltshire & Swindon Supply Scenarios 2001 – 2016' from Wiltshire County Council (undated)
- ³⁷ Information provided by Wiltshire County Council Minerals Policy Team (unpublished documentation)
- ³⁷ Countryside Agency
- ³⁸ 'Wiltshire and Swindon Mineral Local Plan: Deposit Draft (January, 1999)' and Wiltshire and Swindon Mineral Local Plan: Proposed Changes (December, 1999). Wiltshire County Council and Swindon Borough Council
- ³⁹ Wiltshire and Swindon Minerals Local Plan Review, 'Topic Paper: Overview of Minerals Development and Mineral Products in Wiltshire and Swindon', Wiltshire County Council and Swindon Borough Council
- ⁴⁰ 'Wiltshire & Swindon Supply Scenarios 2001 – 2016' from Wiltshire County Council (undated)
- ⁴¹ 'Wiltshire & Swindon Supply Scenarios 2001 – 2016' from Wiltshire County Council (undated)
- ⁴² Information provided by Wiltshire County Council Minerals Policy Team (unpublished documentation)
- ⁴³ Wiltshire and Swindon Waste Local Plan 2011. Revised Deposit Draft. September 2002. Wiltshire County Council/ Swindon Borough Council.

**Wiltshire and Swindon Minerals Development
Control Policies Development Plan Document**

**Sustainability Appraisal for the Submission
Draft Document**

July 2008

**Appendix Volume 2:
Appendices C - D**

CPR070

CONTENTS

Introduction	1
Appendix C Minerals Development Control Policies SA/SEA Consultation	2
Appendix D Submission Draft Assessment	6

Introduction

This document consists of supporting information to the document entitled 'Wiltshire and Swindon Minerals Development Control Policies Sustainability Appraisal Report for Submission Draft Document'. The information in the appendices should be read in conjunction with the Sustainability Appraisal Report.

The following appendices are included:

Appendix C: Minerals Development Control Policies SA/SEA Consultation

Appendix D: Minerals Development Control Policies Submission Draft Assessment

Appendix C: Minerals Development Control Policies SA/SEA Consultation

The following section includes detail of the two previous consultation stages which have been undertaken for the Minerals Development Control Policies Document. Information is provided on who was consulted and who responded to the consultation during the Scoping Consultation (August 2005), the Initial Preferred Options Consultation (June 2006) and the Revised Preferred Options Consultation (August 2007).

Consultation on the Scope of the SA

The aim of the scoping consultation was to ensure that all the relevant issues were identified and discussed at an early stage of the process so that they could be addressed during the SA and plan making. It included a series of questions to help consultees formulate their responses. The Scoping Report was sent to the relevant stakeholders and was available for consultation responses between 15th August 2005 and 19th September 2005.

The SEA Regulations and SA Guidance requires that consultation on the scope of the SA should be undertaken with the then four statutory environmental consultees (Countryside Agency, English Nature¹, English Heritage and the Environment Agency). However, it was decided to consult with a wider set of stakeholders to maximise contributions to the Minerals Development Plans.

A summary of the responses received through the scoping consultation, and the responses and/or actions undertaken were reported in the SA Report produced in June 2006². Amendments to the SA were made as a direct result of the comments received.

Consultation on the Initial Preferred Options Report (June 2006)

A second round of consultation was undertaken on the SA Report that accompanied the first Preferred Options Report and took place in June to August 2006. This consultation aimed to communicate the results of the Sustainability Appraisal to interested stakeholders and the public, with a view to solicit response as to the soundness and completeness of the work.

The SA Report was sent to the statutory environmental consultees, as well as over 100 organisations, including amongst others, neighbouring local authorities, parish councils, Government departments, NGOs, utility companies and other commercial organisations, particularly those operating in the minerals and waste sectors. The public were invited to consult via inclusion of the documents on the Wiltshire County Council website and at certain council offices and libraries.

A summary of the responses received through the scoping consultation, and the responses and/or actions undertaken were reported in the SA Report produced in August 2007³. Amendments to the SA were made as a direct result of the comments received.

¹ NB: Natural England replaced the Countryside Agency and English Nature in October 2006.

² The SA Report can be accessed at URL: <http://www.wiltshire.gov.uk/environment-and-planning/planning-home/planning-strategic-environment-assessment.htm>

³ The SA Report can be accessed at URL: <http://www.wiltshire.gov.uk/environment-and-planning/planning-home/planning-strategic-environment-assessment.htm>

Consultation on the Revised Preferred Options Report (August 2007)

Consultation on the Revised Preferred Options took place in August 2007, with the report being sent to the statutory consultees, as well as relevant stakeholders. The following table provides details of the consultation comments received and action taken in response to the comments.

SA/SEA of Revised Preferred Options Report (August 2007) Consultation		
Consultee	Comment	Action taken in response
Natural England	<p>Sustainability Appraisal</p> <p>There is no assessment of the opportunity cost of using a site for minerals or waste where it might be better used for an alternative development in the future (e.g. canal restoration or other strategic link).</p>	Comment not appropriate with respect to the DC policies DPD as no sites are put forward.
	<p>Development Framework SA Objectives</p> <p>Comparing the minerals and waste objectives, those for waste seemed more comprehensive. In particular, Waste Objectives 1, 6 and 8 are equally applicable as Minerals Objectives. The lack of a minerals objective to “promote healthy exercise especially daily exercise” may explain why there is no access policy for minerals.</p> <p>As discussed above, there are no policies which relate to mineral waste reduction and recycling of aggregates, yet the Sustainability Appraisal assesses the DPD against Waste and Minerals resources, and finds the DPD sustainable in these regards.</p>	<p>Noted, and added in as sub-objective for Objective 2.</p> <p>This is covered by the Core Strategy.</p>
Environment Agency	<p>General</p> <p>We are pleased that Wiltshire County and Swindon Borough councils are in the process of undertaking a Strategic Flood Risk Assessment (SFRA) to cover their areas. However it is important to stress that this should be completed and included within the next stage of the Development Control Policies DPD and SA.</p>	Noted and added in.
	<p>Sustainability Appraisal</p> <p>Appendix F: Sustainability Appraisal of 2007 Revised Preferred Options. This appendix includes reference to PPG25 Development and Flood Risk, rather than PPS25. the information in the ‘Evidence and Reference’ column should be amended and the appropriate objective re-assessed against PPS25, rather than PPG25.</p>	All references to PPG 25 have been removed.

Wiltshire Wildlife Trust	<p>1. Biodiversity</p> <p>The Council has a duty to conserve and enhance biodiversity under the Natural Environment and Rural Communities (NERC) Act 2006.</p>	Updated PPP review.
	<p>3.1 Biodiversity Action Plans</p> <p>We support the aim to contribute to BAP targets through restoration, and their inclusion in MDC1.</p> <p>The Council is most likely aware that the Wiltshire BAP is currently undergoing review, with substantial changes expected with regards to habitat and species action plans, and their related targets. A consultation draft is expected around October 2007, with the final document published Spring 2008.</p>	Updated PPP review.
	<p>Sustainability Appraisal</p> <p>This document contains no reference to strengthening the policy MDC6 to include European sites, as already has been discussed. This is included in the waste SA and to be consistent and ensure the appropriate degree of protection is afforded to such sites, this should also have been mentioned within the minerals SA.</p>	Noted and amended.

Appendix D: Minerals Development Control Policies Document Submission draft Assessment

The following tables provide details on the symbology and abbreviations used to document the results of the assessment process.

Assessment Key

The results of the assessment utilise the following key to categorise the nature of the effect.

Green (G)	Option actively encouraged in its current form as it would resolve an existing issue / maximise opportunities.
White (?)	Option would have an uncertain effect.
Blue (B)	Option would have a neutral effect.
Orange (O)	Option would need some changes in order to have a positive effect on issues identified.
Red (R)	The option would exacerbate existing problems and cannot be suitably mitigated. Consider exclusion of option.

Timescale	
Short Term	0-10 years
Medium Term	10-20 years
Long Term	After life of plan

Likelihood		
Symbol	Meaning	Comment
H	High	High Risk of Predicted Effect Occurring
M	Medium	Medium Risk of Predicted Effect Occurring
L	Low	Low Risk of Predicted Effect Occurring

Scale		
Symbol	Meaning	Comment
L	Local	Within Wiltshire and Swindon Local Authority areas
R	Regional	The South West region
N	National	UK or a wider global impact

Permanence		
Symbol	Meaning	Comment
P	Permanent	Effect even after mineral activities have ceased (i.e. after plan)
T	Temporary	Effect during mineral activities (i.e. life of plan)

In order to avoid having matrices which are dominated by the presentation of neutral effects, where it was determined that an objective was unlikely to be affected by the policy being assessed, these objectives have been listed at the bottom of the appraisal table. This helps to keep the tables focused on the more important issues.

The table below outlines the Sustainability Objectives that have been used to focus the assessment process and details the reference term which is used in the assessment tables for the sake of brevity. The full framework of objectives and associated sub-objectives can be found in Section 4 of the main SA Report.

SA Objective		Reference Term
1	Help make suitable housing available and affordable for everyone	Suitable housing
2	Promote stronger more vibrant communities	Vibrant communities
3	To foster a vibrant, varied economy, with particular emphasis on supporting regeneration projects in market towns	Vibrant economy
4	Encourage a switch from transporting freight by road to rail or water	Freight transportation
5	Protect habitats and species	Habitats and species
6	Promote the conservation and wise use of land	Land conservation
7	Protect and enhance landscape and townscape	Landscape
8	Value and protect diversity and local distinctiveness including rural ways of life	Rural ways of life
9	Maintain and enhance cultural and historical assets	Cultural assets
10	Reduce vulnerability to flooding	Flooding
11	Keep water consumption within local carrying capacity limits (taking account of climate change)	Water consumption
12	Reduce waste produced by mineral development	Waste
13	Minimise the use of non-renewable resources and where possible promote the use of renewable resources	Minerals resources
14	Minimise land, water, air, light, noise, and generic pollution	Pollution
15	Minimise impacts on climate change	Climate change

Appendix D Table 1 summarises the sustainability assessment of the vision, objectives and policies of the Submission draft. The table summarises the sustainability effect that has been predicted in the medium term. Following on from this summary table the appendix includes the full assessment tables for the Development Control Policies.

SA Objective Policy/Vision	Suitable housing	Vibrant communities	Vibrant economy	Freight transportation	Habitats and species	Land conservation	Landscape	Rural ways of life	Cultural assets	Flooding	Water consumption	Waste	Minerals resources	Pollution	Climate change
Policy MDC1: Key Criteria for Sustainable Minerals Development	G	G	?	G	G	G	G	B	?	G	G	G	G	G	?
Policy MDC2: Managing the Impacts of Minerals Development	B	G	B	?	G	B	?	G	G	B	?	B	?	G	?
Policy MDC3: Managing the Impact on Surface Water and Groundwater resources	B	G	B	B	G	B	B	B	B	G	G	B	B	G	G
Policy MDC4: Safeguarding Minerals Resources, Rail-head Facilities and Mineral Recycling Facilities	G	B	?	G	B	B	?	B	B	B	B	?	?	?	?
Policy MDC5: Protection and Enhancement of Wiltshire and Swindon's Landscape Character	B	?	?	B	G	B	G	G	?	B	B	B	B	G	?
Policy MDC6: Biodiversity and Geological Interest	B	G	B	B	G	G	G	B	B	B	B	B	B	G	?
Policy MDC7: The Historic Environment	B	G	B	B	B	B	G	B	G	B	B	B	B	B	?
Policy MDC8: Sustainable Transport and Minerals Development	B	?	?	G	B	?	?	G	?	B	B	B	G	G	G
Policy MDC9: Management, Restoration, Aftercare and After-use of Minerals Development	B	G	G	B	G	G	G	G	B	?	G	B	B	B	?
Policy MDC10: Restoration within Airfield Safeguarding Areas	B	B	B	B	?	B	?	B	B	?	O	B	B	B	?

**Appendix D Table 1: Summary of Submission draft Assessment
(Medium Term Timescale)**

Policy MDC1: Key Criteria for Sustainable Minerals Development

Proposals for minerals development must contribute to the delivery of sustainable development in Wiltshire and Swindon by ensuring that the social, economic and environmental benefits of minerals development are maximised, and adverse impacts – including cross-boundary and cumulative impacts – are kept to an acceptable minimum. All proposals for minerals development will be assessed using the following key criteria:

- a) The need for the development;
- b) The extent to which adverse environmental impacts associated with the development will be minimised and managed through an integrated mitigation strategy which has been developed through early and effective consultation with key stakeholders, including local communities and the Councils, prior to the submission of a planning application;
- c) The extent to which the development ensures protection and enhancement of biodiversity, geodiversity and the historic and cultural environment;
- c) The extent to which mineral waste generated on site is minimised, and where possible, the reception, processing and distribution of alternatives to primary aggregates is facilitated;
- d) The extent to which the visual / landscape impact of any structures and buildings is minimised in terms of the appropriate use of scale and form;
- e) The extent to which the development avoids loss of best and most versatile agricultural land and ensures the protection of soil resources throughout the life of the development;
- f) The extent to which the development ensures the efficient use of water resources on site and the extent that the adverse impacts on the water environment and flood risk can be avoided and / or mitigated;
- g) The extent to which the proposal facilitates sustainable transport;
- h) The quality and appropriateness of the restoration, aftercare and after-use proposals, considering the contribution that could be made to the UK, South West and/or Wiltshire, Swindon and Cotswold Water Park Biodiversity Action Plan targets, the South West Nature Map and Great Western Community Forest.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Spatial Scale	Permanence	
1	Suitable housing	G	G	G	H	L R	T	A sustainable contribution towards the local, regional and national needs for aggregate minerals will be made.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Spatial Scale	Permanence	
2	Vibrant communities	G	G	?	M	L	T	The impacts of minerals developments will be avoided and / or mitigated. There will be an integrated mitigation strategy which has involvement of the communities, which ought to have a positive effect for vibrant communities.
3	Vibrant economy	?	?	?	?	L	?	The provision of employment opportunities and the development of local markets may enhance local economy. In addition, uses of economic benefit to the local community may be considered as part of the restoration process.
4	Freight transportation	G	G	G	M	L	T	The policy requires proposals to facilitate sustainable transport.
5	Habitats and species	G	G	G	M	R	P	<p>The environmental impacts of minerals developments will be avoided or mitigated, and thus should reduce the impact upon habitats and species. Taking into account UK, South West and/or Wiltshire, Swindon and Cotswold Water Park Biodiversity Action Plan targets, South West Nature Map and Great Western Community Forest, in restoration and after-care proposals will benefit both habitats and species. Although, this policy has been assessed as having a positive impact on habitats and species it should be noted that mitigated impacts may still have residual adverse impacts on habitats and species.</p> <p><i>Nature after Minerals: how mineral site restoration can benefit people and wildlife, A.M. Davies, RSPB.</i></p>

SA Objective		Assessment of effect					Evidence and Reference	
		Short term	Medium term	Long term	Likelihood	Spatial Scale		Permanence
6	Land conservation	G	G	G	M	L	T	The policy has the potential to reduce unnecessary land take due to the need for the minerals development being assessed. If there is no need for the minerals development then the proposal is unlikely to be approved, therefore reducing land take.
7	Landscape	G	G	G	H	L	T	The minimisation of landscape impacts associated with buildings and structures should help to reduce the overall impact of the minerals development upon the landscape. Effective restoration may decrease the impact of the minerals development upon the landscape.
9	Cultural assets	G	G	G	M	L	T	This policy ensures the protection and enhancement of the historic and cultural environment.
10	Flooding	G	G	G	L	L	T	This policy should lead to increased recognition of flood risk, leading to improved flood risk management.
11	Water consumption	G	G	G	L	L	T	The policy should ensure efficient use of water resources on site.
12	Waste	G	G	G	L	L	T	Waste generation from mineral development on site should be minimised, and appropriate facilities provided.
13	Minerals resources	G	G	G	H	R	T	This policy should minimise unnecessary extraction of minerals resources.
14	Pollution	G	G	G	H	L	T	The environmental impacts of minerals developments will be avoided and / or mitigated, and thus should reduce pollution levels. <i>PPS23 Planning and Pollution Control, Department for Communities and Local Government (DCLG).</i>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Spatial Scale	Permanence	
15	Climate change	?	?	?	?	N	?	Minerals extraction, processing and manufacture, for example, cement production and batching plants will contribute to climate change by emitting greenhouse gases from site operations and minerals transportation. However a shift to more sustainable modes of transportation may reduce these impacts.
<p>Summary: Overall this policy should have a mostly temporary positive effect on twelve of the sustainability objectives. No negative effects have been identified. Uncertainty remains as to how this policy will impact on vibrant communities in the long term and climate change and vibrant economy in the short, medium and long term.</p> <p>SA Objectives excluded (Neutral effects anticipated from this policy): Rural ways of life</p>								

Policy MDC2: Managing the Impacts of Minerals Development

Applications for minerals development in Wiltshire and Swindon will only be permitted where it can be demonstrated that the proposal avoids and / or adequately mitigates, significant adverse impacts associated with the following environmental considerations:

- Noise levels;
- Dust levels;
- Air emissions;
- Lighting;
- Vibration levels.

Proposals for mineral development should be accompanied, where necessary, by an assessment of the impact of the proposal in terms of noise, dust, air emissions, lighting, and vibration. Where a need for mitigation is identified by the assessment and / or through consultation with key stakeholders, mitigation measures should be clearly defined and submitted as part of the development proposal, where necessary, incorporating appropriate separation distances to safeguard residential amenity.

All plant and machinery associated with the mineral development will be limited to the life of the mineral reserve it serves, except where it can be demonstrated that the adverse impacts associated with retaining the plant and machinery can be effectively managed.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
2	Vibrant communities	G	G	G	H	L	T	The impacts of minerals developments will be avoided and / or mitigated and amenities will be safeguarded by appropriate separation distances from the mineral workings.
4	Freight transportation	?	?	?	?	L	?	The policy may encourage both a switch to more sustainable transport methods e.g. rail or water, and road transport delivery optimisation due to the policy's requirement to minimise impacts on air quality.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
5	Habitats and species	G	G	G	M	L	T	Reduced impact on habitats and species from dust, vibration, noise and air emissions. Policy MDC6 addresses impacts upon biodiversity in further detail.
7	Landscape	?	?	?	?	L	?	The policy may help to reduce impacts upon landscape through the implementation of avoidance/mitigation measures to minimise the impact of other alternative impacts e.g. lighting. Policy MDC5 addresses impacts upon landscape character in further detail.
8	Rural ways of life	G	G	G	H	L	T	Reduced nuisance impact upon local rural communities. <i>PPS7 Sustainable in Rural Areas, Department for Communities and Local Government (DCLG).</i>
9	Cultural assets	G	G	G	M	L	T	Reduced impact on cultural and historical assets from dust, vibration and air emissions. Policy MDC7 addresses impacts upon cultural heritage in further detail.
11	Water consumption	?	?	?	?	L	?	The policy may help to reduce water consumption and protect water quality through the implementation of avoidance/mitigation measures to minimise the other environmental impacts. However, dust suppression techniques will lead to an increase in water consumption. Policy MDC3 addresses impacts upon surface water and groundwater in further detail.
13	Minerals resources	?	?	?	?	R	?	The need to avoid and / or mitigate for air emissions, dust, noise and vibration impacts may reduce the use of non-renewable resources. <i>PS22 Renewable Energy, Department for Communities and Local Government (DCLG).</i>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
14	Pollution	G	G	G	H	L	T	The impacts of air emissions and dust will be avoided and / or mitigated.
15	Climate change	?	?	?	?	N	?	Minerals extraction, processing and manufacture, for example, cement production and batching plants will contribute to climate change by emitting greenhouse gases from site operations and minerals transportation. However, the mitigation or avoidance of environmental impacts such as air emissions may help to reduce this contribution.
<p>Summary: Overall this policy should have a temporary positive effect on five of the sustainability objectives. No negative effects have been identified. Uncertainty remains as to how this policy will impact on freight transportation water consumption, resources, landscape and climate change in the short, medium and long term.</p> <p>SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, vibrant economy, land conservation, flooding, and waste.</p>								

Policy MDC3: Managing the Impact on Surface Water and Groundwater Resources

Proposals for minerals development will only be permitted where it can be demonstrated that appropriate controls will be made available to protect and, where appropriate, enhance the water environment. This includes making provisions to ensure the protection and maintenance of:

- The quality of groundwater, water courses and other surface water; and
- the volume / levels of groundwater, water courses and other surface water

Flood Risk Assessments will be required for minerals development proposals in areas at risk of flooding or likely to contribute to flooding elsewhere, as appropriate to the nature and scale of the development, and must take into account cumulative effects with other existing or proposed development. Where a risk of flooding is identified through FRA, proposals must include measures to ensure the avoidance of and / or mitigation of that risk.

Where appropriate, development proposals will also be required to include provisions for the efficient use of water resources on site and the use of Sustainable Urban Drainage Systems (SUDS).

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
2	Vibrant communities	G	G	G	H	L	T	<p>Protection of surface water and groundwater should reduce the risk of loss of clean drinking water supplies through contamination or hydrological disruption. In addition, the protection of water courses will reduce the risk of recreational resources becoming contaminated or lost. Avoidance of flooding will ensure the quality of life in local communities is protected.</p> <p><i>Reducing the effects of surface mineral workings on the water environment, Thompson, A, Easton, P H, Hine, P D and Huxley, C L 1998.</i></p> <p><i>PPS25 Development and Flood Risk, Department for Communities and Local Government (DCLG).</i></p>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
5	Habitats and species	G	G	G	H	L	T	<p>Protection of water courses and surface water should reduce the risk of contamination to water habitats.</p> <p><i>PPS9 Biodiversity and Geological Conservation, Department for Communities and Local Government (DCLG).</i></p> <p><i>Reducing the effects of surface mineral workings on the water environment, Thompson, A, Easton, P H, Hine, P D and Huxley, C L 1998.</i></p>
10	Flooding	G	G	G	M	L	T	<p>This policy should help to reduce the risk of flooding due to minerals development. Such a development must also satisfy Environment Agency requirements (SFRA) that flood risk has been adequately avoided and / or mitigated.</p> <p>It has been identified that flood risk may increase in winter months due to the effects of climate change on precipitation levels. The outcomes of the UKCIP model for the plan area up to 2020 are a 0-15% increase in precipitation during winter months.</p> <p><i>PPS25 Development and Flood Risk, Department for Communities and Local Government (DCLG).</i></p>
11	Water consumption	G	G	G	H	R	T	<p>The efficient use of water resources on site and in any ancillary developments will keep water consumption to a minimum.</p> <p>Low flows, particularly during the summer months, have been identified as an issue in the West Wessex water region due to the abstraction of water for public supply. The Low Flow Solutions Project has been looking at</p>

SA Objective		Assessment of effect					Evidence and Reference	
		Short term	Medium term	Long term	Likelihood	Scale		Permanence
							ways to maximise water abstraction from sources other than low flow rivers such as the Wylve and Malmesbury Avon. It is likely that climate change will exacerbate problems with water resources in the area. <i>Reducing the effects of surface mineral workings on the water environment, Thompson, A, Easton, P H, Hine, P D and Huxley, C L 1998.</i>	
14	Pollution	G	G	G	H	L	T	Protection of groundwater, water courses and other surface water from pollution incidents should reduce the risk of water contamination. <i>PPS23 Planning and Pollution Control, Department for Communities and Local Government (DCLG).</i>
15	Climate change	G	G	G	M	R	T	This policy should reduce the impact of climate change upon the availability of drinking water resources. This is an important factor in the area due to low flows in the Wylve and Malmesbury Avon rivers in summer months due to high levels of abstraction. It is likely that climate change will exacerbate problems with water resources in the area. The UKCIP model for the plan area up to 2020 has identified a potential 0-15% decrease in precipitation during summer months. In addition, the policy should help to reduce flood risk in the winter months when precipitation may be higher due to the effects of climate change. The outcomes of the UKCIP model for the plan area up to 2020 are a 0-15% increase in precipitation during winter months.

SA Objective	Assessment of effect						Evidence and Reference
	Short term	Medium term	Long term	Likelihood	Scale	Permanence	
Summary: Overall this policy should have a temporary positive effect on six of the sustainability objectives at the local and regional level. No negative effects have been identified.							
SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, vibrant economy, freight transportation, landscape, land conservation, rural ways of life, cultural assets, minerals resources and waste.							

Policy MDC4: Safeguarding Minerals Resources, Rail-head Facilities and Minerals Recycling Facilities

Proposals for development within Mineral Consultation Areas and Mineral Safeguarding Areas, as defined on the Proposals Map, that may prevent or adversely affect current or possible future mineral extraction and/or associated ancillary operations, rail-head facilities, and mineral recycling facilities within Wiltshire and Swindon will be opposed unless:

- An appropriate quantity of mineral can be reasonably extracted prior to or in phase with the proposed non-mineral development such that the extraction does not unreasonably prevent or hinder the non-minerals development; or
- It can be proven that the mineral deposit is unlikely to be worked due to its quality or quantity; or
- The development is of a temporary nature and can be completed and the site restored to a condition that does not inhibit extraction within the timescale that the mineral is likely to be needed; or
- There is an overriding need for the proposed non-minerals development to commence without delay.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
1	Suitable housing	G	G	?	M	L	T	Safeguarding active and proposed minerals sites and developing future sites reduces the risk of a reduced supply of aggregate.
3	Vibrant economy	?	?	?	?	L	?	This policy may help to protect mineral resources, and ensure that mineral resources are not sterilised by non mineral developments.
4	Freight transportation	G	G	?	H	L	T	Preserving railheads will allow for the continued transportation of aggregates by rail. <i>MPS 2 Minerals Policy Statement Annex 1 Dust, Annex 2 Noise.</i> <i>PPG13 Transport, Department for Communities and Local Government (DCLG).</i>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
7	Landscape	?	?	?	?	L	?	This policy may protect landscape until either mineral operations take place or an overriding need for other development happens.
12	Waste	?	?	?	?	L	?	This policy may safeguard potential sites for recycling facilities. This in turn may lead to an increase in the amount of minerals being recycled. <i>PPS10 Planning for Sustainable waste management, Department for Communities and Local Government (DCLG).</i>
13	Minerals resources	?	?	?	?	L	?	This policy may safeguard potential sites for recycling facilities. This in turn may lead to an increase in the amount of minerals being recycled, and a reduction in the amount of primary materials required. <i>PPS10 Planning for Sustainable waste management, Department for Communities and Local Government (DCLG).</i>
14	Pollution	?	?	?	?	L	?	This policy may lead to a reduction in air pollution due to a change from road to rail transport, and a reduction in the need for primary extraction.
15	Climate change	?	?	?	?	N	?	Minerals extraction, processing and manufacture, for example, cement production and batching plants will contribute to climate change by emitting greenhouse gases from site operations and minerals transportation.
<p>Summary: Overall this policy should have a temporary positive effect on two the sustainability objectives until a form of development exploits the safeguarded areas. Uncertainty remains as to how this policy will impact on the economy, landscape, waste, minerals resources, pollution and climate change in the short, medium and long term.</p> <p>SA Objectives excluded (Neutral effects anticipated from this policy): Vibrant communities, habitats and species, rural ways of life, land conservation, cultural assets, flooding and water consumption.</p>								

Policy MDC5: Protection and Enhancement of Wiltshire and Swindon's Landscape Character

Proposals for minerals development should include an assessment of the adverse impacts upon Wiltshire and Swindon's landscape character and the landscape character of adjacent areas, as deemed appropriate to the scale and nature of the development, and in particular in relation to the following designated areas:

- The New Forest National Park;
- The Cranborne Chase and West Wiltshire Downs Area of Outstanding Natural Beauty;
- The Cotswolds Area of Outstanding Natural Beauty; and
- The North Wessex Downs Area of Outstanding Natural Beauty.

The assessment should be informed by the Wiltshire Landscape Character Assessment, as a minimum, and where the proposed development falls within or in proximity to an AONB or in proximity to the New Forest National Park, the relevant Management Plan.

Proposals for minerals development should include appropriate provisions to protect and, where possible, enhance the quality and character of the countryside and landscape. Proposals in proximity to settlements must safeguard their character, setting and rural amenity through the implementation of mitigation measures that incorporate an acceptable separation distance, landscaping and planting, appropriate to the existing landscape setting and that is consistent with the proposed after-use of the site.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
2	Vibrant communities	?	?	?	?	R	?	The impacts of minerals developments on local communities in designated areas may reduce. There may, however, be more minerals workings in non-designated areas.
3	Vibrant economy	?	?	?	?	L	?	This policy may reduce land available for minerals development.
5	Habitats and species	G	G	G	M	R	T	Reduced impacts on habitats and species in these designated areas.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
								<i>PPS9 Biodiversity and Geological Conservation, Department for Communities and Local Government (DCLG).</i>
7	Landscape	G	G	G	H	N	T	The policy aims to minimise impact on Wiltshire and Swindon's landscape character. In addition, the policy ensures the protection, maintenance and enhancement of countryside quality and areas of designated landscape importance.
8	Rural ways of life	G	G	G	H	R	T	The policy should help to protect and maintain countryside quality and character as proposals in proximity to settlements must have mitigation measures in place. <i>PPS7 Sustainable Development in Rural Areas (DCLG).</i>
9	Cultural assets	?	?	?	?	L R	?	Dependent on the existence of cultural assets in the designated areas, and the assets in the other areas that may then be at risk.
14	Pollution	G	G	G	L	L	T	Reduced pollution from primary extraction in designated areas.
15	Climate change	?	?	?	?	N	?	Minerals extraction, processing and manufacture, for example, cement production and batching plants will contribute to climate change by emitting greenhouse gases from site operations and minerals transportation.
<p>Summary: Overall this policy should have a temporary positive effect on four sustainability objectives on occasion at the regional scale. No negative effects have been identified. Uncertainty remains as to how this policy will impact on the local community and economy, cultural assets, and on climate change.</p> <p>SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, freight transportation, land conservation, flooding, water consumption, waste and minerals resources.</p>								

Policy MDC6: Biodiversity and Geological Interest

Proposals for minerals development in Wiltshire and Swindon must be accompanied by an objective assessment of the potential effects of the development on areas of biodiversity and/or geological interest, taking into account cumulative impacts with other development and the potential impacts of climate change.

Proposals must maintain and / or enhance internationally and nationally designated features of biodiversity and/or geological interest, species of principal importance and the following features of local and regional and international importance:

- European Protected Species
- Wiltshire's Biodiversity Action Plan habitats and species
- County Wildlife Sites (including Semi Natural Ancient Woodlands).
- Regionally Important Geological and Geomorphological Sites
- Local Nature Reserves
- The Great Western Community Forest

Proposals for minerals development will only be permitted where adverse impacts will be:

- a) Avoided; or
- b) Where an adverse impact cannot be avoided, the impact will be adequately mitigated; or
- c) Where adverse impacts cannot be avoided or adequately mitigated, compensation will result in the maintenance or enhancement of biodiversity/geodiversity.

SA Objective	Assessment of effect						Evidence and Reference
	Short term	Medium term	Long term	Likelihood	Scale	Permanence	

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
2	Vibrant communities	G	G	G	M	L	T	This policy should help protect sites of biodiversity and geological conservation value which provide leisure and health benefits to the community. <i>Natural Fit: Can green space and biodiversity increase levels of physical exercise?, W.Bird, RSPB.</i>
5	Habitats and species	G	G	G	H	L R N	T	This policy should ensure the protection of designated sites and therefore reduce the impacts of minerals workings on habitats and species. <i>PPS9 Biodiversity and Geological Conservation, Department for Communities and Local Government (DCLG).</i>
6	Land conservation	G	G	G	M	L	T	Protection of these sites may support landscape conservation.
7	Landscape	G	G	G	M	L	T	Protection of these sites may maintain landscape value.
14	Pollution	G	G	G	H	L	T	This policy should help minimise pollution levels via the requirement for mitigation. <i>PPS23 Planning and Pollution Control, Department for Communities and Local Government (DCLG).</i>
15	Climate change	?	?	?	?	N	?	Minerals extraction, processing and manufacture, for example, cement production and batching plants will contribute to climate change by emitting greenhouse gases from site operations and minerals transportation.
<p>Summary: Overall this policy should have a temporary positive effect on five sustainability objectives at all scales. No negative effects have been identified. Uncertainty remains as to how this policy will impact on climate change.</p>								
<p>SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, vibrant economy, freight transportation, rural ways of life, cultural assets, flooding, water consumption, waste and minerals resources.</p>								

Policy MDC7: The Historic Environment

In the interest of protecting the rich historical character of Wiltshire and Swindon, proposals for minerals development will be permitted where it can be demonstrated that areas of archaeological or cultural heritage importance and their settings can be protected, enhanced and/or preserved.

Proposals affecting sites of known or potential archaeological importance must be accompanied by an archaeological evaluation. Based on the findings of the initial evaluation, preservation of in situ of nationally important remains may be necessary, or developers will be required to agree to a scheme of further archaeological mitigation prior to commencement of the development or as part of the overall development scheme. In the interests of recording, preserving and the future management of important archaeological features affected by a proposal the Councils may seek contributions from the developer in the form of a legal agreement.

Proposals affecting the setting of the World Heritage Site of Stonehenge and Avebury will not be permitted.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
2	Vibrant communities	G	G	G	L	L	T	Maintenance of the historic environment will help to enhance the quality of life experienced by communities.
7	Landscape	G	G	G	H	R N	T	The policy would aid protection of historic landscapes.
9	Cultural assets	G	G	G	H	R N	T	Cultural and historical assets would be protected from minerals development. <i>PPG15 Planning and the Historic Environment as amended by Circulars 01/2001 and 09/2005, Department for Communities and Local Government (DCLG) and PPG16 Archaeology and Planning, DCLG.</i> <i>Minerals Extraction and the Historic Environment, English Heritage Policy Position Statement.</i>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
15	Climate change	?	?	?	M	N	T	Minerals extraction, processing and manufacture, for example, cement production and batching plants will contribute to climate change by emitting greenhouse gases from site operations and minerals transportation.
<p>Summary: Overall this policy should have a temporary positive effect on three sustainability objectives. No negative effects have been identified. There is uncertainty as to how this policy will impact on climate change.</p> <p>SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, vibrant economy, freight transportation, habitats and species, land conservation, rural ways of life, flooding, water consumption, waste, minerals resources and pollution.</p>								

Policy MDC8: Sustainable Transportation and Minerals Development

Minerals development will only be permitted where it is demonstrated that the proposals facilitate sustainable transport by:

- Minimising transportation distances;
- Maximising the use of rail or water to transport minerals where practicable and environmentally acceptable;
- Ensuring a proposal has direct access or has suitable links with the Wiltshire HGV Route Network or primary route network;
- Establishing mineral site transport plans, where deemed necessary; and
- Mitigating or compensating for any adverse impact on the safety, capacity and use of a highway, railway, canal route, cycleway or public right of way, through improvements to the appropriate network where necessary.

Where appropriate, applications for mineral development will need to be accompanied by a Transport Assessment. The Transport Assessment will need to:

- Consider the impact of the development upon the highway network (and where relevant the local railway, canal route, cycleway or public right of way), in the local area;
- Consider the potential cross boundary impacts and cumulative impacts of the development with other local developments; and
- Identify any mitigation or compensatory works directly related to the development that may need to be funded by the developer in conjunction with the proposal.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
2	Vibrant communities	?	?	?	?	L	?	This policy may lead to fewer people being directly affected by the traffic generated by minerals workings. This, however, would depend on the size and location of the minerals development.
3	Vibrant economy	?	?	?	?	L	?	Potentially reduced transportation of minerals by road, therefore, reduced levels of congestion. This, however, would depend on the size and location of the minerals development.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
4	Freight transportation	G	G	G	M	L	T	<p>This policy should encourage a switch to more sustainable modes of minerals transportation, and increased road transport optimisation e.g. avoiding peak time movements in congested areas. A Transport Assessment has to accompany the proposal, and consider the impact on the highway network, as well as other modes (eg local rail, canal route) Although this policy has been assessed as positive, the impact it may have on freight transportation is dependant upon the scale and location of the minerals development.</p> <p><i>PPG13 Transport, Department for Communities and Local Government (DCLG).</i></p>
6	Land conservation	?	?	?	?	L	?	<p>Increased use of sustainable transport methods may reduce the need for further infrastructure development, in particular roads. There may, however, be a need to extend or increase the number of Rail Aggregate Depots.</p>
7	Landscape	?	?	?	?	L	?	<p>Increased use of sustainable transport methods may reduce the need for further infrastructure development, in particular roads. There may, however, be a need to extend or increase the number of Rail Aggregate Depots. The impacts on landscape are dependent on the location of any new infrastructure.</p>
8	Rural ways of life	G	G	G	M	L	T	<p>Potential for reduced accident risks for rural residents.</p>
9	Cultural assets	?	?	?	?	L	?	<p>This policy may reduce the impacts of minerals traffic on cultural assets.</p>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
13	Minerals resources	G	G	G	M	L	T	Potential to reduce the amount of energy and materials used to transport minerals. This would, however, be dependant upon the total number of miles the minerals need to be transported.
14	Pollution	G	G	G	L	L	T	Pollution levels may fall due to the use of more sustainable transport modes and road transport optimisation. Although this has been assessed as positive, it is unlikely that this policy would have a significant impact upon pollution levels as aggregate transport does not dominate the proportion of traffic on the roads.
15	Climate change	G	G	G	L	N	T	This policy could reduce greenhouse gas emissions from the transportation of minerals depending upon the mix of modes from quarry to user but magnitude is probably small.
<p>Summary: Overall this policy should have a positive effect on five of the sustainability objectives. No negative effects have been identified. Uncertainty remains as to how this policy will impact on the local community, economy, land conservation, landscape and cultural assets.</p> <p>SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, habitats and species, flooding, water consumption and waste.</p>								

Policy MDC9: Restoration, Aftercare and After-use Management of Minerals Development

Proposals for minerals development will be permitted where it can be demonstrated that a high quality and appropriate restoration scheme will enable the long term maintenance and enhancement of the environment after the minerals development has ceased and at the earliest practicable opportunity.

The proposals must demonstrate that:

- 1)
 - I. The restoration scheme incorporates phased restoration of the site that will minimise the period of operations in sensitive areas to protect settlements and residential amenity, taking into account the phasing and operations of nearby developments;
 - II. Measures will be taken to ensure that soil quality will be adequately protected and maintained throughout the life of the development and in particular during stripping, storage and management of soils, subsoils and overburden arisings as a result of site operations.
 - III. There is an available supply of appropriate materials to be used for restoration purposes, as required to implement the proposed restoration scheme.
 - IV. The restoration scheme will not impede the successful adoption of the proposed after-use and will offer flexibility for a range of potential afteruses.
- 2)
 - I. The aftercare scheme incorporates an aftercare period of at least five years commensurate with the proposed after-use; and
 - II. Those responsible for the on going management and aftercare of restored sites have been identified and agreed.
- 3)
 - I. Where the proposed after-use will achieve habitat creation it aims to deliver the objectives of the relevant National, Regional or Local Biodiversity Action Plan, and where applicable, contribute to the delivery of the South West Nature Map and / or the Great Western Community Forest;
 - II. The after-use will be compatible with the wider context of the site in terms of the character of the surrounding landscape (informed by the Wiltshire Landscape Character Assessment), existing land uses in the area, having considered the relative potential benefits of alternatives after-uses in local, regional or national terms;
 - III. The site is designed for a primary after-use that will simplify and minimise long-term management; and
 - IV. The after-use will benefit the local and/or wider community.

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
2	Vibrant communities	G	G	G	H	L	P	<p>After use and after care envisaged to benefit local communities through providing health benefits through the encouragement of physical activity, educational opportunities and the contribution to the regeneration of sustainable communities. A phased restoration scheme will minimise the period of operations in sensitive areas to protect settlements and residential amenity, encouraging vibrant communities.</p> <p><i>PPG17 Planning for open space, sport and recreation, Department for Communities and Local Government (DCLG).</i></p> <p><i>Natural Fit: Can green space and biodiversity increase levels of physical exercise?, W.Bird, RSPB.</i></p> <p><i>Nature after minerals: how mineral site restoration can benefit people and wildlife, A. M. Davies, RSPB.</i></p>
3	Vibrant economy	G	G	G	M	L	P	<p>The policy aims to encourage after uses that aims to benefit the local economy.</p> <p><i>Nature after minerals: how mineral site restoration can benefit people and wildlife, A. M. Davies, RSPB.</i></p>
5	Habitats and species	G	G	G	H	L R N	P	<p>This policy will encourage habitats to be created in line with the UK, South West and/or Wiltshire, Swindon and Cotswold Water Park Biodiversity Action Plan targets and where applicable, contribute to South West Nature Map and / or Great Western Community Forest.</p>
6	Land conservation	G	G	G	H	L	T	<p>The policy states that proposals must demonstrate that measures will be taken to ensure that soil quality will be adequately protected and maintained throughout the life of the development.</p>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
7	Landscape	G	G	G	H	L	P	The restored sites should provide a better fit into the community, landscape and ecological needs of the area Phased restoration should minimise the area of land disturbed at any one time.
8	Rural ways of life	G	G	G	M	L	P	Effective restoration and the development of an after use should restore open space and amenity land. <i>PPS7 Sustainable Development in Rural Areas, Department for Communities and Local Government (DCLG).</i> <i>Nature after minerals: how mineral site restoration can benefit people and wildlife, A. M. Davies, RSPB.</i>
10	Flooding	?	?	?	?	L	?	Opportunities may exist to incorporate features to reduce flood risk or provide water storage. It has been identified that flood risk may increase in winter months due to the effects of climate change on precipitation levels. The outcomes of the UKCIP model for the plan area up to 2020 are a 0-15% increase in precipitation during winter months. <i>PPS25 Development and Flood Risk, Department for Communities and Local Government (DCLG).</i>

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
11	Water consumption	G	G	G	L	L	P	<p>May be able to increase the amount of water available for consumption by using appropriate restoration techniques.</p> <p>Low flows, particularly during the summer months, have been identified as an issue in the West Wessex water region due to the abstraction of water for public supply. The Low Flow Solutions Project has been looking at ways to maximise water abstraction from sources other than low flow rivers such as the Wylfe and Malmesbury Avon. The UKCIP model for the plan area up to 2020 has identified a potential 0-15% decrease in precipitation during summer months.</p>
15	Climate change	?	?	?	?	R	?	<p>Appropriate restoration planning may be able to aid climate change adaptation e.g. additional water storage or for habitats and species. The UKCIP model for the plan area up to 2020 has identified a potential 0-15% decrease in precipitation during summer months, and a 0-15% increase during winter months.</p>
<p>Summary: Overall this policy should have a permanently positive effect on eight of the sustainability objectives. No negative effects have been identified. Uncertainty remains as to how this policy will impact on flooding and climate change.</p>								
<p>SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, freight transportation, cultural assets, waste, minerals resources and pollution.</p>								

Policy MDC10: Restoration within Airfield Safeguarding Areas

Proposals for minerals development within the following Airfield Safeguarding Areas, as identified on the Proposals Map, will be permitted when the applicant can demonstrate that the proposed extraction and after-use will not cause an unacceptable risk of bird strike:

- Boscombe Down;
- Colerne;
- Fairford;
- Hullavington Barracks;
- Keevil Airfield;
- RAF Lyneham;
- Middle Wallop;
- Netheravon;
- South Cerney; and
- Upavon (Trenchard Lines).

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
5	Habitats and species	?	?	?	?	L	?	As large areas of Wiltshire and Swindon are covered by Airfield Safeguarding Areas so opportunities for wetland habitat creation are reduced. Alternative habitats supporting the Biodiversity Action Plans (BAPs) such as amenity grassland, unimproved neutral grassland, scrub habitat, woodlands, and hedgerow habitat could be used in restoration proposals.
7	Landscape	?	?	?	?	L	?	May result in a reduction in wetland habitat and increased predominance of alternative habitats such as grassland, woodland, and shrub habitats in these areas.
10	Flooding	?	?	?	?	L	?	As large areas of Wiltshire and Swindon are covered by Airfield Safeguarding Areas there are reduced opportunities to reduce flood risk by creating flood water storage. There is, however, the possibility of creating smaller expanses of water such as fragmented ponds to

SA Objective		Assessment of effect						Evidence and Reference
		Short term	Medium term	Long term	Likelihood	Scale	Permanence	
								act as water storage and reduce flood risk provided the risk of the storage are would not cause an unacceptable risk of bird strike. It has been identified that flood risk may increase in winter months due to the effects of climate change on precipitation levels. The outcomes of the UKCIP model for the plan area up to 2020 are a 0-15% increase in precipitation during winter months.
11	Water consumption	O	O	O	H	L	T	As large areas of Wiltshire and Swindon are covered by Airfield Safeguarding Areas the potential for water storage for irrigation, fisheries, etc is minimised leading to further pressure on the depleting flows in the Wylfe and Malmesbury Avon rivers.
15	Climate change	?	?	?	?	R	?	It is likely that climate change will exacerbate problems with water resources in the area. The reduced availability of water storage facilities (for irrigation, fisheries, etc in the summer months, and to reduce flood risk in the winter months) may reduce the ability for the local community to adapt to the impacts of climate change The UKCIP model for the plan area up to 2020 has identified a potential 0-15% decrease in precipitation during summer months, and a 0-15% increase during winter months.
<p>Summary: The impact of this policy upon the SA objectives is primarily uncertain. A negative impact upon water consumption has been identified.</p>								
<p>SA Objectives excluded (Neutral effects anticipated from this policy): Suitable housing, vibrant communities, vibrant economy, freight transportation, land conservation, rural ways of life, cultural assets, waste, minerals resources and pollution.</p>								

