

TAG Biodiversity Impacts Worksheet

Step 2		Step 3				Step 4	Step 5
Area	Description of feature/ attribute	Scale (at which attribute matters)	Importance (of attribute)	Trend (in relation to target)	Biodiversity and earth heritage value	Magnitude of impact	Assessment Score
Bath and Bradford-on-Avon Bats SAC	Greater horseshoe bat and Bechstein's bat are listed as Annex II species that are a primary reason for selection of this site and contains important hibernation sites for these species. Lesser horseshoe bat is listed as an Annex II species present as a qualifying feature, but not a primary reason for site selection. Located approximately 12.5 km from the Site.	International	SACs are considered to be internationally important.	Unknown	Very high	Neutral - no impact on this designated site is anticipated	Neutral
Bats	Habitats within the Site including woodland areas and scattered trees may provide suitable foraging habitats for bats. Hedgerows may also provide suitable foraging and commuting areas for bats. Road bridges may provide bat roosting potential.	International	All UK bats are European Protected Species and protected under Conservation of Habitats and Species Regulations 2017 (as amended) Reg 43 and Wildlife and Countryside Act 1981 (as amended) S.9	Variable depending on species. The latest trends indicate that in most cases, UK bat species are stable or recovering	Very high	Minor negative - the Scheme will require the breaking and resurfacing of the carriageways on the road bridges, causing disturbance to any potential roosts. Daytime inspections of the bridges will determine bat roost potential/presence. As a result of this inspection, further emergence surveys of the bridges may be required in the bat active season (May to September).	Slight Adverse
Reptiles	The field survey identified suitable habitat areas for foraging, resting, sheltering and basking reptiles, particular along the verge of the M4 west bound off slip road where there is a steep grassland bank. Other areas of suitable habitat within the Site include scrub and grassland habitats.	Local	Common UK reptiles (adder, viviparous lizard, grass snake and slow worm) are protected under Wildlife and Countryside Act 1981 (as amended) S.9(1) and S.9(5).	Latest trends suggest all UK species are in decline.	Low	Minor negative - the Scheme will result in a loss of grassland and scrub habitats adjacent to the gyratory and the roundabout approaches which may be utilised by reptiles. Works will be conducted outside of hibernation period (November to February). Materials will be stored away from suitable reptile habitat. Works near to suitable habitat will be conducted under a PMW.	Slight Adverse
Hazel dormouse (<i>Muscardinus avellanarius</i>)	The field survey identified some suitable habitat for hazel dormouse within and surrounding the Site, including woodland, scrub and hedgerows. However, the woodland was considered highly sub-optimal due to the lack of a well-developed understorey and its very limited extent. The hedgerows identified within the Site were species poor and also sub-optimal for hazel dormouse. Scrub areas and woodland along the M4 slip roads may have potential to support foraging and commuting dormouse and have connectivity to other woodlands and hedgerows in the wider area.	International	Species is a European Protected Species and is protected under Conservation of Habitats and Species Regulations 2017 (as amended) Reg 43 and Wildlife and Countryside Act 1981 (as amended) S.9	The latest report on population trends suggests a decline of 51% 2000 to 2019 (an average of 3.8% per year)	Very high	Minor negative - the Scheme will result in a loss of scrub habitat adjacent to the gyratory and the roundabout approaches, potentially suitable for use by dormice. No mature trees will be removed. Vegetation clearance of scrub, woodland or hedgerows will be kept to a minimum where possible and undertaken outside the breeding season (May to August) to avoid harm to dormice and their young. Works near to suitable habitat will be conducted under a PMW.	Slight Adverse
Great Crested Newt (<i>Triturus cristatus</i>)	There is one drainage ditch located approximately 40m south of the Site which may have potential to support great crested newt. Habitats within the Site including grassland, scrub and woodland areas may provide suitable refugia for hibernating, foraging and commuting great crested newt. However, these are not connected to any suitable waterbodies.	International	Great crested newt is a European Protected Species and is protected under Conservation of Habitats and Species Regulations 2017 (as amended) Reg 43 and Wildlife and Countryside Act 1981 (as amended) S.9	Great crested newt numbers are declining over their European natural range.	Very high	Minor negative - the Scheme will result in a loss of grassland and scrub habitats adjacent to the gyratory and the roundabout approaches which may provide refugia. A Habitat Suitability Assessment of the drainage ditch 40m south of the Site will be conducted at the next business case stage, which will inform any necessary mitigation.	Slight Adverse
Nesting birds	The field survey identified areas of suitable habitat for common, widespread species within the Site, including; woodland, scattered trees, scrub and hedgerows.	Local	Species are protected under Wildlife and Countryside Act 1981 (as amended) S.1. Species present within and adjacent to the scheme are likely to comprise of a range of more common notable species.	Dependent on individual species or species communities.	Low	Minor negative - the Scheme will result in a loss of scrub habitat suitable for nesting adjacent to the gyratory and the roundabout approaches. No mature trees will be removed. Mitigation has been suggested to avoid damaging or disturbing any active nests within the scrub. Construction of the scheme is unlikely to have any significant effect on the favourable conservation status of the local populations of common nesting birds.	Slight Adverse
Badger (<i>Meles meles</i>)	Habitats identified within the Site, such as woodland, and scrub may provide suitable foraging habitats for badger as well as opportunities for sett creation. Evidence of badger activity was also found within the Site.	Local	Species is protected under Protection of Badgers Act 1992	Unknown	Low	Minor negative - the Scheme will result in a loss of scrub habitat adjacent to the gyratory and the roundabout approaches, which may be utilised by badger. No mature trees will be removed. A pre-works check for the presence of badger is recommended. Construction of the scheme is unlikely to have any significant effect on the favourable conservation status of the local population of badgers.	Slight Adverse

Swinley Meadow (LWS)	Small, single semi-improved field with patches of richer grassland, located approximately 1.2 km from the Site.	Local	Sites designated at county level for nature conservation.	Unknown	Medium	Neutral - no impact on this designated site is anticipated	Neutral
Stanton Park (LWS)	Semi-natural broadleaved woodland, conifer plantation and mixed woodland on a flat ancient woodland site on clay soil, located approximately 1.7 km from the Site.	Local	Sites designated at county level for nature conservation.	Unknown	Medium	Neutral - no impact on this designated site is anticipated	Neutral
Manor Farm Brook Fields (LWS)	Three small pastures in a shallow valley on oolitic limestone separated by a brook and scrub woodland. Supports areas of unimproved calcareous grassland on steeper slopes. Located approximately 1.8 km from the Site.	Local	Sites designated at county level for nature conservation.	Unknown	Medium	Neutral - no impact on this designated site is anticipated	Neutral
Eil Wood (LWS)	Mostly semi-natural ancient woodland on Kellaways sands and clay, located approximately 2 km from the Site.	Local	Sites designated at county level for nature conservation.	Unknown	Medium	Neutral - no impact on this designated site is anticipated	Neutral
North Draycott Park (LWS)	Old parkland - a high concentration of very old oak trees (many pollards) in semi-improved grassland, located approximately 2 km from the Site.	Local	Sites designated at county level for nature conservation.	Unknown	Medium	Neutral - no impact on this designated site is anticipated	Neutral
Semi-natural broadleaved woodland (BAP Priority Habitat) covering approximately 22% of the Site (4.31 ha)	Found within the roundabout and along the M4 slip roads, A350 and B4122 verges within the Site.	Local	Habitats identified at national level as being most threatened and requiring conservation action under the UK Biodiversity Action Plan.	Wiltshire BAP: positive (action has been taken to improve/ protect / enhance this habitat)	Medium	Neutral - no impact on this habitat is anticipated	Neutral
Species-poor hedgerow with trees (BAP Priority Habitat) covering approximately 1% of the Site (475.6 m)	Found along A429 and B4122 verges within the Site.	Local	Habitats identified at national level as being most threatened and requiring conservation action under the UK Biodiversity Action Plan.	Wiltshire BAP: positive (action has been taken to improve/ protect / enhance this habitat)	Medium	Neutral - no impact on this habitat is anticipated	Neutral
Species-poor hedgerow (BAP Priority Habitat) covering approximately 1% of the Site (342.5 m)	Found along A429 and B4122 verges within the Site.	Local	Habitats identified at national level as being most threatened and requiring conservation action under the UK Biodiversity Action Plan.	Wiltshire BAP: positive (action has been taken to improve/ protect / enhance this habitat)	Medium	Neutral - no impact on this habitat is anticipated	Neutral
Approximately 76% of Site area not covered by BAP Priority Habitat, including existing hardstanding and soft estate (14.78 ha)	Hardstanding, poor semi-improved grassland, dense scrub, scattered scrub and scattered trees cover most of the Site.	Local	These habitats are not considered to be rare or distinctive (in a biodiversity context).	N/A - hardstanding, poor semi-improved grassland, scattered trees and scrub are not monitored habitats	Medium	Minor negative - the Scheme will result in a loss of grassland and scrub habitats adjacent to the gyratory and the roundabout approaches. No mature trees will be removed. Pre-works surveys will identify mitigation appropriate to any protected species on the Site.	Slight Adverse

Reference Sources

Atkins Limited (on behalf of Wiltshire Council) (January 2021) M4J17 Improvements: Preliminary Ecological Appraisal Report	
Department for Transport (May 2021) TAG UNIT A3: Environmental Impact Appraisal	
Wiltshire Wildlife Trust (2008) Wiltshire Biodiversity Action Plan	
Bat Conservation Trust (2016)	
The State of the UK's Bats 2017. https://www.bats.org.uk/our-work/national-bat-monitoring-programme/reports/the-state-of-the-uks-bats	Habitats of
Principal Importance and Species of Principal Importance for the Conservation of Biological Diversity in England notified under Section 41 of the NERC Act (2006) and as listed in the England Biodiversity List	People's Trust for Endangered
Species (November 2019) State of Britain's Dormice 2019	
British Trust for Ornithology (February 2011) BTO Research Report 572	

Summary Assessment Score

Overall assessment score of 'Slight adverse', based on current knowledge of the Scheme.

Qualitative Comments

Overall assessment score is 'Slight adverse' due to the loss of a small area of non-priority habitat which has low biodiversity and earth heritage value, but has potential for protected species. The poor quality of this habitat means that the loss of the habitat would give a 'Neutral' score. However, it is also possible that future surveys may identify populations of protected species (nesting birds, bats, reptiles, hazel dormouse, badger or great crested newt), Which could change the receptor value to 'Medium' or 'High'. As long as appropriate mitigation is provided, this would still result in an overall score of 'Slightly adverse'.
