

10 Nature Conservation and Biodiversity

10.1 Introduction

10.1.1 This chapter comprises an ecological impact assessment of the proposed scheme. This assessment is informed by baseline information gathered through desktop study and fieldwork undertaken by Amey ecologists from February 2018 to March 2019. Each receptor identified is assigned a resource valuation in line with guidance from the Design Manual for Roads and Bridges (DMRB), Volume 11, Section 2, Part 5, Assessment and Management of Environmental Effects (Ref 10.1) and Interim Advice Note (IAN) 130/10 Ecology and Nature Conservation: Criteria for Impact Assessment (Ref 10.2). This guidance was primarily used instead of the more recent Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines (Ref 10.3) as it is specific to road schemes, and it provides consistency in terminology across all chapters of the EIA. All ecological surveys followed published and best practice guidance and accepted methodologies as described below and detailed in the following supporting reports:

- A Preliminary Ecological Appraisal (PEA) was carried out at stage 1 to identify habitats, and potential ecological constraints and to determine further survey requirements (see Appendix 10.1),
- A Protected Species Survey Report (PSSR) which details the methodologies and results of the species-specific surveys carried out during stages 2 and 3 (see Appendix 10.2).

10.1.2 The PEA and PSSR were undertaken to collect data regarding the ecological constraints within the study area, this chapter should be read in conjunction with the relevant appendices.

10.2 Policy and Legislation Background

10.2.1 Table 10-1 identifies the relevant legislative framework and planning policies which were applied to the consideration of nature conservation and biodiversity (Ref 10.4-10.18).

Table 10-1: Summary of relevant nature conservation legislation and policy

Policy/ Legislation	Description
Wildlife and Countryside Act 1981 (Amendment) (Scotland) Regulations 2001 (Ref 10.4)	<p>The Wildlife and Countryside Act 1981 amendments in 2001 consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 2009/147/EC on the conservation of wild birds (Birds Directive) in Great Britain. The Act makes it an offence to intentionally or ((recklessly) – only under the Nature Conservation (Scotland) Act (2004)) kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturb animals occupying such places. The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally or recklessly:</p> <ul style="list-style-type: none"> • Kill, injure or take any wild bird • Take, damage or destroy the nest of any wild bird while that nest is in use or being built • Obstruct or prevent any wild bird from using its nest • Take or destroy an egg of any wild bird • Disturb any wild bird listed on Schedule 1 whilst it is building its nest or is, on, or near a nest containing eggs or whilst lekking • Disturb the dependant young of any wild bird listed on Schedule 1. <p>This act also makes it is an offence to “plant or otherwise cause to grow any plant in the wild out with its native range”.</p>
Wildlife and Natural Environment (Scotland) Act 2011 (Ref 10.5)	<p>The Wildlife and Natural Environment (Scotland) Act 2011 amended the Wildlife and Countryside Act 1981 and other pieces of legislation. Modernising and strengthening protection for badgers, and licensing of other protected species, and regulating invasive and non-native species.</p>
Nature Conservation (Scotland) Act 2004 (Ref 10.6)	<p>The Act sets out a series of measures which are designed to conserve biodiversity and to protect and enhance the biological and geological natural heritage of Scotland. In doing so, the Act provides the principal legislative components of a new, integrated system for nature conservation within Scotland. This act makes it the duty of public bodies to further conservation of biodiversity, regarding the notification and protection of SSSIs.</p>
The Habitats Directive (92/43/EEC) (Ref 10.7)	<p>The Habitats Directive (92/43/EEC) on the conservation of natural habitats and of wild fauna and flora promotes the maintenance of biodiversity in Europe. The Directive provides for the creation of a network of protected areas across the continent, and annexes to the document list habitats and species of importance in a Europe-wide context. It is built around two pillars: the Natura 2000 network and a robust system of species protection.</p>
Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations 2012 (Ref 10.8)	<p>The Conservation (Natural Habitats &c.) Regulations 1994 regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. In Scotland the Habitats Directive is transposed through a combination of the Habitats Regulations 2012 (in relation to reserved matters) and the 1994 Regulations. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2 (i.e. all bat species, otter), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4 (i.e. shore dock, Killarney fern).</p>

Policy/ Legislation	Description
The Protection of Badgers Act 1992 (Ref 10.9)	Badger and their setts are protected under this Act, and the Wildlife and Natural Environment (Scotland) Act 2011. Under these Acts it is an offence to: Wilfully kill, injure, take or attempt to kill, injure or take a badger Knowingly cause or permit an unlawful act relating to badger Interfere with a badger sett by intentionally or recklessly causing or allowing: Damage to sett or any part thereof Destruction of a sett or any part thereof Obstruction of access to a sett Disturbing a badger while occupying a sett.
UK Post-2010 Biodiversity Framework (Ref 10.10)	The “UK Post-2010 Biodiversity Framework” (published July 2012) succeeds the UK BAP and “Conserving Biodiversity – the UK Approach” with the purpose of setting an all-encompassing structure for action across the UK between now and 2020. The framework identifies Scotland’s strategy with the introduction of Scotland’s Biodiversity: It’s in your hands (2004).
2020 Challenge for Scotland’s Biodiversity (Ref 10.11) & Scotland’s Biodiversity: It’s in your hands (2004) (Ref 10.12)	2020 Challenge for Scotland’s Biodiversity is a strategy for the conservation and enhancement of Scotland’s Biodiversity. Scotland’s Biodiversity: It’s in your hands outlines a 25-year plan to conserve and enhance biodiversity in Scotland. With an aim “to conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland now and in the future”. The document identifies the responsibility for private sector to promote sustainable development, including biodiversity. Together, these documents constitute the Scottish Biodiversity Strategy.
Planning Advice Note (PAN) 60 – Planning for Natural Heritage 2000 (Ref 10.13)	PAN 60 provides advice on how development and the planning system can contribute to the conservation, enhancement, enjoyment and understanding of Scotland’s natural environment and encourage developers and planning authorities to be positive and creative in addressing natural heritage issues.
National Planning Framework (NPF) 3, 2014 (Ref 10.14)	The NPF is the third framework that sets out a long-term development strategy for Scotland. The NPF identifies areas of development and economic growth, including objectives to protect Scotland’s environment by reducing waste and promoting sustainable development. The framework identifies strategies to achieve the objectives such as “The 2020 Challenge for Scotland’s Biodiversity”.
Scottish Planning Policy 2014 (Subject policy - A Natural, Resilient Place) (Ref 10.15)	Subject policy – A Natural Resilient Place. Policy principles include: Conserve and enhance protected sites and species, taking into account of the need to maintain healthy ecosystems and work with natural processes which provide important services to communities Promote protection and improvement of the water environment, including rivers, in a sustainable and co-ordinated way Seek to protect and enhance ancient semi-natural woodland as an important and irreplaceable resource, together with other native or long-established woods, hedgerows and individual trees with high nature conservation.
Scottish Biodiversity List (Ref 10.16)	This is a list of plant and animal species, as well as habitats, which the Scottish Ministers consider to be of principal importance for nature conservation in Scotland.

Policy/ Legislation	Description
North East Scotland Biodiversity Partnership – Action Plan 2014-2017 (Ref 10.17)	The North East Scotland Biodiversity Partnership (NE Local Biodiversity Action Plan (LBAP)) is a collaboration between three Local Authorities, including Aberdeenshire. Its role is to provide the framework for local action on national and local biodiversity priorities. One of the aims of the LBAP is the protection and enhancement of priority habitats, including woodland as a stronghold for species such as red squirrel, pine marten and wildcat.
Aberdeenshire Local Development Plan 2017 Policy E1 Natural Heritage (Ref 10.18)	This policy will be used when assessing planning applications.

10.3 Methodology

Defining the study area

- 10.3.1 The study area for nature conservation and biodiversity has been determined based upon the potential zone of influence over which the project may have measurable ecological effects. The extent at which these effects may occur is dependent upon the type of ecological feature present. Therefore, it is necessary to define the study area according to the corresponding ecological feature. The following sections define the study areas that have been applied for designated sites (**Figure 10.1**) and species-specific surveys (**Figure 10.2 – Figure 10.6**). More information on the surveys is detailed within the PEA and PSSR (Appendix 10.1 and 10.2).

Determining the baseline

Desk study

- 10.3.2 A review of information gathered from publications, internet resources and existing biological records was undertaken to identify designated sites, priority habitats and protected/notable species present within the relevant study area.
- 10.3.3 A 1km desk study area from the scheme was defined to obtain existing biological records. A 2km study area was applied to identify statutory and non-statutory designated sites (Ref 10.19 and 10.2). The search for internationally statutory designated sites, records of bats and protected and notable birds was extended to 10km from the scheme. There are no sites designated for bats in Scotland and therefore these are not considered within this chapter.

Field surveys

- 10.3.4 The PSSR (Appendix 10.2) can be referred to for more detail on the methodology, study areas and survey methods used for the various field surveys.

Phase 1 habitat survey

- 10.3.5 Habitats were mapped up to 500m from the outermost route options at Stage 1 (i.e. the furthest from existing), as stated in the PEA (Appendix 10.1). A 500m extent is considered sufficient to identify any habitat which could be potentially impacted and provides sufficient robustness in the survey area for the scheme.

Aquatic invertebrate survey

- 10.3.6 The study area comprised the Gaugers Burn, a watercourse passing to the southwest of the village of Laurencekirk in Aberdeenshire. The area for survey comprised the Burn from Gaugers Bridge (NGR NO71027067) where it is crossed by the A937, southward passing under the A90 down to Johnston Lodge (NGR NO71497010), a length of approximately 800m.
- 10.3.7 A survey of aquatic invertebrates was undertaken in accordance with the guidelines set out in the Natural England Research Report NERR005; 'Surveying terrestrial and freshwater invertebrates for conservation evaluation' (Ref 10.20) as described in the PSSR, Appendix 10.2.

Bat survey

Activity survey

- 10.3.8 Bat activity surveys were carried out within a 500m buffer of the scheme, transects were strategically planned according to features of potential importance (i.e. mature tree lines, woodland edges). Transects were also planned to ensure the safest route for the surveyors and allow for safe crossing over watercourses and the train line, as described in the PSSR, Appendix 10.2.

Static surveys

- 10.3.9 Following the results of the activity survey, a static bat survey was undertaken at a tree line adjacent to Gaugers Burn to identify if this tree line represents an important foraging and/ or commuting route, as described in the PSSR, Appendix 10.2.

Bird surveys

Breeding bird

- 10.3.10 A survey area of 500m from the scheme was applied for the breeding bird survey, as described in the PSSR, Appendix 10.2.

Wintering bird

- 10.3.11 A survey area of 500m from the scheme was applied for the wintering bird survey, as described in the PSSR, Appendix 10.2.

Badger

- 10.3.12 A badger *Meles meles* survey was carried out within 100m of the proposed scheme, as described in the PSSR, Appendix 10.2.

Otter/ water vole

- 10.3.13 An otter *Lutra lutra* and water vole *Arvicola amphibius* survey was undertaken where Stage 2 options were proposed to cross the existing watercourses (Gaugers Burn and an unnamed burn adjacent to Mains of Newton), and these surveys were updated for Stage 3. The survey extended 250m in each direction where access permitted, as detailed within the PSSR (Appendix 10.2). 250m was considered appropriate and in line with the Water Vole Mitigation Handbook (Ref 10.21). Any otter holts outwith this buffer would not experience any disturbance and is well beyond what is advised for licencing requirements.

Red squirrel

- 10.3.14 The survey area for red squirrel *Sciurus vulgaris* included areas of suitable habitat (i.e. woodland) within a 500m buffer of the scheme, as detailed in the PSSR (Appendix 10.2).

Consultation

- 10.3.15 Groups/individuals that were consulted for this study include:

- North East Biological Records Centre (NESBReC)
- Scottish Natural Heritage (SNH)
- Scottish Badgers
- Aberdeenshire Council (various departments)
- Royal Society for the Protection of Birds (RSPB)
- Buglife
- Scottish Ornithologist' Club (SOC)
- Kincardine & Mearns Rangers

- 10.3.16 Online resources used include:

- The Multi-Agency Geographic Information Service for the Countryside (MAGIC) (Ref 10.22)

- Aberdeenshire Council Website (Ref 10.23)
- Scotland’s environment map (Ref 10.24)
- Scottish Natural Heritage SiteLink Map (Ref 10.25)

Assessment method

Assessing value

10.3.17 The value/sensitivity of each ecological receptor identified has been applied in accordance with IAN 130/10 (Ref 10.2), which is specifically tailored for road schemes. There is an element of professional judgement required in applying a value/ sensitivity level to an ecological receptor based on information available at the time of assessment. Certain species and habitats are subject to specific legislative protection or control for reasons other than those related to conservation value, such as welfare or road safety considerations. Table 10-2 illustrates the approach taken to assign such values.

Table 10-2: Ecological resource valuation criteria

Resource Valuation	Habitats	Species
International or European importance	An internationally designated site or candidate site: Special Protection Areas (SPAs), Potential SPAs (pSPAs), Special Areas of Conservation (SACs), candidate or possible SACs (cSACs or pSACs) and Wetlands of International Importance (Ramsar sites).	A large viable population of internationally protected species, especially migratory species which are rare within an international context.
UK or National importance	A Nationally designated site including Sites of Special Scientific Interest (SSSI), areas which meet the published selection criteria e.g. JNCC (1998) for those sites listed above but which are not themselves designated as such. Significant areas of key/priority habitats identified in the Scottish Biodiversity List (SBL), and those considered to be of principal importance for the conservation of biodiversity.	A large and viable population of internationally protected species which are regularly occurring but scarce within an international context and rare in a national context.
Regional importance	Areas of key/priority habitat identified as being of regional value in the appropriate National Scenic Areas, areas that have been identified by regional plans or strategies as areas for restoration or re-creation of priority habitats.	A large and viable population of nationally rare or protected species. Species rare within a regional context.
County importance	Designated sites including: Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWS) Local Nature Reserves (LNRs), County Wildlife Sites (CWSs), and habitats identified in the NE LBAP.	Significant populations of LBAP species and legally protected species. Notable assemblage or key biodiversity species.
Local importance	Designated sites of local importance, areas of habitats considered to appreciably enrich the habitat resource within the local context (such as veteran trees).	Populations of species considered to appreciably enrich the habitat resource within the local context.
Site importance	All other habitats or species that are common and widespread and not categorised by any of the above.	

Resource Valuation	Habitats	Species
Negative	Ecological features that have a negative impact on the environment i.e. invasive species.	

Assessment of impacts

10.3.18 Assessing effects on ecological receptors involves understanding the impacts likely to arise from the construction and permanent impacts of the project, including the scheme footprint and land-take requirements. Professional judgement is used to identify the potential impacts on ecological receptors and ecological connectivity. The scheme could potentially affect ecological receptors (on a temporary or permanent basis) in the following ways:

- Land-take and associated habitat loss
- Severance of habitats
- Isolation of species populations
- Direct species mortality
- Indirect species mortality (accidental capture of amphibians in gully pots)
- Changes to hydrology
- Water pollution
- Impacts of lighting
- Air pollution
- Noise/disturbance
- Invasive species transfer

10.3.19 Temporary impacts can only be speculated at this stage in the absence of construction methodologies. Impacts such as temporary habitat loss for access tracks and site compounds are based on the suitability of the habitat (i.e. marshy grassland and ancient woodland are unlikely to be used for site compounds). IAN 130/10 states that potential impacts on ecological receptors should be characterised using the parameters below, rather than assigning an impact magnitude. When assessing the impacts on ecological receptors it is necessary to consider the following:

- Likelihood of impact (certain, probable, unlikely)
- Positive or negative impact
- Complexity (direct, indirect, cumulative)
- Extent (area i.e. amount of habitat lost)

- Scale of impact i.e. degree of change
- Reversibility
- Duration (temporary or permanent)
- Timing and frequency

Assessment of effects

10.3.20 The significance of effect was assessed in accordance with IAN 130/10 (Ref 10.2). Using the valuation of ecological receptors and the characterisation of ecological impacts, Table 10-3 identifies a significance category for each ecological receptor.

Table 10-3: Significance of effects

Significance category	Description of effects
Very large	An impact on one or more receptor(s) of international, European or National value*
Large	An impact on one or more receptor(s) of regional value
Moderate	An impact of one or more receptor(s) of county value
Slight	An impact on one or more receptor(s) or local/site value
Neutral	No significant impact on key nature conservation receptors
No impact	No impact on key nature conservation receptors
*where impacts on an international or European site is predicted an HRA will be produced.	

10.4 Consultation Responses

10.4.1 Detailed consultations have been undertaken with various statutory and non-statutory bodies. Table 10-4 provides a summary of the nature conservation and biodiversity consultation responses. More information is provided in Chapter 5 Consultation.

Table 10-4: Consultee responses

Consultee	Response
Countryside ranger (Kincardine and Mearns)	No further response additional to Stage 2 comments.
RSPB Scotland	We are not aware of any ornithological interests at this site and have no further comments.
SNH	We do not consider there to be connectivity with any protected area of either national or international importance.
SOC	There is not much in the EIA area of suitable habitat that birds rely on, nor are there large bird populations around the area. Thus, we would expect that the project will have a limited effect on the resident birdlife.

10.4.2 Saving Scotland’s Red Squirrels was informally consulted prior to surveys being carried out at Stage 2, the result of which confirmed the records obtained from NESBReC and highlighted a local report of a grey squirrel in the area.

10.5 Baseline Conditions

Designated sites

10.5.1 Online sources (MAGIC (Ref 10.22) and SNH SiteLink map (Ref 10.25) identified one statutory designated nature conservation site within 2km of the project extents (extended to 10km for sites designated for bats and birds). The site is detailed in Table 10-5 (and displayed in **Figure 10.1**), with the distance from the existing A90 noted along with the qualifying/notifying features.

Table 10-5: Statutory designated sites

Designated site	Distance from A90 (km)	Reason for designation	Connection to scheme
West Bradieston and Craig of Garvock SSSI	1.7km SE	This area is designated for biological features, including fen meadows, lowland (calcareous and acidic) grassland and lowland (dry and wet) heathland.	The pressures identified on the biological features are overgrazing and agricultural operations. This site is at no risk from the scheme due to distance from site and lack of ecological connectivity, therefore is scoped out of any further assessment.

10.5.2 There are no non-statutory designated sites located within 2km of the study area.

Habitats

Priority habitats

10.5.3 The Ancient Woodland Inventory identifies areas of priority woodland habitat within the study area (see **Figure 10.1**). The NE LBAP does not identify any other priority habitats.

Phase 1 habitat survey

10.5.4 The Phase 1 habitat survey identified the following habitat types within the Phase 1 survey area (**Figure 10.2**). Habitats are listed in descending order of area:

- Arable;
- Semi-improved poor grassland;
- Semi-natural mixed woodland;
- Dense and scattered scrub;
- Scattered trees

- Planted mixed woodland
- Running water
- Standing water
- Buildings
- Hedgerows
- Improved grassland
- Amenity grassland
- Tall ruderal
- Fence line

10.5.5 Detailed descriptions of each habitat are included in the PEA (Appendix 10.1), those included below are habitats of ecological interest and/or impacted by the scheme.

Arable

10.5.6 Although arable habitat does not inherently have a high ecological value, it occupies a significant proportion of the survey area and therefore represents the largest potential loss of habitat. Indirect ecological interests of this habitat include its use by breeding birds (such as skylark) and potential feeding grounds for overwintering bird populations.

Semi-natural mixed woodland

10.5.7 There are small sections of mixed woodland situated along field boundaries or watercourses. Consisting of species such as beech *Fagus sylvatica* and silver birch *Betula pendula* and mature coniferous species. These corridors are identified as ancient woodland (**Figure 10.1**) and potentially provide connectivity around the wider landscape for species such as red squirrel and bats. Ancient woodland is considered to be rare in the wider landscape and hold inherent ecological value providing habitat for a wide array of species including birds and mammals.

Running water

10.5.8 There are two main watercourses within the survey area, Gaugers Burn and Kirk Burn, and a number of field drains are present throughout the survey area; all flow north west to connect with Luther Burn (ref **Figure 11.1**). These watercourses may provide habitat for aquatic species such as otter, water vole, fish and invertebrates.

10.5.9 A fish survey of the Gaugers Burn consisting of a site walkover was undertaken by SLR (Ref 10.26) in November 2018. Following consultation with the Esk District Salmon Fishery Board it was considered that an electro-fishing survey was not required. The burn dries up in summer in

the vicinity of Laurencekirk, and it is generally shallow with few pools for fish to reside in. Within the survey area there are three culverts that are usually impassable to fish. It is considered that the burn would only be able to support minor fish species such as three-spined stickleback *Gasterosteus aculeatus* or minnow *Phoxinus phoxinus*.

Species

10.5.10 Protected/notable species in the study area are detailed below and considered for their ecological value in accordance with Table 10-6.

10.5.11 The accounts given below give a general view of the results of various species survey allowing for conclusions to be drawn regarding the importance of each resource (in accordance with Table 10-2), for specific information see Appendix 10.2.

Bat

10.5.12 The data received from NESBReC included two historic records of Pipistrelle sp. within the study area. The survey work in July, August and September 2017 (**Figure 10.3**) identified two species of bat within the survey area; common pipistrelle *Pipistrellus pipistrellus*, and soprano pipistrelle *Pipistrellus pygmaeus*.

10.5.13 The activity survey recorded an area of high activity along the woodland of Gaugers Burn.

10.5.14 The static surveys undertaken the following year between May and September 2018 identified common pipistrelle, soprano pipistrelle and Myotis sp using that woodland edge. The survey recorded a maximum (on a single night) of 315 common pipistrelle calls, 92 soprano pipistrelle calls and seven Myotis sp. calls.

10.5.15 There were no rare or uncommon species recorded throughout the surveys, therefore bats are considered to be of local importance.

Bird

10.5.16 NESBReC data included records of 21 bird species within the study area, of which 14 species are identified as Birds of Conservation Concern (BoCC) Red species, and seven BoCC amber species. 17 species are additionally identified as a UKBAP species, and one species (barn owl) is identified a Schedule 1 species under the WCA. These records do not account for seasonality and are therefore not necessarily breeding within the area.

Breeding bird

10.5.17 Bird territories were recorded in field boundaries, woodland and open arable farmland habitats. The survey dates were 21st April 2017, 9th to 11th May 2017, and 20th to 23rd June 2017. The early season (April/May 2017) survey results are shown in **Figure 10.4a**, and the late season (June 2017) survey results are shown in **Figure 10.4b**. Generally, the species recorded are

unlikely to be reliant on habitats within the survey area due to these habitats being very common within the wider landscape.

- 10.5.18 Most species recorded are considered to be site or local importance due to being a common widespread species throughout the region and/or UK. Populations of house sparrow *Passer domesticus*, skylark *Alauda arvensis* and yellowhammer *Emberiza citrinella* may be important at a county level due to their declining populations, and identification as a red list species.

Wintering bird

- 10.5.19 Wintering bird surveys were carried out in January, February and March 2018, and the survey results are included in **Figure 10.5a** to **Figure 10.5c** respectively. Bird activity was generally concentrated along field boundaries, where trees and hedgerows were present and these habitats are suitable for a range of winter passage birds. The stubble fields will likely support flocks of farmland bird species such as starling, yellowhammer and skylark in the winter, depending on how the fields are managed. The named passage/winter species appeared to use the study area in relatively small numbers. In general, the species recorded were considered unlikely to be reliant exclusively on habitats within the study area. Waterfowl were generally recorded infrequently and in low numbers.
- 10.5.20 In conclusion, the numbers and species of birds recorded within the study area were generally typical of the habitats present both in the study area and the wider area. The number of birds identified within the study area throughout the survey period was not considered to represent a significant proportion of the populations of winter qualifying or for wintering populations for the UK (British Trust for Ornithology, 2016). In general, the species observed were unlikely to be solely reliant on habitats within the study area. Overall, wintering birds are therefore considered to be of local importance.

Red squirrel

- 10.5.21 The records received from NESBReC regarding red squirrel included 90 accounts within a 1km buffer, collected from camera trap recordings, visual sightings and feeding signs. The majority of these records are located within Denlethen Wood and associated woodland corridors (such as Gaugers Burn). There was one potential drey identified during the PEA in March 2017, shown in Appendix 10.1 (Appendix B: TN 73 in **Figure 10.2**) within a woodland at Johnston Lodge, though this has been disregarded during the drey count as it was subsequently identified as a bird nest. Hair tubes were deployed between 28th July and 4th August 2017, and the drey counts were undertaken on 1st August and 4th September 2018. The survey results are shown in **Figure 10.6**. There have been no confirmed dreys within the woodland adjacent to Gaugers Burn.

10.5.22 Red squirrels are considered to be of county importance since there is a small area of high-quality habitat at Denlethen Wood and this is fairly well connected to other woodland strips.

Badger

10.5.23 There are two records of badger *Meles meles* within Denlethen Woods. Consultation with Scottish Badgers indicate that badgers are active to the east of the A90 considerably out with the survey area.

10.5.24 During the PEA in March 2017, limited badger field signs were recorded. Subsequently, further badger field signs were recorded during the wintering bird surveys in early 2018, and a potential outlier sett was found in the woodland around Gaugers Burn near Johnston Lodge in August 2018 (see **Figure 10.7**). A camera trap was deployed at the potential outlier sett between 4th September and 12th October 2018. Badger have not been confirmed to have an active sett within the survey area, however a badger was observed investigating a potential sett entrance (at the outlier sett) on the camera trap footage. Therefore, badgers are considered to be of local importance.

Otter

10.5.25 There are no records of otter within the study area, although they are known to be present within the wider landscape as Amey personnel observed an otter at the Luther Water when visiting the area in 2017 (this was not during a survey). The Luther Water is shown in **Figure 11.1**.

10.5.26 During the surveys on 9th and 10th October 2017, 1st August 2018 and 4th September 2018, there were no field signs to indicate that otter are active along Gaugers Burn or the unnamed burn.

10.5.27 Otter are considered to be of county importance, since they are considered to be present along the Luther Water, and there is ecological connectivity with the wider area.

Water vole

10.5.28 Water vole surveys were undertaken at the same time as otter surveys (see dates above). There are no records of water vole within the study area. Water vole have not been definitively identified within any surveyed watercourse and are therefore considered to be absent from the survey area. Water vole are scoped out at this stage and will not be considered any further within this assessment.

Aquatic invertebrates

10.5.29 Site Analysis for Freshwater Invertebrate Surveys (SAFIS) indicates very good Biological Monitoring Working Party (BMWP) or excellent (Lincoln Index) water and habitat quality, with predominantly very fast flowing water Lotic Index for Flow Evaluation (LIFE) at Gaugers Burn.

Sufficient backwaters and eddies were present to form pools, offering habitat for species more characteristic of slower flowing water. At time of survey the water level appeared low; the lack of vegetation on the shingle banks suggest it is subject to periodic higher water levels of fast flow. The high quality of the water would likely make the habitat highly vulnerable to pollution.

10.5.30 Gaugers Burn should be considered a site of national importance for aquatic invertebrates due to its high biodiversity and the presence of two species of conservation concern - namely the lesser diving beetle *Oreodytes davisii* which is considered to be nationally threatened, but widespread in Scotland, and pale watery mayfly *Baetis fuscatus* which is data deficient and has an unknown distribution. The survey scored very high for conservation value (CCI) due to the identification of the two species named above and several species of restrictive or unknown distribution and abundance (Appendix 10.2).

Summary of nature conservation value

10.5.31 Values assigned to ecological receptors are dependent upon a large number of factors including but not limited to statutory designations, legal status, naturalness, distribution, rarity, population size and trends. Values assigned to the ecological receptors identified with the study area are provided in Table 10-6.

Table 10-6: Summary of nature conservation value

Ecological receptor	Resource valuation	Justification
Designated sites		
West Bradieston and Craig of Garvock SSSI	National	SSSIs are designated under UK legislation, Wildlife and Countryside Act 1981, therefore are of national importance.
Habitats		
Woodland (priority habitat)	County	These habitats are considered to be rare within the wider landscape and are of conservation concern.
Hedgerow	Local	Hedgerows, although identified on the SBL are considered to be low quality within the survey area due to being species poor and defunct.
Other habitats	Site	All other habitats are abundant in the wider landscape and therefore considered to be site value only.
Species		
Aquatic invertebrates (collectively)	National	Considered to be of national importance scoring very high for conservation value (CCI), and the presence of two species of conservation concern.
Badger	Local	Badger are abundant within the wider habitat and not of conservation concern.
Bats	Local	The activity survey identified some potential important flight corridors within the survey area There are no features within the survey area that are considered to have roosts of potential county or regional importance.

Ecological receptor	Resource valuation	Justification
Otter	County	Although otter have not been identified within the survey area, they are considered to be active within Luther Water and therefore there is an element of ecological connectivity and are hereby considered to be of county importance as a highly mobile species.
Red squirrel	County	The survey area offers a small area of high-quality red squirrel habitat at Denlethen Wood and is reasonably well connected to other areas with woodland strips. Red squirrel within the survey area may be traversing over a wide area and are therefore considered of county importance.
Invasive non-native species	Negative	These species reduce value of a habitat due to their negative impact on that area.
Birds (wintering and breeding collectively)		
Black-headed gull	Local	Common species considered to be of local importance as it is designated as an amber species. It is found in large numbers in lowland North East Scotland in winter months.
Blackbird	Site	Very common garden species found throughout the UK. Therefore, considered to be of site importance.
Blackcap	Site	Common species found in woodland, parks and gardens, recorded at various locations across the north east of Scotland. Considered to be of site importance
Bullfinch	Local	Considered to be of local importance due to designation as an amber species and information gathered from the Scottish Bird Report Online (Ref 10.26) indicates a low density during the breeding season.
Blue tit	Site	Very common garden species found throughout the UK. Therefore, considered to be of site importance.
Carrion crow	Site	Common species found in a variety of habitats throughout the UK. Therefore, considered to be of site importance.
Chiffchaff	Site	Fairly common species, has been confirmed breeding throughout North East Scotland and is considered of site importance
Chaffinch	Site	Very common garden species found throughout the UK. Therefore, considered to be of site importance.
Coal tit	Site	Common species found throughout the UK. Therefore, considered to be of site importance.
Common gull	Local	Common species found in various habitats. Considered to be of local importance due to its amber designation.
Dunnock	Local	Considered to be of local importance due to identification as an amber species, and at the periphery of its summer range
Great tit	Site	Very common garden species found throughout the UK. Therefore, considered to be of site importance.
Goldcrest	Site	Widespread, common species found across the north east of Scotland in pine forests is of site importance.
Golden plover	Site	Currently considered to be of site importance, although the population trend of this species has varied greatly over the past twenty years.
Goldfinch	Site	Common resident species, found all year in gardens, orchards, parks etc. Therefore, considered to be of site importance.
Grey partridge	County	Found in arable farmland, this species is present in low numbers in the study area. Its breeding and winter population size and range is in decline and therefore it is considered of county importance. It is listed as a UKBAP species.

Ecological receptor	Resource valuation	Justification
Herring gull	County	Although common, this species is declining in breeding and winter population size and range, therefore it is considered to be of county importance.
House sparrow	County	Although declining in much of the UK, recent surveys indicate an increase in Scotland of this red listed species. Therefore, breeding activity of house sparrows is considered of county importance.
Linnet	County	Found in open ground and farmland, this species is considered to be of county importance as it's breeding, and wintering population size and range are in decline.
Mallard	Local	A common and widespread species, it is considered to be of local importance due to recent declines in breeding and winter population size and range.
Meadow pipit	Local	Found in open grassland and dunes, it is considered to be of local importance as it is listed as having an amber conservation status.
Oystercatcher	Local	A common and widespread species along UK beaches, it is listed as vulnerable in Europe and the UK breeding and winter population and range are declining. It is considered to be of local importance.
Pheasant	Site	Common resident species found throughout most of the UK and released on a large scale annually on shooting estates. This species is considered to be of site importance.
Pink-footed goose	Local	A winter visitor to the UK, this is an important non-breeding population and considered to be of local importance.
Pintail	Local	An uncommon dabbling duck, this is considered to be a species of local importance.
Redwing	County	This species has a limited range in Scotland, and its numbers are declining. It is considered to be of county importance.
Reed Bunting	Local	Identified as a common resident by the Scottish Bird Club (Ref 10.26), this amber listed species is also identified on the Scottish Biodiversity List and as a UKBAP species.
Robin	Site	Common resident species found widespread throughout the UK in a variety of habitats.
Sedge warbler	Site	Green listed species found across the UK in reedbed and wetland habitats. They are considered a common summer visitor in the north east of Scotland and are therefore considered to be of site importance.
Siskin	Site	Common species found in a variety of habitats throughout the UK. Therefore, considered to be of site importance.
Skylark	County	Widespread throughout the UK and considered to be a common resident. However, this species is identified as a red listed species and identified on the Scottish Biodiversity List and UK BAP. The number identified indicate a thriving significant population therefore considered important on a county scale.
Song thrush	Local	Fairly common garden bird throughout the UK. Although their population is declining in farmland areas, making it a red listed species. The survey identified a number of territories held and therefore this species is considered to be of local importance.
Starling	Site	Despite being listed a red species, this species is still considered one of the most common species within the UK and found throughout the UK. Breeding bird surveys in the North east of Scotland identified starlings throughout the region. This species is therefore considered to be of site importance.

Ecological receptor	Resource valuation	Justification
Stock dove	Local	The Scottish Bird Club (Ref 10.26) consider this species to be a locally common resident. High densities of this species are found throughout England and Wales, the distribution is comparatively lower in the north of Scotland. Therefore, this population is considered to be of local importance.
Swallow	Site	Common summer visitor around the north east of Scotland, found in the majority of breeding bird surveys carried out and therefore considered to be of site importance.
Tree sparrow	County	Breeding in eastern Scotland, this species is considered to be of county importance as it currently has red conservation status.
Whitethroat	Site	Common widespread summer visitor across the north east of Scotland. Not considered to be of conservation concern therefore, considered to be of site importance.
Wigeon	Local	This duck species breeds in small numbers in Scotland. It is considered to be of local importance.
Willow warbler	Local	27 territories were identified within the survey area, their population across the UK has declined significantly, but considered common in North East Scotland. It currently has amber conservation status. Therefore, this population is considered to be of local importance.
Wood pigeon	Site	Very common, widespread species of no conservation concern. Therefore, considered to be of site importance.
Wren	Site	Very common garden species found throughout the UK. Therefore, considered to be of site importance.
Yellowhammer	County	Recent population declines have led to this species being listed as red, still considered a common resident in the north east of Scotland. A potentially significant number of territories were identified therefore considered to be important at a county level.

10.6 Impact assessment

Review of potential ecological impacts

10.6.1 Ecological receptors where a slight, moderate, large or very large potential effect may occur are brought forward into the impact assessment and considered below. Those ecological receptors for which it is considered that the scheme is unlikely to have an impact on or no impact at all are scoped out. These are presented below as follows:

- Designated sites – the only designated site is located 1.7km south east and has no ecological connectivity to the scheme.
- Habitats not considered priority habitats – any impacts to these habitats are considered to be not significant due to the low value of these areas.
- Birds of local or site importance – the significance of any effects is considered to be neutral given the low value of these receptors.
- Badger – as badger field signs were minimal, the only sett present in the study area is considered currently inactive and located approximately 450m at the closest point,

badgers are not considered to be present within the immediate area, therefore not impacted by the scheme.

- Invasive species – Invasive species have only been identified within private residences and will not be impacted by the scheme.

10.6.2 As a consequence, the impact assessment considers only the following ecological receptors:

- Priority habitats (priority woodland)
- Aquatic invertebrates
- Bats
- Birds of county/ local importance
- Otter
- Red squirrel

Temporary impacts during construction

Priority habitats

10.6.3 Minor loss of woodland along Gaugers Burn is expected due to clearance for local access (**Figure 8.5**), this is considered a certain, direct impact as the affected areas are small localised areas. The significance of this effect is considered to be slight.

Species

Bat

10.6.4 Bats will experience disturbance from noise and additional lighting during construction along the woodland edge at Gaugers Burn. The impacts are considered to be probable, temporary and reversible as they will not impact the bat population or affect the distribution of bats within the wider landscape. Surveys to date indicate that the bats are not using the culvert to pass under the A90 due to its size, it's also considered that they are infrequently passing over the A90. There are no potential roosting features within the study area which may be impacted by the scheme. The significance of the effect is considered to be slight.

Birds of county importance

10.6.5 Skylark, grey partridge, linnet, house sparrow, tree sparrow, redwing and yellowhammer are likely to be disturbed by noisy construction activities from plant/machinery. They are likely to disperse to wider areas of the landscape where farmland habitat with pockets of woodland is abundant, therefore the impact is considered to be probable and reversible and the significance of effect will be slight. These species may potentially experience direct mortality from vegetation removal during the nesting season (i.e. hedgerows, trees, crops), due to the relatively small

scale of the scheme this impact will be negligible to the populations of any species of county importance. The effect on birds during construction is considered to be of slight significance.

- 10.6.6 Herring gull may also be disturbed by noisy construction activities whilst passing through the area, but they will also be able to easily disperse to other areas, therefore the impact is expected to be temporary and reversible and the significance of effect will be slight.

Red squirrel

- 10.6.7 Red squirrel may experience disturbance from noise and additional lighting during construction, especially in the vicinity of the local access to Johnston Lodge due to the proximity of the area of woodland along Gaugers Burn at Johnston Lodge.

- 10.6.8 The woodland strip is primarily used as habitat link providing connectivity between woodland areas within the wider landscape. As the woodland strips are not used for foraging or breeding habitat, the impact will be probable and reversible and the significance of effect on the squirrel population is considered to be slight.

Otter

- 10.6.9 There is potential for pollution and sediment disturbance within Gaugers Burn during construction that may impact Luther Water. Without mitigation this may impact water quality and hence impact prey species. Noise and lighting during construction could also affect foraging and commuting otters. Due to the distance from the site, the impact is considered to be temporary, reversible and unlikely, and the significance of effect will be slight.

Aquatic invertebrates

- 10.6.10 Dust and run-off from the scheme could potentially enter the Gaugers Burn affecting water quality and therefore impacting the aquatic invertebrate population. It is considered that the scheme would have temporary, direct impact on the populations of any of the species nationally; all are relatively common in the region. There is potential for the scheme to cause localised loss of species within Gaugers Burn; connectivity with any similar waterbodies is poor so recolonization is unlikely. The limited area of direct effect from the scheme, however, would make a whole stream loss of a species unlikely.

- 10.6.11 The Gaugers Burn will be culverted beneath the new road, reducing available bankside and wider habitats for invertebrates. It is also likely to create shading over the stream potentially affecting the temperature of the stream. It will, potentially, also fragment the stream into sections in addition to the existing bridge. Many aquatic invertebrates, particularly stoneflies, are unable or unwilling to fly any great distance and will therefore be unable to pass bridges in their adult phase.

10.6.12 The ecological importance of the stream is due to the biodiversity of species present and assemblage unlikely to be present elsewhere in the locality. This assemblage would be vulnerable to pollution, sedimentation, or alterations to the flow of the stream.

10.6.13 The significance of effects will be slight.

Significance of effects

10.6.14 Table 10-7 summarises the significance of the effects from construction of the scheme on ecological receptors given above in accordance with Table 10-3, characterisation of the impacts and applying professional judgement in accordance with IAN 130/10 (Ref 10.2).

Table 10-7: Effect significance of scheme on ecological receptors during construction.

Ecological receptor	Significance of effect
Priority habitats	Slight
Bats	Slight
Birds of local/ county importance	Slight
Otter	Slight
Red squirrel	Slight
Aquatic Invertebrates	Slight

Permanent impacts post construction

10.6.15 This section considers the impacts on nature conservation and biodiversity receptors during operation.

Priority habitats

10.6.16 The scheme will require the removal of a small section of woodland alongside Gaugers Burn (**Figure 8.5**). Given that red squirrels do not seem to be using this area for foraging or breeding; that it is not important for breeding birds; that no badger sett was found within this area; and given the small size of the area, the impact is considered to be permanent adverse loss of habitat. The significance of effect will be slight.

Species

Bat

10.6.17 The woodland edge to the west of Johnston Lodge was identified to be heavily utilised by foraging and commuting bats. This will be permanently severed by the new access to Johnston Lodge. The impact is considered to be negative adverse as the area impacted is directly adjacent to the existing A90 and bats may be flying over between the tree lines. Also, there are

no bat roost features that will be permanently impacted by the scheme. Therefore, the significance of effect (fragmentation) on bat populations will be slight.

- 10.6.18 Additional street lighting may have a detrimental or beneficial effect on bats foraging. Pipistrelle bats, which have been found in the study area, are known to congregate around some street lighting as their insect prey is attracted to the light (Ref 10.27). However, they are also more vulnerable to predators when lit. Therefore, the impact of additional street lighting may be adverse or beneficial depending on the bat species, and the significance of the effect is considered to be slight.

Birds of county/ local importance

- 10.6.19 Skylark, grey partridge, linnet, house sparrow, tree sparrow*, redwing and yellowhammer will be impacted by a loss of farmland (*and woodland) habitat and severance. The area impacted is largely arable farmland, which is widely abundant within the survey area and the wider landscape. The impact of habitat loss is considered to be a permanent negative adverse impact, however given that arable habitat is abundant in the wider area the significance of effect is considered to be slight. The presence of the road could affect flight lines, with probable negative adverse impact from collisions with traffic. However, given that the existing A90 already affects local birds, the significance of effect is therefore considered to be slight.

Red squirrel

- 10.6.20 Red squirrels were identified in the area of woodland to the north of the A90 along Gaugers Burn. It is considered that red squirrel utilise the woodland strips including that along Gaugers Burn to connect to the wider landscape and other woodlands. The scheme involves the removal of a small area of woodland. The removal of this section may cause limited additional fragmentation of the habitat and increases the extent of severance already caused by the existing A90. Due to the small area that would be removed, the impact is considered to be permanent negative adverse, and the significance of effect will be slight; however, it is considered that mitigation of this additional habitat fragmentation will be required. Given the maturity of the existing trees, these cannot be replaced.

Otter

- 10.6.21 Otter are not considered to be impacted by the scheme during operation as it is essentially like-for-like, and water quality is expected to be similar (potentially improved with effective SUDs incorporated). There will be no change to the availability of prey in the water as result of water quality, so the significance of effect is considered to be neutral.

Aquatic invertebrate

- 10.6.22 During operation the Gaugers Burn will be culverted beneath the scheme, which could prevent adults depositing eggs, although it could also provide cover from predators. Overall the impact

on aquatic invertebrates is considered to be permanent, but as only a very small localised area will be affected, the significance of effect will be slight.

- 10.6.23 The design includes three SuDS basins, which will create additional habitat that will be beneficial for aquatic invertebrates. This is a positive impact, and the significance of effect will therefore be slight.

Significance of effects

- 10.6.24 Table 10-8 summarises the effect significance of the operation of the scheme on ecological receptors given above in accordance with Table 10-3 and applying professional judgement.

Table 10-8: Significance of effect on ecological receptors during operation

Ecological receptor	Effect Significance
Priority habitats	Slight
Bats	Slight
Birds of local/ county importance	Slight
Red squirrel	Slight
Otter	Slight
Aquatic invertebrates	Slight

10.7 Mitigation Measures

During construction

Habitats

- 10.7.1 There will be a restriction of felling and vegetation clearance activities to the minimum area necessary for works, with adequate protection measures for trees retained (i.e. root protection zones). Any vegetation clearance should ideally be undertaken outwith March to August inclusive, in order to avoid the bird nesting season. Otherwise, an Ecologist/Ornithologist should carry out a nest check within 48 hours prior to the vegetation being cleared. Should nests be identified, then a suitable buffer zone will be placed around the nest to minimise disturbance.

Species

- 10.7.2 A pre-construction survey will be undertaken to ensure no change from baseline described in section 10.4 and the PSSR (Appendix 10.2) for the species below. Method statements should be in place outlining construction mitigation measures for each of the species below. An Ecologist will produce these method statements which will detail the distribution of the species on site, the mitigation measures to be in place for each species, and details of each species to be briefed to site operatives.

Bat

- 10.7.3 If work is to be undertaken at night, unidirectional lighting should be used and should only illuminate the works area.

Bird

- 10.7.4 Any vegetation removal (including arable fields) must take place out with the breeding bird season (March to August inclusive) and should be reduced as far as is reasonably practical.

Red squirrel

- 10.7.5 Minimisation of habitat loss by:
- Restriction of felling and vegetation clearance activities to the minimum area necessary for works.
 - Demarcating areas of retained vegetation and retained dead wood habitat with fencing.
- 10.7.6 Felling should take place between October and January (inclusive) within woodland where red squirrel have been identified.
- 10.7.7 If any are discovered, removal of dreys (active or inactive) will be carried out under a derogation licence from SNH.

Otter

- 10.7.8 Mitigating impacts on otter in the Luther Water predominantly includes maintaining the quality of the water environment. Therefore, pollution prevention and sediment control measures should be in place to ensure impacts are minimised (see Chapter 11 Road Drainage and the Water Environment; Section 7 Potential mitigation measures).

Aquatic invertebrates

- 10.7.9 Mitigation measures, as detailed below, will need to be strictly implemented to ensure the Gaugers Burn and the wider hydrological network it is connected to are preserved and any potential biodiversity loss is mitigated.
- 10.7.10 No changes should be made which would likely result in change of course, flow or seasonal variation of the stream. Any additional water volume likely to be produced from the new road layout will be directed away from the stream, and no changes to stream width or culverting likely to impede flow should be implemented. The volume of water currently produced from road drainage entering Gaugers Burn, should be maintained to ensure no change in the fluctuation of existing water levels.

- 10.7.11 Water quality should be preserved by ensuring no dust, soil or other particulates are permitted to enter the watercourse during construction, and no works are undertaken that are likely to result in disturbance of sediment within the burn (other than installation of a culvert). Additional drainage from the new road layout will be directed away from the burn, water courses or drains which may flow into it and be filtered using SUDS or similar methods. This will ensure no additional pollutants or sediments enter the water system from groundwater or direct input.
- 10.7.12 When the culvert is installed in the Gaugers Burn, silt fencing and splash boards should be used to ensure no silty run-off enters the burn as a result of plant approaching the banks of the burn.
- 10.7.13 The preferred culvert design option is a precast concrete portal. The proposed culvert construction will take into account:
- Sufficient length to allow the stream room to move laterally beneath it;
 - A combination of restriction of width and sufficient elevation to reduce the effect of loss of light;
 - Ensuring there is no change of level of the stream beneath the bridge and retain continuity of substrate; and
 - Habitat creation to mitigate the loss of any terrestrial habitat.

Post construction

Habitats

- 10.7.14 Mitigation and compensation (as appropriate) for affected habitats is included within the landscape design, which includes tree planting as habitat replacement. The landscape design is shown in **Figure 8.10**.

Species

Bat

- 10.7.15 Street lighting is to be installed as part of the scheme, and consideration has been given to minimising the impact of disturbance from additional lighting, as per the Bat Conservation Trust (BCT) and Institute of Lighting Professionals (ILP) guidance for suggested lighting design considerations (Ref 10.27).
- 10.7.16 The creation of habitats including foraging areas and flight corridors will benefit bats by creating new commuting corridors. The proposed scattered tree planting alongside the new roads may create new flight corridors. Also, the inclusion of three SuDS with marginal tree and scrub planting will create additional areas for foraging.

Bird

10.7.17 The creation of habitats including tree and shrub planting. The inclusion of three SuDS will create additional areas of foraging.

Red squirrel

10.7.18 Loss of habitat cannot be mitigated as mature trees can't be replaced effectively. However, the landscape design includes tree planting alongside the new roads which over time may enhance the arable landscape and reduce fragmentation.

10.8 Residual Effects

10.8.1 Where potential significant effects were identified for ecological receptors, mitigation measures have been suggested above to reduce to the following:

- Priority habitats: The significance of the effects during both construction and operation remains slight. Tree felling is necessary, and mature trees cannot be quickly replaced.
- Bats: The significance of construction-related effects on bats has been reduced to neutral with mitigation measures in place, including lighting which will only illuminate the works area. The significance of operation-related effects remains slight as part of a flight corridor will still be lost.
- Birds: Since vegetation clearance will be undertaken outwith the bird nesting season, the significance of construction-related effects is reduced to neutral (there is low potential for bird nests to be encountered). The significance of operation-related effects is still slight as dispersal and disturbance is still expected.
- Otter: The significance of construction-related effects on habitats of these species has been reduced to neutral with pollution prevention and sediment control measures in place.
- Red squirrel: As mature woodland cannot be quickly replaced; the significance of operational effects remains slight.

Impacts on policies and legislation

10.8.2 Following the assessment of impact above, the scheme has been assessed against the various relevant policies applicable to the assessment. The results are shown in Table 10-9.

Table 10-9: Impacts on policies and legislation

Legislative Instrument	Relevance to scheme	Achieves objectives (Y/N)
Legislation and policies		
Wildlife and Countryside Act 1981 (Amendment) (Scotland) Regulations 2001	Without mitigation, the scheme has potential to impact wildlife. Applicable mitigation will be in place, along with method statements enforced to ensure compliance.	Y
Wildlife and Natural Environment (Scotland) Act 2011	Suitable habitat has been identified for protected species. Applicable mitigation will be in place and method statements enforced to ensure compliance with this legislation.	Y
Nature Conservation (Scotland) Act 2004	The scheme has potential to impact the biodiversity measures set out in this act. Mitigation will reduce the impact on Scottish Wildlife through construction and operation.	Y
The Habitats Directive (92/43/EEC)	Part of the assessment is to ensure that there is no impact on European designated sites and species of European importance.	Y
Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations 2012	The scheme has potential to impact protected species, surveys were carried out to identify the presence of any protected species.	Y
The Protection of Badgers 1992	Badgers have been identified within the wider landscape, therefore potential for them to be within the survey area. Surveys did not identify badger activity and impacts on badger population is considered unlikely	Y
National		
UK Post-2010 Biodiversity Framework	Details the UK wide approach and Scotland's Biodiversity: It's in your hand as the apparatus for protecting Scotland's wildlife.	Y
2020 Challenge for Scotland's Biodiversity and Scotland's Biodiversity: It's in your hands (2004)	This scheme requires land-take from habitats, and without mitigation has the potential to impact species populations and ecosystems, any applicable mitigation will be enforced to prevent non-compliance.	Y
Planning Advice Note (PAN) 60 – Planning for Natural Heritage 2000	The scheme requires land-take and without mitigation has the potential to impact natural heritage, any applicable mitigation will be enforced to prevent non-compliance.	Y
National Planning Framework (NPF) 3, 2014	Outlines challenges and aims for protecting Scotland's biodiversity, primarily through initiatives such as the 2020 challenge.	Y
Scottish Planning Policy 2014 (Subject policy - A Natural, Resilient Place)	Areas within the study area have been identified as having potential for protected species, and high nature conservation value. Applicable surveys were carried out to identify any protected species or high nature conservation areas to ensure compliance with this policy	Y
Scottish Biodiversity List	There is no significant loss of habitats or species identified within the list.	Y

Legislative Instrument	Relevance to scheme	Achieves objectives (Y/N)
Local policy		
North East Scotland Biodiversity Partnership – Action Plan 2014-2017	The scheme has potential to be non-compliant with the aims of the NE LBAP by negatively impacting biodiversity. Surveys have been carried out to identify protected species and habitats of high importance. Mitigation will be enforced to reduce any impact	Y
Aberdeenshire Local Development Plan 2017 – Policy E1 Natural Heritage	Baseline ecological surveys and protected species surveys were carried out as advised in Policy E1. Mitigation measures have also been recommended to prevent detrimental impacts on protected species and important habitats for nature conservation.	Y

10.9 Limitations

10.9.1 Limitations for surveys are included within the survey reports (Appendix 10.1 and 10.2). There are no significant limitations associated with the Stage 3 Ecological Impact Assessment.

10.10 Conclusion

10.10.1 This scheme is not expected to have any significant effects to species or habitats of high conservation concern. The inclusion of the landscape design and effective SuDS is likely to overall be beneficial for local wildlife.