

**Proposed Access Track  
Strathgroy Farmhouse, Killiecrankie  
Preliminary Ecological Appraisal and  
Ecological Impact Assessment**

**Thursday 12<sup>th</sup> October 2023**



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## EXECUTIVE SUMMARY

Tay Ecology was commissioned to undertake a preliminary ecological appraisal, and ecological impact assessment of the proposed access track to Strathgroy Farmhouse. Field surveys were carried out in August and September 2023 to assess habitat, bats, badger, pine martens, red squirrels, otters, water voles and reptiles. The likelihood of specially protected and rare, species of birds and of any other protected or local biodiversity action plan species of flora and fauna was assessed. There are no statutory nature designations or ancient woodland in the vicinity. The track is comprised of improved grassland. In the lower reaches there are self-seeded broadleaved trees, with tall ruderal vegetation and bracken to the south of the track. Higher up there is a broken row of over-mature/veteran ash trees with high ecological and landscape value predominantly on the east side of the track.

The proposed track will result in the loss of a strip of improved grassland which is of low ecological value. There will be a loss of eight Category C trees to enable the construction of the lower track. Twenty-six trees will be retained, including the ash, and it is recommended that the tree roots of all retained trees are protected during construction. The loss of the trees can be compensated for by replacement and new planting of native species. A minimum 3 trees should be planted for every tree felled. It is recommended that sessile oak and pedunculate oak trees are planted between the veteran ash to provide a future treeline which is of comparable and high ecological and landscape significance. There is also capacity in the lower reaches for planting a wider range of species including alder, silver birch, hazel, holly, bird cherry, wild cherry, rowan and willow. All planting must be agreed with the landowner and tenant farmer and trees must be suitably and robustly protected from grazing animals. It is essential that best practice working methods and pollution prevention methods are adhered to during construction to safeguard the retained trees and adjacent habitats.

The majority of trees have negligible or low bat roost potential; two ash have moderate bat roost potential, although no bat roosts were confirmed. Common and Soprano pipistrelles were recorded foraging, and provision of bat boxes as part of the works is recommended. There was no evidence of red squirrels recorded during the surveys, and no dreys located within 50m of the site, though there are red squirrel records in the area. It is not anticipated that there will be any negative impact on red squirrels. There were no signs of badger, pine marten, otters, beavers, water voles or reptiles and there will be negligible impact to these species. There were no Schedule 1 bird species recorded, common and migratory breeding birds were recorded, and the trees provide the most likely place to find nesting birds. All birds are protected, and it is an offence to intentionally or recklessly kill, injure or take a wild bird, or to take, damage or destroy its nest or eggs. It is recommended that tree felling, and ground vegetation clearance takes place out with the nesting season. Where any vegetation clearance is undertaken during the breeding season the site must be checked for active nests before work commences. If found, work in the vicinity of a nest should cease until young birds have fledged. The provision of nest boxes for a range of bird species is recommended as part of works. There were no signs of protected or rare species of flora or of any invasive non-native species plant species.

In conclusion there will be a loss of eight trees from the track construction. Recommendations to compensate for the loss of the trees include opportunities to enhance the biodiversity by planting native trees and by installing bat and bird boxes.

## 1.0 INTRODUCTION

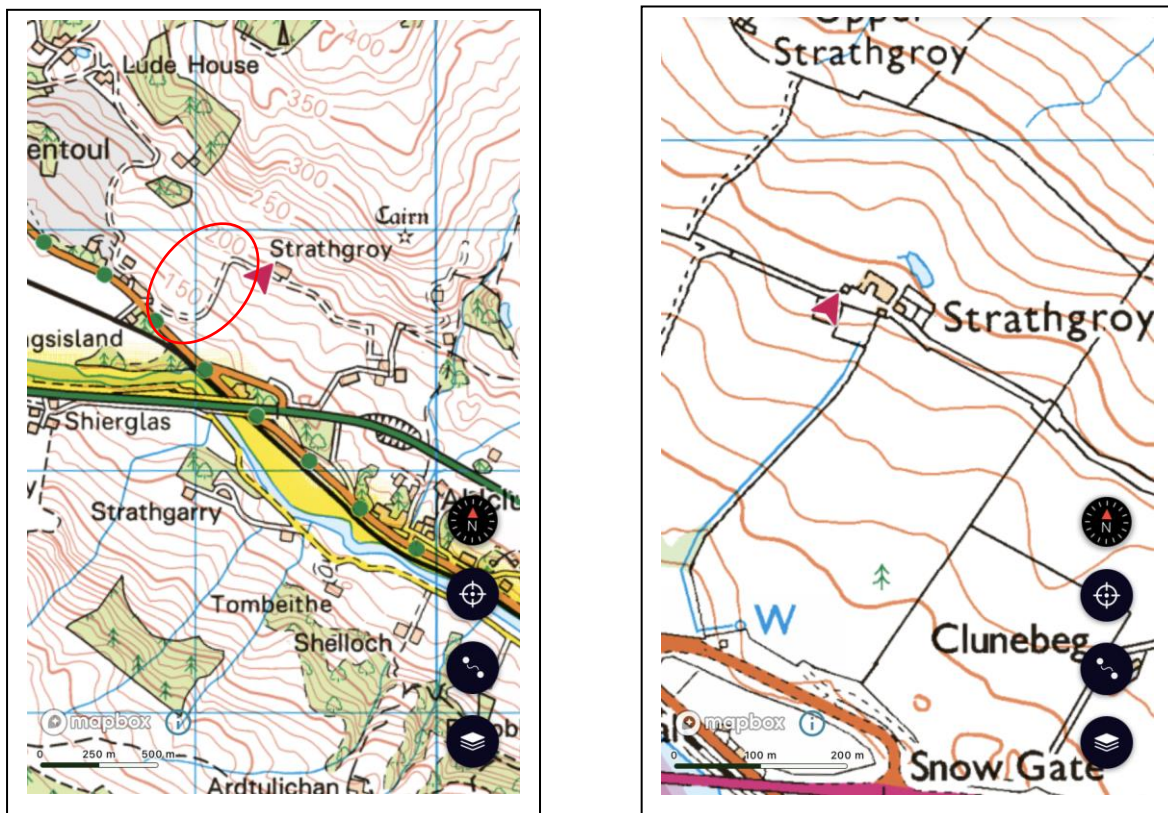
### 1.1 Brief from Client

Tay Ecology was commissioned to undertake a preliminary ecological survey, habitat and protected species assessment at the proposed access track to Strathgroy Farmhouse.

### 1.2 Site location

Strathgroy Farmhouse is located 2km east of Blair Atholl. It is accessed from a private road from the B8079, north of the A9 which approaches the property from the south-east. The site grid reference is NN 89282 64806 at an altitude of 190m above sea level. The proposed track approaches the property from the south-west. Figure 1 Site Location

Figure 1 Site Location



### 1.3 Site description

The proposed access track is comprised of improved grassland as it passes through a field which is used for grazing. In the lower reaches there are self-seeded broadleaved trees and an area of silver birch. Higher up the track there is a broken row of over-mature/veteran ash trees predominantly on the east side of the track which is bounded by a dry-stone wall.

Figure 2 Aerial View

### 1.4 Proposed works

It is proposed to re-instate the access track which is shown on the OS map which approaches Strathgroy from the south-west. Figure 3 Proposed Site Plan



Figure 2 Aerial View

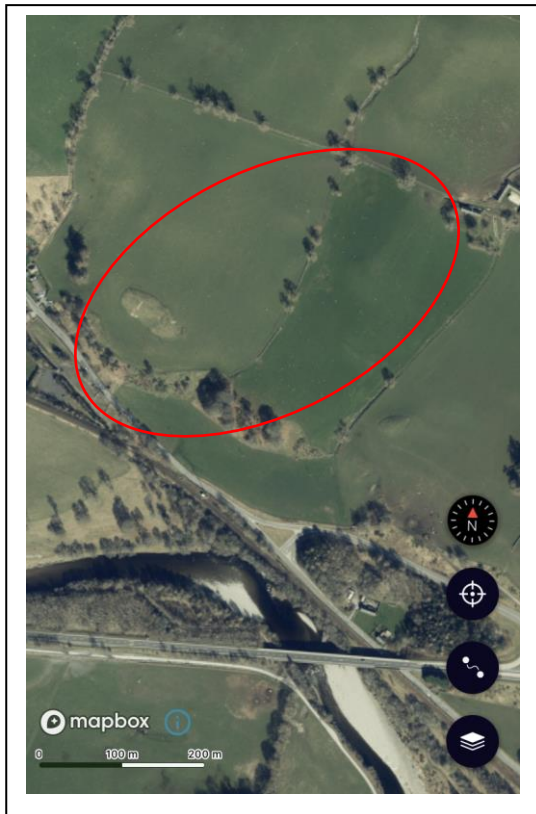
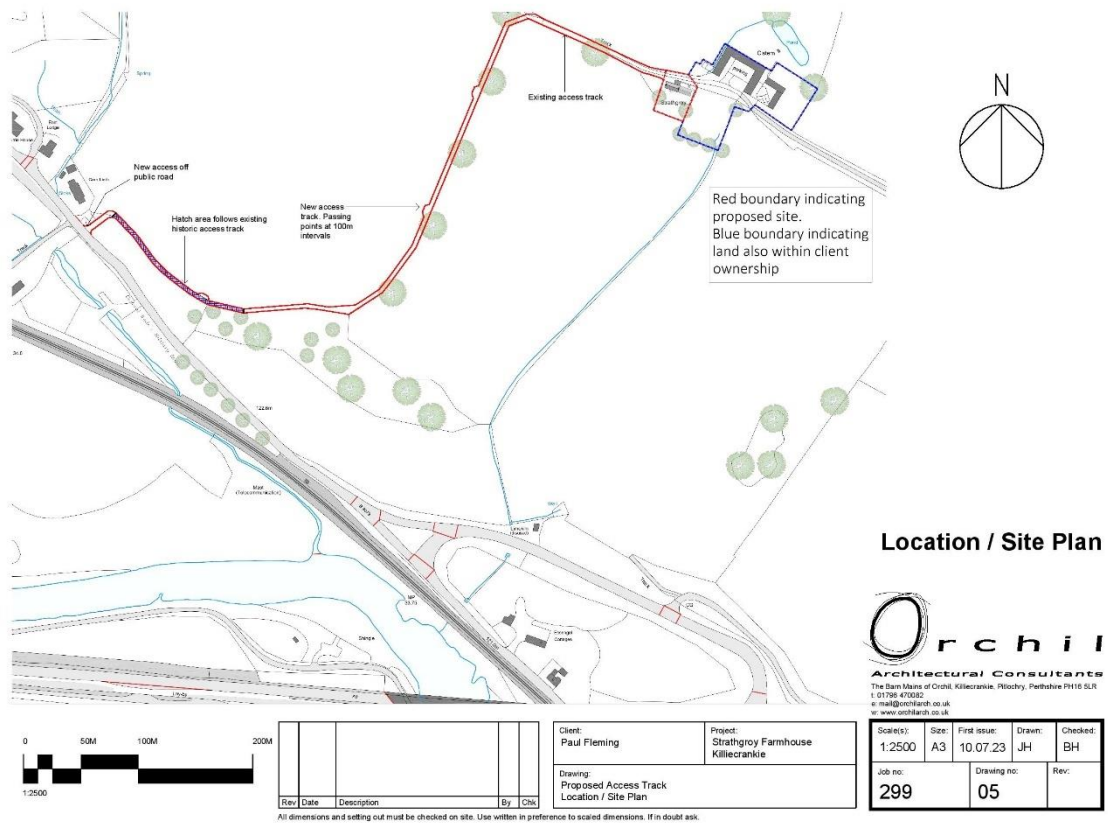


Figure 3 Proposed Site Plan



## **2. SURVEY AND SITE ASSESSMENT**

### **2.1 Objectives**

The site was surveyed by a visual ground survey, preliminary ecological appraisal, phase 1 habitat and protected species surveys undertaken. Field surveys were carried out to assess the existing habitat; potential of tree bat roosts; presence/absence of badgers and their setts; red squirrels and their dreys; pine martens and their dens; assess for the presence of otters and water voles. The presence/absence of specially protected, sensitive, or very, rare, species of birds was assessed. The presence/absence of any other protected or local biodiversity action plan species of flora and fauna was surveyed for, and existing habitat assessed. The survey area included the proposed site and up to 250m in the surrounding area.

### **2.2 Methods**

#### **2.2.1 Existing Data Sources**

Web-based sources of information were examined, principally the National Biodiversity Network (NBN) Gateway (<http://data.nbn.org.uk/>) where a radius of 5km from the centre of the proposed development was searched to provide suitable coverage of the area. Nature designation classifications were obtained from NatureScot Site Link (<https://sitelink.nature.scot/home>).

The UK Biodiversity Action Plan (<https://jncc.gov.uk/our-work/uk-bap-priority-species/>); Scottish Biodiversity List (<https://www.nature.scot/scottish-biodiversity-list>); Tayside Biodiversity Partnership (<https://www.taysidebiodiversity.co.uk/>) were examined.

Other websites searched include Bat Conservation Trust (<http://www.bats.org.uk/>); Scottish Squirrel Survey (<http://www.scottishsquirrelsurvey.co.uk/>); and The British Trust for Ornithology (<http://www.bto.org/>). Positive records for species present in the survey area can be used to inform the assessment of biodiversity on the site but the lack of records clearly cannot be taken to imply that the species in question is absent.

#### **2.2.2 Survey methodology**

A site visit was carried out after receiving project information from Orchil Architects. A walk over survey was carried out and an overall habitat assessment was made.

**2.2.2.1** The main habitats present were surveyed according to the methodology of the Joint Nature Conservation Committee's 'Phase 1 Habitat Survey' (JNCC, 2010). Classification was given to each area according to JNCC (2010). Ground vegetation was then surveyed for the presence of any other rare or protected species by walk-over surveys. Target notes describe the habitats found and any protected or otherwise notable wildlife and any suitable habitats for these species. Nomenclature for higher plants follows Stace (2019) and for mosses and liverworts British Bryological Society (2010). Species abundance is described using DAFOR scale (D – Dominant, A – Abundant, F – Frequent, O – Occasional, R – Rare, where rare refers to local abundance not national scarcity).

**2.2.2.2** Bat roost potential was assessed for the building and trees within/adjacent to the proposed site using methodology to identify the possible presence of bats, and potential for bat roosts from Collins, J (2016) 'Bat Surveys for Professional Ecologists: Good Practice

Guidelines' Bat Conservation Trust (3rd edition), Cowan, H (2004) 'Looking out for bats. They could be anywhere!' and NatureScot (2023a) 'Standing Advice for Planning Consultations: Bats'.

**2.2.2.3** Evidence of badgers was surveyed for using information from Scottish Badgers (2023), 'Badger surveying' and 'Standing Advice for Planning Consultations: Badgers' (NatureScot, 2023b). The survey was based on the interpretation of field signs (footprints, foraging holes, latrines, and setts or potential setts) and assessment of suitable habitat rather than direct observation of the animals themselves.

**2.2.2.4** The potential presence of red squirrels and dreys was surveyed using the Forestry Commission Scotland (FCS, 2006a) 'FCS Guidance Note 33: Forest operations and Red squirrels', NatureScot (2023c) 'Standing Advice for Planning Consultations: red squirrels', and UK BAP Mammals: 'Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation' (The Mammal Society, 2012, pp. 13-16). The survey was based on the interpretation of any field signs (feeding signs and dreys) and assessment of suitable habitat.

**2.2.2.5** Evidence of pine marten presence was surveyed for using UK BAP Mammals: 'Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation' (The Mammal Society 2012, pp.71-76) and 'Standing Advice for Planning Consultations: Pine Marten' (NatureScot, 2023d). The survey was based on the interpretation of field signs (scats, footprints, and dens or potential dens) and assessment of suitable habitat rather than direct observation of the animals themselves.

**2.2.2.6** An otter survey was carried out following the standard otter survey methodology as set out in the 'New Rivers and Wildlife Handbook' (Holmes, Ward and Jose, 2001) and NatureScot (2023e) 'Standing Advice for Planning Consultations: Otters'. The survey was based on the interpretation of any field signs (spraints, footprints, tracks, slides, couches and holts or potential holts) and assessment of suitable habitat rather than direct observation of the animals themselves.

**2.2.2.7** Evidence of beaver was surveyed for following NatureScot (2023f) 'Standing Advice for Planning Consultations: Beavers'. The survey was based on the interpretation of field signs (beaver dams, beaver lodges, beaver chewed trees) and assessment of suitable habitat rather than direct observation of the animals themselves.

**2.2.2.8** Evidence of water vole was surveyed for using information from NatureScot (2023g) 'Water vole survey methods' and Standing Advice for Planning Consultations: Water vole'. The survey was based on the interpretation of field signs (burrows, runs, tracks, feeding stations, droppings, and latrines) and assessment of suitable habitat rather than direct observation of the animals themselves.

**2.2.2.9** A reptile survey was carried out following guidelines adapted from Froglife (2013) and NatureScot (2023h) 'Standing Advice for Planning Consultations: reptiles'. The survey focused on searching for basking animals on banks, piles of wood and edges of woodland. An assessment of suitable habitat was made.

**2.2.2.10** The site was surveyed for the presence of any other rare or protected species, guidelines from FCS (2007) FCS Guidance Note 34: Forest operations and European protected species in Scottish forests.



**2.2.2.11** The potential of Schedule 1 birds was adapted from BTO (2023), ‘Methodology and survey design for bird surveys’ and NatureScot (2023i) ‘Protected species: birds.’

### **2.2.3 Survey area**

The survey area incorporated the proposed site and up to 250m in the surrounding area.

### **2.2.4 Timings, types, and weather conditions of field Surveys**

The site was surveyed by walk-over, habitat and protected species surveys carried out in August and September 2023 by Tay Ecology. The main habitats present were surveyed according to the methodology of the Joint Nature Conservation Committee’s Phase 1 Habitat Survey (JNCC 1993). Signs of the presence of protected species were sought and habitats were assessed for their potential to host protected species.

30/08/2023 16 degrees Celsius; wind speed 2mph; cloud cover 80%; no precipitation.

31/08/2023 14 degrees Celsius; wind speed 2mph; cloud cover 100%; no precipitation.

13/09/2023 14 degrees Celsius; wind speed 2 mph; cloud cover 100%; no precipitation.

16/09/2023 11 degrees Celsius; wind speed 2mph; cloud cover 80%; no precipitation.

### **2.2.5 Limitations**

Survey data is accurate when the surveys took place. The curtilage of private property was not entered. It was a ground survey, with no tree climbing element, the surveyors were able to see to the tops of the trees.

### **2.2.6 Personnel**

Emma O’Shea, Ecological Consultant, Tay Ecology. Emma has worked in the environmental sector for nineteen years, during which time she has gained a wealth of experience and expertise. During the last nine years she has worked as an ecological consultant for Tay Ecology with lead responsibility for development projects requiring habitat, protected species, bird, tree surveys and species licensing. Emma has thirteen years of experience surveying breeding birds, is a qualified tree inspector with a background in tree regeneration monitoring and habitat surveys. She has a Postgraduate Diploma in Environmental Management from the Open University and is a full member of CIEEM, a member of the Arboricultural Association, and the Institute of Environmental Assessment and Management.

Gary Flynn, Ecologist, Tay Ecology. Gary has been employed in wildlife management and conservation in Aberdeenshire and Tayside for over 20 years. Gary trained with Tay Ecology during 2019 and his specialisms are habitat, bat, tree, and protected species surveys.

Rosemary O’Shea, Bat Surveyor, Tay Ecology

Rosemary has been surveying bats since 2004 and has a wide range of experience, she has surveyed a wide range of buildings from castles in the North-east of Scotland to farm steadings in West Perthshire. Rosemary has attended several Bat Conservation Trust training courses and is passionate about conserving natural environment.

Archie Flynn, Bat Surveyor, Tay Ecology

Archie has a background in environmental education and has worked in land management in Scotland since 2017. Archie trained with Tay Ecology for bat surveys during 2020, he attended a BCT training course in 2021 and has experience of surveying a range of building types and ages.

## **3.0 LEGISLATION AND POLICY GUIDANCE**

### **3.1 Wildlife and Countryside Act, 1981, as amended (WCA)**

The WCA sets out the protection offered to various species of plants, birds and animals in England and Wales. Bird species listed in Schedule 1, animal species listed in Schedule 5 and plant species listed in Schedule 8 of the WCA are protected. Under section 14(2) of the WCA it is an offence to “plant or otherwise cause to grow in the wild” any plant listed in Schedule 9, Part II of the Act. Japanese knotweed (*Fallopia japonica*) is a Schedule 9, Part III species. The WCA has since been strengthened and updated by subsequent UK and Scottish legislation (see below).

#### **3.1.1 The Conservation (Natural Habitats &c.) Regulations 1994, as amended (Habitat Regulations)**

The provisions of the Habitats Directive were transposed into UK law by the Habitat Regulations. Schedule 2 of the Habitat Regulations lists the European protected species of animals whilst Schedule 4 lists the European protected species of plants. Under the Habitat Regulations, it is illegal to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4 without a licence granted by the appropriate authority. Licences can only be granted for certain purposes and if a set of conditions have been met.

#### **3.2 Nature Conservation (Scotland) Act 2004**

Deals with conserving biodiversity by introducing a duty on all public bodies to further the conservation of biodiversity and requires under Section 2(4) publication of a list of habitats and species for conservation action. Amends the 1981 Wildlife & Countryside Act in respect of protecting Sites of Special Scientific Interest, and similarly strengthens protection of certain birds, animals, and plants. Updates the 1992 Protection of Badgers Act.

The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004 Amends 1994/ Habitats Regulations to bring provision for protection of European ‘Natura 2000’ sites into line with the protection regime set out in the Nature Conservation (Scotland) Act 2004 and affords protection to European candidate sites. It gives further protection to European protected species, introducing a new offence of ‘reckless disturbance’ in respect of European sites and species.

The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007 significantly strengthened the regulations relating to European Protected Species of animals and enacting the requirement to assess developments plans (structure and local plans) with regard to effects on Natura 2000 (EC Directive) sites.

### **3.3 Wildlife Legislation**

#### **3.3.1 Bat**

All bat species found in Scotland are classed as European protected species. They receive full protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). Bats and their roosts are legally protected, whether bats are occupying the roost or not. It is illegal to disturb a bat(s) in their roosts; damage or destroy a bat roosting place, even if there are no bats present at the time; and obstruct access to a bat roost. It is illegal to capture, injure or kill a bat or possess, advertise, sell, or exchange a bat dead or alive.

### **3.3.2 Badger**

Both badgers and their setts are protected under the Protection of Badgers Act 1992 as amended by the Wildlife and Natural Environment (Scotland) Act 2011. Offences under the Act include taking, injuring, or killing badgers; cruelty to badgers; interference with badger setts; selling and possession of live badgers and marking and ringing. Exceptions and licences can apply.

### **3.3.3 Red Squirrel**

The red squirrel is protected under schedules 5 and 6 of the Wildlife and Countryside Act 1981, as amended by the Nature Conservation (Scotland) Act 2004. Under this legislation it is illegal to intentionally or recklessly kill, injure or capture a red squirrel; take or damage, destroy, or obstruct access to any structure or place used for shelter or protection such as a drey; or to disturb any red squirrel while it is in a drey.

### **3.3.4 Pine Marten**

Pine martens are protected under schedule 5 of the Wildlife and Countryside Act 1981, as amended by the Nature Conservation (Scotland) Act 2004. It is an offence to intentionally, or recklessly: kill, injure, or take a wild pine marten; damage, destroy or obstruct access to any structure or place which such an animal uses for shelter or protection (den); and to disturb such an animal when it is occupying a place for that purpose.

### **3.3.5 Otter**

As a European protected species, the otter is fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It is illegal to deliberately or recklessly kill, injure or take (capture) an otter; deliberately or recklessly disturb or harass an otter; damage, destroy or obstruct access to a breeding site or resting place of an otter (ie. an otter shelter). Otter shelters are legally protected whether, or not an otter is present.

### **3.3.6 Beaver**

The beaver is a European protected species, fully protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). This protection also extends to lodges and burrows used for breeding and can apply to dams.

### **3.3.7 Water vole**

The water vole receives partial protection under schedule 5 of the Wildlife and Countryside Act 1981, as amended by the Nature Conservation (Scotland) Act 2004. It is an offence to intentionally or recklessly: damage, destroy or obstruct access to any structure or place that water voles use for shelter or protection; disturb a water vole while it is using any such place of shelter or protection.

### **3.3.8 Breeding birds**

The main legislation Wildlife and Countryside Act 1981, as amended by the Nature Conservation (Scotland) Act 2004 make it an offence to intentionally or recklessly kill, injure or take any wild bird, or take, damage, destroy, obstruct, or interfere with any wild birds' nest, whilst being built or in use, or their eggs or young.

## 4.0 RESULTS

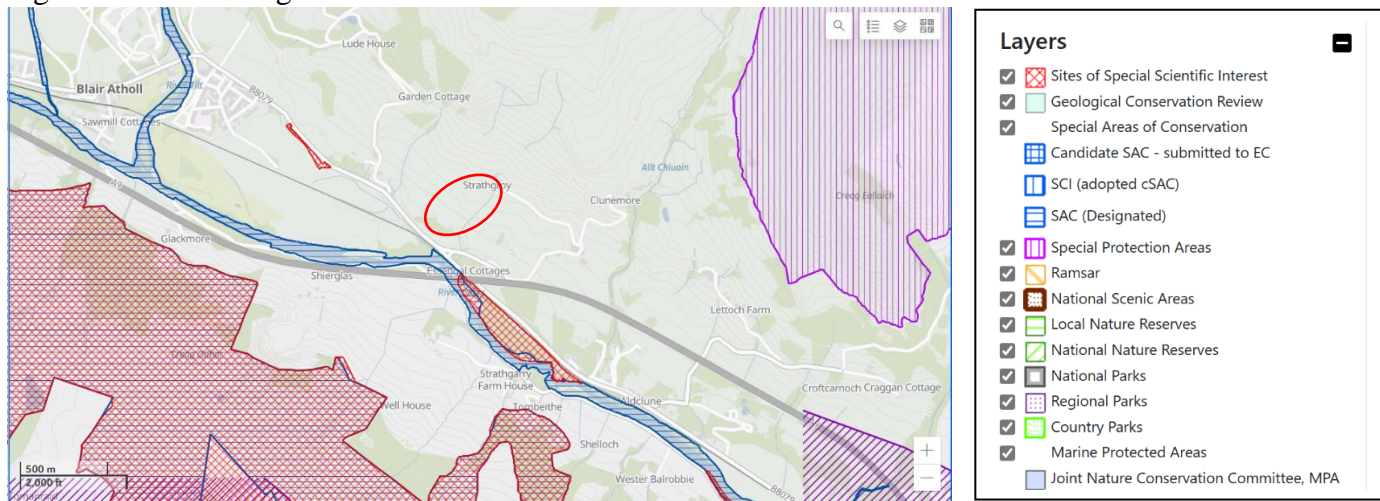
### 4.1 Existing data search

#### 4.1.1 Nature designations

Nature Scot Sitelink (2023) confirmed that there are no international or national designated sites on or immediately adjacent to the site. The River Tay Special Area of Conservation SAC is located within 100m of the south-western part of the track where it leaves the B8079. This site is designated for brook lamprey *Lampetra fluviatilis*; otter *Lutra lutra*; sea lamprey *Petromyzon marinus*; and salmon *Salmo salar*.

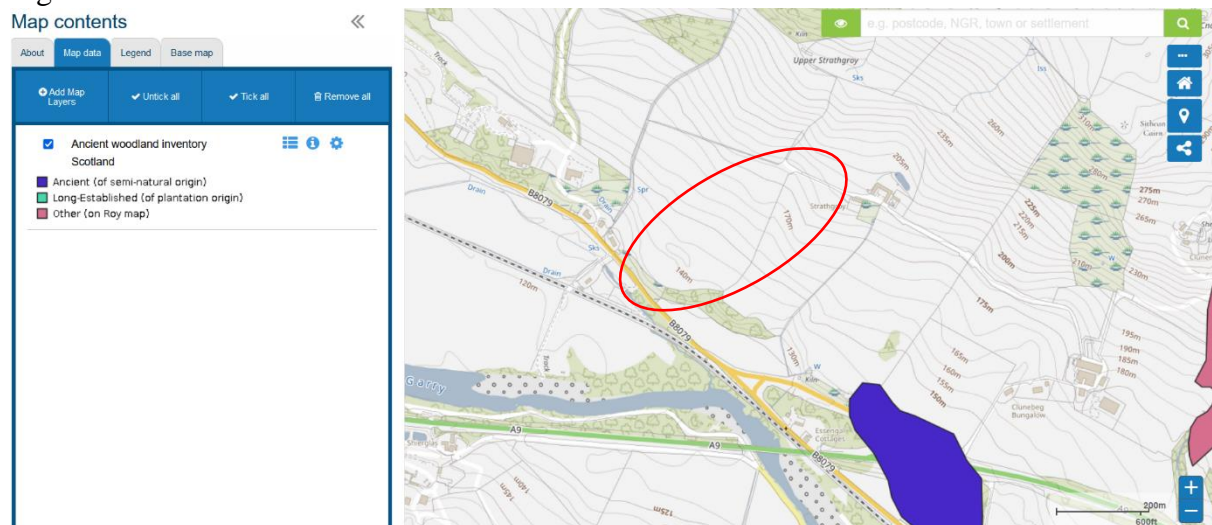
The Aldclune and Inverack Meadows Site of Special Scientific Interest SSSI is located to the south-east and the Blair Atholl Meadow SSSI is to the west. These are designated as lowland calcareous grassland. The site is located within the Cairngorms National Park.

Figure 5 Nature Designations



The Ancient Woodland Inventory (Nature Scot, 2023i) confirmed that there are no areas of ancient woodland on the site. There is ancient woodland of semi-natural origin 400m to the south-east. Perth and Kinross Council (2023) confirmed that there are no TPOs on or adjacent to the site.

Figure 6 Ancient Woodland



#### 4.1.2 Protected Species

The National Biodiversity Network confirmed presence of the following protected/vulnerable species within 5km radius: Hedgehog *Erinaceus europaeus* (56); Wildcat *Felix sylvestris* (12); Otter *Lutra lutra* (37); Pine marten *Martes martes* (18); badger *Meles meles* (43); Daubenton's bat *Myotis daubentonii* (3); Natterer's bat *Myotis nattereri* (1); Otter *Lutra lutra* (37); Common pipistrelle *Pipistrellus pipistrellus* (2); Soprano pipistrelle (11); Brown Long-eared bat *Plecotus auritus* (20); and Red squirrel *Sciurus vulgaris* (994).

Within 2km Hedgehog (17); Pine marten (2); Otter (8); Badger (8); Common pipistrelle (1); Soprano pipistrelle (2); Brown Long-eared bat (1); Red Squirrel (74) have been recorded. Within 1km there are 6 hedgehog, 6 otter, 2 badger, and 6 red squirrel records.

National Biodiversity Network confirmed presence of the following Schedule 1 birds within 5km: Quail *Coturnix coturnix* (1); Corncrake *Crex crex* (1); Merlin *Falco columbarius* (18); Peregrine *Falco peregrinus* (5); Brambling *Fringilla montifringilla* (4); Snow bunting *Plectrophenax nivalis* (3); Capercaillie *Tetrao urogallus* (45); Barn owl *Tyto alba* (9).

National Biodiversity Network confirmed presence of the following Schedule 1 birds within 2km: Merlin (1); Barn owl (1). There are no Schedule 1 birds within 1km.

#### 4.2 Habitat description

The proposed access track is comprised of improved grassland as it passes through a field which is used for grazing. In the lower reaches there are self-seeded broadleaved trees and an area of silver birch *Betula pendula*., hawthorn *Crataegus monogyna* and rowan *Sorbus acuparia*. To the south of the track is tall ruderal vegetation with rosebay willowherb *Chamaenerion angustifolium*, and areas of encroaching bracken *Pteridium aquilinum*. Higher up the track there is a broken row of over-mature/veteran ash *Fraxinus excelsior* trees predominantly on the east side of the track which is bounded by a dry-stone wall with post and wire fencing in the upper and lower sections.

Phase 1 Habitat Classification Codes

A1.1.1 Semi-natural broad-leaved woodland

A3 Parkland and scattered trees

B4 Improved grassland

C1.2 Bracken scattered

C3.1 Tall ruderal vegetation

J2.5 Wall



# Proposed Access Track Strathgroy Farmhouse

## Habitat Map

SCALE : 1 : 2000 @ A4 DATE : 16/10/2023



MAP FILENAME : Strathgroy Habitat Map

Prepared by Tay Ecology Ltd  
Email: info@tayecology.co.uk  
Web: www.tayecology.co.uk

### Key

-  A1.1.1 Semi-natural woodland
-  A3 Scattered Trees
-  B4 Improved Grassland
-  C1.2 Bracken
-  C3.1 Tall ruderal
-  J2.5 Wall





#### 4.2.1 Site Photographs

a. Veteran ash west of farmhouse of track



b. West along track heading SW downhill



c. Line of ash descending south



d. Line of ash along wall ascending north



e. Bracken to south and improved grassland



f. Tall ruderal to south and birch to north



#### 4.2.2 Description of Habitats of potential value to wildlife

The veteran ash have potential to be of moderate to high value to wildlife. The amenity grassland is of low value to wildlife.

### 4.2.3 Trees

Descending from the farmhouse is a broken line of eight veteran and over-mature ash *Fraxinus excelsior* with high ecological and landscape value. In the lower section of the track are mature silver birch *Betula pendula*, hawthorn *Crataegus monogyna*, and rowan *Sorbus acuparia*, with alder *Alnus glutinosa* and willow *Salix spp.* closer to the B-road.

### 4.2.4 Improved grassland

The grassland has been affected by heavy grazing and has only a very limited range of grasses including Perennial ryegrass *Lolium perenne*, Crested dog's tail *Cynosurus cristatus*.. There are scattered thistles *Cirsium spp.*.

### 4.2.5 Bracken and tall ruderal vegetation

On the lower section of the track, south of the line of the track is bracken *Pteridium aquilinum* and tall ruderal vegetation including rosebay willowherb *Chamaenerion angustifolium*, thistles *Cirsium spp.*, broom *Cytisus scoparius*, wild raspberry *Rubus idaeus*, nettles *Urtica dioica*.

## 4.3 Protected species

### 4.3.1 Bat Survey

#### 4.3.1.1 Preliminary Tree Bat Roost Assessment

A tree preliminary bat roost assessment was carried out to assess for the likelihood of the trees in the area to have bat roosts. The assessment indicated that 32 of the trees have negligible or low bat roost potential. Negligible bat roost potential is 'negligible habitat features likely to be used by roosting bats' (Collins, 2016, p.35). These trees do not display any cracks, crevices, ivy cover, deadwood in canopy or stem or decay cavities or hollows in stem (Andrews & Gardner, 2016). No further surveys are required for trees with negligible bat roost potential (Collins, 2016, p.52). Low bat roost potential is 'a tree of sufficient size and age to contain potential roosting features (PRFs) but with none seen from the ground or features with only very, limited roosting potential' (Collins, 2016, p.35). No further surveys are required for trees with low bat roost potential (Collins, 2016, p.52).

Two ash trees, T3 and T8, have moderate potential roost features with hollow cavities suitable for bats and further survey of the trees is required with a dusk and dawn survey recommended (Collins, 2016, p.35, p.52). Tree 3 has an open hollow cavity in the main stem where the top has previously snapped off. Tree 8 has a vertical cavity from the base to 4m on the east side. There were no signs of use by bats such as bat droppings or staining present.

g. Tree 3 ash



h. Tree 3 ash hollow cavity main stem





i. Tree 8 ash



j. Tree 8 ash vertical cavity base to 4m



#### 4.3.1.2 Bat Activity Surveys

Two bat activity surveys were carried out at dusk on 31<sup>st</sup> August and dawn on 16<sup>th</sup> September with one surveyor per tree. Two Common and two Soprano pipistrelles were recorded foraging between the trees; however, no bat roosts were confirmed in the trees at the time of the survey.

#### 4.3.2 Badger Survey

Badger activity and badger signs were surveyed for. There is suitable habitat on site which is favourable habitat for badgers.

**Species recorded** No badgers recorded.

**Signs recorded** No badger latrines, pathways or setts recorded.

#### 4.3.3 Red Squirrel Survey

Red squirrel activity and red squirrel signs were surveyed for. There are mixed broadleaved and coniferous trees which are favourable for red squirrels. There are multiple red squirrel records within the local area.

**Species recorded** No red squirrels recorded.

**Signs recorded** No red squirrel signs or dreys were recorded in the trees on the site or within 50m of the site.

#### 4.3.4 Pine marten Survey

Pine marten activity and pine marten signs were surveyed for. There is favourable habitat on the site for pine martens.

**Species recorded** No pine martens recorded.

**Signs recorded** No pine marten dens or scats recorded.

#### 4.3.5 Otter Survey

There is a lack of suitable otter habitat in proximity to the site.

**Species recorded** No otters recorded.

**Signs recorded** No holts, couches, spraints, footprints, tracks, and slides, recorded.

#### 4.3.6 Beaver Survey

There is a lack of suitable beaver habitat in proximity to the site.

**Species recorded** No beavers recorded.

**Signs recorded** No lodges, dams, footprints, feeding signs recorded.

#### 4.3.7 Water vole Survey

There is a lack of suitable water vole habitat in proximity to the site.

**Species recorded** No water voles recorded.

**Signs recorded** No water vole signs i.e., burrows, runs, tracks, feeding stations, droppings, and latrines recorded.

#### 4.3.8 Reptile Survey

The grassland and woodland provide a favourable habitat for reptiles, slow worm and common lizard have been recorded within 5km.

**Species recorded** No reptiles recorded.

**Signs recorded** No reptile signs recorded.

#### 4.3.9 Other Protected Species Survey

Other protected species activity and signs were surveyed for. Species included amphibians, invertebrates, and small mammals.

**Species recorded** No other protected species was recorded.

**Signs recorded** No other protected species signs were recorded.

#### 4.3.10 Schedule 1 and Bird Activity Survey

Schedule 1 and bird activity surveys were carried out. No specially protected, sensitive, or very, rare, species of bird was recorded at the site. Common bird species were identified either by visual sighting or by bird call. Species recorded within the site boundary include blackbird, blue tit, chaffinch, great tit, house sparrow, robin, swallow, woodpigeon, and wren. There is good cover, food, and nesting sites for a variety of birds in the local area. The trees, provide the most likely place to find nesting birds, and evidence of nesting birds was recorded during the surveys.

**Table 4.3 Bird Records**

Common Name	Latin Name	Within the Site Boundary	Within 250m of the Site
Goldfinch	<i>Carduelis carduelis</i>	No	Yes
Treecreeper	<i>Certhia familiaris</i>	Yes	Yes
Greenfinch	<i>Chloris chloris</i>	No	Yes
Woodpigeon	<i>Columba palumbus</i>	Yes	Yes
Crow	<i>Corvus corone</i>	No	Yes
Blue tit	<i>Cyanistes caeruleus</i>	Yes	Yes
House martin	<i>Delichon urbicum</i>	No	Yes
Great spotted woodpecker	<i>Dendrocopos major</i>	No	Yes
Robin	<i>Erithacus rebecca</i>	Yes	Yes
Chaffinch	<i>Fringilla coelebs</i>	Yes	Yes
Swallow	<i>Hirundo rustica</i>	Yes	Yes
Great tit	<i>Parus major</i>	Yes	Yes
House sparrow	<i>Passer domesticus</i>	Yes	Yes
Pheasant	<i>Phasianus colchicus</i>	No	Yes
Dunnock	<i>Prunella modularis</i>	No	Yes
Siskin	<i>Spinus spinus</i>	No	Yes
Tawny owl	<i>Strix aluco</i>	No	Yes
Wren	<i>Troglodytes troglodytes</i>	Yes	Yes
Blackbird	<i>Turdus merula</i>	Yes	Yes
Song thrush	<i>Turdus philomelos</i>	No	Yes
Mistle thrush	<i>Turdus viscivorus</i>	No	Yes

#### **4.3.10 Flora and INNS survey**

Protected and rare species of flora were surveyed for. Invasive non-native species were surveyed for including Japanese knotweed *Fallopica japonica*, Himalayan balsam *Impatiens glandularis* and Giant Hogweed *Heracleum mantegazzianum*.

**Species recorded** No protected, rare or INNS species were recorded.

**Signs recorded** No signs of protected, rare, or INNS species were recorded.

#### **4.4 Summary**

There are no national or international statutory nature designations or ancient woodland on or adjacent to the site. The River Tay SAC is located within 100m to the south of the site. The proposed access track is comprised of improved grassland. The lower reaches there are self-seeded broadleaved trees. To the south of the track is tall ruderal vegetation and areas of encroaching bracken. Higher up the track there is a broken row of over-mature/veteran ash trees predominantly on the east side of the track which is bounded by a dry-stone wall with post and wire fencing in the upper and lower sections.

32 trees have negligible or low bat roost potential. Bat activity surveys were carried out for 2 trees with moderate roost potential, no bat roosts were confirmed, and small numbers of Common and Soprano pipistrelles were foraging in the area. There was no evidence of red squirrels recorded at the time of the surveys though there is potential for red squirrels to utilise the site. There is suitable nearby habitat for badgers, pine martens and reptiles although no signs were recorded. There is negligible suitable habitat for otters, beavers and water voles.

Bird activity included both migrant, red and amber listed and common species. There is good cover, food, and nesting sites for a variety of birds in the trees. No evidence of any other protected species or protected or rare species of flora. No signs of the presence of invasive non-native species were identified.

### **5.0 ASSESSMENT**

#### **5.1 Limitations**

Survey data is accurate when the surveys took place. The curtilage of private property was not entered. It was a ground survey, with no tree climbing element, the surveyors were able to see to the tops of the trees.

#### **5.2 Habitat**

##### **5.2.1 Designated Sites**

There are no national or international statutory nature designations or ancient woodland on or adjacent to the site. The River Tay SAC is located within 100m to the south of the site. Unmitigated sedimentation/pollution incidents during the construction period have the potential to result in negative impacts on local habitats. All works with the potential to negatively impact (e.g. windblown dust, run-off, sediment, pollution) should be undertaken with due regard to the relevant SEPA Pollution Prevention Guideline (PPG) and/or Guidance for Pollution Prevention (GPP). It is considered that provision of the above mitigation measures will ensure that there will be No Likely Significant Effects on local habitats as a result of the proposed work.

## 5.2.2 Habitat

The proposed access track is comprised of improved grassland as it passes through a field which is used for grazing. In the lower reaches there are self-seeded broadleaved trees and an area of silver birch, hawthorn and rowan. To the south of the track is tall ruderal vegetation with rosebay willowherb, and areas of encroaching bracken. Higher up the track there is a broken row of over-mature/veteran ash trees with high ecological and landscape value predominantly on the east side of the track which is bounded by a dry-stone wall with post and wire fencing in the upper and lower sections.

The proposed track will result in the loss of a strip of improved grassland along its length which is of low ecological value. There will be a loss of eight Category C trees to enable the construction of the lower part of the access track. Twenty-six trees along the line of the track will be retained, including the over-mature/veteran ash, and it is recommended that the tree roots of all retained trees are appropriately protected during construction. The loss of the trees can be compensated for by replacement and new planting of native species. A minimum 3 trees should be planted for every tree felled. It is recommended that sessile oak *Quercus petraea* and pedunculate oak *Quercus robur* trees are planted between the veteran ash to provide a future treeline which is of comparable and high ecological and landscape significance. There is also capacity in the lower reaches of the track for planting a wider range of species including alder *Alnus glutinosa*, silver birch *Betula pendula*, hazel *Corylus avellana*, holly *Ilex aquifolium*, bird cherry *Prunus padus*, wild cherry *Prunus avium*, rowan *Sorbus acuparia* and willow *Salix spp.*. All planting must be agreed with the landowner and tenant farmer and trees must be suitably and robustly protected from grazing animals.

## 5.3 Protected species

### 5.3.1 Bat surveys

32 trees have negligible or low bat roost potential. 2 trees have moderate bat roost potential, no bat roosts were confirmed. Foraging Common and Soprano pipistrelles were recorded. Provision of bat boxes is recommended and there is capacity to enhance the habitat for bats by new planting. In the event future tree work is proposed to the line of ash trees potential bat roost features should be checked for bats before any tree work takes place.

### 5.3.2 Badger surveys

There is suitable habitat for badgers, although no signs of badgers were recorded, and it is not anticipated that there will be any detrimental impact to badgers from the proposed work.

### 5.3.3 Red squirrel surveys

There was no evidence of red squirrels recorded during the surveys, and no dreys located within 50m of the site, although there are red squirrel records in the area. It is anticipated that there will not be any negative impact on red squirrels, as it will not impact red squirrel mortality or breeding at a scale which would affect the viability of the population. The development will not fragment the red squirrel population and it will not lead to an increased risk of local extinction or increased mortality as a result of forced dispersal over unsuitable habitat or areas with no or limited cover because the habitat on and around the site will continue to remain favourable for red squirrels (Mammal Society, 2012, pp. 16-19). A dependable long-term food supply will remain.



#### **5.3.4 Pine marten surveys**

There is suitable local habitat for pine martens. No pine martens, dens or scats were recorded during the surveys, though there are local records for pine martens. Pine martens are tolerant of most forms of human disturbance (Mammal Society 2012, p.76-77), and the work is unlikely to have an adverse impact on any pine marten moving closer to the site.

#### **5.3.5 Otter surveys**

There is a lack of suitable habitat for otters in close proximity to the site and it is not anticipated that there will be a negative impact to otters from the proposed work.

#### **5.3.6 Beaver surveys**

There is a lack of suitable habitat for beavers in close proximity to the site and it is not anticipated that there will be a negative impact to beavers from the proposed work.

#### **5.3.7 Water vole surveys**

There is a lack of suitable habitat for water voles in close proximity to the site and it is not anticipated that there will be a negative impact to water voles from the proposed work.

#### **5.3.8 Reptile surveys**

There is potential for reptiles in the woodland, though it is not anticipated that the proposed work would negatively impact reptiles for the long-term.

#### **5.3.9 Other protected species surveys**

There was no evidence of any other rare or protected species such as amphibians, invertebrates, and small mammals.

#### **5.3.10 Schedule 1 and bird activity surveys**

There were no Schedule 1 bird species recorded at the time of the surveys. Common and migratory breeding birds were recorded at the site and there is good cover, food, and nesting sites for a variety of birds. The trees provide the most likely place to find nesting birds. All birds are protected, and it is an offence to intentionally or recklessly kill, injure or take a wild bird, or to take, damage or destroy its nest or eggs. It is recommended that where any vegetation clearance is undertaken during the breeding season (March to August inclusive), that the vegetation should be checked for active nests before work commences. If found, work in the vicinity of a nest should cease until young birds have fledged. The provision of nest boxes for a range of bird species is recommended as part of works.

#### **5.3.11 Flora and INNS surveys**

There were no signs of protected or rare species of flora or of any invasive non-native species plant species.

### **5.4 Conclusion**

Tay Ecology was commissioned to undertake a preliminary ecological appraisal, and ecological impact assessment of the proposed access track to Strathgrove Farmhouse. Field surveys were carried out in August and September 2023 to assess habitat, bats, badger, pine

martens, red squirrels, otters, water voles and reptiles. The likelihood of specially protected and rare, species of birds and of any other protected or local biodiversity action plan species of flora and fauna was assessed. There are no statutory nature designations or ancient woodland in the vicinity. The track is comprised of improved grassland. In the lower reaches there are self-seeded broadleaved trees, with tall ruderal vegetation and bracken to the south of the track. Higher up there is a broken row of over-mature/veteran ash trees with high ecological and landscape value predominantly on the east side of the track which is bounded by a dry-stone wall with post and wire fencing in the upper and lower sections.

The proposed track will result in the loss of a strip of improved grassland along its length which is of low ecological value. There will be a loss of eight Category C trees to enable the construction of the lower track. Twenty-six trees will be retained, including the over-mature/veteran ash, and it is recommended that the tree roots of all retained trees are appropriately protected during construction. The loss of the trees can be compensated for by replacement and new planting of native species. A minimum 3 trees should be planted for every tree felled. It is recommended that sessile oak and pedunculate oak trees are planted between the veteran ash to provide a future treeline which is of comparable and high ecological and landscape significance. There is also capacity in the lower reaches of the track for planting a wider range of species including alder, silver birch, hazel, holly, bird cherry, wild cherry, rowan and willow. All planting must be agreed with the landowner and tenant farmer and trees must be suitably and robustly protected from grazing animals. It is essential that best practice working methods and pollution prevention methods are adhered to during construction to safeguard the retained trees and adjacent habitats.

The majority of trees have negligible or low bat roost potential; two ash have moderate bat roost potential, although no bat roosts were confirmed. Common and Soprano pipistrelles were recorded foraging, and provision of bat boxes as part of the works is recommended. There was no evidence of red squirrels recorded during the surveys, and no dreys located within 50m of the site, though there are red squirrel records in the area. It is not anticipated that there will be any impact on red squirrels, as a dependable long-term food supply will remain. There were no signs of badger, pine marten, otters, beavers, water voles or reptiles and there will be negligible impact to these species. There were no Schedule 1 bird species recorded, common and migratory breeding birds were recorded, and the trees provide the most likely place to find nesting birds. All birds are protected, and it is an offence to intentionally or recklessly kill, injure or take a wild bird, or to take, damage or destroy its nest or eggs. It is recommended that tree felling, and ground vegetation clearance takes place out with the nesting season. Where any vegetation clearance is undertaken during the breeding season the site must be checked for active nests before work commences. If found, work in the vicinity of a nest should cease until young birds have fledged. The provision of nest boxes for a range of bird species is recommended as part of works. There were no signs of protected or rare species of flora or of any invasive non-native species plant species.

In conclusion there will be a loss of eight trees from the construction of the proposed track. Recommendations to compensate for the loss of the trees include opportunities to enhance the biodiversity by planting native trees and by installing bat and bird boxes.

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## **6.0 RECOMMENDATIONS and MITIGATION**

To minimize impact to habitat it is recommended that:

### **6.1 Habitat**

- Follow SEPA Pollution Prevention Guideline (PPG) and/or Guidance for Pollution Prevention (GPP). Including:  
GPP 2: Above ground oil storage tanks  
PPG 6: Working at construction and demolition sites  
GPP 21: Pollution incident response planning  
GPP 22: Dealing with spills

### **6.2 Trees**

- Retained trees, including root systems are protected during construction.
- Replacement and new tree planting as part of landscaping to include sessile oak and pedunculate oak trees are planted between the veteran ash to provide a future treeline which is of comparable and high ecological and landscape significance.
- There is also capacity in the lower reaches of the track for planting a wider range of species including alder, silver birch, hazel, holly, bird cherry, wild cherry, rowan and willow.
- All planting must be agreed with the landowner and tenant farmer and trees must be suitably and robustly protected from grazing animals.

To minimise disturbance or damage to protected species prior to work starting on site it is recommended that:

### **6.3 Bats**

- Workers to be fully briefed regarding the possibility of bats in mature trees on site, their legal status and that of their roosts. Discovery of a suspected bat roost should be reported immediately to the Site Manager.
- In the event future tree work is proposed to the line of ash trees potential bat roost features should be checked for bats before any tree work takes place.

### **6.4 Red squirrels**

- Workers to be fully briefed regarding the possibility of red squirrels on site, the legal status of the animal and their dreys. Any sightings of red squirrel or discovery of a drey should be reported immediately to the Site Manager.
- In the event any active dreys are subsequently identified appropriate steps must be taken to protect the dreys with suitable exclusion zones or a red squirrel licence in place if exclusion zones are smaller than those required by Nature Scot (5m for non-breeding drey, 50m for a breeding drey) or if felling is required.

### **6.5 Reptiles**

- Workers to be fully briefed regarding the possibility of reptiles on the site, the legal status of the animal, their shelters, and resting places. Any sightings of reptiles should be reported immediately to the Site Manager
- Where any reptiles are found during works they should be relocated to suitable adjacent habitat.

## 6.6 Breeding birds

- It is recommended that ground vegetation clearance/tree felling is carried out prior to the start or after the end of the bird breeding season (September to end of February).
- Any vegetation clearance/tree works during the bird breeding season (March to August inclusive) will require a pre-operational survey. If no nests are present, vegetation / trees should be cleared following the survey.
- There is no NatureScot licence available to clear vegetation containing active bird nests or ground nesting birds, vegetation clearance/felling must be delayed until chicks have fledged.

To increase biodiversity, in addition to native planting described above, it is recommended that:

## 6.7 Bat Boxes

- Provision of bat boxes by installing bat boxes on trees, woodcrete bat boxes are more durable. Group two to three bat boxes on single large trees with boxes facing different aspects, positioned three or more metres in height. Bats will move between different aspects depending on the temperature and season.
- Example bat boxes
  - a. Schwelger 2F Tree Bat Box  
Specifications: Height 33 cm; diameter 16 cm; weight 4 kg; Schwegler Woodcrete; black with grey front panel (NHBS, 2023a).
  - b. Schwelger 1FD Tree Bat Box  
Specifications: Height 36 cm; diameter 16 cm; weight 4.8 kg; Schwegler Woodcrete; black with grey front panel (NHBS, 2023b).
  - c. Schwelger 2FN Tree Bat Box  
Specifications: Height 36 cm; diameter 16 cm; weight 4.3 kg; Schwegler Woodcrete; black with grey front panel (NHBS, 2023c).

## 6.8 Bird boxes

- Provide nest boxes for woodland birds on trees. Bird boxes to include a range of entrance hole sizes: 25 mm for blue and coal tits; 28 mm for great tits; 32 mm for house sparrows; 100 mm high open front for robins; 140 mm high front panel for wrens. Position of bird boxes 3-4m up a tree, utilise nearby trees for shade and tilt box slightly forward.
- Example bird boxes
  - a. Woodstone Seville Nest Box 28mm and 32mm  
28mm hole nest boxes will be used by Tree Sparrows, Blue Tits, Coal Tits and Great Tits. 32mm hole nest boxes will be used by Great Tits, Pied Flycatchers, Tree Sparrows.  
Specifications: Hole Size: Oval, 28 or 32 mm; Width: 20.5cm; Height: 31cm; Length: 20cm; Weight: 6.6Kg (Garden Nature, 2023a).
  - b. Woodstone Barcelona Open Fronted Nest Box  
Angle the box between northeast to southeast, ensuring it is not in the sun all day. Suitable Bird Type: Robin, Wren, Pied Wagtail, Spotted Flycatcher. Specifications: Width: 19 cm; Height: 24 cm; Length: 17.5 cm; Weight: 3.8 kg (Garden Nature, 2023b).
  - c. Schwelger 1SP Sparrow Terrace  
Site 2 metres or more above ground level. Method 1: Simple, surface installation using the plugs and screws supplied. Method 2: Complete installation as a nesting block within brick or concrete walls. Specifications: Height: 240mm; Width: 430mm; Depth: 220mm; Weight: 15kg approx. (Ark Wildlife, 2023).

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