

Appendix 12.12

Outline Species Protection Plan

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1 Introduction

1.1 Background

- 1.1.1 This Outline Species Protection Plan (OSPP) has been prepared to document specific mitigation and compensation measures identified through the Ecological Impact Assessment (EclA) of Project 8 - Dalwhinnie to Crubenmore (Central Section) of the A9 Dualling Programme (hereafter referred to as the Proposed Scheme).
- 1.1.2 Further details of the proposed scheme are presented in **Chapter 5**, and findings of the accompanying EclA are presented in **Chapter 12**.

1.2 Scope

- 1.2.1 The scope of this OSPP has been developed through the application of best practice (SNH, Species Protection Plans Guidance)¹. Prior to the commencement of construction, a detailed Species Protection Plan (SPP) will be agreed in writing with the Cairngorms National Park and Scottish Natural Heritage (SNH) through the statutory Environmental Impact Assessment (EIA) process.
- 1.2.2 The OSPP considers the specific mitigation for species affected by the proposed scheme; and outline control outline measures are based on the EIA baseline. The OSPP is a live document, which will continue to be revised, updated and re-issued when pre-construction surveys are undertaken. Prior to the start of construction, a steering group will be established to oversee the implementation of the agreed SPP.
- 1.2.3 Although OSPP are usually implemented within the development site, they may also occur on land outside the development site, subject to relevant legal agreements. SNH considers that it is vital that in principle agreements with all affected landowners are in place at the time of the submitted development proposal. This will avoid problems at later stages (for example, a key landowner pulling out post-consent).

1.3 Data and Information Sources

- 1.3.1 The following sources were consulted for records of species:
- SNHi Information Services (e.g. SiteLink, iMap and Natural Spaces)
 - Highland Biological Recording Group (HBRG)
 - Perth Museum Biological Records Centre
 - Cairngorms National Park Authority
 - Royal Society for the Protection of Birds
 - Spey Fisheries Board (SFB)
 - Scottish Environment Protection Agency (SEPA).

¹ Scottish Natural Heritage (undated) *Species Protection Plans* - <http://www.snh.gov.uk/protecting-scotlands-nature/species-licensing/forms-and-guidance/species-protection-plan/>

1.3.2 The following habitat and species surveys were undertaken between 2014 and 2016 to inform the EclA process for the Proposed Scheme:

- Phase 1 and 2 habitat survey
- Breeding bird survey (including scarce breeding birds and woodland grouse)
- Protected vertebrate survey
- Freshwater pearl mussel survey of the River Truim.

2 Amphibians

2.1 Introduction

- 2.1.1 An EclA on common toad (*Bufo bufo*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).
- 2.1.2 In line with the desktop review and field survey findings, great crested newt (*Triturus cristatus*), smooth newt (*Lissotriton vulgaris*), palmate newt (*Lissotriton helveticus*) and common frog (*Rana temporaria*) were scoped out of the assessment. As a result, these species are not considered within this OSPP.
- 2.1.3 In the unlikely occurrence that great crested newt, a European Protected Species, are encountered during works, activity in the area will cease until this protection plan has been updated and a specific mitigation plan has been developed and appropriate license obtained where required.
- 2.1.4 Where other amphibians are encountered during works the Ecological Clerk of Works (ECoW) will be contacted to advise on working methods restrictions immediately and this plan will be updated accordingly.

2.2 Protection Plan

- 2.2.1 Where there is potential for common toad to be present, the following plan must be implemented prior to and during construction.

General Mitigation

- 2.2.2 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, who will provide an advisory role with regards to common toad.
- 2.2.3 Best practice, in line with the relevant Pollution Prevention Guidelines (PPG), should be maintained in order to minimise the likelihood of changes to water quality or chemistry through sedimentation or spills during construction which could affect waterbodies used by common toad during the breeding season.
- 2.2.4 All chemicals and materials to be used on site should be safely and correctly stored and labelled, in accordance with relevant legislation, ideally on a bund and spill kits be made available on site in case spills do occur.
- 2.2.5 Works in proximity to waterbodies should be avoided during the common toad breeding season (February to June) where feasible.
- 2.2.6 Destruction of waterbodies should be avoided where possible however, if necessary, works should be undertaken during the winter months (November to February) to reduce the impact on common toad populations (i.e. avoid breeding season). Occasionally, common toad hibernate in mud at the bottom of waterbodies therefore, drainage methods should minimise the risk of injury to hibernating toads.
- 2.2.7 Works carried out in suitable common toad terrestrial habitat (e.g. rough grassland, tall herb and heath) between March and October (active period) will adopt a sensitive approach to vegetation clearance to protect common toad from injury or mortality.

- 2.2.8 Potential hibernation sites (e.g. deep leaf litter, log piles, abandoned rodent burrows and stone walls) should be removed during the active period.
- 2.2.9 If common toad are encountered on site, all works should cease until the ECoW has inspected the site and provided advice on any additional mitigation measures which may be required (e.g. relocating the animals to a safe area). Site personnel will be informed of this procedure prior to any site activity during a toolbox talk.
- 2.2.10 New earthworks in areas where common toad have been encountered will be carried out under the supervision (watching brief) of the ECoW.
- 2.2.11 **Table 2** provides indicative guidance on the optimal timing for carrying out the required mitigation for amphibians.

3 Badger

3.1 Introduction

3.1.1 An EclA on badger (*Meles meles*) has been undertaken as part of the Environmental Statement for Proposed Scheme (see **Chapter 12**).

3.2 Protection Plan

3.2.1 Where there is potential for badger to be present, the following plan must be implemented prior to, and during construction.

Surveys

3.2.2 Pre-construction badger surveys will include a minimum of 30m beyond the proposed scheme boundary, and up to 100m for areas of potential high noise and vibration activities during construction.

3.2.3 Pre-construction surveys will be carried out by suitably qualified and experienced ecologists who can identify badger signs and active, inactive and defunct setts.

3.2.4 If badger setts are discovered during the pre-construction surveys, a licence may be required from SNH.

General Mitigation

3.2.5 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, especially if works are taking place close to known badger setts, to ensure all mitigation relevant to badger is implemented.

3.2.6 If potential setts or badger themselves are encountered on site all works should cease until the ECoW has inspected the site and provided advice on any additional mitigation measures which may be required. Site personnel will be informed of this emergency procedure prior to any site activity during a toolbox talk.

3.2.7 Any pipes should be capped or sealed at the end of every working day to prevent badger from accessing. Any holes or trenches should have exit ramps comprising a formed slope or wooden plank at 45 degrees, to allow any badger a safe escape. All areas should be checked at the beginning of the shift to ensure exit ramps are still intact and no badger have entered during the night.

3.2.8 All chemicals and materials to be used on site should be safely and correctly stored and labelled, in accordance with relevant legislation, ideally on a bund and spill kits be made available on site in case spills do occur.

3.2.9 **Table 2** provides guidance on the optimal timing for carrying out the required mitigation for badger.

Works in proximity to an active sett

- 3.2.10 If setts are identified during pre-construction surveys, an exclusion zone will be implemented to protect the sett. The ECoW will propose an appropriate exclusion zone depending on the nature of works (e.g. pilling works will require a large buffer to prevent disturbance).
- 3.2.11 Fencing to mark the exclusion zone will be installed prior to site work commencing and should be clearly marked with coloured tape to prevent site personnel from entering the area. Site staff will be informed of the purpose of the exclusion zone prior to any site activity during a toolbox talk.
- 3.2.12 The ECoW will observe and advise on the installation of exclusion fencing to ensure it does not affect badger movement and will regularly examine the fencing to ensure it remains intact and provides protection to the badger sett.
- 3.2.13 If works are required within 30m of an active sett, the nature of the work will be reviewed by the site agent and ECoW. If necessary specific mitigation plans and, where appropriate, licenses will be obtained from SNH to facilitate disturbance, temporary closure of a sett or permanent closure and sett replacement.

4 Bats

4.1 Introduction

4.1.1 An EclA on common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bats (*Plecotus auritus*) and Daubenton's bats (*Myotis daubentonii*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (**Chapter 12**).

4.1.2 In line with desktop and field survey findings, nathusius pipistrelle (*Pipistrellus nathusii*), natterer's bat (*Myotis nattereri*), leisler's bat (*Nyctalus leisleri*) and noctule bat (*Nyctalus noctula*) were scoped out of the assessment. As a result, these species are not considered within this protection plan however, if they are encountered during works, activity in the area will cease until this species protection plan is updated.

4.2 Protection Plan

4.2.1 Where there is potential for bats to be present, the following plan must be implemented prior to, and during, construction.

Surveys

4.2.2 Pre-construction bat surveys will extend to a minimum of 50m beyond the proposed scheme.

4.2.3 Structures or trees, which are likely to be impacted by works, will be inspected by suitably qualified and experienced ecologists to assess their potential to support roosting bats. Features with high potential to support roosting bats will require further survey to determine if bats are present.

4.2.4 If evidence of roosting bats is identified further surveys may be needed and a European Protected Species (EPS) license may be required from SNH. The requirement for licensing will be determined with respect to the nature and timing of works in proximity to bat roosts.

General Mitigation

4.2.5 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, particularly if works are taking place in proximity to a bat roost, to ensure all mitigation relevant to bats is implemented.

4.2.6 If evidence of bats or bats themselves are encountered on site all works should cease until the ECoW has inspected the site and provided advice on any additional mitigation measures which may be required. Site personnel will be informed of this emergency procedure and how to identify signs of bats (e.g. urine staining/ droppings) prior to any site activity during a toolbox talk.

4.2.7 Any tree felling should be undertaken by experienced contractors to reduce the potential for direct mortality of roosting bats.

4.2.8 Where pre-works checks identify bat flight lines or commuting routes where severance is likely to occur, where possible, compensatory planting should be incorporated to provide continuous connectivity opportunities.

Avoiding impacts on bat roosts

- 4.2.9 The most effective way of avoiding any impacts on bats is to schedule construction work at an appropriate time of year when bats are absent and works can be undertaken without impacting on bats. Adequate survey effort of any roost sites identified within the proposed scheme and a good understanding of the species present will help establish the optimum time to carry out works.
- 4.2.10 Optimum seasons to carry out works with respect to different types of roosts (**illustrated in Table 2**):
- Maternity roosts: 1st October to 1st May
 - Summer roosts (not a proven maternity roost): 1st September to 1st May
 - Hibernation roosts: 1st May to 1st October
 - Mating/ swarming roosts: 1st November to 1st August.

Works in proximity to a roost

- 4.2.11 Where works cannot be scheduled during an appropriate time of year, roosts identified within proximity to works, will require an exclusion zone to prevent disturbing the bat roost. The ECoW will propose an appropriate exclusion zone depending on factors such as, species present, type of roost and the nature of works. The exclusion zone will be clearly marked with coloured tape to prevent site personnel from entering the area. Site staff will be briefed on the purpose of the exclusion zone during a toolbox talk.
- 4.2.12 Works that are expected to cause disturbance to a roost site (i.e. the required exclusion zone cannot be satisfied) or may damage/ destroy the roost will require a licence from SNH. The licence conditions will be agreed in consultation with SNH.

5 Birds

5.1 Introduction

5.1.1 An EclA on breeding and non-breeding birds has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).

5.2 Protection Plan

5.2.1 Where there is potential for breeding birds to be present, the following plan must be implemented prior to, and during, construction.

Surveys

5.2.2 Pre-construction breeding bird surveys will cover a minimum of 250m beyond the proposed scheme.

5.2.3 The protection plan for breeding birds will be updated in line with pre-construction survey work which should be undertaken in the season prior to construction works commencing. Ongoing monitoring throughout construction to identify risks to key species will be undertaken in accordance to an agreed construction monitoring plan.

5.2.4 Avoidance distances from Schedule 1 species confirmed breeding within the Proposed Scheme are shown in **Table 1**.

Table 1: Stand-off distances recommended for Schedule 1 breeding bird species

Species	Avoidance Distances	Reference source
Merlin	300- 500m Depending on local conditions and topography	Ruddock and Whitfield 2007
Crossbill	50 – 150m – Depending on local conditions, topography and existing vegetation screening	Ruddock and Whitfield 2007

5.2.5 For other species not legally protected from disturbance or associated with SSSI designations, though identified as valued ecological receptors within the EIA buffers around breeding sites will be applied where possible. The exact nature of buffer requirements will be determined with the ECoW taking into account the timing, local conditions and species involved.

Mitigation

5.2.6 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, particularly if works are taking place in proximity to nesting/roosting sites, to ensure all mitigation relevant to birds is implemented.

5.2.7 Avoid vegetation / ground clearance throughout the nesting bird season (March to August inclusive).

5.2.8 Construction phasing will avoid seasonal constraints in key areas of habitat for breeding species. The following considerations will be taken into account when programming works (also illustrated in **Table 2**):

- Site clearance of conifer plantation will take cognisance of the potential for crossbill species to nest between December and April (peak breeding activity in February)

- Site clearance and earthworks will be minimised in areas to the west of the A9 between ch 24,300 to ch. 28,750 during the main period for wading bird breeding (March to July inclusive)
- Continuous monitoring of breeding efforts by key sensitive species will be undertaken during the breeding season.

6 Atlantic Salmon

6.1 Introduction

6.1.1 An EclA on Atlantic salmon has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).

6.2 Protection Plan

6.2.1 Where there is potential for Atlantic salmon to be present, the following plan must be implemented prior to, and during, construction.

General Mitigation

6.2.2 The ECoW will be on site on a permanent basis throughout construction, who will provide an advisory role with regards to Atlantic salmon.

6.2.3 Best practice, in line with the relevant Pollution Prevention Guidelines (PPG), should be maintained in order to minimise the likelihood of changes to water quality or chemistry through sedimentation or spills during construction which could affect freshwater species including Atlantic salmon.

6.2.4 During construction, all chemicals and materials to be used on site should be safely and correctly stored and labelled in accordance with relevant legislation, ideally on a bund and spill kits be made available on site in case spills do occur.

6.2.5 With the exception of works taking place at watercourses and culverts; compounds, access tracks and construction should be located at least 10m from a watercourse wherever possible to reduce the risk of accidental spillages and pollution incidents. All refuelling operations will be undertaken a minimum of 10m from any watercourse.

6.2.6 Toolbox talks will be provided to ensure all construction site personnel are aware of key environmental features and hazards with respect to Atlantic salmon.

6.2.7 Where temporary in-channel works are required, sensitive migration/ spawning/ breeding seasons should be avoided (October to June). Percussive construction works (e.g. piling/ blasting) should also be avoided in proximity to the river during sensitive periods. Should avoidance of works/ works rescheduling not be possible during sensitive periods, suitable exclusion zones (to be agreed with SNH and the local fisheries board) should be implemented.

6.2.8 Re-routing of the SSE aqueduct should also avoid sensitive periods. If this is not possible, measures should be in place to prevent any Atlantic salmon from migrating up the Allt Cuaich prior to the re-routing of the SSE Aqueduct, ensuring they are not caught upstream when the water is returned to the SSE aqueduct.

6.2.9 Upstream/ downstream permeability should be maintained throughout any in-channel works.

6.2.10 As culvert structures under the A9 will be extended to accommodate the new dualled road, any tributaries which are known to support Atlantic salmon should incorporate natural substrate along the base, in conjunction with fish baffles to assist with upstream passage.

6.2.11 Riparian vegetation should be retained where practicable, and only removed in the immediate works area.

- 6.2.12 Any night time works taking place, should have lighting directed away from watercourses and noise should be kept to a minimum.
- 6.2.13 Any night time works taking place shall have lighting directed away from watercourses and noise shall be kept to a minimum.
- 6.2.14 Seasonal constraints are illustrated on **Table 2**

7 Sea Lamprey

7.1 Introduction

7.1.1 An EclA on sea lamprey has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).

7.2 Protection Plan

7.2.1 Where there is potential for sea lamprey to be present, the following plan must be implemented prior to, and during, construction.

General Mitigation

7.2.2 The ECoW will be on site on a permanent basis throughout the construction stage, who will provide an advisory role with regards to sea lamprey.

7.2.3 Best practice, in line with the relevant Pollution Prevention Guidelines (PPG), should be maintained in order to minimise the likelihood of changes to water quality or chemistry through sedimentation or spills during construction which could affect freshwater species including sea lamprey.

7.2.4 During construction, all chemicals and materials to be used on site should be safely and correctly stored and labelled in accordance with relevant legislation, ideally on a bund and spill kits be made available on site in case spills do occur.

7.2.5 With the exception of works taking place at watercourses and culverts; compounds, access tracks and construction should be located at least 10m from a watercourse wherever possible to reduce the risk of accidental spillages and pollution incidents. All refuelling operations will be undertaken a minimum of 30m distant to any watercourse.

7.2.6 Toolbox talks will be provided to ensure all construction site personnel are aware of key environmental features and hazards with respect to sea lamprey.

7.2.7 Where temporary in-channel works are required, sensitive migration/ spawning/ breeding seasons should be avoided (October to June). Percussive construction works (e.g. piling/ blasting) should also be avoided in proximity to the river during sensitive periods. Should avoidance of works/ works rescheduling not be possible during sensitive periods, suitable exclusion zones (to be agreed with SNH and the local fisheries board) should be implemented.

7.2.8 Re-routing of the SSE aqueduct should also avoid sensitive periods. If this is not possible, measures should be in place to prevent any sea lamprey from migrating up the Allt Cuaich prior to the re-routing of the SSE aqueduct, ensuring they are not caught upstream when the water is returned to the SSE aqueduct.

7.2.9 Upstream/ downstream permeability should be maintained throughout any in-channel works.

7.2.10 Riparian vegetation should be retained where practicable, and only removed in the immediate works area.

7.2.11 Any night time works taking place, should have lighting directed away from watercourses and noise should be kept to a minimum.

7.2.12 Seasonal constraints are illustrated on **Table 2**

8 Freshwater Pearl Mussel (FWPM)

8.1 Introduction

- 8.1.1 An Ecological Impact Assessment (EclA) on freshwater pearl mussel (*Margaritifera margaritifera*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12, Volume 1**).

8.2 Protection Plan

- 8.2.1 Where there is potential for freshwater pearl mussel to be present, the following plan must be implemented prior to, and during, construction.

Surveys

- 8.2.2 No FWPM were recorded within the middle River Truim survey area, which encompasses the proposed scheme, and the in-stream habitats were mobile/ unstable, with very few exceptions. The survey area is considered wholly unsuitable for FWPM, therefore, pre-construction surveys are not recommended.

General Mitigation

- 8.2.3 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, who will provide an advisory role with regards to freshwater pearl mussel.
- 8.2.4 Best practice, in line with the relevant Pollution Prevention Guidelines (PPG), should be maintained in order to minimise the likelihood of changes to water quality or chemistry through sedimentation or spills during construction which could affect freshwater species including freshwater pearl mussel.
- 8.2.5 During construction, all chemicals and materials to be used on site should be safely and correctly stored and labelled in accordance with relevant legislation, within a bunded area and spill kits will be made available on site.
- 8.2.6 With the exception of works taking place at watercourses and culverts; compounds, access tracks and construction should be located at least 10m from a watercourse wherever possible to reduce the risk of accidental spillages and pollution incidents. All refuelling operations will be undertaken a minimum of 30m distant to any watercourse.
- 8.2.7 If freshwater pearl mussel are encountered during works, activity in the area will cease until this protection plan has been updated and a specific mitigation plan has been drawn up and appropriate license obtained where required.

9 Otter

9.1 Introduction

9.1.1 An EclA on otter (*Lutra lutra*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).

9.2 Protection Plan

9.2.1 Where there is potential for otter to be present, the following plan must be implemented prior to, and during, construction.

Surveys

9.2.2 Pre-construction otter surveys will be carried out in relevant watercourses within 250m of the proposed scheme boundary.

9.2.3 Pre-construction surveys will be carried out by a suitably qualified and experienced ecologists who can identify active otter shelters that could be affected by the works. Two types of shelter are used by otter:

- Holt: underground structure which may be excavated by otter but often they utilise and adapt existing structures such as, rabbit holes and cavities amongst tree roots or rock piles. A holt is confirmed active if it contains field signs e.g. spraints
- Natal holt: a discreet holt used for breeding, where mother and cubs will remain to up to 3 months. These sites are difficult to identify in the field and typically require camera traps to confirm breeding.
- Couch: above ground resting place which can range from a constructed nest-like structure to a depression in tall vegetation.

If an active otter shelter is identified during the pre-construction surveys, a license will be required from SNH.

General Mitigation

9.2.4 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, particularly if works are taking place in proximity to an active otter shelter, to ensure all mitigation relevant to otter is implemented.

9.2.5 Site personnel will be made aware of an emergency procedure detailing what to do if signs of otter or otter themselves are encountered during construction. All work within 30m must cease, and the ECoW will inspect the site and advise on any additional mitigation which may be required.

9.2.6 Works within 100m of waterbodies or watercourses showing regular use by otter (i.e. spraints) should not take place at night or within 2 hours of sunset and sunrise.

9.2.7 Any temporarily exposed pipe systems to be capped when contractors are off site to prevent otter from gaining access. Mammal exit ramps must be installed into all exposed trenches and holes to prevent otter from becoming trapped when contractors are off site. These areas should

be checked at the beginning of the shift to ensure they are still intact and no otter have entered in the night.

- 9.2.8 Best practice, in line with the relevant Pollution Prevention Guidelines (PPG), should be maintained in order to minimise the likelihood of changes to water quality or chemistry through sedimentation or spills during construction which could indirectly affect otter.
- 9.2.9 During construction, all chemicals and materials to be used on site should be safely and correctly stored and labelled, ideally on a bund and spill kits be made available on site in case spills do occur.

Works in proximity to an active otter shelter

- 9.2.10 Active non-breeding holts or couches identified within 30m of works, that will not be damaged during works, will require an exclusion zone from the otter shelter to prevent disturbance. The ECoW will determine an appropriate exclusion zone depending on the nature of works (e.g. pilling works will require a large buffer to prevent disturbance).
- 9.2.11 If a breeding site is suspected within 200m of works, site work will not commence, or will be suspended if construction work is underway, until it had been established that breeding is not occurring.
- 9.2.12 If breeding is confirmed, ideally works should be suspended in the area for up to 10 weeks until the cubs are able to move to alternative habitat.
- 9.2.13 If this is not possible, a large exclusion zone (100 – 200m) will be required from the otter shelter to avoid disturbance to otter. The exact size of the exclusion zone will influenced by the type of works and topography.
- 9.2.14 The ECoW will observe and advise on the installation of exclusion fencing to ensure it does not affect otter movement. Fencing will be installed prior to site work commencing and should be clearly marked with coloured tape to prevent site personnel from entering the area. Site staff will be briefed on the purpose of the exclusion zone during a Toolbox Talk. The ECoW will regularly examine the fencing to ensure it remains intact and provides protection to otter.
- 9.2.15 Works that are expected to cause disturbance to otter (i.e. the required exclusion zone cannot be satisfied) or may damage/ destroy their place of shelter will require a licence from SNH. The licence conditions will be agreed in consultation with SNH.

10 Reptiles

10.1 Introduction

10.1.1 An EclA on common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*) and adder (*Vipera berus*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).

10.2 Protection Plan

10.2.1 Where there is potential for reptiles to be present, the following plan must be implemented prior to, and during, construction to ensure these species are safeguarded.

General Mitigation

10.2.2 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, who will provide an advisory role with regards to reptiles.

10.2.3 Works carried out in suitable reptile habitat (e.g. rough grassland, tall herb and heath) between March and October (active period) will adopt a sensitive approach to vegetation clearance to minimise the risk of incidental injury or mortality.

10.2.4 Potential hibernation sites (e.g. log or rock piles and stone walls, rabbit warrens) should be removed during the active period (March to October – shown in **Table 2**). Reptiles may use these features for shelter during the day therefore, they should only be removed once a pre-construction check has confirmed no reptiles are present. If the feature is difficult to inspect and the absence of reptiles cannot be confirmed, the feature should be carefully dismantled by hand. Any reptiles present will be relocated to a pre-determined safe area.

10.2.5 Material storage areas and machinery should be checked regularly for reptiles throughout the works, including wheel arches and temporary tracks, especially in the spring and summer months, as reptiles may use these areas for shelter. In addition, material storage areas and machinery shall be checked regularly for reptiles throughout the works, including wheel arches and temporary tracks, especially in the spring and summer months, as reptiles may use these areas for shelter or for basking.

10.2.6 Temporary and permanent exclusion fencing will be erected where suitable to protect reptiles and to remove them from the affected areas. A solid barrier may be required around the areas which will remain in place during the works to stop reptiles recolonising the habitat. If reptiles are encountered on site all works should cease until the ECoW has inspected the site and provided advice on any additional mitigation measures which may be required. Site personnel will be informed of this emergency procedure prior to any site activity during a toolbox talk.

11 Water Vole

11.1 Introduction

11.1.1 An EclA on water vole (*Arvicola amphibious*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).

11.2 Protection Plan

11.2.1 Where there is potential for water vole to be present, the following plan must be implemented prior to, and during, construction.

Surveys

11.2.2 Pre-construction water vole surveys will be carried out in relevant watercourses within 50m of the proposed scheme boundary.

11.2.3 Pre-construction surveys will be carried out by a suitably qualified and experienced ecologists who can identify water vole field signs.

11.2.4 If active water vole colonies are discovered during the pre-construction surveys, a licence may be required from SNH.

11.2.5 Further surveys may be required to estimate the number of water voles present within a colony as this will inform mitigation.

General Mitigation

11.2.6 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, particularly if works are taking place in proximity to a water vole colony, to ensure all mitigation relevant to water vole is implemented.

11.2.7 Best practice, in line with the relevant Pollution Prevention Guidelines (PPG), should be maintained in order to minimise the likelihood of changes to water quality or chemistry through sedimentation or spills during construction which could affect water vole.

11.2.8 During construction, all chemicals and materials to be used on site should be safely and correctly stored and labelled, ideally on a bund and spill kits be made available on site in case spills do occur.

11.2.9 Site personnel will be made aware of an emergency procedure detailing what to do if signs of water vole or the animal themselves are encountered during construction. All work within 10m must cease, and the ECoW will inspect the site and advice on any additional mitigation which may be required.

11.2.10 Water vole habitat within 10m of works will require an exclusion zone to ensure their burrows are protected from damage, destruction or obstruction and to prevent disturbance to water vole whilst in their burrows. The ECoW will determine an appropriate exclusion zone depending on the nature of works (e.g. piling works will require a large buffer to prevent disturbance).

11.2.11 Works that are expected to cause disturbance to water vole whilst in their burrows (i.e. the required exclusion zone cannot be satisfied) or may damage, destroy or obstruct their place of shelter (burrows) will require a licence from SNH.

- 11.2.12 As water vole colonies have been identified within the proposed scheme, displacement and/ or trapping and translocation of water voles is likely, therefore works will require a licence from SNH. Licence conditions (e.g. the best method of exclusion and suitable receptor site) will be agreed in consultation with SNH.

12 Pine Marten

12.1 Introduction

12.1.1 An EclA on pine marten (*Martes martes*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12** of **ES Volume 1**).

12.2 Protection Plan

12.2.1 Where there is potential for pine marten to be present, the following plan must be implemented prior to, and during, construction.

Surveys

12.2.2 Pre-construction surveys will be carried out in all suitable pine marten habitat within 250m of the proposed scheme boundary.

12.2.3 The surveys will be carried out by suitably qualified and experienced ecologists who can identify signs of pine marten presence (e.g. scat) and potential den sites. As it is difficult to distinguish pine marten scat from other species, any potential pine marten scat will be collected and sent for DNA analysis to confirm presence.

12.2.4 If an active pine marten den is identified during pre-construction surveys, a licence may be required from SNH.

General Mitigation

12.2.5 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, to provide an advisory role with regards to pine marten.

12.2.6 Site workers will be made aware of an emergency procedure detailing what to do if signs of pine marten or the animal themselves are encountered during construction. All work must cease, and the ECoW will inspect the site and advise on any additional mitigation which may be required.

12.2.7 Any temporarily exposed pipe systems to be capped when contractors are off site to prevent pine marten from gaining access. Mammal exit ramps must be installed into all exposed trenches and holes to prevent pine marten from becoming trapped when contractors are off site. These areas should be checked at the beginning of the shift to ensure they are still intact and no pine marten have entered in the night.

12.2.8 Generally, pine marten are nocturnal or crepuscular (active at dusk and dawn) therefore, where possible, works should be restricted to daylight hours to minimise disturbance (e.g. noise, light or human activity) to pine marten.

12.2.9 In the unlikely occurrence that a pine marten den is identified during pre-construction surveys, an exclusion must be implemented to prevent disturbance. Where pine marten are not breeding, the exclusion zone should be a minimum of 30m from the works, a larger exclusion zone will be required if percussive works (e.g. piling) are being carried out. Where dens are known or suspected of being used from breeding, an exclusion zone of at least 100m is required.

12.2.10 The ECoW will observe and advise on the installation of exclusion fencing to ensure it does not affect pine marten movement. Fencing will be installed prior to site work commencing and will be clearly marked with coloured tape to prevent site personnel from entering the area. Site staff

will be briefed on the purpose of the exclusion zone during a Toolbox Talk. The ECoW will regularly examine the fencing to ensure it remains intact and provides protection to pine marten.

- 12.2.11 Works that are expected to cause disturbance to pine marten (i.e. the required exclusion zone cannot be satisfied) or may damage, destroy or obstruct their place of shelter (dens) will require a licence from SNH. The licence conditions will be agreed in consultation with SNH.

13 European Wildcat

13.1 Introduction

- 13.1.1 An EclA on European wildcat (*Felis silvestris*) has been undertaken as part of the Environmental Statement for the Proposed Scheme (see **Chapter 12**).

13.2 Protection Plan

- 13.2.1 Where there is potential for wildcat to be present, the following plan must be implemented prior to, and during, construction.

Surveys

- 13.2.2 Pre-construction surveys of suitable wildcat habitats will be undertaken and will extend to 200m beyond the proposed scheme boundary.
- 13.2.3 The surveys will be carried out by suitably qualified and experienced ecologists who can identify signs of wildcat presence and potential den sites.
- 13.2.4 If evidence of wildcat is identified during pre-construction surveys, a licence may be required from SNH.

General Mitigation

- 13.2.5 The ECoW will be on site on a permanent basis throughout all site clearance and earthworks stages, particularly if works are taking place in proximity to a wildcat den, to ensure all mitigation relevant to wildcat is implemented.
- 13.2.6 Site workers will be made aware of an emergency procedure detailing what to do if signs of wildcat or the animal themselves are encountered during construction. All work must cease and the ECoW will inspect the site and advise on any additional mitigation which may be required.
- 13.2.7 Any temporarily exposed pipe systems to be capped when contractors are off site to prevent wildcat from gaining access. Mammal exit ramps must be installed into all exposed trenches and holes to prevent wildcat from becoming trapped when contractors are off site. These areas should be checked at the beginning of the shift to ensure they are still intact and no wildcat have entered in the night.
- 13.2.8 Generally wildcat are nocturnal or crepuscular (active at dusk and dawn) therefore, where possible, works should be restricted to daylight hours to minimise disturbance (e.g. noise, light or human activity) to wildcat.
- 13.2.9 Where pre-construction surveys identify a wildcat den, works in the area should avoid the main wildcat breeding season (March to August). If this is not possible, a 200m exclusion zone from the works if required to prevent disturbance to wildcat.
- 13.2.10 The ECoW will observe and advise on the installation of exclusion fencing to ensure it does not affect wildcat movement. Fencing will be installed prior to site work commencing and will be clearly marked with coloured tape to prevent site personnel from entering the area. Site staff will be briefed on the purpose of the exclusion zone during a Toolbox Talk. The ECoW will regularly examine the fencing to ensure it remains intact and provides protection to wildcat.

- 13.2.11 Works that are expected to cause disturbance to wildcat (i.e. the required exclusion zone cannot be satisfied) or may damage, destroy or obstruct their place of shelter (dens) will require a licence from SNH. The licence conditions will be agreed in consultation with SNH.

Table 2: Guidance on the optimal timing for carrying out ecological mitigation

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Breeding birds general	Vegetation clearance not restricted	Vegetation clearance possible with precautions overseen by ECoW										
Breeding birds (Crossbill)	Where ECoW determines Crossbill are present breeding conifer removal restricted during possible breeding season.											
Badger	Badger sett closure restricted						Badger sett closure under licence possible, if required					
Bats (Maternity)	No restrictions around breeding sites						Restrictions to works around breeding sites					
Bats (summer)	No restrictions around summer sites						Restrictions to works around summer sites					
Bats (mating)	No restrictions around mating sites						Restrictions to works around mating sites					
Bats (Hibernation)	Restrictions to works around hibernation sites						No restrictions to works around hibernation sites					
Atlantic Salmon	Avoid in-channel works in spawning habitat when eggs, alevins and fry present						Avoid in-channel works in spawning habitat when eggs, alevins and fry present					
Sea lamprey	In-stream works possible						Avoid in stream works during spawning					
Amphibians and Reptiles	Avoid damage to hibernation features						Sensitive management of habitats during active season, e.g. phased removal of grassland/ heathland					
Water Vole	Avoid all works in water vole habitat						Avoid all works in water vole habitat					
	Mitigation by trapping and relocation						Possible trapping and relocation					
Wildcat	Works to avoid main breeding seasons if located near a den						Works near to a den					

