

# **ITE/ITW Tie-In Connection to Creag Dhubh Substation**

## **Environmental Appraisal**

### **Volume 2 | Technical Annex 3.2**

#### **Outline Construction Environmental Man- agement Plan**

**February 2023**

**NOTE: This document provides a template only. It is the responsibility of the Appointed Contractor(s) to complete this document, identifying mitigation and control measures that will be applied during construction. The content of this document is agreed with ABC, as part of condition discharge, prior to Construction.**



## CONTENTS

|           |                                                            |           |
|-----------|------------------------------------------------------------|-----------|
| <b>1.</b> | <b>INTRODUCTION</b>                                        | <b>1</b>  |
| 1.1       | Project Description and Background                         | 1         |
| 1.2       | Purpose of the Plan                                        | 2         |
| <b>2.</b> | <b>LEGISLATIVE REQUIREMENTS</b>                            | <b>3</b>  |
| <b>3.</b> | <b>CONSENTS AND PERMISSIONS</b>                            | <b>4</b>  |
| 3.1       | Section 37 Consent (Electricity Act 1989)                  | 4         |
| 3.2       | Planning Permission (Town and Country Planning Act 1997)   | 4         |
| 3.3       | Permitted Development (Town and Country Planning Act 1997) | 4         |
| 3.4       | Controlled Activities Scotland (CAR) Registrations         | 4         |
| 3.5       | Controlled Activities Scotland (CAR) Licences (Simple)     | 5         |
| 3.6       | Protected Species Licences                                 | 5         |
| 3.7       | Peat Management Consents                                   | 5         |
| <b>4.</b> | <b>PROJECT ENVIRONMENTAL MANAGEMENT</b>                    | <b>7</b>  |
| 4.1       | Project Personnel                                          | 7         |
| 4.2       | Roles and Responsibilities                                 | 8         |
| <b>5.</b> | <b>ENVIRONMENTAL POLICIES AND PROCEDURES</b>               | <b>10</b> |
| 5.1       | Standard Forms and Procedures                              | 10        |
| 5.2       | Certification and Policies                                 | 10        |
| <b>6.</b> | <b>COMMUNICATIONS AND TRAINING PLAN</b>                    | <b>11</b> |
| 6.1       | Environmental Communications                               | 11        |
| 6.2       | Environmental Training                                     | 11        |
| 6.3       | Environmental Reporting                                    | 11        |
| 6.4       | Key Performance Indicators (KPIs)                          | 11        |
| <b>7.</b> | <b>ENVIRONMENTAL AUDITING AND MONITORING PLAN</b>          | <b>12</b> |
| 7.1       | Environmental Management System Requirements               | 12        |
| 7.2       | Project Environmental Auditing and Monitoring Requirements | 12        |
| 7.3       | Ecological Clerk of Works (ECoW)                           | 12        |

|            |                                               |           |
|------------|-----------------------------------------------|-----------|
| 7.4        | Planning Monitoring Officer (PMO)             | 12        |
| <b>8.</b>  | <b>POLLUTION PREVENTION</b>                   | <b>13</b> |
| 8.1        | Construction Run Off Permit (CRP)             | 13        |
| 8.2        | Pollution Prevention Guidelines               | 13        |
| 8.3        | Other Guidance                                | 13        |
| 8.4        | Spill Kits and Contingency                    | 14        |
| 8.5        | Plant Nappies                                 | 14        |
| 8.6        | Major Spill Response                          | 14        |
| 8.7        | COSHH Onsite                                  | 14        |
| 8.8        | Emergency Response Trailer                    | 14        |
| 8.9        | Silt Fencing                                  | 14        |
| <b>9.</b>  | <b>FUEL STORAGE</b>                           | <b>15</b> |
| 9.1        | Baseline Best Practice                        | 15        |
| 9.2        | Refuelling                                    | 16        |
| <b>10.</b> | <b>EMERGENCY RESPONSE</b>                     | <b>17</b> |
| 10.1       | Examples of Typical Environmental Emergencies | 17        |
| 10.2       | Emergency Spill Response Procedure            | 17        |
| 10.3       | Serious Incident Reporting                    | 18        |
| 10.4       | Testing                                       | 18        |
| <b>11.</b> | <b>WASTE MANAGEMENT</b>                       | <b>19</b> |
| 11.1       | Waste Management Plan                         | 19        |
| <b>12.</b> | <b>WATER MANAGEMENT</b>                       | <b>20</b> |
| 12.1       | Watercourse Crossings                         | 20        |
| 12.2       | Pumping Out of Excavations                    | 20        |
| 12.3       | Surface Water Runoff Mitigation               | 20        |
| 12.4       | Relevant Legislation and Guidance             | 20        |
| <b>13.</b> | <b>SOIL MANAGEMENT</b>                        | <b>21</b> |
| 13.1       | General Management & Construction Methods     | 21        |
| 13.2       | Access Track Construction Methods             | 21        |

|            |                                                            |           |
|------------|------------------------------------------------------------|-----------|
| 13.3       | Soil and Vegetation Mitigation Measures to be Implemented: | 21        |
| <b>14.</b> | <b>PEAT MANAGEMENT</b>                                     | <b>22</b> |
| 14.1       | Peat Management Plan                                       | 22        |
| 14.2       | General Peat Management and Mitigation                     | 22        |
| <b>15.</b> | <b>CONTAMINATED LAND</b>                                   | <b>24</b> |
| <b>16.</b> | <b>ARCHAEOLOGY AND CULTURAL HERITAGE</b>                   | <b>25</b> |
| <b>17.</b> | <b>ECOLOGICAL MANAGEMENT</b>                               | <b>26</b> |
| 17.1       | Ecological Clerk of Works                                  | 26        |
| 17.2       | Ecological Surveys                                         | 26        |
| 17.3       | General Mitigation                                         | 26        |
| 17.4       | Protected Mammals Considered                               | 27        |
| 17.5       | Ornithology / Nesting Birds                                | 28        |
| 17.6       | Groundwater Dependent Terrestrial Ecosystems (GWDTEs)      | 29        |
| 17.7       | Invasive Non-Native Species (INNS)                         | 29        |
| 17.8       | Designated Sites                                           | 30        |
| <b>18.</b> | <b>PRIVATE WATER SUPPLIES</b>                              | <b>31</b> |
| 18.1       | Key Information                                            | 31        |
| 18.2       | Mitigation                                                 | 31        |
| <b>19.</b> | <b>TRAFFIC MANAGEMENT PLAN</b>                             | <b>33</b> |
| 19.1       | General Introduction                                       | 33        |
| 19.2       | General Mitigation                                         | 33        |
| <b>20.</b> | <b>CONSTRUCTION NOISE MANAGEMENT</b>                       | <b>35</b> |
| 20.1       | Introduction                                               | 35        |
| 20.2       | General mitigation                                         | 35        |
| <b>21.</b> | <b>AIR QUALITY AND DUST SUPPRESSION</b>                    | <b>37</b> |
| 21.1       | Introduction                                               | 37        |
| 21.2       | Dust Mitigation Measures                                   | 37        |
| <b>22.</b> | <b>OUTDOOR ACCESS PLAN</b>                                 | <b>39</b> |
| 22.1       | Introduction                                               | 39        |

|            |                                                        |           |
|------------|--------------------------------------------------------|-----------|
| 22.2       | Potential Impacts                                      | 39        |
| 22.3       | General Mitigation                                     | 39        |
| 22.4       | Access Management                                      | 39        |
| 22.5       | Opportunities                                          | 39        |
| <b>23.</b> | <b>SUSTAINABILITY</b>                                  | <b>40</b> |
| 23.1       | Appointed Contractor's Project Sustainability Measures | 40        |
| <b>24.</b> | <b>REINSTATEMENT</b>                                   | <b>41</b> |
| 24.1       | Reinstatement Aims and Objectives                      | 41        |
| 24.2       | Reinstatement Methods                                  | 41        |
| 24.3       | Reinstatement Monitoring and Maintenance               | 41        |

## **APPENDIX 1 – SSEN TRANSMISSIONS GENERAL ENVIRONMENTAL MANAGEMENT PLANS**

## **APPENDIX 2– SSEN TRANSMISSIONS SPECIES PROTECTION PLANS**

## **APPENDIX 3 – ENVIRONMENTAL CONSTRAINTS MAP**

## 1. INTRODUCTION

### 1.1 Project Description and Background

Scottish Hydro Electric Transmission plc (hereafter referred to as ‘the Applicant’) who, operating and known as Scottish and Southern Electricity Networks Transmission (SSEN Transmission), hereafter known as ‘the Applicant’ are seeking consent from Argyll & Bute Council (ABC) to construct and operate a Tie-in connection to the proposed Creag Dhubh Substation from the existing 132 kV Inveraray to Taynuilt Overhead Line (OHL) (hereafter referred to as ‘the Proposed Development’). The characteristics of the Proposed Development are shown on **Figure 3.1a (EA Volume 3a)** and provided below:

- Removal of 215 m from the existing section of the 132 kV Inveraray to Taynuilt OHL, between Tower 35A and Tower 36A;
- construction, operation and decommissioning of a 743 m temporary diversion route and wood pole tower locations;
- construction and operation of new angle towers at Towers 35A<sup>1</sup> and 36A to replace existing towers;
- construction and operation of new terminal towers 35B and 36B;
- construction and operation of a new 170 m section of overhead line between angle tower 35A to terminal tower 35B and downloads to substation gantry structures;
- construction and operation of a new 137 m section of overhead line between angle tower 36A to terminal 36B and downloads to substation gantry structures;
- land take to accommodate ancillary works, including the construction of proposed new permanent and temporary access tracks and upgrades to existing access tracks.

The location of the Proposed Development is shown in **Figure 1.1 (EA Volume 3a)**, with further details provided in **EA Volume 1, Chapter 2: Environmental Appraisal Methodology and Scope**.

SSEN Transmission owns and maintains the electricity transmission network across the north of Scotland. As such, there is a requirement for the Applicant to increase its network capability in Argyll and Kintyre to enable the connection of further renewable generation and to export to the wider GB network.

This group of works designed to deliver the required increase in network capacity has been named the ‘Argyll and Kintyre 275 kV Strategy<sup>2</sup>’.

The Proposed Development forms part of this strategy and is required to manage the transportation of renewable energy generation from the Argyll peninsula to the wider electricity network. It would connect the new Overhead Line (OHL) from the Proposed Development to Dalmally in the north, as well as to Inveraray in the south as outlined below:

- Creag Dhubh Substation (Planning ref: 22/00782/PP) - a new 132/ 275 kilovolt (kV) substation and associated infrastructure, located approximately 2.5 km southwest of Cladich, Argyll and Bute.
- Creag Dhubh to Dalmally 275 kV OHL Connection (Planning ref: ECU00002199) – proposed new OHL that would operate at 275 kV between the Proposed Development

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<sup>1</sup> The proposed height of the replacement tower would result in an increase of more than 20% when compared to the existing tower, and therefore falls above the limit set out under Section 4(d) of The Overhead Lines (Exemption)(Scotland) Regulations 2013.

<sup>2</sup> <https://www.ssen-transmission.co.uk/projects/argyll-and-kintyre-275kv-strategy/>.

and a Tie-In on the Scottish Power Energy Networks (SPEN) line at Glen Lochy (Succoth Glen), connecting Dalmally and Inverarnan.

- Creagh Dubh to Inveraray 275 kV OHL (Planning ref: ECU00003442) – proposed new OHL that would operate at 275 kV between the proposed Creagh Dubh Substation, and a connection point on the in-construction Inveraray to Crossaig OHL.

These associated works are the subject of separate applications for consent under section 37 of the Electricity Act 1989 and under section 57 (2) of the Town and Country Planning (Scotland) Act 1997.

## 1.2 Purpose of the Plan

It is the objective of the Appointed Contractor to deliver the works safely and with due care of the environment to meet (or exceed) national and industry standards, contractual requirements and with due regard to the local environment and interested and affected parties.

This CEMP will be reviewed over time, further developed and used by the project team responsible for planning, organising and delivering the work. This CEMP is owned and managed by the Appointed Contractor. It is the responsibility of the Appointed Contractor Project Manager to ensure that control measures and best practice as detailed within this CEMP are implemented and carried out, if necessary, well in advance of the work on-site.

This CEMP has been developed using the following sources of information gathered during the development and design stages of the project:

Several key documents (see **Table 3.2.1**) will be produced as part of this project and, on compilation, may be read or referred to when reading this CEMP:

**Table 3.2.1: CEMP Reference Documents (to be completed by the Appointed Contractor)**

| Title of Document                                               | Source and Description        |
|-----------------------------------------------------------------|-------------------------------|
| Construction Phase Health and Safety Plan (CPHSP)               | to be completed by contractor |
| Environmental Emergency Plan                                    | to be completed by contractor |
| Site Waste Management Plan (SWMP)                               | to be completed by contractor |
| Risk Assessments and Method Statements (RAMS)                   | to be completed by contractor |
| SEPA Construction Site Licence (CSL)                            | to be completed by contractor |
| Peat Management Plan (PMP)                                      | to be completed by contractor |
| Peat Landslide Hazard Risk Assessment (PLHRA)                   | to be completed by contractor |
| Schedule of Mitigation                                          | to be completed by contractor |
| SHE Transmission General Environmental Management Plans (GEMPs) | to be completed by contractor |
| SHE Transmission Species Protection Plans (SPP)                 | to be completed by contractor |
| Pollution Prevention Plan                                       | to be completed by contractor |

## 2. LEGISLATIVE REQUIREMENTS

The SSEN Transmission legal register has been developed to include all of the major environmental legislation directly applicable to the Appointed Contractor. In addition, some other pieces of environmental legislation have been included for general awareness and guidance purposes. The register is available to view at the following link: **XXXX**

The following list of legislation has been identified as being applicable to the proposed work:

- The Environmental Protection (Duty of Care) (Scotland) Regulations 2014
- Waste (Scotland) Regulations 2012
- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017
- Town and Country Planning (General Permitted Development) (Scotland) Amendment Order 2020
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR)
- The Waste Management Licensing (Scotland) Amendment Regulations 2016
- Air Quality Standards (Scotland) Amendment Regulations 2016
- The Environmental Liability (Scotland) Regulations 2009
- The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2019
- Environmental Noise (Scotland) Amendment Regulations 2018
- The Control of Substances Hazardous to Health Regulations 2004
- Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
- Special Waste Amendment (Scotland) Regulations 2004
- The Conservation (Natural Habitats, &c.) Regulations 2017
- Control of Pollution (Registers) (Scotland) Regulations 1993
- Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991
- Landfill Tax (Scotland) Act 2014
- Wildlife and Natural Environment (Scotland) Act 2011
- Flood Risk Management (Scotland) Act 2009
- Nature Conservation (Scotland) Act 2004
- The Water and Environment Services (Scotland) Act 2003
- Town and Country Planning (Scotland) Act 1997
- The Environment Amendment Act 2018
- Protection of Badgers Act 1992
- Environmental Protection Amendment Act 2018
- Electricity Act 1989 (as amended)
- Control of Pollution (Amendment) Act 1989
- Wildlife & Countryside Act 1981
- Roads (Scotland) Act 1984
- Transport (Scotland) Act 2019
- Planning (Scotland) Act 2019

### 3. CONSENTS AND PERMISSIONS

#### 3.1 Section 37 Consent (Electricity Act 1989)

TBC by Appointed contractor

**Table 3.2.2: Summary of Section 37 Consent Conditions (to be completed by the Appointed Contractor)**

| Summary of Section 37 Consent Conditions |
|------------------------------------------|
|                                          |
|                                          |
|                                          |
|                                          |

#### 3.2 Planning Permission (Town and Country Planning Act 1997)

**Table 3.2.3: Summary of Deemed Planning Permission (to be completed by the Appointed Contractor)**

| Summary of Deemed Planning Permission |
|---------------------------------------|
|                                       |
|                                       |
|                                       |
|                                       |

#### 3.3 Permitted Development (Town and Country Planning Act 1997)

Permitted Development rights for temporary works area<sup>3</sup> required for the construction of the Proposed Development, comprising to be completed by contractor

#### 3.4 Controlled Activities Scotland (CAR) Registrations

As per the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), there will be several engineering activities, including the upgrades to the existing culverted river crossing, that will require CAR Registration. CAR Registrations are required for small-scale activities that individually pose low environmental risk but, cumulatively, can result in greater environmental risk.

Applications for CAR Registrations are to be sent to the Scottish Environmental Protection Agency (SEPA) and have a standard 30-day determination period.

Please refer to The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) A Practical Guide Version 8.4 October 2019 for detailed information.

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<sup>3</sup> Secretary of State, 1992. The Town and Country Planning (General Permitted Development)(Scotland)Amendment Order 1992.

**Table 3.2.4: List of Car Registration Granted by SEPA for the development (to be completed by the Appointed Contractor)**

| Registration Number | Description and Applicable Conditions |
|---------------------|---------------------------------------|
|                     |                                       |
|                     |                                       |
|                     |                                       |

### 3.5 Controlled Activities Scotland (CAR) Licences (Simple)

These allow for site-specific conditions to be set to protect the water environment from activities that pose a higher risk. Licences can cover linked activities on a number of sites over a wide area, as well as single or multiple activities on a single site.

A key feature of CAR licences, and registrations, is that they require the applicant to nominate a 'responsible person' to be held accountable for securing compliance with the terms of the licence.

Typical example includes:

- All diversions, realignment, flood by-pass channels and culverting for land gain on rivers  $\leq 3$  m wide.
- Surface water run-off from a construction site (including any constructed access tracks) which:
  - Includes a single lane road / track (no wider than 4 metres except at passing places etc) or pipe/ services infrastructure  $> 5$  km and  $500$  m and  $\leq 10$  km in length;
  - Is an area of up to four hectares and contains an area of more than one hectare with a slope of more than 25 degrees;
  - Includes a length  $> 500$  m and  $\leq 10$  km with a slope of more than 25 degrees slope .

Please refer to The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) A Practical Guide Version 8.4 October 2019 for detailed information.

### 3.6 Protected Species Licences

It is possible that Protected Species Licences (from NatureScot) will need to be obtained during the construction process. Pre-construction ecological surveys will be undertaken by **XXX** starting **XXX** 2023. As a result, this section will be completed once the ecological surveys are complete and if a need for a protected species licences are identified.

**Table 3.2.5: Protected Species Licences (to be completed by the Appointed Contractor)**

| Licence Number                | Description and conditions    |
|-------------------------------|-------------------------------|
| to be completed by contractor | to be completed by contractor |

### 3.7 Peat Management Consents

The Proposed Development will result in the requirement for off-site temporary peat storage and peat restoration. Potential suitable areas for peat restoration have been identified and discussions have been held with stakeholders for both temporary storage and possible restoration projects (**see EA Volume 2, Technical Annex 7.2: Draft PMP**).

SEPA Licencing is required for moving peat outside of the Site boundary. The following will be required:

- Waste Transfer Note: This must be held by the haulier who transports the excavated peat to the offsite receptor restoration site; and
- Waste Management Licencing Exemption: This is required for the receptor site to demonstrate ecological improvement. There is a statutory 21 day turnaround from application submission to determination.

## 4. PROJECT ENVIRONMENTAL MANAGEMENT

### 4.1 Project Personnel

The project personnel for the Appointed Contractor and SSEN Transmission team are set out in **Table 3.2.6** and **3.2.7** below.

| <b>Table 3.2.6: Appointed Contractor Team Directory (to be completed by the Appointed Contractor)</b> |             |                            |
|-------------------------------------------------------------------------------------------------------|-------------|----------------------------|
| <b>Role</b>                                                                                           | <b>Name</b> | <b>Phone Number/ Email</b> |
| Project Director                                                                                      |             |                            |
| Project Manager                                                                                       |             |                            |
| Site Manager                                                                                          |             |                            |
| Site Engineer                                                                                         |             |                            |
| Planning Manager                                                                                      |             |                            |
| Wayleaves Officer                                                                                     |             |                            |
| Quantity Surveyor                                                                                     |             |                            |
| Project Design Manager                                                                                |             |                            |
| Design Engineer                                                                                       |             |                            |
| Construction Foreman                                                                                  |             |                            |
| Construction Supervisor                                                                               |             |                            |
| Ecological Clerk of Works (ECoW)                                                                      |             |                            |
| Archaeological Clerk of Works (ACoW)                                                                  |             |                            |
| Environmental Advisor                                                                                 |             |                            |
| Head of Environment and Sustainability                                                                |             |                            |
| Health & Safety Advisor                                                                               |             |                            |
| Health & Safety Advisor                                                                               |             |                            |
| Foundation Engineer                                                                                   |             |                            |

| <b>Table 3.2.7: SSEN Transmission Team Directory (to be completed by the Appointed Contractor)</b> |             |                            |
|----------------------------------------------------------------------------------------------------|-------------|----------------------------|
| <b>Scottish and Southern Energy Networks (SSEN)</b>                                                | <b>Name</b> | <b>Phone Number/ Email</b> |
| Lead Project Manager                                                                               |             |                            |
| Project Manager                                                                                    |             |                            |
| Construction Manager                                                                               |             |                            |
| Consents and Environment Manager (CEM)                                                             |             |                            |

**Table 3.2.7: SSEN Transmission Team Directory (to be completed by the Appointed Contractor)**

|                       |  |  |
|-----------------------|--|--|
| Wayleaves Officer     |  |  |
| Forestry Manager      |  |  |
| SSEN Emergency Number |  |  |

## 4.2 Roles and Responsibilities

The project specific environmental responsibilities for the Appointed Contractor Project Manager are to:

- Manage and communicate the overall environmental performance on the contract;
- Ensure all relevant persons in a position of responsibility are suitably trained and competent in environmental matters to implement the requirements of SSEN Transmission and the Appointed Contractor; and
- Manage the effectiveness of environmental management support to Operations.

The Construction Managers and Site Engineers for are responsible for;

- Implementing the company Management Systems and relevant procedures;
- Ensuring the sites under their control meet the environmental standards set by the company;
- Implementing site specific management plans, requirements and method statements;
- Ensuring adequate environmental instruction is given to those employees and contractors under their control;
- Requesting advice and support from the Appointed Contractor Project Manager and Environment Advisor; and
- Communicating environmental performance to the Appointed Contractor Project Manager and Environmental Advisor.

Construction Foremen and Supervisors or similar are responsible for:

- Communicating the site-specific environmental requirements to their teams;
- Ensuring site specific controls are implemented;
- Ensuring that sites under their control do not cause pollution, comply with the ecological restrictions, as well as the other site controls required for waste, water, air and noise;
- Communicating the environmental site briefings, toolbox talks and other environmental / community requirements to operatives, subcontractors and delivery drivers; and
- Raising environmental observations or concerns to the environmental team or their manager.

The Project Environmental Advisor is responsible for;

- Ensuring the Appointed Contractor Project Manager is aware of the project specific environmental constraints;
- Providing environmental support to the project team and deliver environmental training and ensure induction material includes project specific environmental issues;
- Managing the contract specific environmental systems;
- Liaising with the Client and regulators on project level environmental management issues;

- Attending any environmental stakeholder meetings where required to do so;
- Managing the progress of environmental projects, tasks and actions in conjunction with the project;
- Writing, issuing and updating environmental documentation, including Environmental Plans;
- Preparing environmental documentation for Operations during the planning of the work;
- Providing support and advice on environmental issues to Operations on site and manage specialist environmental Subcontractors and service providers;
- Liaising with the Client, regulators and Operations to actively find solutions to environmental issues on-site;
- Implementing a programme of and performing environmental inspections on site, investigating incidents, issuing corrective actions and monitoring their close out;
- Ensuring the operations on site follow this environmental management plan, procedures and all legal, company or Client requirements; and
- Seek ways, where practical to do so, to reduce waste generation, improving opportunities to recycle material whilst identifying opportunities to use recycled materials where possible.

The Head of Environment and Sustainability is responsible for;

- Providing support to the Project Environmental Advisor including (but not limited to) liaising with SSEN Transmission, the Appointed Contractor and regulators on project level environmental management and sustainability issues;
- Ensuring the Environmental Advisors are organised to deliver effective environmental support to Operations;
- Setting the priorities and objectives of the Environmental Advisors, including performance improvements and initiatives;
- Managing the reporting of environmental and sustainability performance;
- Providing support in attending any environmental stakeholder meetings where required to do so; and
- Organising training and supporting auditing programs.

*Technical environmental support can be provided by specialist consultants, either employed by SSEN Transmission or the Appointed Contractor.*

## **5. ENVIRONMENTAL POLICIES AND PROCEDURES**

TBC by Appointed Contractor

### **5.1 Standard Forms and Procedures**

### **5.2 Certification and Policies**

## **6. COMMUNICATIONS AND TRAINING PLAN**

TBC by Appointed Contractor

### **6.1 Environmental Communications**

### **6.2 Environmental Training**

### **6.3 Environmental Reporting**

### **6.4 Key Performance Indicators (KPIs)**

## **7. ENVIRONMENTAL AUDITING AND MONITORING PLAN**

TBC by Appointed Contractor

### **7.1 Environmental Management System Requirements**

### **7.2 Project Environmental Auditing and Monitoring Requirements**

#### 7.2.1 Internal Audits

#### 7.2.2 Client Audits (SSEN Transmission)

#### 7.2.3 Monthly Joint Site Inspections

#### 7.2.4 Weekly Environmental Inspections by Appointed Contractor

#### 7.2.5 Regular Site Visits by Appointed Contractor

### **7.3 Ecological Clerk of Works (ECoW)**

### **7.4 Planning Monitoring Officer (PMO)**

## 8. POLLUTION PREVENTION

### 8.1 Construction Run Off Permit (CRP)

The CRP, introduced by the Scottish Environment Protection Agency (SEPA) in 2021, ensures responsibility for, and management of, discharges of water run-off from a site to the water environment so as not to cause a pollution event (i.e. pollutant linkage via the source – pathway – receptor model). The SEPA guidance dictates that authorisation is to be applied for with due regard to the Water Environment (Controlled Activities) (Scotland) Regulations 2011 where a site:

1. Exceeds 4 Ha in area;
2. Contains a road or track length in excess of 5 km; or
3. Includes any area of more than 1 Ha or any length in excess of 500 m on the ground with a slope in excess of 25°.

The Appointed Contractor will apply for a CRP prior to the commencement of constructions works commencing on-site. The CRP will contain a list of conditions which aims to limit pollution associated with the development.

### 8.2 Pollution Prevention Guidelines

The general Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention (GPPs) relevant to the works are shown in **Table 3.2.8**.

| Table 3.2.8: Pollution Prevention Guidelines (to be completed by the Appointed Contractor) |       |                               |
|--------------------------------------------------------------------------------------------|-------|-------------------------------|
| Document                                                                                   | Title | Comment (guidance related to) |
|                                                                                            |       |                               |
|                                                                                            |       |                               |
|                                                                                            |       |                               |
|                                                                                            |       |                               |
|                                                                                            |       |                               |
|                                                                                            |       |                               |
|                                                                                            |       |                               |
|                                                                                            |       |                               |
|                                                                                            |       |                               |

### 8.3 Other Guidance

The following best practice and guidance should be used to plan methodologies and assist design decisions for the works; Engineering in the Water Environment; Good Practice Guide (River Crossings), (Natural Scotland, and SEPA); and Control of Water Pollution from Linear Construction Projects C648 (CIRIA).

#### **8.4 Spill Kits and Contingency**

#### **8.5 Plant Nappies**

#### **8.6 Major Spill Response**

#### **8.7 COSHH Onsite**

COSHH materials will be used on-site throughout the project. These will be kept in a lockable compliant COSHH storage box. Materials can be stored on plant nappies when in use at work locations.

The main yard will have a large COSHH storage container where larger quantities of COSHH materials can be stored. This will be compliant with the COSHH Regulations 2002.

#### **8.8 Emergency Response Trailer**

#### **8.9 Silt Fencing**

Silt fences are often the first line of defence and will be used as an entrenched interceptor fence to control pollution caused by silt laden construction runoff. Silt fences should be constructed with wooden posts and suitable geotextile material; this should be trenched and keyed in appropriately.

## 9. FUEL STORAGE

### 9.1 Baseline Best Practice

All bulk fuel stored in the **XXX** compound will be stored to comply with The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

Please also refer to SEPA oil storage in Scotland guidance available at:

<https://www.sepa.org.uk/regulations/water/pollution-control/oil-storage-in-scotland/>

Where deemed necessary for logistical / practical reasons, portable fuel bowers / fuel cells will be used at work site locations. All fuel storage:

- will not be stored within known flood risk areas;
- will not be within 30 m of a watercourse;
- will not be within 50 m of a borehole; and
- will not be within 30 m of drainage ditches.

Storage areas:

- Where on-site storage of oil and fuels is required, the volumes to be stored should be minimised as far as practical through efficient management of resource.
- Clearly defined areas for the storage of oil and fuel to be identified as part of the site establishment process and included on Site Specific Pollution Prevention Plans.
- Storage areas should have an impermeable base in areas of groundwater risk (where necessary, discuss with the Environmental Advisor and SEPA).
- Where storage on an impermeable base is not possible, fuel containers will be stored within raised impermeable bunds capable of containing >110% container capacity.
- Have control measures in place and have adequate spill kits easily accessible.
- Spill kits will be located and maintained at all oil storage and refuelling locations.
- Be secured against damage / theft / vandalism.

Storage containers:

- Valves and couplings connected to oil storage tanks to be located within the bund.
- Hoses to be fitted with trigger-type handles suspended back within the bund after use.
- Valves and trigger filler handles to be kept padlocked when not in use.
- Mobile fuel tanks (including those for generators) should be double skinned and locked when not in use - Be of appropriate type and capacity for the contents.
- Drips trays and plant nappies to be used and be emptied regularly to prevent overflow. In the case of drip trays, an insert from a plant nappy may be used to soak up any spillage.

The following should be considered when identifying a site for storage:

- Suitability of ground conditions e.g. can the area be protected against flood / damage / inundation / subsidence.
- Proximity to sensitive environmental receptors such as surface waters, surface water drainage systems; (see storage proximity criteria above).
- Ease of access to proposed storage area for deliveries / refuelling.
- Ability to secure proposed oil storage areas (to prevent theft / vandalism).

- Ensure no fuel stores are sited where they could be hit by moving vehicles and plant . Ensure all site staff are aware of designated fuelling areas and also those areas where fuelling is not permitted.
- A drainage plan will be developed of the temporary site yard. The location of any fuel storage areas will be displayed on this plan.

## 9.2 Refuelling

- Vehicles and plant should be refuelled, where possible, at designated refuelling bays on an impermeable base (where possible).
- Where this is not possible for operational reasons, refuelling should not be undertaken within 30 m of surface waters. Should this not be possible, any alternative refuelling location must be agreed in advance with the SSEN Environmental and Consents Manager.
- Spill kits should be easily accessible and fit for purpose i.e. grab bag spill kits with all mobile plant and project vehicles, each working will have one or more wheelie bin spill kits, Oil Spill Response Trailers will be strategically located across the project, and there will be adequate volume, sizes and types of spill booms.
- Oil, oil powered pumps, generators, winches, generators, etc. to be positioned on an impervious drip trays or plant nappies and located at least 30 m from any watercourse.
- Plant nappies to be used for all items of mobile plant and for refuelling operations.

For any spillages the response will be:

- **STOP** the spill;
- **CONTAIN** it from spreading;
- **DIVERT** the spill away from drains and watercourses;
- **NOTIFY** the Site Manager, Construction Supervisor, SSEN Transmission CEM, and the SSEN Emergency Number within 30 minutes of the spillage occurring, where safe and practical to do so (See Section 3 for contact details); and
- **REMOVE** all contaminated material from site and dispose material within the designated hazardous waste containers provided at satellite yards and other to be agreed key locations along the project.

**Construction team** personnel will be trained to be aware that clean up and further deployment of spill sorbents is part of clean-up best-practice.

## 10. EMERGENCY RESPONSE

### 10.1 Examples of Typical Environmental Emergencies

- Any uncontrolled release of concrete and/or cement products to the environment;
- Any plant equipment leaks, uncontrolled spills and/or pollution incidents;
- Any uncontrolled sediment release to the environment;
- Any uncontrolled release or loss of drill fluids to the environment;
- Discovery of suspected contaminated land;
- Discovery of protected animals;
- Discovery of previously undocumented archaeological features;
- Silt migration into a watercourse;
- Near misses – where events could have led to a ‘minor incident’;
- Complaints from third parties e.g. noise and dust;
- Archaeological disturbance;
- Exposed soils and subsoils: runoff or silt pollution type risk;
- Ground conditions: topography, side slopes and interaction with habitat and wet areas;
- Fuel Storage: risk of fuel spillage from dedicated storage and refuelling;
- Materials Storage: risk of an incident involving plant, materials or chemicals on site;
- Concrete washout: risk of excessive concrete washout / highly alkali water escaping from the working area;
- Pumping out: based on site information to date this is not anticipated to be a major issue – silt pollution risk;
- Wheel wash & Road sweeping risk of oily water runoff from the site if not managed correctly; and
- Biosecurity: currently biosecurity risk/issues from walkovers and project data have not been identified. However, risk such as invasive species (Himalayan Balsam, Japanese knotweed) will be checked for over the duration of the project.

### 10.2 Emergency Spill Response Procedure

- **STOP** the source of the spill or leak if possible;
- **CONTAIN** the spill using spill kits, sand or soil;
- **DIVERT** the spill away from drains and watercourses;
- **REPORT** the Site Manager, Construction Supervisor, SSEN Transmission CEM, and the SSEN Emergency Number within 30 minutes of the spillage occurring, where safe and practical to do so (See Section 3 for contact details); and
- **REMOVE** all used spill kit materials and contaminated soil in a waste bag and dispose of as hazardous waste.

All environmental incidents will be reported to the **XXX** Helpline **XXX**. To be completed by Appointed Contractor. SEPA (0800 80 70 60) will be notified within 24 hours in the event of a notifiable incident or breach of CAR licence.

This will be managed by SSEN Transmission CEM and Construction Manager and the Appointed Contractor with roles and responsibilities allocated dependent on the nature and severity of the incident. Please also refer to the SHEQS Project Emergency Response Plan for additional information.

Dependent on the incident, significant stakeholders will be informed. This will be undertaken by the SSEN Transmission CEM using the contact details in **Table 3.2.9**.

| <b>Table 3.2.9: Emergency Contacts (to be completed by the Appointed Contractor)</b> |                                                                         |                                                  |                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------|
| <b>Emergency Contacts</b>                                                            |                                                                         |                                                  |                                   |
| SEPA                                                                                 | Incident Hotline<br>General Enquiries<br>Flood Warning Line             | 0800 80 70 60<br>03000 99 66 99<br>0345 988 1188 | 24 hours per day, 7 days per week |
| SEPA Local Office                                                                    | Kilbrandon House/Manse Brae, Lochgilphead PA31 8QX                      | 01546 602876                                     | Monday to Friday 08.00 16.00      |
| NatureScot                                                                           | 1 Kilmory Industrial Estate, Kilmory, Lochgilphead PA31 8RR             | 01546 603611                                     | Monday to Friday 08.00 16.00      |
| Local Authority Argyll & Bute Council                                                | Headquarters, Kilmory, Lochgilphead, PA31 8RT                           | 01546 602127                                     | 24 hours per day, 7 days per week |
| Water                                                                                | Scottish Water<br>Morag Maclaurin<br>Malcom Walker<br>Catchment Liaison | 0800 0778 778<br>07443 876 392<br>07443 876 393  | 24 hours per day, 7 days per week |
| XXX Helpline                                                                         | XXX                                                                     |                                                  |                                   |
| SSEN Helpline                                                                        | SSEN                                                                    | 0800 1073207<br>0800 0966210                     | 8:00 – 18:00<br>18:00 – 8:00      |

### 10.3 Serious Incident Reporting

Procedures to TBC Appointed Contractor.

### 10.4 Testing

A test of the environmental emergency response procedure will be undertaken every six months (as a minimum) to ensure that operatives can respond to environmental incidents. This will be recorded on an Environmental Emergency Response Test form. Further training and areas for improvement will be carried forward by the Appointed Contractor and SSEN Transmission.

## **11. WASTE MANAGEMENT**

All waste will be segregated into appropriate skips and removed by an approved carrier. Waste management will follow the waste hierarchy of:

- Prevention of waste production;
- Reuse of waste materials produced;
- Recycling of waste; and
- Landfill of waste.

All waste storage areas will be inspected on a regular basis for correct segregation, security, tidiness. All waste must have a waste transfer note, or a consignment note, whenever passed to another party.

### **11.1 Waste Management Plan**

TBC by Appointed Contractor

## 12. WATER MANAGEMENT

### 12.1 Watercourse Crossings

There are a number of existing watercourse crossings along the access route to the Site (**Figure 7.1, EA Volume 3a**), including a crossing approximately 200 m east of the Proposed Development. This crossing is an approximately 1 m diameter concrete circular culvert. This culvert would be upgraded or replaced as part of the proposed access works for the Proposed Creag Dhubh Substation (Planning Ref: 22/00782/PP).

Where crossing of small watercourses or areas of waterlogged ground present on the Site is required, this shall be carried out through the use of temporary trackways and bog mats. Therefore no permanent or temporary crossing structures shall be required for the Proposed Development

### 12.2 Pumping Out of Excavations

### 12.3 Surface Water Runoff Mitigation

### 12.4 Relevant Legislation and Guidance

- The Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended;
- Water Environment and Water Services (Scotland) Act 2003;
- SEPA Pollution Prevention Guidance Notes;
- GPP5: Works and maintenance in or near water;
- PPG6 – Working at Construction and Demolition Sites;
- CIRIA Report C502: Environmental Good Practice on Site;
- CIRIA Report C532: Control of Water Pollution from Construction Sites;
- BS6031: 1981 Code of Practice for Earth Works;
- Engineering in the Water Environment: Best practice Guide, Construction of Watercourse Crossings;
- Forests and Water Guidelines (Forestry Commission, 2003);
- Local and Regional Land Drainage Byelaws; and
- SEPA Report WAT-SG-29: Good Practice Guide – Temporary Construction Methods.

## **13. SOIL MANAGEMENT**

### **13.1 General Management & Construction Methods**

Construction of new access track, upgrades to the existing access track and construction of the substation platform will require the import of significant volumes of stone.

Best practice construction methods will be applied including development of pollution prevention plans, installation of water management, silt mitigation and working in a controlled manner.

### **13.2 Access Track Construction Methods**

TBC by Appointed Contractor.

There are likely to be three types of access track construction that will be utilised: (a) upgrade of existing tracks (b) floating road construction and (c) cut-and-fill road construction.

- Upgrade of Existing Tracks
- Floating Road Construction
- Cut/Fill and Cap Construction Method

### **13.3 Soil and Vegetation Mitigation Measures to be Implemented:**

## 14. PEAT MANAGEMENT

### 14.1 Peat Management Plan

Preliminary peat depth data are presented within the **EA Volume 2, Technical Annex 7.1: Peat Depth Survey Results**.

The Site is underlain by Class 5 peat and carbon rich soils, confirmed through peat depth probing surveys undertaken in April 2022.

In addition to the peat probing of the Proposed Development, peat depth data obtained as part of the Creag Dhubh Substation, the Creag Dhubh to Dalmally 275 kV OHL, and the Inveraray to Creag Dhubh 275 kV OHL projects has also been used to provide context of the surrounding area. These surveys were also undertaken by Ramboll and are summarised below:

- Creag Dhubh Substation and Creag Dhubh to Dalmally 275 kV OHL Connection Phase 1 – March 2021 – a coarse, low resolution survey;
- Creag Dhubh Substation and Creag Dhubh to Dalmally 275 kV OHL Connection Phase 2 – August 2021 – a coarse, low resolution survey;
- Creag Dhubh Substation and Creag Dhubh to Dalmally 275 kV OHL Connection Phase 3 – November 2021 – a refined, high resolution survey; and
- Inveraray to Creag Dhubh 275 kV OHL Phase 1 – April 2022 – a coarse, low resolution survey

The results of the peat probing surveys indicate that the Site is underlain by peat by shallow peat (<0.5 m) with some isolated deeper pockets of peat (> 1.0 m) present. These were located in the area to the north of the Site up to 2.5 m and the deepest area of peat is located to the south of the proposed Creag Dhubh Substation, where pockets were noted to be up to 4.2 m thickness.

There is the potential to impact peat from construction activities through disturbance, erosion, and changes in hydrological regime.

Mitigation measures set out below would ensure, where appropriate, that there would be no impacts on hydrological or hydrogeological features during the construction and operation of the Proposed Development. These include pollution prevention measures, environmental management plans (notably the PMP) and the use of SuDS which would be set out by the Principal Contractor in a Construction Environmental Management Plan.

Surplus peat generated from the Proposed Development will be reused within the Site where possible in accordance with the PMP. However, the majority of peat would re-used as part of the reinstatement programme.

The PMP should be referred to for full detail of peat management. Outline PMP is located in **Technical Appendix 7.2 (EA Volume 2)**.

### 14.2 General Peat Management and Mitigation

The purpose of peat management is to manage, mitigate and subsequently reinstate peat.

#### 14.2.1 Avoiding Peat

#### 14.2.2 Removing Peat

#### 14.2.3 Storing Peat

Peat turves and excavated peat should be stored on a flat area close to the excavation site and away from waterbodies / watercourses. Turves should be stored root side down and should remain in the storage location until required for reinstatement (this is to avoid multiple handling and reduce the potential for turves becoming unstable). Turves, peat and subsoil should be stored separately, to avoid cross contamination between distinct horizons and ensure re-use potential is maximised. Stored peat should be checked regularly for signs of drying out. The turves should be kept damp through natural precipitation and natural water ingress, however, should a period of prolonged dry weather occur, then contingency should be in place to allow watering of the peat from a bowser.

#### 14.2.4 Reusing Peat

## 15. CONTAMINATED LAND

No land across the Site has been identified that has the potential to be contaminated. If unexpected, contaminated land is found works will be stopped and the Head of Environment and Sustainability, Health and Safety Advisor and SSEN Transmission CEM notified to further assess the situation. The Appointed Contractor will follow standard procedure outlined in the Contaminated Land GEMP to deal with any contaminated land identified. This procedure explains in detail the process of assessment and continued work.

## 16. ARCHAEOLOGY AND CULTURAL HERITAGE

Five heritage assets have been identified within the Inner Study Area of the Proposed Development (**Chapter 6 Cultural Heritage and Archaeology, EA Volume 1**). There are no statutory designated sites (Scheduled Monuments, Listed Buildings, Inventory Gardens and Designed Landscapes, Inventory Historic Battlefields, or Conservation Areas) within the Inner Study Area. Most of the records are for medieval or later settlement and activity, including a group of shieling huts and the route of a former drove road / military road, although one of the identified features is a 20<sup>th</sup> century commemorative monument. There are no features or find-spots relating to prehistoric activity or settlement within the Inner Study Area.

The Site is currently in use as commercial forestry and this current land use suggests that the **potential for hitherto undiscovered buried archaeological remains to survive in the Site is low to negligible**.

There are no predicted direct impacts on cultural heritage assets within the Proposed Development.

In addition to the impacts identified above, there is the possibility that any ground disturbing works in areas required for construction of the Proposed Development could disturb or destroy any hitherto unrecorded buried archaeological remains present in affected areas. It has been assessed that there is a low to negligible likelihood of buried remains to survive within the Inner Study Area. Based on the results of the desk-based study and field survey, there are no specific areas within the Site where construction works could be expected to encounter buried archaeological remains and **no mitigation measures are proposed**.

## 17. ECOLOGICAL MANAGEMENT

Field surveys undertaken in 2022 identified the important ecological features (IEFs) and ornithological features present that could be impacted by the construction of the Proposed Development, including important habitats, protected faunal species dwelling locations and bird nests. Details are location in **Chapter 4: Ecology and Ornithology and Figures 4.1 – 4.5 (EA Volume 3a)**.

### 17.1 Ecological Clerk of Works

A ECoW will be appointed for the duration of the construction works and will oversee vegetation clearance works, as required. Where it is not possible to undertake vegetation clearance outside peak ecological periods (i.e. breeding bird season: March to August), the ECoW would carry out nesting bird checks, watching brief and protection measures for protected species through the construction stage, as set out in SSEN Transmissions SPPs (**Appendix 2**).

### 17.2 Ecological Surveys

An extended Phase 1 habitat survey was undertaken in April 2022. The survey involved a walkover of the field survey area and a preliminary assessment of key habitats, land use and ecological features. The results of the survey indicate that there are IEF's that could be impacted by the Proposed Development, these included marshy grassland and habitats suitable to support water vole.

Pre-construction ecological surveys will be undertaken as required to update the SSEN baseline data compiled for the project EA. Protected species surveys are identified below.

The results of these surveys will inform and update the baseline EA data ahead of the pre-construction phase and allow further development of mitigation to manage environmental risk for the project

Given the presence of IEFs all on-site staff will receive appropriate toolbox talks, as part of their site induction and as required on-site. The individual toolbox talks will be given by a member of the site management team and/or the ECoW.

### 17.3 General Mitigation

The following ecological mitigation measures will be implemented where necessary:

- Buffer zones, markers and notices for limits around watercourses, exclusion zones and other areas with protected species or habitats will be established.
- Pollution prevention measures, such as silt fencing and traps, to ensure that no water or air borne pollutants reach ecological features, in line with PPGs.
- Required information on ecological issues will be added to Environmental Constraint Maps, communicated to the site team and be included in the project induction.
- Pre-construction surveys will be conducted ahead of works to identify potential changes in the distribution of protected species.
- Species Protection Plans will be implemented (Please refer to Appendix 2).
- Trenches / pits will be covered overnight and escape ramps provided to prevent animals being trapped. Cap pipelines to prevent animals entering. Night-time lighting will be kept to a minimum.
- Micro-siting of works and / or access route (where possible) to avoid ecological buffers.

- If a protected species is discovered, work will be stopped and the ECoW contacted for any further guidance.
- Relevant Toolbox Talks will be given to operational teams prior to the commencement of any work where the presence of protected species is expected.

A regular meeting will be scheduled between the **XXX** Environmental Manager, **XXX** Environmental Advisor and the SSEN Environment and Consents Manager to review the effectiveness of ecological / environmental mitigation, review project progress in relation to environmental matters, to provide a 2 week look-ahead of works, and to agree on actions arising.

## 17.4 Protected Mammals Considered

### 17.4.1 Species Protection Plans

All species mentioned below are afforded a high protection level in Scotland under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Species Protection Plans (SPPs) have been developed to provide mitigation against any negative impacts upon the species during the construction and operation of the Proposed Development. SSEN SPPs would be followed for all species present and disturbance licenses obtained where appropriate.

The ECoW will carry out ongoing monitoring and protection measures for protected species through the construction stage and during the felling works.

Should there be any other protected species be found during update surveys (undertaken if required to account for passing of time), detailed Method Statements for translocation and / or other suitable mitigation measures (if needed) will be identified and implemented by the ECoW, with support from the specialist ecological consultant (where necessary), and in agreement with the relevant statutory organisation.

All significant findings will be incorporated into the Environmental Constraint Maps (Please refer to Appendix 3) which will be issued to the construction team as new revisions become available.

Mitigation for protected species includes the creation of protection zones. The protection zones must be maintained until works are completed and all works personnel, machinery, vehicles and storage of materials must be restricted from entering the protection zone.

### 17.4.2 Water Vole

Water vole is listed in Schedule 5 of the Wildlife and Countryside Act 1981, as amended, mostly recently by the Wildlife and Natural Environment [Scotland] Act 2011. This legislation makes it an offence to:

- Damage or destroy or obstruct access to, any structure or place which any water vole uses for shelter or protection.
- Disturb a water vole while it is occupying a structure or place which it uses for shelter or protection

No Water Vole were recorded during the field surveys, though the tributary of the River Aray was considered to have suitable habitat to support the species.

## 17.5 Ornithology / Nesting Birds

### 17.5.1 Ornithology Surveys

Specific ornithology surveys were not undertaken for the Proposed Development due to the small footprint of the Proposed Development and its location within coniferous woodland plantation. However, the presence of any bird species was noted during the extended Phase 1 habitat survey. The results of previous surveys for the proposed Creag Dhubh to Inveraray 275 kV Overhead Line (OHL), Creag Dhubh to Dalmally 275 kV OHL and Creag Dhubh Substation were considered as part of the baseline

Pre-construction ornithological surveys will be conducted as part of the works for the Creag Dhubh to Inveraray 275 kV OHL. The pre-construction surveys for nesting birds will seek to identify the locations of any active nests within or immediately adjacent to the working and felling areas along the route of the OHL. The surveys will extend a sufficient distance out from the OHL Route to identify any nest sites that may be within the disturbance range of the species in question.

### 17.5.2 General mitigation measures

Embedded mitigation includes measures within the GEMPs and SPPs (**Appendices 1 and 2**).

It is assumed the protocols detailed within the GEMPs and SPPs will be implemented successfully.

- **XXX** will arrange for breeding bird surveys to be undertaken throughout the duration of the project between March and August.
- A minimum of one week prior to earthworks and throughout the construction phase, the ECoW (or competent ornithologist) will check for occupied bird nests within 30 m of all work areas. In the event of an active nesting site being located, the ECoW/ornithologist will advise on the most appropriate mitigation measures.
- SHE Transmission Bird Species Protection Plan (Bird SPP), which was developed in conjunction with NatureScot, will be implemented for the project as presented in Appendix 2.
- If protected species and / or active nests are found within near working areas, the operations will stop, and site staff will contact their supervisor and Environmental Advisor for guidance and support.
- Relevant TBTs, environmental briefings, and on-site guidance will be delivered to all site personnel and information added to access hazard plans and associated site-specific environmental information. The sensitivities of certain species will also be considered when advising project teams of ecological issues.

### 17.5.3 Golden Eagle

One statutory designated nature conservation site for ornithological features occurs within the ornithology field survey area. Glen Etive and Glen Fyne SPA, classified for breeding golden eagle *Aquila chrysaetos*, lies 1.4 km east of the Proposed Development at its closest point. This is close enough to have potential connectivity between the Proposed Development and the SPA.

No golden eagle flights were recorded within the ornithology field survey area during the 2019-20 Breeding Raptor surveys.

The nearest golden eagle nests are long established and well understood by fieldworkers in the area. The closest nests to the Proposed Development are approximately 6 km away, which is out with potential disturbance distance.

No disturbance impacts on golden eagle are predicted.

#### 17.5.4 Black Grouse

One black grouse leks was identified during surveys approximately 1.6 km from the Proposed Development.

This is outside of potential disturbance distance<sup>4</sup> for black grouse therefore no disturbance impacts are predicted on this lek.

#### 17.5.5 Goshawk (Confidential)

During field surveys for the Proposed Development, a potential goshawk territory was identified approximately 750 m away. This is outside of potential disturbance distance for this species so disturbance impacts<sup>5</sup> on this territory are not considered possible.

### 17.6 Groundwater Dependent Terrestrial Ecosystems (GWDTEs)

Given the direct connectivity to surface water features, and that the Site is underlain by a low productivity aquifer where groundwater flow will be limited to the weathered zone or secondary fractures, the potentially Highly GWDTEs are not considered to be groundwater dependent. Surface water is instead likely to present a greater source of water input to the habitat than groundwater.

The primary receptors within the Site include a number of watercourses which form the headwaters of the River Aray, and GWDTEs. The GWDTE habitats have been determined to not be groundwater dependent but are supported by surface water flows through the Site.

If during construction a new GWDTE is found measures would be taken to avoid GWDTEs in the first instance and mitigate impacts where this is not possible, such as using temporary track mats and restoring GWDTEs to their original condition post development.

The following publications will be used to inform work in, or in proximity to, GWDTEs:

- SNH/SEPA Good Practice during Wind Farm Construction (Second Edition, 2013)<sup>6</sup>; and
- FCE SNH Floating Roads on Peat, 2010<sup>7</sup>.

### 17.7 Invasive Non-Native Species (INNS)

No invasive non-native plant species were recorded during field surveys.

Should any INNS be found during site clearance activities, a method statement should be produced to detail the prevention of spread and subsequent control of these species.

The method statement should include measures for avoidance of disturbance, control, and any required treatment removal and disposal.

If INNS are identified during pre-construction surveys, as an immediate action, these species should be clearly demarcated using protective fences, exclusion barriers and warning signs

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<sup>4</sup> Ruddock, M. and Whitfield, D.P. (2007) A Review of Disturbance Distances in Selected Bird Species. Natural Research (Projects) Ltd. for NatureScot.

<sup>5</sup> Ruddock, M. and Whitfield, D.P. (2007) A Review of Disturbance Distances in Selected Bird Species. Natural Research (Projects) Ltd. for NatureScot.

<sup>6</sup> <https://www.nature.scot/doc/guidance-good-practice-during-wind-farm-construction>

<sup>7</sup> <http://www.roadex.org/wp-content/uploads/2014/01/FCE-SNH-Floating-Roads-on-Peat-report.pdf>

so to prevent accidental spread. This is to make any site users aware of the presence of invasive species and restrict the access of persons to such areas.

No clearance, excavations, development or soil movement should be carried out within the vicinity of non-native invasive plant species without prior consultation with the ECoW.

In addition, several key measures will be taken to reduce the likelihood of INNS issues during the construction stage. These measures include:

- Review forestry working footprints and accesses where there is an interface with RLB Site for INNS legacy potential;
- Maintain control over access and security to prevent fly-tipping. This is a common pathway for INNS species;
- Ensure that project plant, machinery or vehicles accessing the site are clean prior to entering a working area. When working within an identified INNS risk site, equipment to be power-washed with an emphasis on tyres, wheels, tracks, undercarriage, excavator buckets and drilling/boring devices;
- Use of topsoil and other materials that are assured to be as free from contamination / INNS risk as far as reasonably practical;
- Routine environmental site inspections and on-going survey work will make observations regarding INNS risk. Project ecologists will also raise any concern on invasive species (e.g. monitor the initial stages of vegetation growth on track bunds and on landscaped areas; AND
- Good communication with site operatives to ensure site personnel are aware of the above by adhering to good biosecurity measures, toolbox talks, site specific guidance, and ongoing day-to-day liaison between the environmental team and site operatives.

## 17.8 Designated Sites

The Proposed Development avoids direct or indirect effects on any natural heritage designations for ecological value. The exception is the Glen Etive and Glen Fyne SPA which is designated for its golden eagle population and lies 1.2 km from the Proposed Development.

Following the screening stage of the Habitat Regulations Assessment (HRA); **EA Volume 2, Technical Annex 4.3**), there is not considered to be Likely Significant Effects on the SPA as a result of the Proposed Development alone or in combination with cumulative schemes. Likely Significant disturbance effects from construction activities are not considered possible due to the limited golden eagle activity around the Proposed Development, as shown by the field survey results and the PAT models. Potential for disturbance impacts exist, but adherence with NatureScot guidance would remove this potential Likely Significant Effect. Similar to disturbance effects, displacement effects are also not considered likely due to the low level of activity around the Proposed Development. The collision risk was assessed to be low and is not considered to have potential to result in Likely Significant Effects. Consistent with the lack of Likely Significant Effects, there are no significant impacts on the Conservation Objectives of Glen Etive and Glen Fyne SPA.

As no Likely Significant Objectives are considered possible from the Proposed Development, the result of the Screening Assessment is that the AA (Stage 2) and further stages (Stage 3) are not considered to be required.

## 18. PRIVATE WATER SUPPLIES

### 18.1 Key Information

SEPA guidance notes that all groundwater abstractions within the following distances of development need to be identified, in order to assess potential risk:

- within 100 m radius of all excavations less than 1 m in depth; and
- within 250 m of all excavations deeper than 1 m.

According to the council's register, there are no PWS locations recorded within 250 m of the Site or within hydrological connectivity with the Site.

It is important to note that the project could still pose a risk to PWSs located more than 250 m away, especially if they rely on surface water feeds.

It is therefore important that PWSs within the wider area (indicated in **EA Volume 3a, Figure 7.1: Surface Water Features**) be investigated further prior to the commencement of construction works. The risks associated with construction works in proximity to PWS include:

- Pollution of catchment area;
- Pollution of a watercourse feeding a water supply intake;
- Disruption/damage of private water supplies/infrastructure; and
- Prosecution from SEPA.

### 18.2 Mitigation

To mitigate the potential for damaging, disrupting or contaminating a PWS, the following measures shall be taken ahead of works:

- Review of existing PWS data as supplied by Argyll and Bute Council;
- Consultation with landowners / land agents / tenants / farmers to identify the presence, type, and route, of potential underground pipes and other infrastructure;
- Understand the catchment area for a PWS and the interface with project operations that will take place in that area;
- If such infrastructure is identified, this should be clearly identified and demarcated on the ground and design drawings, and communicated to site teams;
- Avoidance of known PWS infrastructure during works by means of micro-siting access, or amending compound footprints; and
- Installation of a robust and proven extent of mitigation in the vicinity to mitigate silt risk, and to minimise oil pollution risk.

Construction works in proximity to PWS will receive a comprehensive risk assessment. All construction activity will adhere to 'best' construction practice at all times, with particular awareness of the Guidance for Pollution Prevention and the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

No storage or refuelling will be undertaken within 30 m of a surface water PWS and not within 100 m from a groundwater PWS. Plant nappies and drip trays will be used, spill kits (grab bags and wheelie bins) are to be available where fuels are stored / used. This will include appraisal for larger spill contingency, for example, oil spill response trailer. Fuel tanks, valves and hoses will be regularly inspected for leaks and will be regularly maintained. In addition to spill kits, plant nappies will be in use for mobile plant and equipment.

Site compounds, equipment and vehicles will be appropriately secured to minimise the potential for vandalism and the uncontrolled release of contaminants to the environment.

Access and working areas will manage site drainage by soakaway into the surrounding vegetation with appropriate level of silt fencing measures. Drainage ditches and channels are to be maintained and kept clear of debris. Booms, bales, check dams; silt fencing is measures to control sediment / contaminants from being released into watercourses.

Excavated spoil can release sediment and fines into water courses / water bodies and must be stored away from drains and areas where it could migrate to channels feeding private water supplies. Topsoil and subsoil will be segregated and stockpiled at least 30 m from a watercourse / water body or associated tributaries and PWS infrastructure.

Plant and vehicles should be stored greater than 30 m away from water courses / water bodies and PWS infrastructure when unattended. Where plant and vehicles are to be used in proximity to water courses, it must be clean, well maintained and will be inspected daily for obvious leaks or damage or deterioration which may result in an uncontrolled release (e.g. hoses, seals, sumps plugs, tanks etc.). A spill kit will be at the site and any releases cleaned up immediately.

Dewatering from excavations will be discharged into areas of vegetation to filter out silt; this will be assisted by installation of appropriate silt fencing / sumps. Dewatering will not be undertaken within a water body or PWS infrastructure. If no suitable vegetation is available, the use of settling tanks will be considered.

## 19. TRAFFIC MANAGEMENT PLAN

### 19.1 General Introduction

An indicative 18-month construction programme established that the Proposed Development would generate at most, 10 two-way HGV trip trips per month during the peak traffic generating month of the construction phase. It is noted that during the remainder of the construction phase, HGV movements would be minimal, averaging at around 6 to 8 two-way per day.

Whilst no significant effects on the local road network and users are likely, construction traffic would be managed through the Construction Traffic Management Plan (CTMP). The CTMP is a live document and will be updated in line with each phase of works and will be agreed with ABC roads team in advance of construction works commencing.

The CTMP will include, but not be limited to, the programme of works, the agreed routes to site, details of a site Liaison Officer who would have responsibilities for managing traffic and transport impacts and effects and would also identify measures to manage/ reduce construction staff travel by private car, particularly single occupancy trips.

General good practice measures to be implemented are outlined below.

### 19.2 General Mitigation

This section defines the best practice measures to be implemented through the CTMP to reduce the number of construction vehicles as well as considering reducing or avoiding the impact of vehicles through construction programming/ routing and identification of an individual with responsibilities for managing traffic and transport impacts and effects.

The CTMP will identify the programme of works, the agreed routes to site and details of a site Liaison Officer who will have responsibilities for managing traffic and transport impacts and effects. The CTMP will also identify measures to reduce and manage construction staff travel by private car. The CTMP will include the following measures as a minimum:

- Immediately upon commencement, all deliveries, operatives and visitors to the site would report to the security gate. This would be communicated to all early works contractors at their pre-start meeting.
- The main contractor would develop a logistics plan highlighting the access point for the project, loading bays(s), pedestrian/ vehicular segregation, welfare, storage, security and material handling that would be enforced following full Site establishment.
- Approved haul routes would be identified to the site and protocols put in place to ensure that HGVs adhere to these routes. A small proportion of staff may utilise the B840, however, no HGVs would use this route as it is considered unsuitable.
- All contractors would be provided with a site induction pack containing information on delivery routes, any restrictions on routes and maximum load capacity for the internal access tracks.
- Temporary construction site signage would be erected along the identified construction traffic routes to warn other road users of construction activities and associated construction vehicles.
- A construction traffic speed limit (for example, 20 mph in 30 mph zones) would be imposed through the sensitive areas along the route (i.e., Dalmally and Inveraray) and on approach to the main site access point on the A819.

- The construction material 'lay down' areas would allow for a staggered delivery schedule throughout the day, avoiding peak and unsociable hours (i.e., before 06:00 and after 22:00).
- An integral part of the progress meetings held with all trade contractors is the delivery schedule pro-forma. All contractors would be required to give details of proposed timing of material deliveries to the site. At this stage, they would be given a specific area for delivery.
- The CTMP and the control measures therein would be included within all trade contractor tender enquiries to ensure early understanding and acceptance/ compliance with the rules that would be enforced on this project.
- Under no circumstances would HGVs be allowed to lay-up in surrounding roads. All personnel in the team would be in contact with each other and with Site management, who in turn would have mobile and telephone contact with the subcontractors.
- Roads would be maintained in a clean and safe condition. A wheel washing/ wheel cleaning facility would be installed on-site during the construction period in order to reduce mud and debris being deposited onto the local road network.
- A condition survey of the A819 would be undertaken pre and post construction phase to monitor the condition of the road. The Applicant would ensure that any deterioration to the A819, as a result of the construction activities, is repaired.
- A site Liaison Officer will be appointed who is responsible for ensuring that construction vehicle route timings do not coincide with planned road network improvements within the vicinity of the Proposed Development, so as to not further impede local road users. Furthermore, the Liaison Officer will ensure communication and coordination with other cumulative developments under construction in the local area to identify opportunities to mitigate cumulative traffic impacts through a collaborated approach with others.

## 20. CONSTRUCTION NOISE MANAGEMENT

### 20.1 Introduction

Potential noise issues can arise from the construction and operation of the Proposed Development. These stages have been assessed with a BS5228 and BS4142 assessment respectively for nearby noise sensitive receptors (NSRs), defined as residential properties and other sensitive buildings in the vicinity of the Proposed Development.

Given there are no NSRs within close proximity to the site, a conservative approach has been taken, assessing the closest NSRs that are beyond the typical study area (North Tullich; Dalriada, Ardbrecknish; Accurach Farm; and Keppochan).

The impact of construction noise at receptors is below noise limits, and therefore rated as Minor and not significant. Whilst no additional mitigation is required, a Construction Noise Management Plan (CNMP) will be prepared by the Principal Contractor prior to construction works starting on-site, which would set out best practice measures to be implemented during the construction stage.

The extent of any blasting requirement cannot be determined until intrusive site investigation tests are completed. Blasting is anticipated to be required. A series of tests will be undertaken by the Appointed Contractor in accordance with guidance outlined in BS5228-2:2009+A1:2014<sup>8</sup>. In addition, blasts would be designed through appropriate specification of Maximum Instantaneous Charge (MIC) to ensure that vibration levels at the nearest NSRs would not exceed the guideline limits presented in BS 7385-2: 1993<sup>9</sup> and BS 6472-2: 2008<sup>10</sup>. Given the relative distances between the potential locations of blasting and the closest noise sensitive receptors, there is no reason to suggest that the guidance within BS7385-2: 1993 and BS 6472-2: 2008 would not be met.

### 20.2 General mitigation

This section defines the best practice measures to be included in and implemented through the CNMP to control and limit noise emissions and vibration levels for potential sensitive receptors in the vicinity of the Site Boundary. The general principles of noise management are given below:

The recommendations set out in BS Code of Practice for Noise and Vibration Control on Construction and Open Sites (BS5228:2009 Part 1 1997 (as amended 2014) shall be complied with and, in particular, with the following requirements:

- Careful selection of construction methods to minimise noise emissions.
- Avoidance of vehicles waiting or queuing, particularly on public highways or in residential areas with their engines running.
- Scheduling of deliveries to arrive during daytime hours only. Care should be taken to minimise noise while unloading delivery vehicles. Delivery vehicles should follow routes that minimise use of residential roads.
- Ensuring plant and equipment are regularly and properly maintained. All plant should be situated to sufficiently minimise noise impact at nearby properties.

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<sup>8</sup> British Standard BS5228-2: 2009+A1:2014, (2009, 2014), Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration.

<sup>9</sup> British Standard BS7385-2: 1993, (1993), The Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration.

<sup>10</sup> British Standard BS6472: 2008, (2008), Guide to evaluation of human exposure to vibration in buildings. Blast-induced vibration.

- Fitting and maintaining silencers to plant, machinery, and vehicles where appropriate and necessary.
- Operating plant and equipment in modes of operation that minimise noise, and power down plant when not in use.
- Using electrically powered plant rather than diesel or petrol driven, where this is practicable.
- Avoiding undertaking noisy activities at the weekends or outside of daytime defined hours as necessary. In setting working hours, consideration is given to the fact that the level of noise through the normal working day is more easily tolerated than during the evening and night-time. Working that continues into the evenings must adhere to the threshold noise levels in Category A.

## 21. AIR QUALITY AND DUST SUPPRESSION

### 21.1 Introduction

The area surrounding the site is a sparsely populated, rural area with no industrial activities in the immediate vicinity. As such, background concentrations of dust emissions, nitrogen dioxide and PM<sub>10</sub> and PM<sub>2.5</sub> concentrations are low.

Whilst the Proposed Development would exceed the 30 % increase in heavy goods vehicle traffic during the construction period on the A819 in the vicinity of the access point, any increase in emissions would be temporary and would not be expected to exceed the air quality objectives for nitrogen dioxide and PM<sub>10</sub> and PM<sub>2.5</sub> given existing low background concentrations<sup>11</sup>. Furthermore, no sensitive receptors are located along this/ these transport links, with the closest sensitive receptor approximately 2.5 km away (Cladich).

Accordingly, the Proposed Development is not anticipated to result in air quality impacts and no additional mitigation is required. Standard best practice measures would be implemented during the construction stage, as identified below and in SSEN Transmission's Air Quality Management Plan (**Appendix 1**).

SSEN Transmission does not anticipate any significant impact on air quality.

### 21.2 Dust Mitigation Measures

The following dust mitigation measures will be considered when construction methods are being assessed:

- Dust suppression will be used on activities producing a residue extending beyond the boundary of the work area where this may cause a nuisance or an impact on the environment;
- All access routes (public highways, existing forest roads, temporary constructed access) will be monitored for risk of dust pollution in dry weather and dust suppression techniques will be implemented when required;
- Vehicles carrying bulk materials will be sheeted;
- Public roads will be kept clean and water bowsed if required;
- Vehicle speeds will be limited along dusty tracks/roads;
- Do not use drills that are powered by compressed air unless appropriate control measures are in place;
- Suppress dust from soil stockpiles, tracks/roads, stripped working corridors and material storage areas, by bowsing with water, where required;
- Wind conditions should be monitored throughout the works, and suppression increased according if required;
- Store materials away from the site boundary;
- Plan activities to ensure that, as far as practical, particularly dusty activities are not carried out in unsuitable weather conditions (i.e. very dry / windy) unless suppression is in place; and
- Follow-up any complaints immediately and take action to avoid a repeat complaint.

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<sup>11</sup> Department of the Environment, Transport and the Regions (DETR, 2007) in Partnership with the Welsh Office, Scottish Office and Department of the Environment for Northern Ireland, 2007. The Air Quality Strategy for England, Scotland, Wales, Northern Ireland. HMSO, London

- Dust suppression will be deployed during dry weather, or when dust is noticed leaving the works area.

**Table 3.2.10: Activities and Control Measures to Consider**

| Activity                  | Control Measure                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Depots                    | <ul style="list-style-type: none"> <li>• Where possible ensure that depots and compounds are on hard standing</li> <li>• Where required due to dry weather, use a towable water bowser to damp down any dust</li> </ul> |
| Generators                | <ul style="list-style-type: none"> <li>• Do not leave petrol- or diesel-powered generators running when not required</li> <li>• Ensure serviced regularly</li> </ul>                                                    |
| Plant and Equipment       | <ul style="list-style-type: none"> <li>• Do not leave plant and equipment running when not in use</li> <li>• Ensure serviced regularly</li> </ul>                                                                       |
| Vehicles                  | <ul style="list-style-type: none"> <li>• Do not leave vehicles idling when not required</li> <li>• Ensure vehicles are serviced regularly</li> </ul>                                                                    |
| Local exhaust ventilation | <ul style="list-style-type: none"> <li>• All LEVs should be regularly serviced to ensure filters are effective</li> </ul>                                                                                               |
| Stockpiling spoil         | <ul style="list-style-type: none"> <li>• Position stockpiles as far from residential areas as possible</li> </ul>                                                                                                       |
| Stone Roads               | <ul style="list-style-type: none"> <li>• Damp down where practical and necessary</li> </ul>                                                                                                                             |

## **22. OUTDOOR ACCESS PLAN**

TBC by Appointed Contractor

### **22.1 Introduction**

### **22.2 Potential Impacts**

### **22.3 General Mitigation**

22.3.1 Public Access to the Construction Areas

22.3.2 Increased Traffic Movements

22.3.3 Potential Construction Stage Impacts

### **22.4 Access Management**

### **22.5 Opportunities**

## **23. SUSTAINABILITY**

### **23.1 Appointed Contractor's Project Sustainability Measures**

## **24. REINSTATEMENT**

TBC by Appointed Contractor

### **24.1 Reinstatement Aims and Objectives**

### **24.2 Reinstatement Methods**

### **24.3 Reinstatement Monitoring and Maintenance**

## **APPENDIX 1 – SSEN TRANSMISSIONS GENERAL ENVIRONMENTAL MANAGEMENT PLANS**



Scottish & Southern  
Electricity Networks

TG-NET-ENV-518

Environmental

# General Environmental Management Plan (GEMP) - Private Water Supplies



|                       |                                                                              |                             |                              |                   |
|-----------------------|------------------------------------------------------------------------------|-----------------------------|------------------------------|-------------------|
| TG-NET-ENV-518        | <b>General Environmental Management Plan (GEMP) – Private Water Supplies</b> |                             | <b>Applies to</b>            |                   |
|                       |                                                                              |                             | Distribution                 | Transmission<br>✓ |
| <b>Revision:</b> 1.00 | <b>Classification:</b> Internal                                              | <b>Issue Date:</b> May 2020 | <b>Review Date:</b> May 2023 |                   |

|                    | <b>Name</b>     | <b>Title</b>                  |
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| <b>Checked by</b>  | Simon Hall      | Environmental Project Manager |
| <b>Approved by</b> | Richard Baldwin | Head of Delivery              |

## Contents

|   |                                       |   |
|---|---------------------------------------|---|
| 1 | Introduction .....                    | 3 |
| 2 | General Compliance Requirements ..... | 3 |
| 3 | Revision History .....                | 5 |

| TG-NET-ENV-518 | General Environmental Management Plan (GEMP) – Private Water Supplies |                      | Applies to            |              |
|----------------|-----------------------------------------------------------------------|----------------------|-----------------------|--------------|
|                |                                                                       |                      | Distribution          | Transmission |
|                |                                                                       |                      |                       | ✓            |
| Revision: 1.00 | Classification: Internal                                              | Issue Date: May 2020 | Review Date: May 2023 |              |

## 1 Introduction

- 1.1 Many construction works, including site investigation works, have the potential to impact on private water supplies (PWS). This can be through either disturbing drainage patterns (horizontally or vertically) or impacting on the quality of the water source. There is also the potential to impact on infrastructure of PWS, with pipes and tanks possibly omitted from service plans.
- 1.2 Damaging a PWS can have impacts on the health of the users, as well as severe financial and reputational impacts.
- 1.3 It is required to comply with the following in addition to any specific measures identified associated with the site.

## 2 General Compliance Requirements

### 2.1 Pre-construction

- 2.1.1 All PWS located within 250 m of the proposed works must be identified prior to commencement of any works.
- 2.1.2 A risk assessment should be undertaken to identify those PWS that have the potential to be affected by the works including consideration of:
  - Type and depth of water supply source (e.g. borehole, spring or surface water abstraction);
  - Catchment area; and
  - Nature of proposed works (e.g. depth and extent of any proposed excavations, potential for pollution incidents / spillage etc).
- 2.1.3 Should the results of this assessment indicate a risk to the PWS, then mitigation shall be developed for inclusion in a site specific PWS Protection Plan that is discussed and agreed with the PWS owner.
- 2.1.4 In certain circumstances it may be appropriate to undertake water quality testing of the source or supply, to establish a baseline of current water levels and quality. This should be agreed as part of the PWS protection plan.
- 2.1.5 Prepare a contingency plan to deliver an alternative water supply (on a temporary or permanent basis) in the event of an unforeseen problem with the existing supply.

### 2.2 Construction

- 2.2.1 PWS requiring protection will have specific mitigation developed. Mitigation may include some / all of the following:
  - Fence off the PWS intake (to avoid accidental damage and to deter animals) and identify relevant buffer distances;

| TG-NET-ENV-518 | General Environmental Management Plan (GEMP) – Private Water Supplies |                      | Applies to            |              |
|----------------|-----------------------------------------------------------------------|----------------------|-----------------------|--------------|
|                |                                                                       |                      | Distribution          | Transmission |
|                |                                                                       |                      |                       | ✓            |
| Revision: 1.00 | Classification: Internal                                              | Issue Date: May 2020 | Review Date: May 2023 |              |

- Installation of silt mitigation to prevent runoff from works areas entering the PWS. Use a precautionary approach as not all flow pathways may be immediately obvious;
  - Avoid undertaking works within PWS catchments during wet weather or when wet weather is forecast as there will be increased surface water flows into the PWS which will be harder to control.
  - Low impact access methodologies including the use of track panels where access to works are within the PWS catchment;
  - Survey and peg out the route of the distribution main in the vicinity of the construction works and avoid / minimise activity within this area; and
  - All site operatives working in the area should be made aware of the location of the PWS and of the sensitive catchment area through toolbox talks or similar, and should be reminded when works take place in this area.
- 2.2.2 Put in place measures to protect PWS distribution mains where they cross beneath roads / access tracks. These might include:
- Setting the existing pipe work within mass concrete;
  - Upgrading or rerouting the existing pipe work;
  - Ensuring that there are adequate pollution control and emergency response measures in place to deal with any accidents that could affect a water supply (e.g. spill response or sediment control);
  - Implementation of regular, recorded checks on any pipework (visible signs of cracking or other damage); and
  - Provision of an alternative supply (temporary / permanent).
- 2.2.3 Undertake regular health, safety and environment briefings to construction staff. Include information on:
- Presence and importance of water supply intake and distribution main nearby;
  - Need to protect these from accidental damage;
  - Need to act promptly if an accidental spill or pollution incident poses a threat; and
  - Reporting requirements.
- 2.2.4 Regularly monitor works and their impact on the PWS. If the PWS is being impacted or has the potential to be impacted, stop those activities and seek specialist advice.

## 2.3 Unidentified Water Supplies

- 2.3.1 It is possible that previously unidentified PWS may be found during works.
- 2.3.2 If this happens, stop work in that location and seek specialist advice.
- 2.3.3 Necessary protection measures will need to be identified in consultation with the PWS owner, landowner, specialists and relevant authorities and implemented before work should resume in that location.

|                |                                                                       |                      |                       |                   |
|----------------|-----------------------------------------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-518 | General Environmental Management Plan (GEMP) – Private Water Supplies |                      | Applies to            |                   |
|                |                                                                       |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.00 | Classification: Internal                                              | Issue Date: May 2020 | Review Date: May 2023 |                   |

### 3 Revision History

| No | Overview of Amendments | Previous Document | Revision | Authorisation   |
|----|------------------------|-------------------|----------|-----------------|
| 01 | New document created   | N/A               | 1.00     | Richard Baldwin |
| 02 |                        |                   |          |                 |

## **APPENDIX 2– SSEN TRANSMISSIONS SPECIES PROTECTION PLANS**

# East Coast 400kV Overhead Line Upgrade Environmental Impact Assessment Volume 4 | Appendix 3.2

## SHE Transmission plc SPPs



# Badger Species Protection Plan



|                |                                |                        |                         |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
|                |                                |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

|             | Name             | Title                         |
|-------------|------------------|-------------------------------|
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| Checked by  | Alistair Watson  | Environmental Advisor         |
| Approved by | Richard Baldwin  | Head of Environment           |

## Contents

|   |                                                            |    |
|---|------------------------------------------------------------|----|
| 1 | Introduction .....                                         | 3  |
| 2 | References .....                                           | 3  |
| 3 | Part 1: General Protection Plan .....                      | 3  |
| 4 | Part 2: Project Licence Protection Plan .....              | 11 |
| 5 | Revision History .....                                     | 14 |
|   | Appendix A Project Licence Method Statement Template ..... | 15 |

|                |                                |                        |                         |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
|                |                                |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

## 1 Introduction

Badger is a protected species under the Badger Protection Act and is afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures for the protection of badgers and their shelters during construction works on SHE Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for badger to be present (Part 1), and where a Project Licence for badger has been issued by SNH to cover the project (Part 2):

### 1.1 Part 1: General Protection Plan

This Part applies to all projects where badger may be present). Part 1 outlines the responsibilities of SHE Transmission and the *Contractor* regarding protection of badger. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

### 1.2 Part 2: Project Licence Protection Plan

This is provided to *Contractors* in addition to Part 1 for large projects where a Project Licence has been issued by SNH to cover the work and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

## 2 References

The documents detailed in **Error! Reference source not found.**, below should be used in conjunction with this document

Table 2.1- Miscellaneous Documents

| Title                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Protection of Badgers Act 1992                                                                                                                                                                          |
| <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing</a> |
| SNH's "Scotland's Wildlife: Badgers and Development (2001)"                                                                                                                                                 |

## 3 Part 1: General Protection Plan

### 3.2 Background

Badgers (*Meles meles*) are members of the weasel family with a very widespread distribution in Scotland. They normally live in small family groups (clans) in sometimes large underground structures called setts. Setts

| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
|                |                                |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

are closely associated with woodland and sloping ground, but badgers can exploit many diverse types of habitat including upland moorland. Although they typically consume large numbers of earthworms, they are omnivorous and will forage on a wide variety of foods including grains and carrion. The distance from the sett which they travel varies widely, with those in upland areas having to exploit large areas. Four kinds of setts are recognised – main, annexe, subsidiary and outlier although badgers are also known to use above ground nests and rock crevices.

The badger breeding season is generally acknowledged to run between 1<sup>st</sup> December and 30<sup>th</sup> June with cubs born in February.

Signs of badger:

- Dung heaps or latrines – small pits are dug and large faeces of variable consistency are deposited. Dung tends to have an inoffensive odour.
- Badger prints and tracks – badger paths are often well worn and lead from setts to and along boundaries such as fences. They may be marked at strategic points with dung heaps where they constitute the edge of a home range. Badger prints are about 4.5 – 6.5 cm wide and have five toes with very prominent claws.
- Guard hairs – stiff, long, elliptical, hairs with black and white bands.
- Setts – typically large D-shaped burrows with large spoil heaps of excavated soil often with discarded bedding mixed in.
- Snuffle holes – indentations in the ground where badgers have been rooting for food such as bulbs and invertebrates.

### 3.3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Protection Plan where badger may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

### 3.4 Legislation

Badger is protected under The Protection of Badgers Act 1992. Under this Act it is illegal to intentionally or recklessly<sup>1</sup> damage a badger sett or cause a dog to enter a sett, to obstruct access to a sett and to disturb a badger while occupying a sett, or for any person to kill, injure or take a badger. It is also an offence to cruelly ill-treat a badger, to dig for or to snare a badger.

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<sup>1</sup> Reckless acts would include not having or disregarding a mitigation plan aimed at protecting badgers resulting in killing, injury, and/or disturbance of any badger or badger resting place, or carrying out an activity which would result in an offence where the presence of badger was foreknown.

| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
|                |                                |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

This legislation means that badgers are fully protected in Scotland. Under Section 10 (1) of The Protection of Badgers Act 1992, Licences may be granted to interfere with a badger sett within an area specified in the Licence by any means so specified.

### 3.5 Surveying for Badger

Surveys for badger must be undertaken in all works areas containing suitable badger habitat, a maximum of 12 months prior to the works commencing, (this includes site investigations), to ensure the availability of up-to-date information on shelter locations. A preconstruction check should also be made of works areas a maximum of three weeks prior to the start of works, to check for any changes to sett location / status.

Surveys must extend for a minimum of 30 m beyond working areas, including access tracks increasing to 100 m in areas of potential high noise and vibration (piling, blasting, etc.) for high noise activities.

The preconstruction surveys will be carried out by suitably qualified and experienced ecologists who will identify whether the setts are Active, Inactive or Defunct.

- Active - the presumption in Scotland is any suitable site that could be used for shelter in active badger territory is considered an active sett unless proven otherwise, through a lack of supporting evidence of current use, and by appropriate monitoring.
- Inactive - these can be characterised by tunnels looking disused (e.g. cobwebs and overgrown vegetation / leaves in the entrance) and no presence of signs of current use by badger (e.g. hairs, footprints, snuffle holes etc.). Appropriate monitoring is required to provide absolute certainty that the sett is not in current use by badger.
- Defunct - these are characterised by a loss of the structural integrity of the tunnel entrance (such as when they have been trampled by cattle) and/or roots growing through the tunnel, (i.e. the hole could not be used for shelter by a badger in its current state), and no other signs of current use by badger being present

Appropriate monitoring (e.g. the use of suitable camera traps) should be undertaken where required to determine if any sett is being used for breeding. Camera trap monitoring may also require a Licence from SNH.

### 3.6 Review of Badger Survey

Once a badger survey has been carried out, the ecologist / ECoW should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / ECoW.

| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
|                |                                |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

Relevant site documentation and project information sources should be updated with new and amended information on badger constraints as it is produced, with changes communicated to appropriate staff immediately.

### 3.7 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb badgers in their setts or to destroy / exclude any sett. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any sett that may be affected (See Figure 1):

#### Avoidance

This is the preferred option for active / inactive setts identified within 30 m of works (or 100 m for high noise / vibration activities), an initial protection zone of either 30 m (or 100 m) will be marked on the ground and appropriately signed to restrict work access.

Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited outwith the protection zone. If badger disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

#### Disturbance

For any works required within 30 m of active setts, and for high noise / vibration activities such as pile driving or blasting within 100 m of setts, a Licence from SNH will be required (either Individual or Project).

Individual Licence applications to SNH should be accompanied by a Species Protection Plan which outlines how disturbance will be minimised and setts protected, for example through screening of works and modifying protection zones.

If a Project Licence is in place, and a breeding sett will be disturbed during the breeding season (1<sup>st</sup> December – 1<sup>st</sup> July), a Method Statement must be submitted to SNH licensing team for written approval in accordance with Part 2 of this document, prior to any works commencing.

#### Destruction

Destruction of setts should only be undertaken as a last resort. For destruction of active setts a Licence will be required from SNH (either Individual or Project) Individual Licence applications to SNH should be accompanied by a Species Protection Plan which outlines how disturbance will be minimised and individuals protected.

The plan should include appropriate monitoring to ensure breeding is not taking place and provision for the creation of an artificial sett if required. Any sett subject to works under Licence will be monitored during and after those works. If a Project Licence is in place, a Method Statement must be submitted to SNH licensing team in accordance with Part 2 of this document for written approval prior to any works commencing.

|                       |                                       |                               |                                |                   |
|-----------------------|---------------------------------------|-------------------------------|--------------------------------|-------------------|
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| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal       | <b>Issue Date:</b> March 2018 | <b>Review Date:</b> March 2023 |                   |

## 3.8 Mitigation Measures

### 3.8.1 General Mitigation

- Any temporarily exposed pipe system should be capped when staff are off site to prevent badgers from gaining access.
- All exposed trenches and holes should be provided with mammal exit ramps e.g. wooden planks or earth ramps when Contractors are off site.
- An emergency procedure should be implemented by site workers if badger / badger setts are unexpectedly encountered. All work within 30 m (100 m for high noise/vibration activities) should cease until a suitably qualified and experienced ecologist has inspected the site and determined the appropriate course of action.
- An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH licensing team if required).

### 3.8.2 Monitoring and Reporting

- The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to badger is delivered.
- Reports will be submitted to SNH as required by the relevant Licence.

### 3.8.3 Exclusion / Destruction of Inactive Setts at any time of year

Where there is a structure that requires to be excluded or destroyed which may be used by badger, a survey to determine whether the feature is in active use is required to determine whether a licence. For guidance see the SNH website (<https://www.nature.scot/sites/default/files/2017-07/A1391121%20-%20Badgers%20-%20Current%20use%20-%20Guidance%20-%204%20September%202014.pdf>).

Should the structure be deemed to be inactive the following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing. A licence from SNH is not required.

#### Monitoring

- Any potentially inactive sett must be monitored for a minimum of 14 days where weather conditions are favourable (up to 28 days if unfavourable) to check for current use by badger.
- A combination of the following methods will be used, as appropriate:
  - An appropriately positioned camera trap to monitor badger activity at the sett.
  - Small pencil-sized sticks placed in the floor of the tunnel just inside the entrance(s), pointing upright.
  - Checks for other badger sign (e.g. hair, snuffle holes, latrines and fresh scuff marks).
  - Sand placed at the sett entrance(s).

|                       |                                       |                               |                                |                   |
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### Exclusion

- c. Following adequate monitoring, and where the named Agent is confident that there is no sign of use by badger, the sett will be excluded for 7 days using a gate<sup>2</sup> set in the one-way position.
- d. Exclusions must be overseen by a named Agent on the Project Licence.

### Monitoring Exclusion

- e. The sett will be visited regularly through the exclusion process to check activity and to check on the integrity of the exclusion materials and make good any damage. If it is apparent that badger(s), or other animals, have breached the exclusion any necessary repairs will be made and exclusion period will be restarted.

### Exclusion / Destruction of the Sett

- f. Following exclusion, temporary blocking by wiring the gate shut, or destruction of the sett will be undertaken, where required, under the supervision of the Agent.
- g. Where the sett is not required to be destroyed the exclusion gate / sheeting may be left whilst works proceed around the sett and removed once works have finished.
- h. Where the inactive sett is required to be destroyed, this will be carried out using appropriate plant or hand tools.
- i. For setts on distinct slopes, the excavation will start at least 1 m away from the entrance spoil heap on the down-slope side (up to 4-5 m in front of the entrance itself). For setts on flat ground the excavation will start in front of the entrance hole and hand digging will be utilised to assess the direction and number of tunnels in all directions. Once this has been established a appropriate plant can be used to further progress the excavation. A trench will be dug under direction of the Agent. In the unlikely event that badgers are found during this process all excavation will cease and the badger(s) will be allowed to freely move away from the area. The Agent / ECoW will decide on when the excavation can re-commence.
- j. The excavation will continue slowly, working forwards into the tunnels and chambers until the Agent is satisfied the entire sett has been excavated. Once fully excavated the soil will then be backfilled and compressed to deter animals from excavating further holes.
- k. Construction works will be programmed to commence as soon after this process as possible to reduce the probability of animals returning to the area.

## 3.9 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 40 days) to ensure the licence is in place prior to any work commencing.

---

<sup>2</sup> The specification of gates, fencing and materials would be in accordance with DMRB and the Natural England Technical Information Note 25 (Appendix 2). The badger mesh fence specification is as described in SNH's "Scotland's Wildlife: Badgers and Development (2001)".

|                       |                                       |                               |                                |                   |
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| <b>TG-NET-ENV-501</b> | <b>Badger Species Protection Plan</b> |                               | <b>Applies to</b>              |                   |
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### 3.10 Project Licence

An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable badger offences.

For example, multiple instances of disturbance to a number of badger setts over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-development surveys within 12 months of the planned project start date, and pre-construction surveys within 3 weeks of works commencing. Any Project Licence application will need to be accompanied by the Mitigation Plan and procedures for badger included in Parts 1 and 2 of this SPP

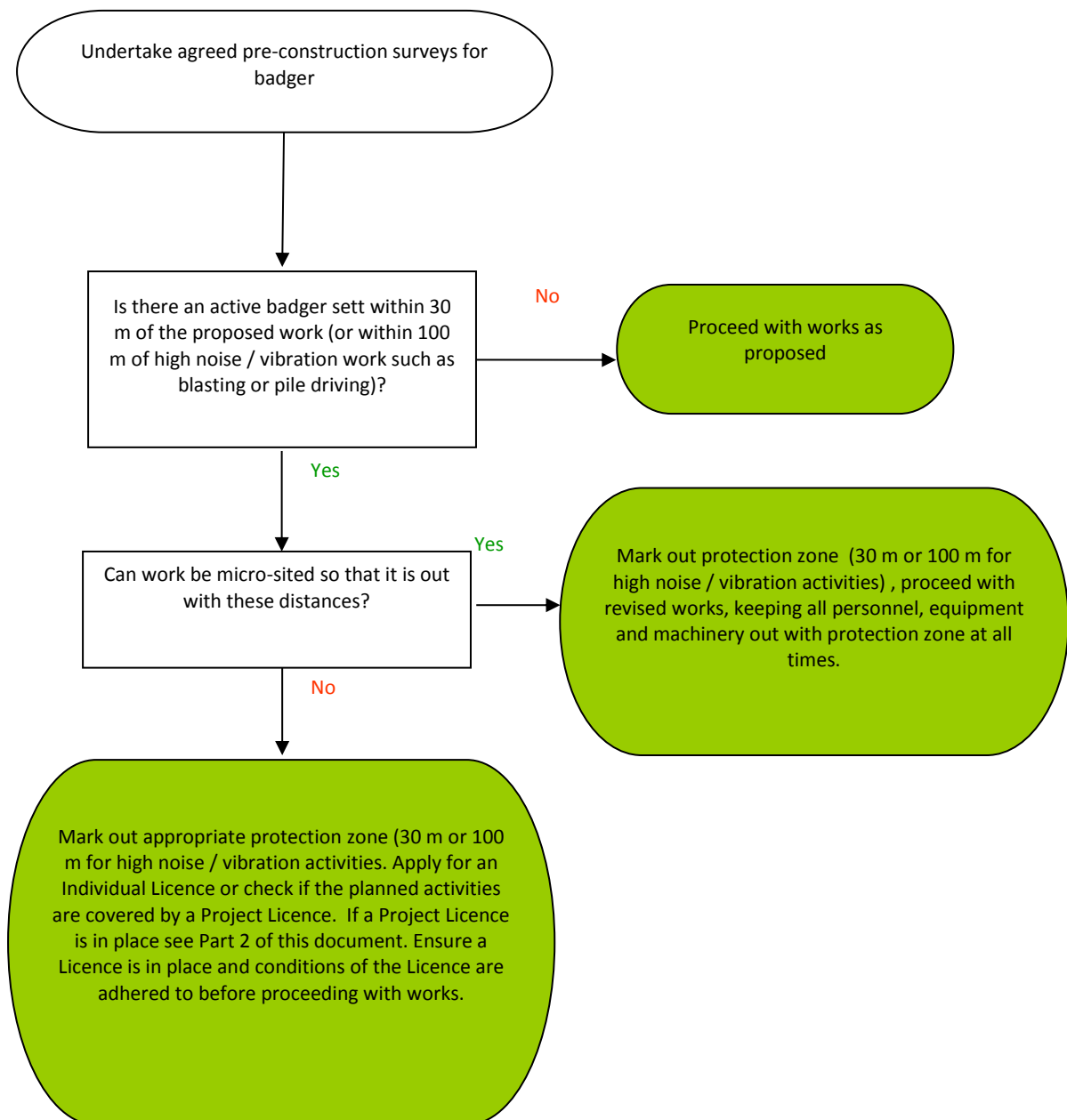
### 3.11 Individual Licence

For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable badger offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing.

Further guidance and details of how to apply for a badger Licence can be found on the SNH website (<https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing>).

|                |                                |                        |                         |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
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### Badger Mitigation Decision Tree



|                |                                |                        |                         |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
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## 4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (**insert Licence number**) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

**Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.**

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

### 4.1 Works Allowed under the Project Licence

Under the Project Licence there is a general presumption against works being carried out which could disturb badgers in their setts, or to destroy / exclude any sett unless it can clearly be demonstrated that either it is inactive (*i.e.* through monitoring) or that there is no alternative solution against Project timescales and requirements.

### 4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved by SNH prior to any works commencing:

- Destruction of any active setts within the breeding season (1<sup>st</sup> December – 30<sup>th</sup> June inclusive).
- Destruction of a breeding sett, or a sett which cannot be discounted as a breeding sett, at any time of year.
- Disturbance (*i.e.* works within 30 m, or 100 m for high noise / vibration works) to a breeding sett, or a sett which cannot be discounted as a breeding sett, during the breeding season.
- Where it is proposed to exclude (even temporarily) such a proportion of setts in a given clan's territory as to cause a significant impact on the clan.
- Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

Proposed mitigation works should be agreed with SNH.

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|----------------|--------------------------------|------------------------|-------------------------|-------------------|
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| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

### 4.3 Activities not requiring additional SNH approval

The following works may be carried out under this SPP and / or specific Method Statements without the prior approval of SNH when a Project Licence is in place, using the prescribed methodologies:

#### 4.3.1 Exclusion / Destruction of a non-breeding active sett from July – November inclusive

The following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing:

##### Pre-works Assessment

- a. In advance of any ground-breaking or use of construction machinery within 30 m of a sett entrance (or 100 m for blasting operations) an Agent on the Project badger licence will consider in detail the scope of the proposed works, type of sett and topographical location to determine if exclusions can be avoided without placing badgers at risk.

##### Exclusion

- b. As agreed with SNH, badger gates and appropriate materials<sup>4</sup> will be used for the exclusion of setts, unless in rare circumstances, in which case SNH licensing team will be consulted beforehand. Exclusions must be overseen by a named agent on the Project badger licence.
- c. The gate would be set to the two-way position for at least 7 days and then set to one-way for 14 days.

##### Monitoring Exclusion

- d. To monitor use of the sett the a combination of the following methods may be used.
  - An appropriately positioned camera trap to monitor badger activity at the sett.
  - Small pencil-sized sticks placed in the floor of the tunnel just inside the entrance, pointing upright.
  - Threads pinned to the gate and gate frame to confirm if the gate has been opened.
  - Sand placed at the sett entrance (inside and outside the gate).
- e. The sett will be visited regularly through the exclusion process to check activity and to check on the integrity of the exclusion materials and make good any damage. If it is apparent that badger(s) have breached the exclusion any necessary repairs will be made and exclusion period will be restarted.

##### Destruction of the Sett

- f. Destruction will proceed as per the method outlined for destruction of inactive setts.

| TG-NET-ENV-501 | Badger Species Protection Plan | Applies to             |                         |
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| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |

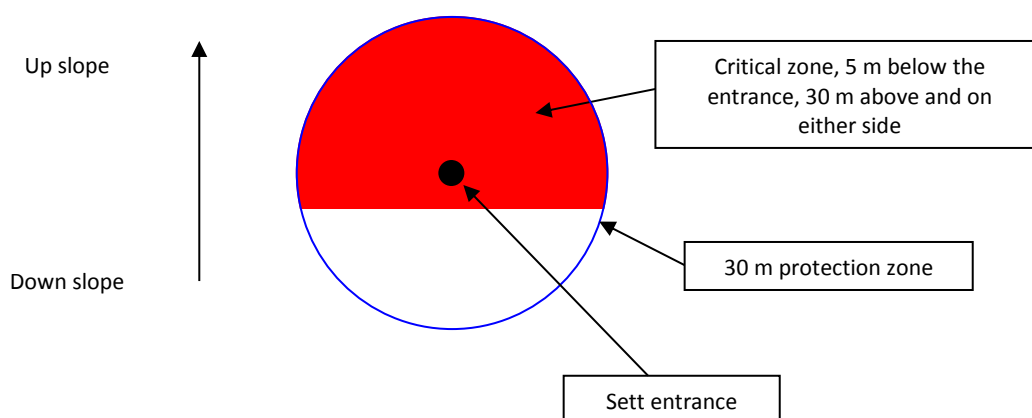
#### 4.3.2 Disturbance to a non-breeding active sett from July – November inclusive

The following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing:

##### Tree Felling and Scrub clearance

All tree and scrub clearance will be undertaken in accordance with the conditions of a Standard Forestry Operations Licence (see <https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/badgers-and-licensing/badgers-licences-land>).

##### Track Construction



- Track construction can be carried out within the 30 m protection zone under the Project Licence providing it does not impact on the "Critical Zone", as shown in the diagram above, and lie within 5 m of the sett entrance. An Agent / ECoW on the Project badger licence will carry out a risk assessment and mark out the maximum protection zone to ensure the integrity of the sett is protected. If works are proposed in the critical zone between 20 and 30m from an entrance, careful hand-digging of a cross trench at the edge of proposed access track route or tower compound will be performed to confirm the tunnels do not extend under the works.
- The Agent / ECoW will be present immediately before construction starts to re-check for any ecological constraints including newly dug badger setts. Details of any ecological constraints, and associated mitigation, not related to badger will be communicated separately to this plan to all site workers.

|                |                                |                        |                         |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
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| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

### Tower Compound Establishment

- c. A tower compound can intrude within the 30 m protection zone under the Project licence, where there is no alternative, providing it does not impact on the “Critical Zone” and the sett entrance is a minimum of 5 m out with the compound boundary. The An Agent / ECoW on the Project badger licence will carry out a risk assessment and mark out the maximum protection zone to ensure the integrity of the sett is protected.
- d. Badger proof fencing / gates will be used for the compound to reduce the risk of badgers entering the works area. One-way badger gates will be installed at the nearest corner of the compounds to allow animals to escape.
- e. The Agent / ECoW will be present immediately before construction starts to re-check for any ecological constraints including newly dug badger setts. Details of any ecological constraints, and associated mitigation, not related to badger will be communicated separately to this plan to all site workers.

## 5 Revision History

| No | Overview of Amendment and Text affected                                                                                                                                                                                                                                                             | Previous Document         | Revision | Authorisation   |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|-----------------|
| 01 | Transfer to new template and Nomenclature                                                                                                                                                                                                                                                           | TG-PS-LT-707 (Rev 1.00)   | 1.00     | Richard Baldwin |
| 02 | Hyperlink to "Current use" guidance 'What is a badger sett?' has been added under newly created paragraph 3.8.3.<br>4.3.1 'Exclusion / Destruction of Inactive Setts at any time of year' (Rev 1.00) has been moved under 3.8.3 to represent Licensing Team changes in accordance with legislation. | TG-NET-ENV-501 (Rev 1.00) | 1.01     | Richard Baldwin |

|                |                                |                        |                         |                   |
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| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

## Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

*<insert species record reference>*

*<insert date>*

### Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for *<insert details of works>* to be completed under *<insert licence details>*. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition *<insert No.>* of the above Licence states that a *<insert species>* Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect *<insert species>*. Therefore, no works which would *<insert licensed activity>* *<insert species>* shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- *<insert licence details>*, SNH
- Species Protection Plan (SPP): *<insert SPP No. and title>* Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

### Licensable Works

#### Introduction

*<Insert details>*

#### Baseline Description

*<Insert description, including photographs / location plan>*

|                |                                |                        |                         |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
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| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

Table 1: Summary of Data

| Reference | Easting | Northing | Date recorded | Description | Date works exclusion zone demarcated & distance |
|-----------|---------|----------|---------------|-------------|-------------------------------------------------|
|           |         |          |               |             |                                                 |

## Survey Summary

<Insert details>

## Description of the Proposed Licensable Works

<Insert details>

## Works Duration

<Insert details>

## Consideration of Alternatives

<Insert details>

## Impact Assessment

<Insert details>

|                |                                |                        |                         |                   |
|----------------|--------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-501 | Badger Species Protection Plan |                        | Applies to              |                   |
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| Revision: 1.01 | Classification: Internal       | Issue Date: March 2018 | Review Date: March 2023 |                   |

## Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

**Before works commence:**

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

*<insert details of methodology>*

**During works:**

*<insert details of methodology>*

*<Insert Contractor's name>*

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of Contractor's Representative:..... Date .... / .. / ..

Print name in full: .....

# Bat Species Protection Plan



|                |                             |                        |                         |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
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|             | Name             | Title                         |
|-------------|------------------|-------------------------------|
| Author      | Francis Williams | Environmental Project Manager |
| Checked by  | Alistair Watson  | Environmental Advisor         |
| Approved by | Richard Baldwin  | Head of Environment           |

## Contents

|   |                                                           |    |
|---|-----------------------------------------------------------|----|
| 1 | Introduction.....                                         | 3  |
| 2 | References.....                                           | 3  |
| 3 | Part 1: General Protection Plan.....                      | 4  |
| 4 | Part 2: Project Licence Protection Plan .....             | 10 |
| 5 | Revision History.....                                     | 14 |
|   | Appendix A Project Licence Method Statement Template..... | 15 |

|                |                             |                        |                         |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
|                |                             |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal    | Issue Date: March 2018 | Review Date: March 2023 |                   |

## 1 Introduction

All bat species occurring in Britain are European Protected Species (EPS), protected under Annex II and IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive) and are afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures for the protection of bats and their shelters during construction works on SHE Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for bats to be present (Part 1), and where a Project Licence for bats has been issued by SNH to cover the project (Part 2):

### 1.1 Part 1: General Protection Plan

This Part applies to all projects where bats may be present and is issued to Contractors. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of bats. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation

### 1.2 Part 2: Project Licence Protection Plan

This is provided to *Contractors* in addition to Part 1 for large projects where a Project Licence has been issued by SNH to cover the work and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

## 2 References

The documents detailed in **Error! Reference source not found.**, below should be used in conjunction with this document

Table 2.1- Miscellaneous Documents

| Title                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)                                                                                 |
| Conservation (Natural Habitats &c.) Regulations 1994                                                                                                                                                        |
| Conservation (Natural Habitats &c.) Amendment (Scottish) Regulations 2007                                                                                                                                   |
| <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing</a> |

| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
|                |                             |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal    | Issue Date: March 2018 | Review Date: March 2023 |                   |

## 3 Part 1: General Protection Plan

### 3.2 Background

Bats are a diverse group of mostly nocturnal flying mammals of which there are generally recognised to be 9 different species in Scotland.. There are four more common or widespread species; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*), Daubenton's bat (*Myotis daubentonii*), and brown long-eared bat (*Plectotus auritus*). The two pipistrelle species mentioned above are the ones most likely to be encountered.

The other less common species are Natterer's bat (*M. nattereri*), Nathusius pipistrelle (*Pipistrellus nathusii*), Leisler's bat (*Nyctalus leisleri*), whiskered bat (*M. mystacinus*), and Noctule bat (*N. noctula*).

Identification can be made by using bat detectors and recording devices to differentiate the characteristic echolocation signals (used to navigate and catch prey) as well as flight patterns, morphology and DNA analysis of droppings.

Bats exploit a wide variety of natural and semi-natural habitats such as woodlands, pasture, water and hedges in pursuit of insect prey such moths and midges. They use a variety of strategies to catch their prey. For example brown long-eared bats glean insects from foliage, whereas Daubenton's bats gaffe insects from near the surface of water.

Bats rest up during the day in roosts within sheltered voids or cavities. Although all bat species in Scotland rely heavily on man-made structures, roosts can be found in; buildings and ruins, trees (woodpecker holes, cracks, flaky bark and callused flush cuts), bridges, caves and tunnels. Signs of an active roost may include urine staining, presence of flies, scratch marks, strong odour and droppings, however not all roosts have such features. Tree roosts can be particularly difficult to identify.

Roosts are communal structures which are in use at different times and many different types of roosts exist varying from temporary day roosts to more permanent maternity and hibernation roosts. The most sensitive periods for maternity roosts are from early May to late August and hibernation roosts are in use from October until March. Bats are particularly vulnerable to disturbance during hibernation which could result in mortality due to cold temperatures and lack of food resource.

### 3.3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Protection Plan where bats may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

### 3.4 Legislation

All bat species (*Chiroptera*) in Britain are European Protected Species (EPS), protected under Annex II and IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive). The Habitats Directive is transposed in Scottish law by the Conservation (Natural Habitats

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|----------------|-----------------------------|------------------------|-------------------------|-------------------|
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| Revision: 1.01 | Classification: Internal    | Issue Date: March 2018 | Review Date: March 2023 |                   |

&c.) Regulations 1994, as amended by The Conservation (Natural Habitats &c.) Amendment (Scottish) Regulations 2007 and others. Bats are listed on Schedule 2 of the Habitats Regulations 1994.

The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007 enhanced this protection. As EPS, it is an offence to deliberately or recklessly<sup>1</sup> kill, injure or take (capture) bats, deliberately or recklessly disturb or harass bats, and damage, destroy or obstruct access to a breeding site or resting place of any bat. It is important to note that bat roosts are protected even at times of year when not in use.

### 3.5 Surveying for Bats

1. Surveys for bats must be undertaken in all works areas containing suitable bat habitat, at a suitable time of year a maximum of 12 months<sup>2</sup> prior to the works commencing, (this includes site investigations), to ensure the availability of up-to-date information on shelter locations.
2. Surveys must extend for a minimum of 30 m beyond working areas.
3. Pre-construction surveys will be undertaken for all potential roosting features likely to be affected (i.e. built structures and trees). If evidence of roosting bats is encountered further survey may be required to confirm species, roost type and usage.

### 3.6 Review of Bat Survey

Once a bat survey has been carried out, the ecologist / ECoW should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / ECoW.

Relevant site documentation and project information sources should be updated with new and amended information on bats constraints as it is produced, with changes communicated to appropriate staff immediately.

---

<sup>1</sup> Reckless acts would include not having or disregarding a mitigation plan aimed at protecting Bats resulting in killing, injury, and/or disturbance of any Bat or Bat Roost, or carrying out an activity which would result in an offence where the presence of Bats was foreknown.

<sup>2</sup> Note: Information from any previous surveys (e.g. surveys carried out to provide data for EIA or other Assessments) can be a useful guide to bats activity in an area, particularly if roosts were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing.

| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
|                |                             |                        | Distribution            | Transmission<br>✓ |
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### 3.7 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb bats or to destroy / exclude or obstruct access to any bat roost. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any roost that may be affected:

#### Avoidance

This is the preferred option for roosts identified within 30 m of works, an initial protection zone of either 30 m will be marked on the ground and appropriately signed to restrict work access.

Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited out with the protection zone. If bat disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

#### Disturbance

Works required within 30 m of an active roost may constitute disturbance and therefore may require a Licence from SNH (either Individual or Project) this needs assessing on a case by case basis. In these circumstances the ecologist / EcoW must be tasked to assess the likelihood of disturbance to bats, and therefore the need for a licence (in consultation with SNH licensing team if required). Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance will be minimised and roosts protected, for example through timing works for when bats are least likely to be present, screening of works and modifying protection zones.

If a Project Licence is in place, part 2 of this document should be used to ascertain whether a formal Method Statement is required to be submitted for approval to SNH prior to works commencing which could disturb bats.

#### Roost Destruction

Destruction of roosts should only be undertaken as a last resort. For destruction of roosts a Licence will be required from SNH (either Individual or Project). Destruction of maternity roosts and hibernation roosts will only be licensed outside of the seasons when they are in use.

Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance of bats will be minimised, roosts compensated for, and individual bats protected. Roost destruction may not always be permitted; this will depend on roost type and rarity of species (see species matrix in part 2 of this document)

If a Project Licence is in place the following activities require a formal Method Statement to be submitted and approved by SNH in accordance with Part 2 of this document, prior to any works commencing:

- Destruction of a breeding / hibernation roost of a Brown long-eared or Daubenton's bat.
- Destruction of any roost of an uncommon species (Natterer's, Leisler's, Whiskered, Noctule, Nathusius's pipistrelle) at any time of year.

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|----------------|-----------------------------|------------------------|-------------------------|-------------------|
|                |                             |                        | Distribution            | Transmission<br>✓ |
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For all other scenarios (such a destruction of a non-breeding roost of a more common species outside of the active season) works should be carried out in accordance with part 2 of this document. Any roost subject to works under Licence will be monitored during and after those works.

## 3.8 Mitigation Measures

### 3.8.1 General Mitigation

1. An emergency procedure will be implemented by site workers if signs of bat (*e.g.* urine staining, droppings or animals) are encountered. All work within 30 m will cease and the Ecologist / ECoW will inspect the site and define mitigation (if required) in line with this SPP.
2. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH if required).

### 3.8.2 Monitoring and Reporting

3. The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to bats is delivered.
4. Reports will be submitted to SNH as required by the relevant Licence.

## 3.9 Licensing Requirements

Licence applications must be sent into SNH species licensing team sufficiently in advance of the project start date (approximately 30 days) to ensure the licence is in place prior to any work commencing.

### 3.10 Project Licence

An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable bat offences.

For example, multiple instances of disturbance to a number of bat roosts over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-development surveys within 12 months of the planned project start date, and pre-construction surveys within 3 weeks of works commencing. Any Project Licence application will need to be accompanied by the Mitigation Plan and procedures for bats included in Parts 1 and 2 of this SPP

### 3.11 Individual Licence

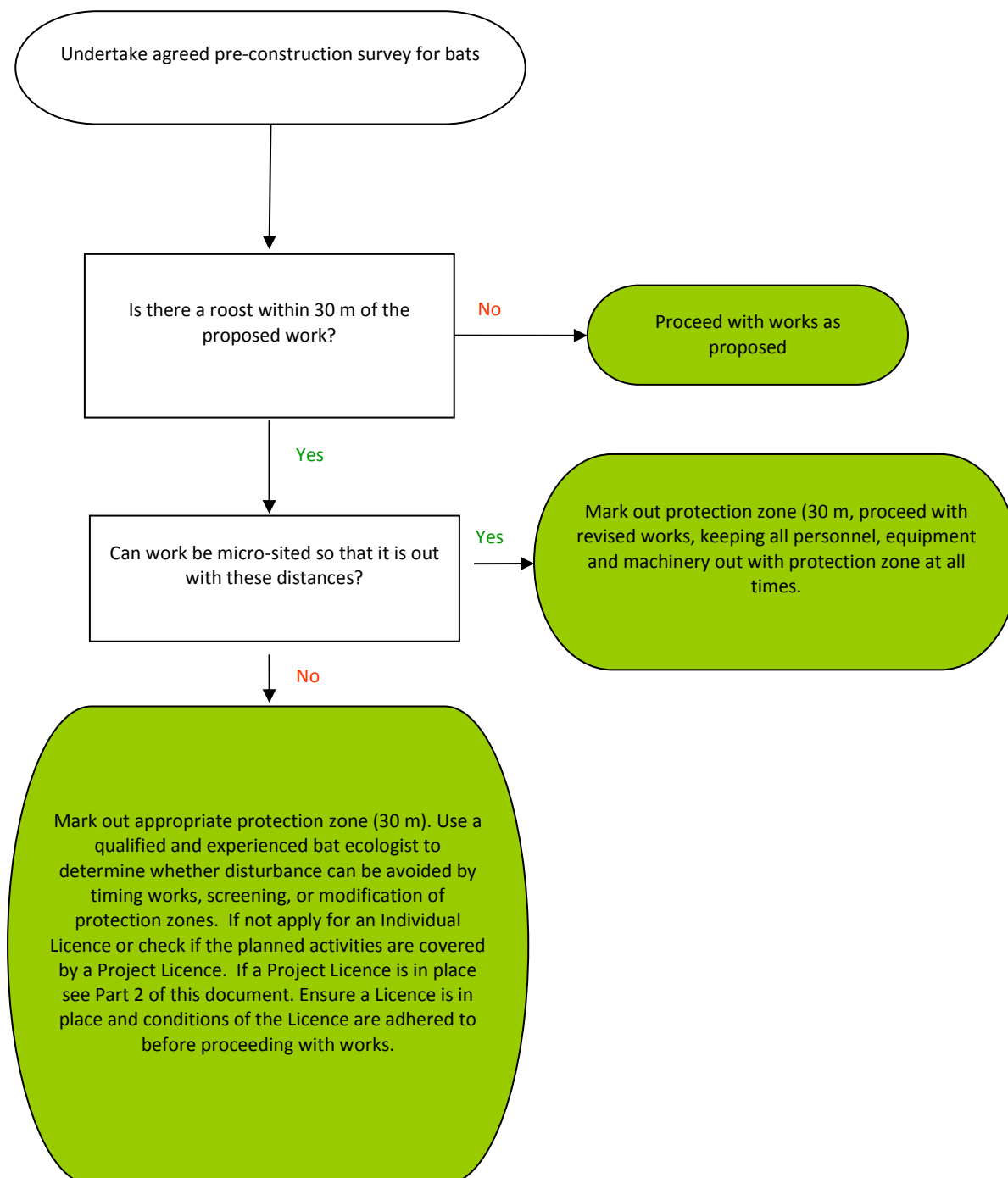
For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable bats offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing.

|                       |                                    |                               |                                |                   |
|-----------------------|------------------------------------|-------------------------------|--------------------------------|-------------------|
| <b>TG-NET-ENV-502</b> | <b>Bat Species Protection Plan</b> |                               | <b>Applies to</b>              |                   |
|                       |                                    |                               | Distribution                   | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal    | <b>Issue Date:</b> March 2018 | <b>Review Date:</b> March 2023 |                   |

Further guidance and details of how to apply for a bat Licence can be found on the SNH website (<https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing>).

|                |                             |                        |                         |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
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#### Bat Mitigation Decision Tree



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## 4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (**insert Licence number**) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

**Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.**

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

### 4.1 Works Allowed under the Project Licence

Under the Project Licence there is a general presumption against works being carried out which could disturb bats, or to destroy / exclude or obstruct access to any bat roost unless it can clearly be demonstrated that either it is inactive (*i.e.* through monitoring) or that there is no alternative solution against Project timescales and requirements.

### 4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved by SNH prior to any works commencing:

- Disturbance of breeding or hibernation roosts of Common Pipistrelle, Soprano pipistrelle, Brown long-eared, and Daubenton's bat during the seasons when they are likely to be in use;
- Disturbance of breeding or hibernation roosts of all non-common bat species (*i.e.* Natterer's, Leisler's, Whiskered, Noctule, Nathusius's, and any other species not normally found in Scotland) at any time.
- Disturbance of non-breeding and non-hibernation roosts for all non-common bat species (*i.e.* Natterer's, Leisler's, Whiskered, Noctule, Nathusius's, and any other species not normally found in Scotland);
- Destruction of a Brown Long-eared or Daubenton's breeding or hibernation roost
- Destruction of any roosts for all non-common bat species (*i.e.* Natterer's, Leisler's, Whiskered, Noctule, Nathusius's, and any other species not normally found in Scotland)); and
- Any exceptional circumstances not covered in this SPP or Points a to c above.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

Proposed mitigation works should be agreed with SNH.

|                |                             |                        |                         |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
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### Species Matrix

This matrix summarises which activities at which time of year can be carried out under this SPP or require an approved method statement. For explanation see text of this SPP.

| Species                                      | Breeding / Hibernation Roosts |                        | Non-breeding / non-hibernation Roosts |             |
|----------------------------------------------|-------------------------------|------------------------|---------------------------------------|-------------|
|                                              | Disturbance                   | Destruction            | Disturbance                           | Destruction |
| Common Pipistrelle                           | SPP (outwith seasons)         | SPP (outwith seasons)  | SPP                                   | SPP         |
| Soprano Pipistrelle                          | SPP (outwith seasons)         | SPP (outwith seasons)  | SPP                                   | SPP         |
| Brown Long Eared                             | SPP (outwith seasons)         | Approved MS            | SPP                                   | SPP         |
| Daubenton's                                  | SPP (outwith seasons)         | Approved MS            | SPP                                   | SPP         |
| Natterer's                                   | Approved MS                   | Approved MS            | Approved MS                           | Approved MS |
| Nathusius's Pipistrelle                      | Approved MS                   | Unlikely to be allowed | Approved MS                           | Approved MS |
| Leisler's                                    | Approved MS                   | Approved MS            | Approved MS                           | Approved MS |
| Whiskered                                    | Approved MS                   | Unlikely to be allowed | Approved MS                           | Approved MS |
| Noctule                                      | Approved MS                   | Approved MS            | Approved MS                           | Approved MS |
| Other species not normally found in Scotland | Approved MS                   | Approved MS            | Approved MS                           | Approved MS |

| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
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### 4.3 Activities not requiring additional SNH approval

The following works may be carried out under this SPP and / or specific Method Statements without the prior approval of SNH, using the prescribed methodologies:

- a. Disturbance to non-breeding (note according to European guidance mating roosts are considered to be breeding roosts) and non-hibernation roosts, and disturbance to maternity / hibernation roosts (outwith the seasons they are in use), for the more common species (i.e. common and soprano pipistrelle, Brown long-eared, and Daubenton's bats) Destruction of any common or soprano pipistrelle roosts (including breeding and hibernation) at an appropriate time of year for the type of roost (i.e. When bats are not likely to be present and avoiding sensitive seasons).
- b. Destruction of non-breeding and non-hibernation roosts for brown long-eared and Daubenton's bats, at an appropriate time of year for the type of roost when bats are not present, or avoiding sensitive seasons.

#### 4.3.1 1. Disturbance to non-breeding and non-hibernation roosts at any time of year, and disturbance to maternity and hibernation roosts outwith the seasons they are in use,

- a) This methodology applies to the following:
  - Disturbance to non-breeding and non-hibernation roosts of Common pipistrelle, Soprano pipistrelle, Brown long-eared and Daubenton's bats.
- b) If works are to be completed within the protection zone when bats are present the following measures will be adopted in order to minimise potential disturbance to the roost:
  - Works will be completed in a manner to reduce and ensure minimal disturbance;
  - No use of directional lighting; and
  - No site compounds and/or vehicle parking areas will be permitted within 30 m of the roost.
- c) Prior to the commencement of Project works, a protection zone will be established to retain the maximum possible distance between Project works and the roost in order to prevent damage. In most cases this protection zone will be no less than 1 m from the drip line of the tree or 5 m for buildings or cave entrances, and will be set up by the Ecologist / ECoW who is an Agent on the Project bat Licence, or a suitably qualified bat worker under their supervision. No construction works will be completed within this zone.
- d) All site construction staff will be made aware of the presence of the roost and the requirement to remain outwith the protection zone at all times through a Toolbox Talk and the site EMP.

| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
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| Revision: 1.01 | Classification: Internal    | Issue Date: March 2018 | Review Date: March 2023 |                   |

- e) A watching brief would be undertaken by the ECoW as required to ensure that the protection zone has not been breached and that the roost/roost feature has not been inadvertently damaged.
- f) No specific ecological mitigation is considered to be required for the disturbance to non-breeding and non-hibernation sites.

#### 4.3.2 2 & 3. Destruction of roosts at an appropriate time of year

- a) This methodology applies to the following:
  - Destruction of roosts of Common and Soprano pipistrelle bats; and
  - Destruction of non-breeding and non-hibernation roosts of Common pipistrelle, Soprano pipistrelle, Brown long-eared and Daubenton's bats.
- b) Destruction of these roosts will only be completed at an appropriate time of year (dependent on roost status, avoiding sensitive seasons and if presence/absence of bats can be confirmed).
- c) Prior to the commencement of Project works within 30 m of non-breeding and non-hibernation roosts, a protection zone will be set up by the ECoW. No works will be completed within this area until the roost has been destroyed in a controlled manner.
- d) All site construction staff will be made aware of the presence of the roost and the requirement to remain out with the protection zone at all times through a Toolbox Talk and the site EMP.
- e) Prior to licensed destruction of the roost, appropriate mitigation / compensation shall be provided on a like-for-like replacement basis (*e.g.* provision of roost features that would match the roost to be destroyed). Replacement roost features would be sited as close as possible to the roost to be destroyed but out with any potential disturbance distances. Compensatory roost provision would be agreed with SNH.
- f) The destruction of the roost will be completed in a controlled manner under the supervision of the ECoW (who is an Agent on the Project Licence, or a suitably qualified bat worker under their supervision), in order to ensure that no bats are injured and/or killed. The following measures will be adopted during the controlled destruction of the roost:
  - Prior to any works being completed that will result in the destruction of non-breeding and non-hibernation roosts, a survey will be completed to determine whether bats are present or absent, the status of the roost and the species involved (through visual or lab analysis of droppings).
  - Where a roost is to be destroyed during the active period, and the presence of bats is confirmed or cannot be discounted, bats will be excluded from the roost using an appropriate exclusion device. (*e.g.* a cotton sleeve) which will be fitted to the observed entrance/exit point by the ECoW.
  - A dawn survey will be undertaken on the day of the exclusion to confirm the absence of bats returning to the roost. These surveys will be undertaken when the dawn

|                |                             |                        |                         |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
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| Revision: 1.01 | Classification: Internal    | Issue Date: March 2018 | Review Date: March 2023 |                   |

temperature is  $> 8^{\circ}$  C. Should bats be seen entering the roost the exclusion will be postponed for 3 days and the process repeated.

- The exclusion device will remain in place for 7 days, unless this corresponds to a period of cold or adverse weather (where the temperature at dusk is  $< 8^{\circ}$  C or heavy rain), then the excluder must stay in place for a further 7 days.
- In the event of bats being identified within the roost during destruction, the ECoW is responsible for determining the best course of action with respect to the welfare of the animals.

## 5 Revision History

| No | Overview of Amendment and Text affected                                                                                                                                                                                                                                                                                                    | Previous Document         | Revision | Authorisation   |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----------|-----------------|
| 01 | Transfer to new template and Nomenclature                                                                                                                                                                                                                                                                                                  | TG-PS-LT-708 (Rev 1.00)   | 1.00     | Richard Baldwin |
| 02 | <p>Sentence 3.8.2 (1) has been replaced by the equivalent sentence of precursor TG-PS-LT-708.</p> <p>Paragraph 3.10 has been replaced by the equivalent paragraph of precursor TG-PS-LT-708.</p> <p>Paragraph 3.11 has been replaced by the equivalent paragraph of precursor TG-PS-LT-708 (with exception of update to SNH hyperlink)</p> | TG-NET-ENV-502 (Rev 1.01) | 1.01     | Richard Baldwin |

|                |                             |                        |                         |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-502 | Bat Species Protection Plan |                        | Applies to              |                   |
|                |                             |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal    | Issue Date: March 2018 | Review Date: March 2023 |                   |

## Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

*<insert species record reference>*

*<insert date>*

### Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for *<insert details of works>* to be completed under *<insert licence details>*. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition *<insert No.>* of the above Licence states that a *<insert species>* Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect *<insert species>*. Therefore, no works which would *<insert licensed activity>* *<insert species>* shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- *<insert licence details>*, SNH
- Species Protection Plan (SPP): *<insert SPP No. and title>* Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

### Licensable Works

#### Introduction

*<Insert details>*

#### Baseline Description

*<Insert description, including photographs / location plan>*

|                |                             |                        |                         |                   |
|----------------|-----------------------------|------------------------|-------------------------|-------------------|
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| Revision: 1.01 | Classification: Internal    | Issue Date: March 2018 | Review Date: March 2023 |                   |

Table 1: Summary of Data

| Reference | Easting | Northing | Date recorded | Description | Date works exclusion zone demarcated & distance |
|-----------|---------|----------|---------------|-------------|-------------------------------------------------|
|           |         |          |               |             |                                                 |

## Survey Summary

<Insert details>

## Description of the Proposed Licensable Works

<Insert details>

## Works Duration

<Insert details>

## Consideration of Alternatives

<Insert details>

## Impact Assessment

<Insert details>

|                |                             |                        |                         |                   |
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## Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

**Before works commence:**

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

*<insert details of methodology>*

**During works:**

*<insert details of methodology>*

*<Insert Contractor's name>*

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of Contractor's Representative:..... Date .... / .. / ..

Print name in full: .....

# Otter Species Protection Plan



|                       |                                      |                               |                                |                   |
|-----------------------|--------------------------------------|-------------------------------|--------------------------------|-------------------|
| <b>TG-NET-ENV-503</b> | <b>Otter Species Protection Plan</b> |                               | <b>Applies to</b>              |                   |
|                       |                                      |                               | Distribution                   | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal      | <b>Issue Date:</b> April 2017 | <b>Review Date:</b> April 2022 |                   |

|                    | <b>Name</b>      | <b>Title</b>                  |
|--------------------|------------------|-------------------------------|
| <b>Author</b>      | Francis Williams | Environmental Project Manager |
| <b>Checked by</b>  | Alistair Watson  | Environmental Advisor         |
| <b>Approved by</b> | Richard Baldwin  | Head of Environment           |

## Contents

|   |                                                            |    |
|---|------------------------------------------------------------|----|
| 1 | Introduction .....                                         | 3  |
| 2 | References .....                                           | 3  |
| 3 | Part 1: General Protection Plan .....                      | 4  |
| 4 | Part 2: Project Licence Protection Plan .....              | 10 |
| 5 | Revision History .....                                     | 12 |
|   | Appendix A Project Licence Method Statement Template ..... | 13 |

|                       |                                      |                               |                                |                   |
|-----------------------|--------------------------------------|-------------------------------|--------------------------------|-------------------|
| <b>TG-NET-ENV-503</b> | <b>Otter Species Protection Plan</b> |                               | <b>Applies to</b>              |                   |
|                       |                                      |                               | Distribution                   | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal      | <b>Issue Date:</b> April 2017 | <b>Review Date:</b> April 2022 |                   |

## 1 Introduction

Otter is a European Protected Species and is afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures for the protection of otters and their shelters during construction works on Scottish Hydro Electric (SHE) Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for otter to be present (Part 1), and where a Project Licence for otter has been issued by Scottish Natural Heritage (SNH) to cover the project (Part 2).

### 1.1 Part 1: General Protection Plan

This Part applies to all projects where otter may be present. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of otter. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

### 1.2 Part 2: Project Licence Protection Plan

This is provided to Contractors in addition to Part 1 for large projects where a Project Licence has been issued by SNH to cover the work and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

## 2 References

The documents detailed in Table 2.1 below, should be used in conjunction with this document.

**Table 2.1- Miscellaneous Documents**

| <b>Title</b>                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)                                                                                 |
| Conservation (Natural Habitats &c.) Regulations 1994.                                                                                                                                                       |
| The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007                                                                                                                              |
| <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing</a> |

|                |                               |                        |                         |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

## 3 Part 1: General Protection Plan

### 3.2 Background

Otters (*Lutra lutra*) are members of the weasel family with a widespread distribution in Scotland. They are largely solitary, semi-aquatic and obtain most of their food from rivers or the sea. Otters living on rivers may travel distances of 16 km or more at night. They use two kinds of shelter – underground holts and above ground couches. Otters may dig their own holts but they often enlarge existing structures such as rabbit holes so identification can be difficult. Couches may be nest-like structures or simply a depression in a stick pile or under a windblown tree. Each individual will use multiple shelters and holts can be located up to 500 m from watercourses. Otters may have cubs at any time of year.

Breeding sites are generally found in areas with the following characteristics:

- Relatively undisturbed by humans / ungrazed by stock.
- Close (<50 m) to water but rarely flooded or just above the floodplain level.
- Containing patches of dense cover (e.g. scrub thickets, deciduous woodland, young conifer plantation, heather, log piles, tree roots, rock piles, stands of tussocky tall fen vegetation, or reed beds).

Signs of otter:

- Spraints (droppings) which have a high mucus content and are often formless, generally black or greenish –black in colour and may contain obvious fish bones or scales.
- Otter prints and tracks – otter paths are 12-15 cm wide and normally connect with water and holts they are marked with spraints. Otter prints are about 6 cm wide and have five toes.
- Feeding remains – hard parts of crustaceans, unpalatable bits of amphibians and bony parts of fish.
- Otter shelters - holts or couches.

### 3.3 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Protection Plan where otter may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

### 3.4 Legislation

Otter is a **European Protected Species (EPS)** protected under Annex II and IV of EC Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive). The Habitats Directive is transposed in Scottish law by the Conservation (Natural Habitats &c.) Regulations 1994. Otter is listed on Schedule 2 of the Conservation Regulations 1994. The Conservation (Natural Habitats, &c.)

|                |                               |                        |                         |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
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| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

Amendment (Scotland) Regulations 2007 enhanced this protection. Current Legislation means that otters and their shelters are fully protected in Scotland. In summary 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 (i.e. an otter shelter).

### 3.5 Surveying for otter

1. Surveys for otter must be undertaken in all works areas containing suitable otter habitat, a maximum of 12 months<sup>1</sup> prior to the works commencing, (this includes site investigations), to ensure the availability of up-to-date information on shelter locations.
2. Surveys must extend for a minimum of 200 m beyond working areas, including access tracks.
3. Surveys must be carried out by suitably qualified and experienced ecologists and will identify whether any active holts or places of shelter are likely to be affected by the works. Normally work within 30 m of a non-breeding shelter is regarded as likely to cause otter disturbance and will therefore require to be covered by a licence from SNH. However, works generating high noise / vibration levels (such as pile driving or blasting) can cause disturbance to non-breeding sites up to 100 m. Any work within 200 m of a breeding otter holt / shelter should also be regarded as capable of causing disturbance.
4. Appropriate monitoring (e.g. the use of suitable camera traps) should be undertaken where required to determine if any holt / place of shelter is being used for breeding. Camera trap monitoring may also require a Licence from SNH.
5. Active shelters will be classified as:
  - **Holt:** Underground or other fully enclosed structure (can range from enlarged rabbit holes and cavities amongst tree roots to rock piles and man made structures).
  - **Place of Shelter:** Can be either a Couch / Lie-up - an above ground semi-enclosed resting place (e.g. under overhanging river banks / tree root plates); or Hover – a nest-like structures (0.3 -1 m in diameter) constructed from nearby vegetation or a depression in a stick pile or under a windblown tree.

### 3.6 Review of Otter Survey

Once an otter survey has been carried out, the ecologist /Ecological Clerk of Works ( EcoW) should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

---

<sup>1</sup> Note: Information from any previous surveys (e.g. surveys carried out to provide data for Environmental Impact Assessment (EIA) or other Assessments) can be a useful guide to otter activity in an area, particularly if holts were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing.

| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / ECoW.

Relevant site documentation and project information sources should be updated with new and amended information on otter constraints as it is produced, with changes communicated to appropriate staff immediately.

### 3.7 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb otters in their place of shelter or to destroy / exclude any holt. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any holt / place of shelter that may be affected (See Figure 1):

#### Avoidance

This is the preferred option for active holts / places of shelter identified within 30 m of works (100 m for high noise / vibration activities) or 200 m for confirmed breeding sites or. Protection zones of either 30 m, 100 m or 200 m should be marked and signed on the ground with appropriate material to restrict work access.

Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited outwith the protection zone. If otter disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

#### Disturbance

For any works required within 30 m of active holts / places of shelter (or 200 m for confirmed breeding sites), and for high noise / vibration activities such as pile driving or blasting within 100 m of holts / places of shelter, a Licence from SNH will be required (either Individual or Project).

Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance will be minimised and holts protected, for example through screening of works and modifying protection zones.

If a Project Licence is in place, and a breeding holt will be disturbed, a Method Statement must be submitted to SNH for written approval in accordance with Part 2 of this document, prior to any works commencing.

#### Destruction

Destruction of holts / other places of shelter should only be undertaken as a last resort. For destruction of active holts / places of shelter a Licence will be required from SNH (either Individual or Project) Individual Licence applications to SNH should be accompanied by a Protection Plan which outlines how disturbance will be minimised and individuals protected.

The plan should include monitoring to ensure breeding is not taking place and provision for the creation of an artificial holt if required. Any holt / place of shelter subject to works under Licence will be monitored

| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

during and after those works. If a Project Licence is in place, a Method Statement must be submitted to SNH in accordance with Part 2 of this document for written approval prior to any works commencing.

## 3.8 Mitigation Measures

### 3.8.1 General Mitigation

1. All works close to waterbodies and watercourses showing signs of regular use by otters should not take place at night or within 2 hours of sunset / sunrise, if possible.
2. Where works close to waterbodies and watercourses are required at night, lighting should be directed away from riparian areas.
3. All works close to water courses and waterbodies must follow best practice measures to ensure their protection against pollution, silting and erosion.
4. Any temporarily exposed pipe system should be capped when staff are off site to prevent otters from gaining access.
5. All exposed trenches and holes should be provided with mammal exit ramps e.g. wooden planks or earth ramps when Contractors are off site.
6. An emergency procedure should be implemented by site workers if otter / otter shelters are unexpectedly encountered. All work within 30 m (100 m for high noise/vibration activities) or 200 m for breeding sites should cease until a suitably qualified and experienced ecologist has inspected the site and determined the appropriate course of action.
7. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH if required).

### 3.8.2 Monitoring and Reporting

8. The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to otter is delivered.
9. Reports will be submitted to SNH as required by the relevant Licence.

## 3.9 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 40 days) to ensure the licence is in place prior to any work commencing.

### 3.10 Project Licence

An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable otter offences.

For example, multiple instances of disturbance to a number of otter places of shelter over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency

|                       |                                      |                               |                                |                   |
|-----------------------|--------------------------------------|-------------------------------|--------------------------------|-------------------|
| <b>TG-NET-ENV-503</b> | <b>Otter Species Protection Plan</b> |                               | <b>Applies to</b>              |                   |
|                       |                                      |                               | Distribution                   | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal      | <b>Issue Date:</b> April 2017 | <b>Review Date:</b> April 2022 |                   |

across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-development surveys within 12 months of the planned project start date, and pre-construction surveys within 3 weeks of works commencing. Any Project Licence application will need to be accompanied by the Mitigation Plan and procedures for otter included in Parts 1 and 2 of this SPP

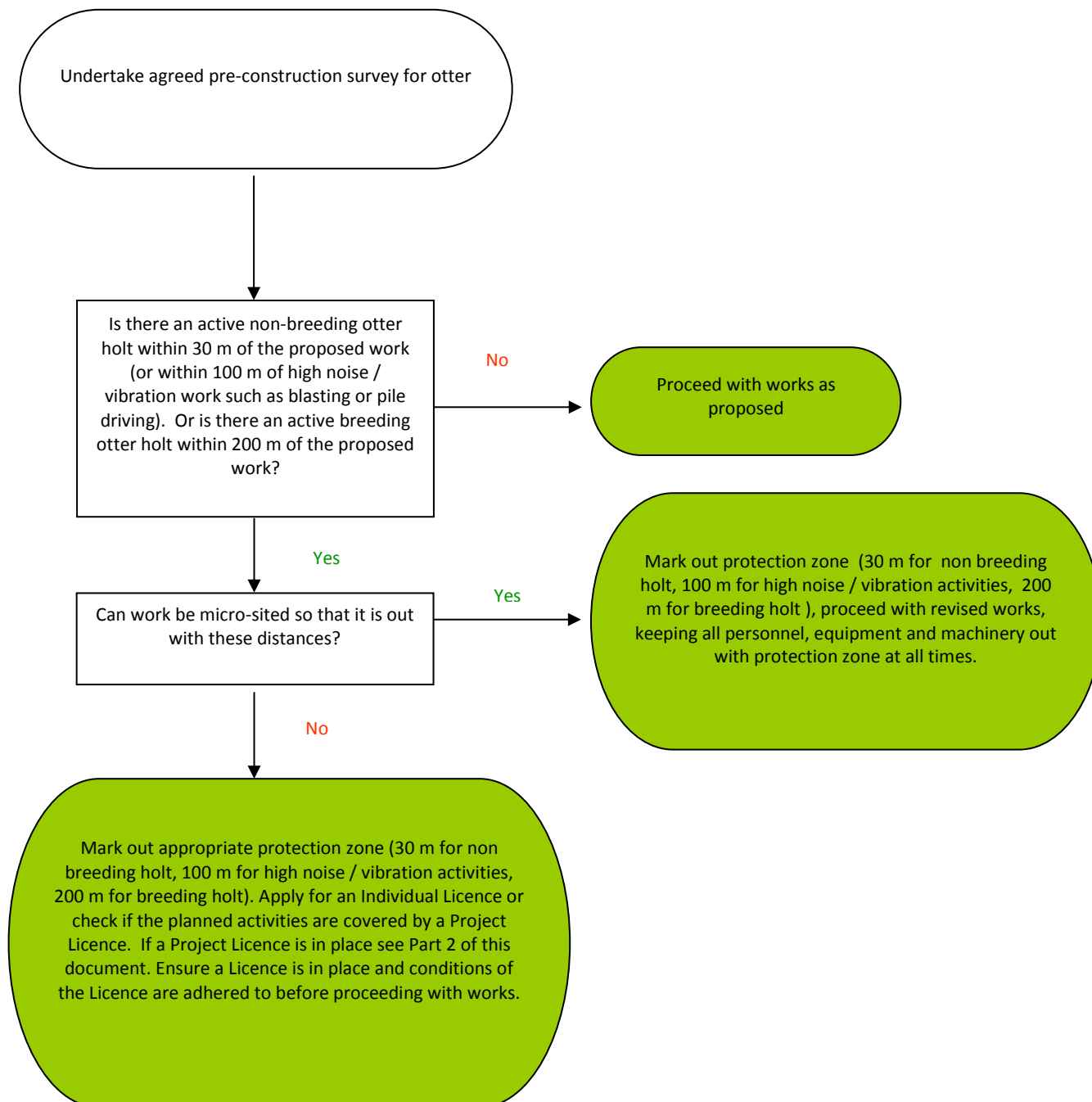
### 3.11 Individual Licence

For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable otter offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing.

Further guidance and details of how to apply for an otter Licence can be found on the SNH website (<https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing>).

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|----------------|-------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

#### Otter Mitigation Decision Tree



|                |                               |                        |                         |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

## 4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (**insert Licence number**) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

**Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.**

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

### 4.1 Works Allowed under the Project Licence

Under the Project Licence there is a general presumption against works being carried out which could disturb otters in their place of shelter, or to destroy / exclude any holt unless it can clearly be demonstrated that either it is inactive (*i.e.* through monitoring) or that there is no alternative solution against Project timescales and requirements.

### 4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved by SNH prior to any works commencing:

- Destruction of a holt at any time of year.
- Disturbance to a breeding holt at any time of year.
- Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

Proposed mitigation works should be agreed with SNH.

| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

### 4.3 Activities not requiring additional SNH approval

The following works may be carried out under this SPP and / or specific Method Statements without the prior approval of SNH, using the prescribed methodologies:

#### 4.3.1 Disturbance / Destruction of places of shelter at any time of year

The following methodology will be incorporated into a Site Specific Method Statement and issued prior to work commencing:

##### Disturbance to a non-breeding holt / place of shelter at any time of year

- i. Appropriate monitoring will be undertaken to ensure the place of shelter is not being used for breeding.
- ii. The Agent or their representative will check, prior to works each morning, that suitable access / egress between the holt / place of shelter and a watercourse is maintained. A check will also be made of the works area to check no otter is present within construction plant / materials.
- iii. Works can commence once the Agent or their representative is satisfied that no otter is present within the works area.
- iv. The Agent or their representative will set up a suitable protection zone as far from the holt/place of shelter as is reasonably practicable to prevent damage and minimise disturbance.
- v. The Agent or their representative will monitor the works to ensure compliance with the licence conditions.
- vi. The emergency procedure detailed will be implemented if an otter is found during works.

##### Destruction of a place of shelter at any time of year

- i. Appropriate monitoring will be undertaken to ensure the place of shelter is not being used for breeding.
- ii. The Agent or their representative will check to ensure that the place of shelter is not being used immediately prior to its destruction.
- vii. If it can be determined that the place of shelter has not been used recently, no exclusion will be required prior to destruction.
- viii. The Agent or their representative will monitor the destruction works to ensure compliance with the licence.
- ix. The emergency procedure will be implemented if an otter is found during the works.
- x. A report will be sent to SNH detailing the destruction works undertaken (in line with the reporting process outlined above).

|                       |                                      |                               |                                |                   |
|-----------------------|--------------------------------------|-------------------------------|--------------------------------|-------------------|
| <b>TG-NET-ENV-503</b> | <b>Otter Species Protection Plan</b> |                               | <b>Applies to</b>              |                   |
|                       |                                      |                               | Distribution                   | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal      | <b>Issue Date:</b> April 2017 | <b>Review Date:</b> April 2022 |                   |

## 5 Revision History

| No | Overview of Amendment and Text affected                                                              | Previous Document         | Revision | Authorisation   |
|----|------------------------------------------------------------------------------------------------------|---------------------------|----------|-----------------|
| 01 | Transfer to new template and Nomenclature                                                            | TG-PS-LT-709 (Rev 1.00)   | 1.00     | Richard Baldwin |
| 02 | Updated links and replaced references to badger with otter. Other minor formatting issues corrected. | TG-NET-ENV-503 (Rev 1.00) | 1.01     | Richard Baldwin |

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|----------------|-------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

## Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

*<insert species record reference>*

*<insert date>*

### Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for *<insert details of works>* to be completed under *<insert licence details>*. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition *<insert No.>* of the above Licence states that a *<insert species>* Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect *<insert species>*. Therefore, no works which would *<insert licensed activity>* *<insert species>* shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- *<insert licence details>*, SNH
- Species Protection Plan (SPP): *<insert SPP No. and title>* Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

### Licensable Works

#### Introduction

*<Insert details>*

#### Baseline Description

*<Insert description, including photographs / location plan>*

|                |                               |                        |                         |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

Table 1: Summary of Data

| Reference | Easting | Northing | Date recorded | Description | Date works exclusion zone demarcated & distance |
|-----------|---------|----------|---------------|-------------|-------------------------------------------------|
|           |         |          |               |             |                                                 |

## Survey Summary

<Insert details>

## Description of the Proposed Licensable Works

<Insert details>

## Works Duration

<Insert details>

## Consideration of Alternatives

<Insert details>

## Impact Assessment

<Insert details>

|                |                               |                        |                         |                   |
|----------------|-------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-503 | Otter Species Protection Plan |                        | Applies to              |                   |
|                |                               |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal      | Issue Date: April 2017 | Review Date: April 2022 |                   |

## Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

**Before works commence:**

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

*<insert details of methodology>*

**During works:**

*<insert details of methodology>*

*<Insert Contractor's name>*

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of Contractor's Representative:..... Date .... / .. / ..

Print name in full: .....

# Red Squirrel Species Protection Plan



|                       |                                             |                             |                              |                   |
|-----------------------|---------------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-504</b> | <b>Red Squirrel Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
|                       |                                             |                             | Distribution                 | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal             | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

|                    | <b>Name</b>      | <b>Title</b>                  |
|--------------------|------------------|-------------------------------|
| <b>Author</b>      | Francis Williams | Environmental Project Manager |
| <b>Checked by</b>  | Alistair Watson  | Environmental Advisor         |
| <b>Approved by</b> | Richard Baldwin  | Head of Environment           |

## Contents

|   |                                                           |    |
|---|-----------------------------------------------------------|----|
| 1 | Introduction.....                                         | 3  |
| 2 | References.....                                           | 3  |
| 3 | Part 1: General Protection Plan.....                      | 4  |
| 4 | Part 2: Project Licence Protection Plan .....             | 10 |
| 5 | Revision History.....                                     | 12 |
|   | Appendix A Project Licence Method Statement Template..... | 13 |

|                       |                                             |                             |                              |                   |
|-----------------------|---------------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-504</b> | <b>Red Squirrel Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
|                       |                                             |                             | Distribution                 | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal             | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

## 1 Introduction

Red squirrel (*Scirius vulgaris*) is afforded a high level of protection in Scotland. This Protection Plan provides guidance and agreed procedures, for the protection of red squirrels and their shelters, during construction works on Scottish Hydro Electric Transmission (SHE Transmission) projects. The Plan contains two parts and details the procedures that must be followed where there is potential for red squirrel to be present (Part 1), and where a Project Licence for red squirrel has been issued by Scottish Natural Heritage (SNH) Licensing Team to cover the project (Part 2).

### 1.1 Part 1: General Protection Plan

This Part applies to all projects where red squirrel may be present. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of red squirrel. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing.

### 1.2 Part 2: Project Licence Protection Plan

This Part is provided to Contractors in addition to Part 1, for large projects where a Project Licence has been issued by SNH to cover the work, and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require an additional Method Statement to be submitted to SNH Licensing Team for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence, to provide approved guidance and methodologies for carrying out work.

## 2 References

The documents detailed in Table 2.1 – Miscellaneous Documents below, should be used in conjunction with this document

**Table 2.1- Miscellaneous Documents**

| <b>Title</b>                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wildlife and Countryside Act 1981 (as amended)                                                                                                                                                                                                                  |
| The Nature Conservation (Scotland) Act 2004                                                                                                                                                                                                                     |
| Wildlife and Natural Environment (WANE) [Scotland] Act 2011                                                                                                                                                                                                     |
| <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide</a> |

| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

## 3 Part 1: General Protection Plan

### 3.1 Background

Red squirrels are rodents with a widespread distribution in Scotland, although as they are predominately woodland animals they are largely absent from the Scottish islands (with the exception of Arran) and the far North West. They are currently under pressure, particularly in southern areas, due to a number of factors including competition from the non-native grey squirrel (*Scirius carolinensis*), disease (squirrel pox virus – SQPV), and habitat loss and fragmentation. Grey squirrels are not protected by law, and it is an offence to release them into the wild if caught.

Red squirrels are largely solitary, not strictly territorial, and generally arboreal, spending up to 70% of the time in the tree canopy. Densities generally vary from 1 per hectare, to 1 per 10 hectares of suitable habitat. They obtain most of their food from seeds or fruits from trees, although they are opportunistic. They build dense spherical nest structures called dreys, which are generally about 30cm in diameter and consist of an outer layer of twigs often with leaves still attached with an inner layer of softer materials such as moss and/or leaves. Dreys tend to be in the forks or against the trunks of trees such as spruce (*Picea abies*), Scots pine (*Pinus sylvestris*) or oak (*Quercus* spp.). Squirrels can also use holes in trees, nest boxes and other cavities as dreys. Several dreys may be in used at the same time, and it can take less than a day for a new drey to be built.

Red squirrels have two peak breeding seasons, the first litters being born between February and April with a second litter from May to August. The exact timing is however dependent on food availability and weather. In winter red squirrels do not hibernate, but are less active particularly in bad weather (high winds, heavy rain and cold). In summer, they have two periods of peak activity; one in the early morning and one in the evening, whereas in winter this shifts to one main activity peak earlier in the day.

Signs of red squirrel:

- Feeding signs – stripped cones or cleanly split nuts often in piles on tree stumps.
- Squirrel prints and tracks – characteristic squirrel tracks show the hind feet (with five toes) in front of the forefeet (four toes), in hops of less than 1 meter. Hind feet are 35mm wide and 40mm long.
- Squirrel shelters - dreys

It is not possible to distinguish between field signs of red and grey squirrels in the field therefore visual surveys, cameras and/or hair tubes (with appropriate biosecurity measures in place), may be required in areas where the two species are present. Red squirrels can vary in colour and there can be confusion with grey squirrels; adult grey squirrels are much larger and lack ear tufts.

### 3.2 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Species Protection Plan where red squirrel may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor compliance with this Species Protection Plan. The responsibility for applying for any licence, including a

|                |                                      |                      |                       |                   |
|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

project wide licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

### 3.3 Legislation

Red squirrel is afforded full protection under Schedule 5 of the Wildlife and Countryside Act 1981, (as amended), most recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011. This makes it an offence to kill, injure or take a red squirrel or to intentionally or recklessly<sup>1</sup> damage, destroy or obstruct access to any place used for shelter or for breeding. Disturbance to this species in its drey also constitutes an offence.

SNH can grant licences to enable certain activities that would otherwise be an offence, to be carried out in relation to red squirrels and their dreys, subject to the following:

- a) That undertaking the conduct authorised by the licence will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit; and
- b) That there is no other satisfactory solution.

**In granting a licence SNH has to take into account the consequences for red squirrels at a local population level, to assist this assessment SNH will need to see maps of the area of operations and also surrounding areas of suitable red squirrel habitat.**

### 3.4 Surveying for Red Squirrel

1. Surveys for red squirrel must be undertaken in all works areas containing suitable red squirrel habitat, a maximum of 12 months<sup>2</sup> prior to works commencing, (this includes site investigations). As squirrels can rapidly build new dreys, pre-felling surveys a maximum of 3 weeks prior to works commencing, must also be undertaken to ensure the availability of up-to-date information on squirrel drey locations.
2. Surveys must extend for a minimum of 50 m beyond working areas, including access tracks.
3. All drey trees must be marked to permit easy identification.
4. All dreys found must be assumed to be red squirrel, unless definitive evidence exists that they are grey squirrel only.
5. Surveys must be carried out by suitably qualified and experienced Ecologists and must identify whether any squirrel dreys are likely to be affected by the works.

If works during the breeding season (February to September inclusive) cannot be avoided, and dreys may be disturbed by works, it may also be important to establish if dreys are being used for breeding. The non-

<sup>1</sup> Reckless acts would include disregard of mitigation aimed at protecting red squirrels, resulting in killing, injuring and/or disturbance of any red squirrel or red squirrel resting place.

<sup>2</sup> Note: Information from any previous surveys (e.g. surveys carried out to provide data for EIA or other Assessments) can be a useful guide to red squirrel activity in an area, particularly if dreys were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing. Pre-felling surveys a maximum of 3 weeks prior to works are recommended.

| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
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| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

invasive method must be used in the first instance: Visual observation and camera surveillance from the ground, for a period of three days used to establish if the drey is in regular use. If regular use is established the drey must be assumed to be being used for breeding purposes. Where this type of drey monitoring is not practical for example in situations of poor visibility it is recognised that more invasive methods may be required, if this situation arises SNH licensing team must be contacted for advice on whether a survey licence will be required: [licensing@snh.gov.uk](mailto:licensing@snh.gov.uk).

### 3.5 Review of Red Squirrel Survey

Once a red squirrel survey has been carried out, the Ecologist / Ecological Clerk of Works (ECoW) must review the survey results, apply the mitigation hierarchy outlined below and decide if a licence is required from SNH (either Individual or Project) for the works.

If required, licences (individual or project), must be obtained by SNH prior to any works commencing.

Construction teams should be advised of existing / new constraints, together with mitigation / compensation, and licensing requirements by the Ecologist / ECOW.

Relevant site documentation and project information sources should be updated with new and amended information on red squirrel constraints as it is produced, with changes communicated to appropriate staff immediately.

### 3.6 Mitigation Hierarchy

There should be a general presumption against works being carried out which will disturb red squirrels in their drey, or which will require the destruction of any red squirrel drey. A hierarchical approach to minimise the works impact on red squirrel should be established as follows:

#### Avoidance

This is the preferred option. Appropriately sized protection zones must be marked and signed on the ground by the Ecologist / ECOW, with appropriate material, around all squirrel dreys identified during the pre-works surveys. The breeding season (February to September inclusive) is the most sensitive time for disturbance, during this time a 50m radius protection zone must be established around all squirrel dreys. Out with the breeding season, a protection zone of one tree from the drey tree (or 5 metres radius - whichever is lesser) must be established. For high noise / vibration activities (pile driving or blasting) a 100m radius protection zone around drey trees must be established at any time of year.

All works personnel, machinery, vehicles and storage of materials must be restricted from entering protection zones. Protection zones must be maintained until all works are completed. Site staff must be briefed of their purpose through a Toolbox Talk by the Ecologist / ECOW. If red squirrel disturbance can be avoided in this way, there is no need to obtain a licence from SNH for the works.

#### Disturbance

If works within protection zones boundaries cannot be avoided, a Licence for disturbance from SNH will be required. For small scale projects the licence may be specific to the site, for larger scale works a Project Licence may be appropriate.

| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
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| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

Individual licence applications for disturbance must be accompanied by a Mitigation Plan which outlines how the disturbance will be minimised, and dreys protected from damage, for example through screening of works and modifying protection zones.

If a Project Licence is in place, and a drey being used in the breeding season will be disturbed, a Method Statement must be submitted to SNH for written approval in accordance with Part 2 of this document, prior to any works commencing. The Method Statement must state how works will be carried out in a way which ensures no abandonment of young.

### **Destruction**

Destruction of dreys must only be undertaken as a last resort and requires a Licence from SNH. Individual Licence applications to SNH must be accompanied by a Mitigation / Compensation Plan which outlines how disturbance will be minimised and individual squirrels protected from injury, and may include provision for the creation of an artificial drey if appropriate. If destruction of a drey during the breeding season is required, the plan should include details of non-invasive monitoring which will take place to ensure breeding is not taking place prior to any drey destruction.

Any drey subject to works under Licence must be monitored during and after those works.

## **3.7 Mitigation Measures**

### **3.7.1 General Mitigation**

1. An emergency procedure will be implemented by site workers if squirrel dreys are encountered. All work within 5 m (non-breeding season) or 50 m (breeding season) will cease, and the ECoW will inspect the site and define mitigation (if required) in line with this SPP.
2. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH Licensing Team if required).

### **3.7.2 Monitoring and Reporting**

3. The Ecologist / ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to red squirrel is delivered.
4. Reports will be submitted to SNH as required by the relevant Licence.

## **3.8 Licensing Requirements**

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 40 days) to ensure the licence is in place prior to any work commencing.

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|-----------------------|---------------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-504</b> | <b>Red Squirrel Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
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| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal             | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

### 3.9 Project Licence

An SNH Project Licence is likely to be the most appropriate form of licence for any large scale and / or long running project, in red squirrel areas. For example, where multiple instances of disturbance to a number of red squirrel dreys is anticipated over several months / years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-construction survey within 12 months and three weeks of the planned project start date.

Any Project Licence application will need to be accompanied by a red squirrel survey carried out within 12 months of the proposed works start date, and procedures for red squirrel included in Parts 1 and 2 of this SPP.

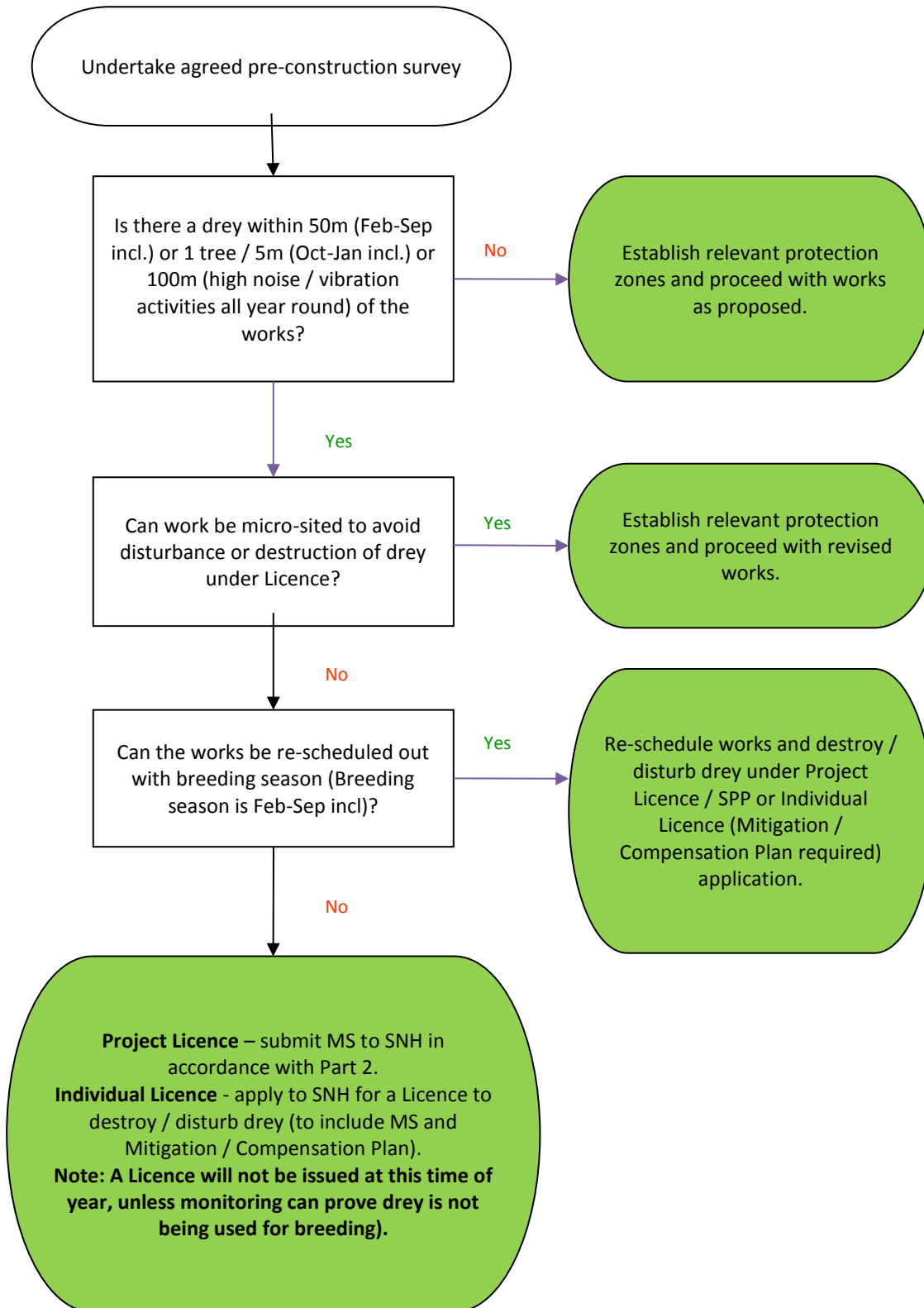
### 3.10 Individual Licence

For small scale projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable red squirrel offences an Individual SNH Licence is most likely to be appropriate. All licence applications must be accompanied by a red squirrel survey carried out within 12 months of the proposed works start date, and a mitigation / compensation plan.

Further guidance and details of how to apply for a red squirrel Licence can be found on the SNH website <https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/red-squirrels-and-licensing>.

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|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

#### Red Squirrel Mitigation Decision Tree



|                |                                      |                      |                       |                   |
|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

## 4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (**insert Licence number**) and its conditions.

Mitigation activities permitted under Project Licence are included in this Part of the SPP (section A). More disruptive activities, listed in Section B below, will require a specific Method Statement to be submitted to SNH Licensing Team for approval, prior to works commencing (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

**Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.**

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

In advance of, and during construction at any location where there is the potential for red squirrel to be present, it is **essential** that this plan is followed.

### 4.1 Works Allowed under this SSP

The following works may be carried out under this SPP without further approval from SNH, using the prescribed methodologies:

#### 1. Disturbance to red squirrel dreys out with the breeding season (October to January inclusive)

Red squirrel dreys must not be damaged or destroyed, but protected from potential damage by setting up a modified protection zone (size determined by the site Ecologist / ECoW). Protection zones must be clearly marked on the ground and signed, and must exclude all works personnel, machinery, vehicle and storage. The protection zone must be maintained until all works are finished.

A licence return must be sent to SNH licensing team detailing all disturbance works under the Project Licence.

#### 2. Destruction of red squirrel dreys out with the breeding season (October to January inclusive)

Destruction of squirrel dreys must only be undertaken as a last resort. Prior to a drey being destroyed, the Ecologist / ECoW must satisfy themselves that no squirrel is present within the structure. Dreys must be destroyed in a controlled manner to ensure no injury or killing of animals. All works must be overseen by an experienced Ecologist / ECoW.

A licence return must be sent to SNH Licensing team detailing all drey destruction works carried out under the Survey Licence.

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|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

## 4.2 Activities requiring an SNH Approved Method Statement

The following activities require a formal Method Statement to be submitted and approved in writing by SNH licensing team prior to any works commencing:

- a. Disturbance or destruction of a drey during the breeding season.
- b. Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions. The methodology used should be based on the following:

### A. Destruction or disturbance to a drey within the breeding season (February to September inclusive)

- a. There must be a presumption against disturbance or destruction of a squirrel drey during the breeding season, if unavoidable this work requires that a detailed Method Statement is agreed in writing with SNH Licensing Team prior to works commencing.
- b. Non-invasive survey methods must be used to establish if the drey is in regular use. An experienced and qualified Ecologist / ECoW must use visual observation and video surveillance from the ground for a period of three days of daytime observations, to establish if the squirrel drey is in regular use. If the drey is in regular use it must be assumed that it is being used for breeding purposes.
- c. If the survey establishes that there is no regular use by squirrel, destruction of the shelter can be carried out as for during the non-breeding season.
- d. Dreys being used for breeding must not be destroyed or disturbed and no works carried out within 50 m of the structure, until the site Ecologist / ECoW has confirmed that dependent young are no longer present. The young begin leaving the drey at c. 7 weeks and are weaned at 8-10 weeks old.
- e. Once completion of breeding has been confirmed through monitoring, and the site Ecologist / ECoW has satisfied themselves that no squirrel are present within the structure, the drey can be destroyed in a controlled manner to ensure no injury or killing of animals.
- f. A licence return must be sent to SNH Licensing team detailing all drey destruction works carried out under the Project Licence.

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|-----------------------|---------------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-504</b> | <b>Red Squirrel Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
|                       |                                             |                             | Distribution                 | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal             | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

### 4.3 SNH Survey Licence

The Ecologist / ECoW must obtain a survey licence from SNH licensing team prior to using the following invasive survey methods:

- a. Where squirrel dreys are not clearly visible from the ground, and the Ecologist / ECoW needs to establish whether they are being used for breeding (i.e. non-invasive methods as described above cannot be used), camera traps mounted on adjacent trees may be employed (under survey licence from SNH) as an alternative in suitable weather conditions. Camera survey must be carried out for at least three consecutive days. The ECoW / Ecologist must be confident that this method is appropriate for detecting use at the given location.
- b. Where the above survey methods are inappropriate, inspection of squirrel dreys may be undertaken by tree climbing or cherry picker and endoscopic inspection (under survey Licence from SNH) to confirm the presence/absence of young squirrels.

## 5 Revision History

| No | Overview of Amendment and Text affected              | Previous Document         | Revision | Authorisation   |
|----|------------------------------------------------------|---------------------------|----------|-----------------|
| 01 | Transfer to new template and Nomenclature            | TG-PS-LT-710 (Rev 1.00)   | 1.00     | Richard Baldwin |
| 02 | Author change, typos corrected and web links updated | TG-NET-ENV-504 (Rev 1.00) | 1.01     | Richard Baldwin |

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|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

## Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

*<insert species record reference>*

*<insert date>*

### Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for *<insert details of works>* to be completed under *<insert licence details>*. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition *<insert No.>* of the above Licence states that a *<insert species>* Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect *<insert species>*. Therefore, no works which would *<insert licensed activity>* *<insert species>* shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- *<insert licence details>*, SNH
- Species Protection Plan (SPP): *<insert SPP No. and title>* Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

### Licensable Works

#### Introduction

*<Insert details>*

#### Baseline Description

*<Insert description, including photographs / location plan>*

|                |                                      |                      |                       |                   |
|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

Table 1: Summary of Data

| Reference | Easting | Northing | Date recorded | Description | Date works exclusion zone demarcated & distance |
|-----------|---------|----------|---------------|-------------|-------------------------------------------------|
|           |         |          |               |             |                                                 |

## Survey Summary

<Insert details>

## Description of the Proposed Licensable Works

<Insert details>

## Works Duration

<Insert details>

## Consideration of Alternatives

<Insert details>

## Impact Assessment

<Insert details>

|                |                                      |                      |                       |                   |
|----------------|--------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-504 | Red Squirrel Species Protection Plan |                      | Applies to            |                   |
|                |                                      |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal             | Issue Date: May 2018 | Review Date: May 2022 |                   |

## Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

### Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

*<insert details of methodology>*

### During works:

*<insert details of methodology>*

*<Insert Contractor's name>*

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of Contractor's Representative:..... Date .... / /

Print name in full: .....

# Bird Species Protection Plan



|                |                              |                      |                       |                   |
|----------------|------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-505 | Bird Species Protection Plan |                      | Applies to            |                   |
|                |                              |                      | Distribution          | Transmission<br>ü |
| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |                   |

|             | Name             | Title                         |
|-------------|------------------|-------------------------------|
| Author      | Francis Williams | Environmental Project Manager |
| Checked by  | Alistair Watson  | Environmental Advisor         |
| Approved by | Richard Baldwin  | Head of Environment           |

## Contents

|            |                                                                  |    |
|------------|------------------------------------------------------------------|----|
| 1          | Introduction.....                                                | 3  |
| 2          | References.....                                                  | 3  |
| 3          | Responsibilities.....                                            | 3  |
| 4          | Legislation .....                                                | 3  |
| 5          | Protection Plan.....                                             | 5  |
| 6          | Revision History.....                                            | 9  |
| Appendix A | Summary Guidance on Species Specific Disturbance Distances ..... | 10 |
| Appendix B | Protected Species Risk Assessment Template .....                 | 13 |

|                       |                                     |                             |                              |                   |
|-----------------------|-------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-505</b> | <b>Bird Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
|                       |                                     |                             | Distribution                 | Transmission<br>ü |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal     | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

## 1 Introduction

Construction works have the potential to negatively impact on breeding birds as a result of either direct destruction of nests or disturbance which may result in breeding failure. In addition, some particularly sensitive species are liable to disturbance outwith the breeding season.

This Species Protection Plan (SPP) outlines the procedures that must be followed where there is a potential for breeding birds to be affected. It explains the responsibilities of Scottish Hydro Electric Transmission (SHE Transmission) and its Contractors, the legislative protection for birds, and the measures required to minimise impacts on birds and thereby the risk of criminal offences being committed.

## 2 References

The documents detailed in Table 2.1 – Miscellaneous Documents below, should be used in conjunction with this document

**Table 2.1- Miscellaneous Documents**

| <b>Title</b>                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wildlife and Countryside Act 1981 (as amended)                                                                                                                                                                                                                                                          |
| The Nature Conservation (Scotland) Act 2004.                                                                                                                                                                                                                                                            |
| <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/birds-and-licensing">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/birds-and-licensing</a> |

## 3 Responsibilities

It is the Contractor's responsibility to comply with all the requirements of this plan and it is both the Contractor's and SHE Transmission's responsibility to monitor compliance with the plan.

## 4 Legislation

### All wild birds

All wild birds are protected by law under the Wildlife and Countryside Act (WCA) 1981 (as amended). Recent and significant changes have been made to the protection of wild birds in Scotland by The Nature Conservation (Scotland) Act 2004.

|                |                              |                      |                       |                   |
|----------------|------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-505 | Bird Species Protection Plan |                      | Applies to            |                   |
|                |                              |                      | Distribution          | Transmission<br>Ü |
| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |                   |

It is an offence to intentionally or recklessly<sup>1</sup>:

- kill or injure any wild bird;
- capture or keep [alive or dead] any wild bird;
- destroy or take the egg of any wild bird;
- sell or advertise for sale any wild bird or its eggs;
- destroy, damage, interfere with, take or obstruct the use of the nest of any wild bird while it is in use or being built.

### Schedule 1 birds

Additional protection is given to rare breeding birds listed under Schedule 1 of the WCA. It is an offence to intentionally or recklessly;

- Disturb any Schedule 1 species while they are nest building, or at a nest containing eggs or young;
- Disturb the dependent young of such birds.

Also with specific reference to capercaillie the Act makes it an offence to:

- Intentionally or recklessly disturb capercaillie at lekking sites.

### Schedule 1A and A1 birds

Further protection is given to birds listed on Schedule 1A and A1 of the Act, making it an offence **at any time of year** to:

- Harass a white-tailed eagle, golden eagle, hen harrier and red kite (1A); and
- Damage a nest of a white-tailed eagle or golden eagle (A1).

At present, it is not possible to obtain a derogation to disturb Schedule 1 breeding birds or destroy nests of any wild breeding birds for the purposes of development. However, the control of certain species is licensable in a restricted number of circumstances such as for reasons of public health and safety. A licensing system is also in place for surveying protected species if a disturbance offence is possible.

Further advice is available on the Scottish National Heritage (SNH) website:  
<https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/birds-and-licensing>.

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<sup>1</sup> Reckless acts would include disregard of mitigation aimed at protecting birds, resulting in killing, injury, and/or disturbance of birds or their nests.

|                |                              |                      |                       |                   |
|----------------|------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-505 | Bird Species Protection Plan |                      | Applies to            |                   |
|                |                              |                      | Distribution          | Transmission<br>ü |
| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |                   |

## 5 Protection Plan

In advance of construction at any location where breeding birds may be present, it is **essential** that this plan is followed.

### 5.1 Pre-construction/dismantling surveys and data collation

1. Pre-construction / dismantling surveys for breeding birds will be completed a maximum of 12 months prior to start of any works in a particular area, and at an appropriate time of year, to ensure availability of up-to-date information to inform any mitigation measures required.
2. Surveys will be carried out by suitably experienced ecologists / ornithologists using methods agreed with SNH under Survey Licences where required.
3. Pre-construction / dismantling surveys will:
  - include up to 1000 m either side of Limits of Deviation (LOD's) / boundaries for substation construction areas and access tracks; and
  - be undertaken in accordance with SNH's Guidance on Assessing the Impact of Overhead Power Line Proposals on Birds for overhead lines.
4. Relevant local recorders/field workers, e.g. raptor workers, will be contacted at the pre-construction phase for recent records of sensitive species that might be affected.

### 5.2 Review of works and impact assessment

1. The Ecological Clerk of Works (ECoW) will review whether construction activities are likely to affect breeding birds and, if so, what mitigation options are available. A hierarchical approach to mitigation will be applied to any occupied bird habitat that may be affected under the Project works, as detailed in the "General mitigation" section below. Priority will be given to assessing and mitigating impacts to species listed on Schedule 1.
2. Construction teams will be advised of existing / new constraints together with mitigation options by the ECoW.
3. Project Geo-databases and / or relevant site documentation, e.g. Environmental Management Plans (EMP's), will be updated with new and amended information as it is produced, with changes communicated to appropriate staff as required.

### 5.3 General Mitigation

1. This SPP is designed to provide the Contractor and Ecological Clerk of Works (ECoW) with an approved methodology for protecting breeding birds.

| TG-NET-ENV-505 | Bird Species Protection Plan |                      | Applies to            |                   |
|----------------|------------------------------|----------------------|-----------------------|-------------------|
|                |                              |                      | Distribution          | Transmission<br>Ü |
| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |                   |

2. The ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to breeding birds is delivered.
3. A hierarchical approach to mitigation of Programme / Avoid / Risk Assess will be applied to any birds that may be affected under the Project works.
  - Where practicable, works will be programmed outwith breeding season see <https://www.nature.scot/bird-breeding-season-dates-scotland> for information on breeding seasons for areas likely to contain numerous breeding sites (e.g. forestry areas).
  - For key specially protected or sensitive species, appropriate protection zones (see table in Appendix A) will be established upon confirmation of nest building / breeding taking place. Protection zones will also be set out by a suitably qualified ECoW for all breeding birds and those species whose roost sites are also protected i.e. red kite and hen harrier. No works will be carried out within these zones whilst birds are:
    1. building or using their nest,
    2. still dependent on the nest site, or
    3. present at roost sites. The ECoW will advise when it is safe for works to be carried out.
  - During the breeding season (or whilst birds are roosting at other times of year) where programme critical works must be carried out within the protection zones, the ECoW will carry out a Protected Species Risk Assessment (Appendix B) to assess whether disturbance can be avoided during the works. Considerations will include the species involved, local topography, natural screening, type of works and existing levels of human activity, e.g. farming, forestry and habitation.
4. The protection zone may then be reduced if it can be demonstrated, and agreed by a Specialist Adviser and / or SNH as required, that works will not cause disturbance.
5. Monitoring will be undertaken by the ECoW or Specialist Adviser, where appropriate, to ensure no disturbance is caused.
6. An emergency procedure will be implemented by site workers if breeding birds are encountered. All work within 50 m (non-scheduled species) or the relevant maximum protection distance for species listed in Appendix A will immediately cease, and the ECoW will inspect the site and define any mitigation in line with this SPP.
7. In exceptional cases, standard mitigation measures (as outlined above) may be insufficient. In such scenarios, mitigation will be determined on a case- specific basis. No construction works would be undertaken within the protection zone until mitigation has been agreed (in consultation with SNH if required).

## 5.4 Specific Mitigation

### 1. Dissuasion Techniques

Dissuasion techniques may be used to make areas less attractive to nesting birds or birds returning back to a previous nesting location (dissuasion will not be carried out where there is potential to harass Schedule 1A

| TG-NET-ENV-505 | Bird Species Protection Plan |                      | Applies to            |                   |
|----------------|------------------------------|----------------------|-----------------------|-------------------|
|                |                              |                      | Distribution          | Transmission<br>Ü |
| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |                   |

species, or interfere with / damage a Schedule A1 nest). Dissuasion may include felling of trees / clearance of scrub prior to the breeding season commencing or placement of bird scarers / frightening devices.

Should any bird nesting attempts be found within the footprint of construction, an appropriate protection zone will be marked around the nest. A suitably qualified ecologist will then ensure that works do not affect any nest, bird, eggs or young at this location, through micro-siting or re-programming of works as per the general mitigation outlined in this SPP.

### Habitat management

- Scrub clearance / felling / strimming may be used to discourage birds nesting prior to the start of the breeding season in suitable areas. This method has a dual purpose in also in dissuading reptiles / small mammals. For strimming a sward is cut to a height of 2-5cm depending upon vegetation type and ground conditions and this can be achieved by hand trimmers or mechanical means depending upon the ground conditions. The advantage of this method is that the vegetation can be cleared in advance of the works and in slow growing areas, i.e. heath, there is a potential for the site to remain free of constraints for a longer period of time. The ECoW will advise on the potential for other ground nesting species to occupy these areas; in such instances, scaring may be appropriate in conjunction with the management of sward height.
- Clearance of habitat will be undertaken outwith the breeding season; scarers will be placed no later than 10 days before construction commences. Weekly walkover checks by a suitably licenced and experienced ecologist shall then be undertaken to ensure that the mitigation measures are being effective.

### Active dissuasion / disturbance

- At sites where there will be a high level of human activity, noise and possible vibration from construction activities this should dissuade some nesting activities; and
- Areas identified to be at risk of nesting birds will be identified and disturbance levels at these locations will be increased. Sites will be visited regularly to dissuade birds from nesting (this may include tower climbing on overhead line projects).
- Several types of bird scarer/ frightening device can be used, and are detailed below. The use of each should be determined by the ECoW.
- Hawkeyes are probably the most effective of the bird scarers that have been used on the previous projects. A small number of these have been effective in deterring birds from nesting within construction areas. These will be deployed prior to the start of the breeding season and moved around the compound to stop the birds becoming accustomed to them.
- Ticker tape can be used in more sheltered areas and can work well however they can be difficult to attach to poles/canes and work best on fencing such as that for the compounds.
- Scarecrows can be constructed using old PPE and are a cheap way to supplement the Hawkeyes.

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|-----------------------|-------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-505</b> | <b>Bird Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
|                       |                                     |                             | Distribution                 | Transmission<br>ü |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal     | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

- g) Once deployed, scarers will be kept on site for a period sufficient to minimize the risk of birds settling on site during the works.
- h) As construction commences, suitable nesting sites within the construction footprint will normally be reduced. The frequency of ongoing checks will then be decided by the ECoW on a site by site basis.

## 2. Removing Disused Bird Nests

The objective of this mitigation is to provide specific guidelines for the protection of birds and their nesting places before and during construction works, but also to facilitate the removal of old or disused nests where required for construction or maintenance works, such as:

- a) in substations where birds have nested on equipment causing a fire risk;
- b) in order to allow dismantling of redundant towers; or
- c) where the presence of a nest interferes with construction, maintenance or upgrading of overhead transmission lines.

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|-----------------------|-------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-505</b> | <b>Bird Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
|                       |                                     |                             | Distribution                 | Transmission<br>ü |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal     | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

### Not specially protected birds

- It is an offence to remove any birds nest while it is being built or in use and it is an offence to take, destroy or possess the egg of a wild bird.
- If a bird nest is to be removed, then it must be shown to be disused.
- Before a nest of any species is removed, where there is any doubt as to whether the nest is in use or not, it will be monitored by the ECoW over a period of a week. Direct observations of nests will be made on the 1st, 3rd and 5th days as well as monitoring from suitable vantage points and where necessary with camera traps. The nest will be removed only when there is clear evidence that the nest is disused and no eggs are present.
- Should eggs be found, the nest will not be moved until a licence has been obtained from SNH for the taking of the eggs.

### Schedule 1 species

- For white-tailed eagle and golden eagle (Schedule A1) it is an offence to remove or damage a nest at any time, regardless of whether it is currently in use.
- The disused nests of any other Schedule 1 or Schedule A1 species needing to be removed will be subject to an assessment and agreed with SNH. The assessment will detail the needs case for removal, bird species involved, monitoring, information about the nest and clarification of whether it is in habitual use, habitat and any further nests within the area associated with that bird. Nest monitoring will be undertaken by a suitably licensed and experienced ecologist and / or Specialist Adviser.

## 6 Revision History

| No | Overview of Amendment and Text affected   | Previous Document         | Revision | Authorisation   |
|----|-------------------------------------------|---------------------------|----------|-----------------|
| 01 | Transfer to new template and Nomenclature | TG-PS-LT-718 (Rev 1.00)   | 1.00     | Richard Baldwin |
| 02 | Weblinks updated                          | TG-NET-ENV-505 (Rev 1.00) | 1.01     | Richard Baldwin |

|                |                              |                      |                       |              |
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| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |              |

## Appendix A Summary Guidance on Species Specific Disturbance Distances

Note: the protection zone distances given here are indicative - specific distances will vary depending on individual sites and will require expert advice informed by information provided in Ruddock & Whitfield (2007).

Table 2

| Species              | Min-Max Protection Zone (m) (3,10,14) | Indicative Protection Zone dates | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|---------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Black grouse         | 300 - 500                             | March – May (2)                  | Males lek mainly around dawn and dusk and therefore the presence of a lek would not necessarily represent a constraint. In terms of disturbance, avoid the two hours after sunrise and two hours before sunset.                                                                                                                                                                                                                                                         |
| Barn owl             | 50 - 100                              | Mid Feb - June (1) (see notes)   | The period of mid Feb-June has been given to emphasise the fact that Barn Owls can begin nesting earlier than many other species and if eggs were laid in mid to late March the young would have left the nest by the end of June. Where barn owls are nesting in sites with a relatively high current level of human disturbance it may be possible to reduce the offset distance further.                                                                             |
| Black-throated diver | 500 - 750                             | April – Sept (see notes) (1)     | This nesting season is slightly longer than that given in Currie and Elliott (1997) and includes the pre-egg-laying period when the birds arrive at the breeding lochs in April. Note that adults often remain at the lochs until September (some young may not fledge until September) and can arrive in March (2,4).                                                                                                                                                  |
| Capercaillie         | 500 – 750                             | March - August (1)               | Capercaillie lekking takes place sporadically from January onwards increasing into late winter and peaking in spring. Males lek mainly around dawn and dusk and therefore the presence of a lek would not necessarily represent a constraint. In terms of disturbance, between the times of two hours after sunrise and two hours before sunset are best avoided.<br>Eggs are laid usually from mid-April to early May and young fledge by mid-June to late July (1,4). |
| Crested tit          | 50 - 100                              | April - mid July (3)             | The nesting period for this species is variable, being affected by factors such as spring temperatures, altitude and incidence of second broods (although these are rare in Scotland). The period given allows for this variability but generally chicks will have fledged by early June (1, 2, 4, 6).                                                                                                                                                                  |
| Common crossbill     | 100 - 150                             | Feb - May (3)                    | It should be noted that this represents a typical peak nesting period but that the species can effectively nest all year round depending on the abundance of cone crops.                                                                                                                                                                                                                                                                                                |
| Scottish crossbill   | 100 - 150                             | Feb - May (1), (3)               | The breeding season can occasionally be later than this with eggs recorded into June which could mean young not leaving the nest until early August, assuming a late June laying date and an incubation and fledging period of 13 days and 21 days respectively (1). Typically, however young would have fledged before the end of June (1 & 4).                                                                                                                        |
| Golden Eagle         | 750 - 1000                            | All year round                   | Golden eagles are present in their breeding territories all year round. Nest building takes place from autumn to late winter with mating occurring between January and April (mainly March). For non-breeding roosts the buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid disturbance.                                                                                                                |
| Goldeneye            | 100 - 300                             | April - July (2)                 | The young of goldeneye leave the nest soon after hatching (in May) and are taken to the water by the female. They can often be taken a considerable distance from the nest site to the rearing area by the female (1, 2, 4).                                                                                                                                                                                                                                            |

|                |                              |                      |                       |                   |
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| Species       | Min-Max Protection Zone (m) (3,10,14) | Indicative Protection Zone dates     | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|---------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Goshawk       | 300 - 500                             | April-July (1), (3) (see notes)      | This does not include the pre-egg-laying period with birds occupying their territories from March. Most young fledge in July and are independent at about 70 days (approximately one month after fledging) (1, 4).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Greenshank    | 300 - 400                             | April-July                           | Eggs are laid from late April to late May with the average around mid-May in Scotland. Incubation period is around 24 days and chicks fledge at between 25 and 31 days old (7).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Golden Plover | 200 - 400                             | April - July (1)                     | In Northern Scotland, the first eggs are laid from mid-April but up to 2-3 weeks later. .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Hen Harrier   | 500 - 750                             | All year round (1), (8) (see notes)  | The species is not fully migratory in Scotland and birds can be seen on breeding grounds in almost any month, although generally the return is in March. The first egg is usually laid between late April and mid-May but sometimes earlier. Early failures can see the replacement clutch not complete until mid-June. Non-breeding roosts are important in pair formation and the 750 m buffer should be maintained as a minimum 1 hour before and 1 hour after sunset and sunrise respectively to avoid disturbance. Sudden noisy works should also be avoided at these times.                                                                                                                                 |
| Honey Buzzard | 500 - 600                             | Mid May-Sept (1), (4)                | Birds usually arrive on breeding grounds in mid- to late-May. Eggs are laid in June to July with incubation lasting up to 37 days and the fledging period 40-44 days, meaning young usually fledge in September. Young return to the nest for food until they are about 55 days old and become independent from 75-100 days (1, 4).                                                                                                                                                                                                                                                                                                                                                                               |
| Kingfisher    | 50 - 100                              | April - July (1) (see notes)         | The breeding season of kingfisher is prolonged by multiple broods (normally 1-2 in Britain). Incubation is 19-21 days and the fledging period 23-27 days with young independent within a few days (1).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Merlin        | 300 - 500                             | April - July (1)                     | Adults return to breeding sites in April (but sometimes earlier) with peak egg laying late May to early June in Scotland. Incubation is 28-32 days and fledging period 25-27 days, becoming independent two to four weeks later. This means young birds will often still be dependent on their parents for food in August (1, 10).                                                                                                                                                                                                                                                                                                                                                                                |
| Osprey        | 500 - 750                             | March - August (2)                   | Birds arrive at the nest site in late March/early April with eggs typically laid from mid-April to mid-May, although they can be laid in early April. Incubation takes five to six weeks (35-43 days) and fledging 50-55 days, young being dependent for a further 10-20 days at least. Early nesters would therefore fledge in July with later birds fledging in August with young possibly still being dependent in early September (1,11,12).                                                                                                                                                                                                                                                                  |
| Peregrine     | 500 - 750                             | March - June (1) (2)                 | Return to breeding areas in March to early May. Eggs are laid from mid-March to May. Incubation is 29-32 days per egg (clutch size 3-4 with an interval of 2-3 days between laying but hatching nearly synchronous) and fledging period is 35-42 days with young being dependent for at least two months. Late nesters could therefore fledge in July and still be dependent on their parents for food into September whereas early nesters could have fledged young in May (1,10).                                                                                                                                                                                                                               |
| Red Kite      | 150 - 300                             | March - August (1) (2) (9) See notes | Most British birds return to their breeding sites in March and lay during the first three weeks of April (Scottish birds on average towards the end of this period) but there is considerable variation with laying possible between late March and early May. Incubation is 31-32 days and fledging period is around eight weeks. Newly fledged young are dependent on their parents for several weeks and remain close to the nest. Late attempts could see young fledged in early August and not become dependent until early September (9). For non-breeding roosts the 300 m buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid disturbance. |

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|----------------|------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-505 | Bird Species Protection Plan |                      | Applies to            |                   |
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| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |                   |

| Species            | Min-Max Protection Zone (m) (3,10,14) | Indicative Protection Zone dates | Notes                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------|---------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Red-backed Shrike  | 150                                   | May - mid July (1)               | Post fledging dependence is long in this species with young being dependent on parents for about 40 days (1).                                                                                                                                                                                                                                                                                                    |
| Red-throated Diver | 500 - 750                             | Apr - Aug (1) (2)                | Birds usually return to their breeding lochs in April with peak egg laying from late May to early June (occasionally later). Incubation lasts around 27 days and fledging occurs after 34-48 days meaning most young fledge in August but occasionally into September. Pre-fledging movement of chicks to other nearby lochs occasionally occurs (1,2,4).                                                        |
| Redwing            | 50 - 100                              | Late April - August (1) (2) (4)  | This species has a long nesting season due to the fact that it commonly has two broods in a year. Eggs are laid from early May to mid-July (occasionally earlier). Incubation is for 12-13 days and fledging takes around ten days with young dependent for a further two weeks. Young are usually fledged by early August (1, 4).                                                                               |
| Short-eared owl    | 300 - 500                             | March - July (1) (2)             | Eggs are laid from mid- to late-March to July with incubation taking 24-29 days and fledging 24-27 days with a period of post fledging dependence lasting several weeks. Late broods would therefore not fledge until August and early nesters could have chicks in the nest by mid-April (1,2).                                                                                                                 |
| White-tailed Eagle | 500 - 750                             | All year round (14)<br>See notes | The Ruddock & Whitfield report indicates 500-750 m buffer for the breeding season. Draft forestry guidance advocates 250 m for most activities near roosts outwith the breeding season, it should be noted that roosts of immatures can be all year. For non-breeding roosts the buffer should be maintained as a minimum 2 hours before and 2 hours after sunset and sunrise respectively to avoid disturbance. |

References:

- (1) Birds of the Western Palearctic Vols I-V, VII, VIII (1977-1994)
- (2) Gilbert et al. (1998)
- (3) Currie & Elliott (1997)
- (4) Batten et al. (1990)
- (5) Shawyer (1998)
- (6) Perrins (1979)
- (7) Nethersole-Thompson & Nethersole-Thompson (1979)
- (8) Watson (1977)
- (9) Carter (2001)
- (10) Petty (1998)
- (11) Dennis et al. (2004)
- (12) Poole (1989)
- (13) Watson (1997)
- (14) Ruddock & Whitfield (2007)

|                |                              |                      |                       |                   |
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| Revision: 1.01 | Classification: Internal     | Issue Date: May 2018 | Review Date: May 2022 |                   |

## Appendix B Protected Species Risk Assessment Template

<Project name>: Protected Species Risk Assessment

<Title including record ID and location>

### Scope of Work

This method statement is applicable for <insert details of works to be undertaken>. The work comprises of:

### Location and Access/Egress

<Insert details including map / plan>

### Description of species, distance from planned works and ground conditions

| Reference Number | BNGR letters | OS Grid reference | Place | Description | Distance from project works | Predicted project impact |
|------------------|--------------|-------------------|-------|-------------|-----------------------------|--------------------------|
|                  |              |                   |       |             |                             |                          |

<Insert details>

### Programme of Works

The following works are planned within the buffer distance:

<Insert details including timing and duration>

### Planned Equipment and Manpower

The operation will be carried out by the following personnel and using the following equipment:

<Insert details>

### Risk Assessment/ Supervision of Work

<Insert details of baseline conditions including topography, proximity to works, existing disturbance levels, mitigation measures and operational controls, likely levels of disturbance from works and summary of risk rating (Low / Medium / High)>

# Water Vole Species Protection Plan



|                |                                    |                      |                       |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-506 | Water Vole Species Protection Plan |                      | Applies to            |                   |
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| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

|             | Name             | Title                         |
|-------------|------------------|-------------------------------|
| Author      | Francis Williams | Environmental Project Manager |
| Checked by  | Alistair Watson  | Environmental Advisor         |
| Approved by | Richard Baldwin  | Head of Environment           |

## Contents

|   |                                                           |    |
|---|-----------------------------------------------------------|----|
| 1 | Introduction.....                                         | 3  |
| 2 | References.....                                           | 3  |
| 3 | Part 1: General Protection Plan.....                      | 3  |
| 4 | Part 2: Project Licence Protection Plan .....             | 10 |
| 5 | Revision History.....                                     | 11 |
|   | Appendix A Project Licence Method Statement Template..... | 12 |

|                |                                    |                      |                       |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
| TG-NET-ENV-506 | Water Vole Species Protection Plan |                      | Applies to            |                   |
|                |                                    |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

## 1 Introduction

This Protection Plan provides guidance and agreed procedures for the protection of water voles and their shelters during construction works on Scottish Hydro Electric Transmission (SHE Transmission) projects. The Plan contains two parts and details the procedures that must be followed where there is potential for water vole to be present (Part 1), and where a Project Licence for water vole has been issued by Scottish Natural Heritage to cover the project (Part 2):

### 1.1 Part 1: General Protection Plan

This Part applies to all projects where water vole may be present. Part 1 outlines the responsibilities of SHE Transmission and the *Contractor* regarding protection of water vole. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

### 1.2 Part 2: Project Licence Protection Plan

This is provided to *Contractors* in addition to Part 1 for large projects where a Project Licence has been issued by Scottish Natural Heritage (SNH) to cover the work and identifies those activities and mitigation measures which are permitted under the Project Licence and those activities which require a Method Statement to be submitted to SNH for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence to provide approved guidance and the relevant Project Licence to provide approved guidance and methodologies for carrying out work.

## 2 References

The documents detailed in Table 2.1 – Miscellaneous Documents below, should be used in conjunction with this document.

Table 2.1- Miscellaneous Documents

| Title                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wildlife and Natural Environment (WANE) [Scotland] Act 2011                                                                                                                                                                                            |
| Wildlife and Countryside Act 1981 (as amended)                                                                                                                                                                                                         |
| <a href="http://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide">www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide</a> |

## 3 Part 1: General Protection Plan

### 3.1 Background

Water voles (*Arvicola amphibius*) are rat sized members of the rodent family which are found in habitats closely associated with waterways such as rivers and canals as well as upland areas of bog. In Scotland, they

| TG-NET-ENV-506 | Water Vole Species Protection Plan |                      | Applies to            |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
|                |                                    |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

are absent from the most of the islands and are under serious predation pressure from American mink (*Neovison vison*), which together with habitat loss have resulted in massive losses. They usually have black fur in Scotland as opposed to the brown form found in England and Wales and have a short hairy tail, small eyes, a stout body with a chubby face. As suggested by the name they swim frequently and are often first noticed as they noisily ‘plop’ into water. Water voles predominately eat sedges and rushes although they have been known to predate on fish and invertebrates. Tormentil (*Potentilla erecta*) is a favoured plant in upland areas.

Water voles do not hibernate, but are less active during the period October to Mid-March. Females actively defend exclusive territories particularly during the May – August breeding season, during which they have up to 5 litters. Males have not been shown to defend territories and have larger home ranges. In upland areas colonies are small and discrete with high levels of colony extinction and colonisation within a widely dispersed metapopulation.

Water vole colonies are generally found in habitats with the following characteristics:

- Watercourses with banks covered in tall grass or sedge vegetation and scrub tends to be avoided.
- Wet areas in uplands (up to 1000 m asl) often some distance away from ‘typical’ riparian habitats.

Signs of Water Vole:

1. Latrines – home ranges are marked by latrines near nests, burrows and where they enter or leave water. Faeces are characteristically ‘tic-tac’ shaped about 12mm long and 4mm wide.
1. Prints and tracks – water vole footprints are star shaped with four toes on the forefeet and five on the hindfeet. 4 – 9 cm broad paths through vegetation near water can also be an indication of water vole activity.
2. Feeding remains / feeding stations – although these can be confused with other species, neat piles of grasses, sedges or reeds about 10 cm long cut cleanly at a 45 angle can be evidence of water voles.
3. Water vole burrows – normally entrances have a diameter of between 4 and 8 cm and can be either above or below the water level along banks of watercourses. They are generally found within 2 – 5 m of the waters edge. but may be in places relatively far away from running water particularly in upland areas.

## 3.2 Responsibilities

It is the *Contractor’s* responsibility to comply with all the requirements of this Protection Plan where water vole may be present, and it is both the *Contractor’s* and SHE Transmission’s responsibility to monitor compliance with the Protection Plan. The responsibility for applying for any Licence, including a Project Licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

| TG-NET-ENV-506 | Water Vole Species Protection Plan |                      | Applies to            |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
|                |                                    |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

### 3.3 Legislation

Water vole is listed in Schedule 5 of the Wildlife and Countryside Act 1981, as amended, mostly recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011. This legislation makes it an offence to recklessly<sup>1</sup>:

- Damage or destroy or obstruct access to, any structure or place which any water vole uses for shelter or protection.
- Disturb a water vole while it is occupying a structure or place which it uses for shelter or protection.

This legislation means that water vole habitat is fully protected in Scotland. The WANE Act permits derogation of disturbance and/or destruction of water vole places of shelter by SNH for development purposes. SNH can grant licences to enable certain activities that would otherwise be an offence, to be carried out in relation to water voles and their burrows, subject to the following:

- a) that undertaking the conduct authorised by the Licence will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit; and
- b) that there is no other satisfactory solution.

In granting a licence SNH has to take into account the consequences for water vole at a local population level, to assist this assessment SNH will need to see maps of the area of operations and also surrounding areas of suitable water vole habitat.

### 3.4 Surveying for Water Vole

1. Initial survey for water vole must be undertaken in all works areas containing suitable water vole habitat, a maximum of 12 months<sup>2</sup> prior to the works commencing (this includes site investigations) to allow for pre-planning. In areas where water vole are identified, additional pre-works survey must be carried out a maximum of 2 months prior to works commencing to ensure the availability of up-to-date information.  
Survey must be carried out during the active season - between 1 April and 31 October (lowlands) and 1 May and 30 September (uplands) and ideally during the months of June, July or August.
2. Surveys must extend for a minimum of 10 m beyond working areas, including access tracks.
3. Surveys must be carried out by suitably qualified and experienced ecologists and will identify whether any water voles or places of shelter are likely to be affected by the works.

<sup>1</sup> Reckless acts would include not having or disregarding a mitigation plan aimed at protecting water vole resulting in damage, destruction or disturbance of any water vole place of shelter, or carrying out an activity which would result in an offence where the presence of water vole was foreknown.

<sup>2</sup> Note: Information from any previous surveys (e.g. surveys carried out to provide data for EIA or other Assessments) can be a useful guide to water vole activity in an area, particularly if burrows were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing.

| TG-NET-ENV-506 | Water Vole Species Protection Plan |                      | Applies to            |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
|                |                                    |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

4. Appropriate monitoring (e.g. the use of suitable camera traps) should be undertaken where required to determine if any place of shelter is being occupied.

### 3.5 Review of Water Vole Survey

Once a water vole survey has been carried out, the ecologist / ECoW should review the survey results, apply the mitigation hierarchy outlined below and decide if a Licence is required (either Individual or Project) for the works.

Construction teams should be advised of existing / new constraints, together with mitigation and licensing requirements by the ecologist / Ecological Clerk of Works (ECoW).

Relevant site documentation and project information sources should be updated with new and amended information on water vole constraints as it is produced, with changes communicated to appropriate staff immediately.

### 3.6 Mitigation Hierarchy

There is a general presumption against works being carried out which could disturb water voles in their burrows or to destroy an occupied burrow. A hierarchical approach to mitigation of Avoidance - Disturbance - Destruction will be applied to any burrow that may be affected by works (See Figure 1):

#### Avoidance

This is the preferred option for occupied burrows identified within 10 metres of works. A protection zone of 10metres should be marked and signed on the ground around each burrow or group of burrows with appropriate material to restrict work access.

All works personnel, machinery, vehicles and storage of materials must be restricted from entering protection zones. Protection zones must be maintained until works are completed. Site staff should be briefed of their purpose through a Toolbox Talk and works micro-sited outwith the protection zone. If water vole disturbance can be avoided in this way, there is no need to obtain a Licence from SNH for the works.

#### Disturbance

For works within 10 metres of occupied burrows which cannot be avoided, a Licence for disturbance from SNH will be required (either Individual or Project).

Individual Licence applications to SNH should be accompanied by a Species Protection Plan which outlines how disturbance will be minimised and burrows protected, for example through screening of works and modifying protection zones.

If a Project Licence is in place, the methodology detailed in Part 2 of this document must be followed.

#### Displacement of water vole and destruction of burrows

In some instances, displacement of water vole for example by close strimming around burrows, followed by destruction of burrows may be necessary to allow works to go ahead. This work will always require a licence for disturbance and burrow destruction from SNH (either individual or project). These actions must only be undertaken as a last resort and when there is no alternative. This methodology is only likely to be effective if

|                       |                                           |                             |                              |                   |
|-----------------------|-------------------------------------------|-----------------------------|------------------------------|-------------------|
| <b>TG-NET-ENV-506</b> | <b>Water Vole Species Protection Plan</b> |                             | <b>Applies to</b>            |                   |
|                       |                                           |                             | Distribution                 | Transmission<br>✓ |
| <b>Revision:</b> 1.01 | <b>Classification:</b> Internal           | <b>Issue Date:</b> May 2018 | <b>Review Date:</b> May 2022 |                   |

proposed displacement distances are less than 50 metres, and only acceptable where an experienced ecologist has confirmed that there is suitable alternative habitat for water vole burrows within 50 meters of the original burrow location. Displacement work and destruction of burrows will not be licensed during the inactive or breeding periods. Suitable times for displacement work to be carried out is as follows: late February to early April (lowlands) and late March and April (uplands). Individual Licence applications to SNH must be accompanied by a Species Protection Plan which outlines timings of works, how impacts to watervole will be minimised, individuals protected, and loss of burrows compensated for.

If a Project Licence is in place, a Method Statement must be submitted to SNH in accordance with Part 2 of this document for written approval prior to any works commencing.

Any water vole place of shelter subject to works under a Licence must be monitored during and after those works.

### **Live trapping and translocation of water vole, and destruction of burrows.**

This is a last resort action and a justification will be required as to why there is no alternative to translocation. This work will need significant pre-planning, and the identification of a receptor site for displaced animals. If this situation is likely to arise SNH licensing team should be contacted at the earliest opportunity to discuss timings, methodologies and licensing. This work will require an individual licence from SNH.

## **3.7 Mitigation Measures**

### **3.7.1 General Mitigation**

1. The ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to water vole is delivered.
2. All works in proximity to waterbodies / watercourses must follow measures outlined in the project environmental information and Contractors Environmental Management Plan (EMP) to ensure their protection against pollution, silting and erosion.
3. An emergency procedure will be implemented by site workers if signs of water vole (e.g. latrines or animals) are encountered. All work within 10 m will cease, and the ECoW will inspect the site and define mitigation (if required) in line with this SPP.
4. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. In such a scenario, works will be halted whilst mitigation is determined on a case specific basis under consultation with SNH

| TG-NET-ENV-506 | Water Vole Species Protection Plan |                      | Applies to            |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
|                |                                    |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

### 3.7.2 Monitoring and Reporting

1. The Environmental Representative will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to water vole is delivered.
2. Reports will be submitted to SNH as required by the relevant Licence.

## 3.8 Licensing Requirements

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 30 days) to ensure the licence is in place prior to any work commencing.

## 3.9 Project Licence

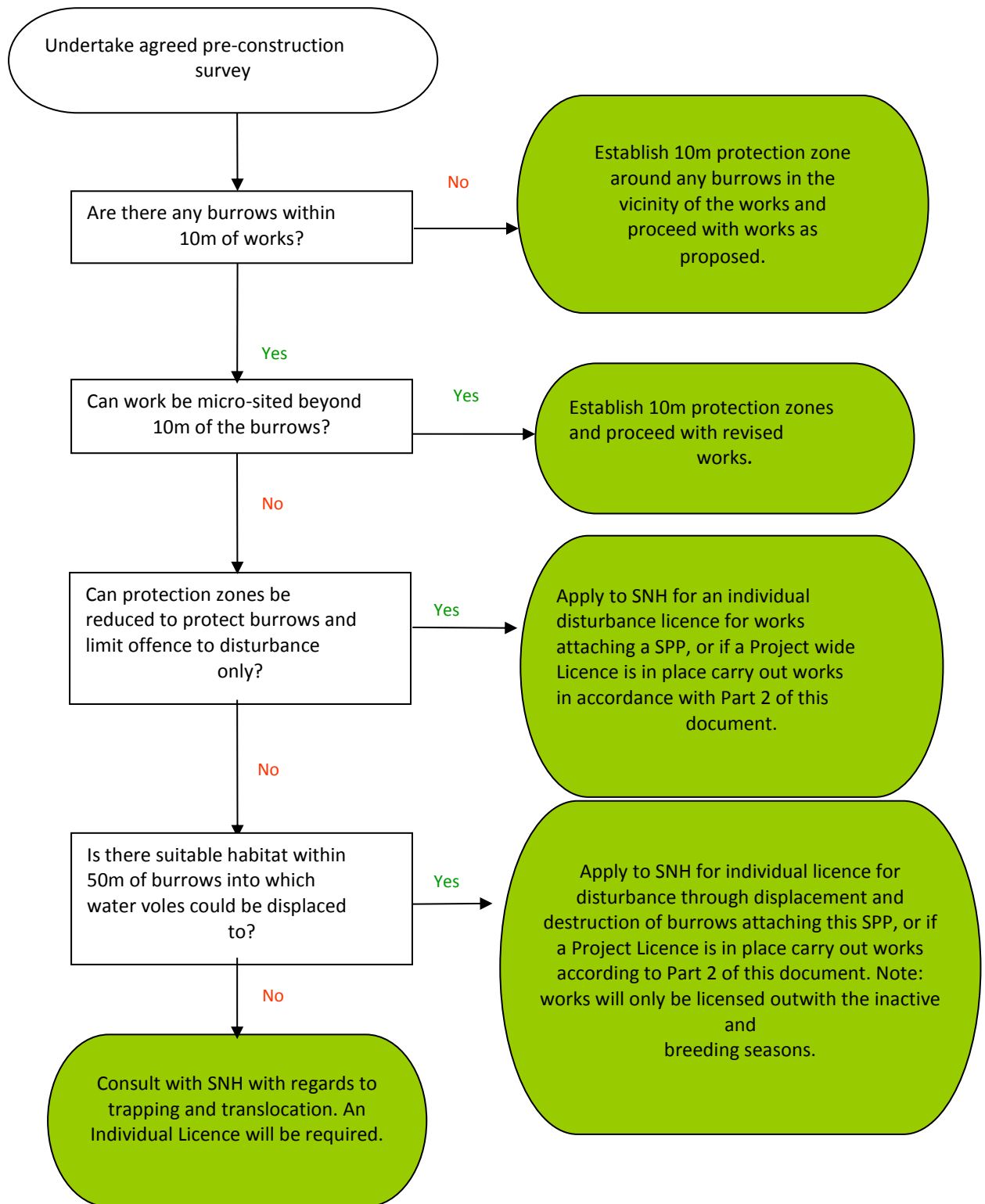
An SNH Project Licence is likely to be the most appropriate form of Licence for any large scale and / or long running Project, which may result in a large number of minor unavoidable water vole offences. For example, multiple instances of disturbance to a number of water vole shelters over several years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-construction survey within 12 months of the planned project start date, and additional pre-construction survey within 2 months of works commencing, in areas where water voles have been found to be present. Any Project Licence application will need to be accompanied by a Mitigation / Compensation Plan and procedures for water vole included in Parts 1 and 2 of this SPP.

## 3.10 Individual Licence

For small scale Projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable water vole offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Method Statement / Mitigation Plan and should be sent sufficiently in advance of the Project start date to ensure the licence is in place prior to work commencing. Further guidance and details of how to apply for a water vole licence can be found on the SNH website <https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/water-voles-and-licensing>.

|                |                                    |                      |                       |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
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|                |                                    |                      | Distribution          | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

### Watervole Decision Tree



|                |                                    |                      |                       |                   |
|----------------|------------------------------------|----------------------|-----------------------|-------------------|
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| Revision: 1.01 | Classification: Internal           | Issue Date: May 2018 | Review Date: May 2022 |                   |

## 4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with the Project Licence (**insert Licence number**) and its conditions.

As stated in the Project Licence, methodologies for certain mitigation activities permitted under the Licence are included in this Part of the SPP. More disruptive activities, listed in Section 1 below, will also require a specific Method Statement to be submitted to SNH licensing team for written approval (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

**Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.**

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

In advance of, and during construction at any location where there is the potential for a water vole to be present, it is **essential** that this plan is followed:

### 4.1 Works Allowed under the Project Licence

The following works may be carried out under this SPP without further approval from SNH, using the prescribed methodologies:

#### **Disturbance to water voles in their places of shelter**

a. In situations where it is not possible to maintain a 10 m protection zone around a water vole burrow / place of shelter to avoid disturbance (e.g. upgrade of an existing track or watercourse crossing; or construction of temporary track or watercourse crossing), but it is possible to establish a smaller protection zone (no less than 5m in radius) which will prevent damage or destruction of the burrows. The ECoW must mark out the reduced protection zone on the ground using appropriate marking materials and signage and ensure that it remains in place for the duration of the adjacent works.

b. The ECoW must undertake a Toolbox Talk with all contractors before the start of works to raise awareness of the presence of water vole, locations of, and restrictions posed by protection zones and any required mitigation.

c. During the construction works the ECoW must ensure that no plant and/or work personnel enter the protection zone.

d. All construction works within a 10 m radius of water vole places of shelter must usually be completed within 1 day. Working methods must be adopted to reduce any unnecessary disturbance including the following:

- No parking of any plant or other vehicles.

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- No site compounds or welfare facilities.
- No use of static plant and/or generators.
- Artificial lighting, if required, is to directed away from water vole habitat and riparian habitats in general.
- No potential activities that may result in pollution, *e.g.* re-fuelling, will be allowed within the protection zone. Silt control measures will be agreed prior to works with the ECoW to ensure no adverse impact on water vole habitat.

e. Use of any constructed tracks will not be subject to any subsequent restrictions on use.

## 4.2 Activities requiring an SNH Approved Method Statement

The following works require a Method Statement to be approved in writing by SNH licensing team before works can commence:

1. Displacement of water vole and destruction of burrows. Please note these activities will only be licensed to take place at the following times: late February to early April (lowlands) or late March and April (uplands) to avoid inactive and breeding periods.
2. Translocation, live trapping and destruction of burrows. Please note these activities will only be licensed to take place during March and April to avoid inactive and breeding periods.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the Contractor / Named Agent for all submissions.

Proposed mitigation works should be agreed with SNH.

## 5 Revision History

| No | Overview of Amendment and Text affected                       | Previous Document         | Revision | Authorisation   |
|----|---------------------------------------------------------------|---------------------------|----------|-----------------|
| 01 | Transfer to new template and Nomenclature                     | TG-PS-LT-719 (Rev 1.00)   | 1.00     | Richard Baldwin |
| 02 | Weblinks updated, typos corrected and decision tree corrected | TG-NET-ENV-506 (Rev 1.00) | 1.01     | Richard Baldwin |

|                |                                    |                      |                       |                   |
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## Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

*<insert species record reference>*

*<insert date>*

### Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for *<insert details of works>* to be completed under *<insert licence details>*. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition *<insert No.>* of the above Licence states that a *<insert species>* Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect *<insert species>*. Therefore, no works which would *<insert licensed activity>* *<insert species>* shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- *<insert licence details>*, SNH
- Species Protection Plan (SPP): *<insert SPP No. and title>* Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

### Licensable Works

### Introduction

*<Insert details>*

### Baseline Description

*<Insert description, including photographs / location plan>*

|                |                                    |                      |                       |                   |
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Table 1: Summary of Data

| Reference | Easting | Northing | Date recorded | Description | Date works exclusion zone demarcated & distance |
|-----------|---------|----------|---------------|-------------|-------------------------------------------------|
|           |         |          |               |             |                                                 |

## Survey Summary

<Insert details>

## Description of the Proposed Licensable Works

<Insert details>

## Works Duration

<Insert details>

## Consideration of Alternatives

<Insert details>

## Impact Assessment

<Insert details>

|                |                                    |                      |                       |                   |
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## Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

### Before works commence:

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

*<insert details of methodology>*

### During works:

*<insert details of methodology>*

*<Insert Contractor's name>*

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of Contractor's Representative:..... Date .... / /

Print name in full: .....

# Pine marten Species Protection Plan



|                |                                     |                        |                         |                   |
|----------------|-------------------------------------|------------------------|-------------------------|-------------------|
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|                |                                     |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal            | Issue Date: April 2017 | Review Date: April 2022 |                   |

|             | Name             | Title                         |
|-------------|------------------|-------------------------------|
| Author      | Francis Williams | Environmental Project Manager |
| Checked by  | Alistair Watson  | Environmental Advisor         |
| Approved by | Richard Baldwin  | Head of Environment           |

## Contents

|   |                                                            |    |
|---|------------------------------------------------------------|----|
| 1 | Introduction.....                                          | 3  |
| 2 | References.....                                            | 3  |
| 3 | Part 1: General Protection Plan.....                       | 4  |
| 4 | Part 2: Project Licence Protection Plan .....              | 10 |
|   | Appendix A Project Licence Method Statement Template ..... | 12 |

|                |                                     |                        |                         |                   |
|----------------|-------------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-508 | Pine marten Species Protection Plan |                        | Applies to              |                   |
|                |                                     |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal            | Issue Date: April 2017 | Review Date: April 2022 |                   |

## 1 Introduction

Pine marten (*Martes martes*) is listed in Schedule 5 of the Wildlife and Countryside Act 1981, as amended, most recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011 and is afforded a high level of protection in Scotland. This Species Protection Plan provides guidance and agreed procedures, for the protection of pine marten and their shelters, during construction works on Scottish Hydro Electric (SHE) Transmission projects. The Plan contains two parts and details the procedures that must be followed where there is potential for pine marten to be present (Part 1), and where a Project Licence for pine marten has been issued by Scottish Natural Heritage (SNH) Licensing Team to cover the project (Part 2).

### 1.1 Part 1: General Protection Plan

This Part applies to all projects where pine marten may be present. Part 1 outlines the responsibilities of SHE Transmission and the Contractor regarding protection of pinemarten. It also details relevant legislation, survey requirements, general mitigation measures and the requirement for licensing and mitigation.

### 1.2 Part 2: Project Licence Protection Plan

This Part is provided to *Contractors* in addition to Part 1, for large projects where a Project Licence has been issued by SNH to cover the work, and identifies those activities and protection / mitigation measures which are permitted under the Project Licence and those activities which require an additional Method Statement to be submitted to SNH Licensing Team for written approval before works can commence. This Part should be followed in conjunction with Part 1 and the relevant Project Licence, to provide approved guidance and methodologies for carrying out work.

## 2 References

The documents detailed in Table 2.1 below, should be used in conjunction with this document.

Table 2.1- Miscellaneous Documents

| Title                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wildlife and Countryside Act 1981                                                                                                                                                                                                                                                                                     |
| Wildlife and Natural Environment (WANE) [Scotland] Act 2011                                                                                                                                                                                                                                                           |
| <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/pine-martens-and-licensing">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/pine-martens-and-licensing</a> |

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## 3 Part 1: General Protection Plan

### 3.1 Background

Pine martens are a member of the mustelid family with a population distributed throughout northern Scotland extending down to the northern boundary of the central belt and including a number of the islands including Mull and Skye. There is also a population in Dumfries and Galloway. Following the dramatic reduction in numbers of pine martens in the 19th century they are currently undergoing resurgence due in part to the legal protection they are afforded under the Wildlife and Countryside Act 1981.

Pine martens are solitary territorial animals. Although the edges of territories may overlap slightly, separate individuals are rarely found in close proximity to each other. They generally inhabit woodland or scrubby areas as they require a large amount of cover, and spend much of their time in the canopy. Pine martens are omnivorous, consuming a diet consisting of a wide variety of animals (predominantly small mammals) as well as berries and nuts allowing them to be active all year round. Both male and female pine martens have large territories of up to 8 km<sup>2</sup> for females and 20 km<sup>2</sup> for males. Due to the size of their territories pine martens have a number of dens (resting places) throughout their territory. They also make breeding nests, which can either be within rocks, in hollowed out trees or in bird nests / squirrel dreys. Increasing pine martens use human habitation such as attics, sheds and other farm buildings for both places of shelter and breeding dens.

Pine marten have two stages to their breeding behaviour with mating taking place in July – August but with the implantation of the fertilised egg delayed until February - March. The young are then born 1 month later and remain with the mother for approximately 12 weeks. Pine martens are mainly active at night and dawn/dusk times, although can also be seen during the day.

Signs of Pine marten:

- Pine marten prints and tracks – five toed slightly cat like footprints only of significant use in areas with snow cover. Tracks on the edge of territories are often marked with scat which can vary considerably in size and shape depending on contents.
- Pine marten shelters or dens can be either on the ground in rocky crevices or in elevated tree cavities, abandoned bird nests or owl boxes.
- Pine marten scat – is 4 – 12 cm long and 0.8 – 1.8 cm in diameter with often a narrow and twisted appearance. The scats may have a musky smell likened to Parma Violets, although this can vary and DNA analysis can be required to confirm identification.

Due to their nocturnal activity it can be difficult to confirm the presence of pine martens at suspected dens, therefore camera traps may be required to positively identify a pine marten and confirm its presence in the area.

### 3.2 Responsibilities

It is the *Contractor's* responsibility to comply with all the requirements of this Species Protection Plan where Pine marten may be present, and it is both the *Contractor's* and SHE Transmission's responsibility to monitor

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compliance with this Species Protection Plan. The responsibility for applying for any licence, may vary from project to project, but all applications and mitigation works will adhere to this plan.

### 3.3 Legislation

Pine marten is afforded full protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), most recently by the Wildlife and Natural Environment (WANE) [Scotland] Act 2011. This makes it an offence to kill, injure or take a pine marten or to intentionally or recklessly<sup>1</sup> damage, destroy or obstruct access to any place used for shelter or for breeding. Disturbance to this species in any place used for shelter or breeding also constitutes an offence.

SNH can grant licences to enable certain activities that would otherwise be an offence, to be carried out in relation to pine martens and their places of shelter, subject to the following:

- a) That undertaking the conduct authorised by the licence will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit; and
- b) That there is no other satisfactory solution.

In granting a licence SNH has to take into account the consequences for pine martens at a local population level, to assist this assessment SNH will need to see maps of the area of operations and also surrounding areas of suitable pine marten habitat.

### 3.4 Surveying for pine marten

1. Surveys for pine marten must be undertaken in all works areas containing suitable pine marten habitat, a maximum of 12 months<sup>2</sup> prior to works commencing, (this includes site investigations), to ensure availability of up to date information on place of shelter locations.
2. Surveys must extend for a minimum of 100 m beyond working areas, including access tracks.
3. All dens must be marked to permit easy identification.
4. Surveys must be carried out by suitably qualified and experienced ecologists and must identify whether any pine martens and/or their places of shelter are likely to be affected by the works.

---

<sup>1</sup> Reckless acts would include disregard of mitigation aimed at protecting pine martens, resulting in killing, injuring and/or disturbance of any pine marten or pine marten resting place.

<sup>2</sup> Note: Information from any previous surveys (e.g. surveys carried out to provide data for Environmental Impact Assessment (EIA or other Assessments) can be a useful guide to pine marten activity in an area, particularly if dens were recorded. However, surveys will always require to be updated if carried out more than 12 months prior to works commencing. Pre-felling surveys a maximum of 3 weeks prior to works are recommended.

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If works during the breeding season (March to August inclusive) cannot be avoided, and breeding dens may be disturbed by works, it may also be important to establish if these dens are being used for breeding. The non-invasive method as follows must be used in the first instance: Visual observation and camera surveillance from the ground, for a period of a minimum of 14 consecutive days prior to works commencing, used to establish if the breeding den is in regular use. If regular use is established the den must be assumed to be being used for breeding purposes.

### 3.5 Review of pine marten Survey

Once a pine marten survey has been carried out, the ecologist / Ecological Clerk of Works (EcoW) must review the survey results, apply the mitigation hierarchy outlined below and decide if a licence is required from SNH (either Individual or Project) for the works.

If required, licences (individual or project), must be obtained by SNH prior to any works commencing.

Construction teams should be advised of existing / new constraints, together with mitigation / compensation, and licensing requirements by the ecologist / EcoW.

Relevant site documentation and project information sources should be updated with new and amended information on pine marten constraints as it is produced, with changes communicated to appropriate staff immediately.

### 3.6 Mitigation Hierarchy

There should be a general presumption against works being carried out which will disturb pine martens in their den, or which will require the destruction of any pine marten den. A hierarchical approach to minimise the works impact on pine marten should be established as follows:

#### Avoidance

This is the preferred option. Appropriately sized protection zones must be marked and signed on the ground by the ecologist / EcoW, with appropriate material, around all pine marten dens identified during the pre-works surveys. The breeding season (**March to June inclusive**) is the most sensitive time for disturbance, during this time a 100m radius protection zone must be established around all pine marten dens. Out with the breeding season, a protection zone of 30 metres radius must be established. For high noise / vibration activities (pile driving or blasting) a 100m radius protection zone around pine marten dens must be established at any time of year.

All works personnel, machinery, vehicles and storage of materials must be restricted from entering protection zones. Protection zones must be maintained until all works are completed. Site staff must be briefed of their purpose through a Toolbox Talk by the ecologist / EcoW. If pine marten disturbance can be avoided in this way, there is no need to obtain a licence from SNH for the works.

#### Disturbance

If works within protection zones boundaries cannot be avoided, a Licence for disturbance from SNH will be required. For small scale projects the licence may be specific to the site, for larger scale works a Project Licence may be appropriate.

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Individual licence applications for disturbance must be accompanied by a Mitigation Plan which outlines how the disturbance will be minimised, and dens protected from damage, for example through screening of works and modifying protection zones.

If a Project Licence is in place, and a den being used in the breeding season will be disturbed, a Method Statement must be submitted to SNH for written approval in accordance with Part 2 of this document, prior to any works commencing. The Method Statement must state how works will be carried out in a way which ensures no abandonment of young.

### **Destruction**

Destruction of dens must only be undertaken as a last resort and requires a Licence from SNH. Individual Licence applications to SNH must be accompanied by a Mitigation / Compensation Plan which outlines how disturbance will be minimised and individual pine martens protected from injury, and may include provision for the creation of an artificial den if appropriate. If destruction of a den during the breeding season is required, the plan should include details of non-invasive monitoring which will take place to ensure breeding is not taking place prior to any den destruction.

Any den subject to works under Licence must be monitored during and after those works.

## **3.7 Mitigation Measures**

### **3.7.1 General Mitigation**

1. An emergency procedure will be implemented by site workers if pine marten dens are encountered. All work within 30 m (non-breeding season) or 100 m (breeding season) will cease, and the ECoW will inspect the site and define mitigation (if required) in line with this SPP.
2. Any temporarily exposed pipe system to be capped when contractors are off site to prevent pine marten from gaining access. Similarly, all exposed trenches and holes must be provided with mammal exit ramps when contractors are off site (i.e. at night time).
3. An exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with SNH Licensing Team if required).

### **3.7.2 Monitoring and Reporting**

5. The Ecologist / ECoW will attend site on a regular basis throughout the construction period to ensure all environmental mitigation relevant to Pine martens is delivered.
6. Reports will be submitted to SNH as required by the relevant Licence.

## **3.8 Licensing Requirements**

Licence applications must be sent into SNH licensing team sufficiently in advance of the project start date (approximately 30 days) to ensure the licence is in place prior to any work commencing.

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### 3.9 Project Licence

An SNH Project Licence is likely to be the most appropriate form of licence for any large scale and / or long running project, in pine marten areas. For example, where multiple instances of disturbance to a number of pine marten resting places is anticipated over several months / years. A Project Licence can be used to standardise protected species mitigation / compensation, creating consistency across the project area and throughout the Project's lifespan. Project Licences do not negate the need for thorough pre-construction survey within 12 months and three weeks of the planned project start date.

Any Project Licence application will need to be accompanied by a Mitigation / Compensation Plan, and procedures for pine marten included in Parts 1 and 2 of this SPP.

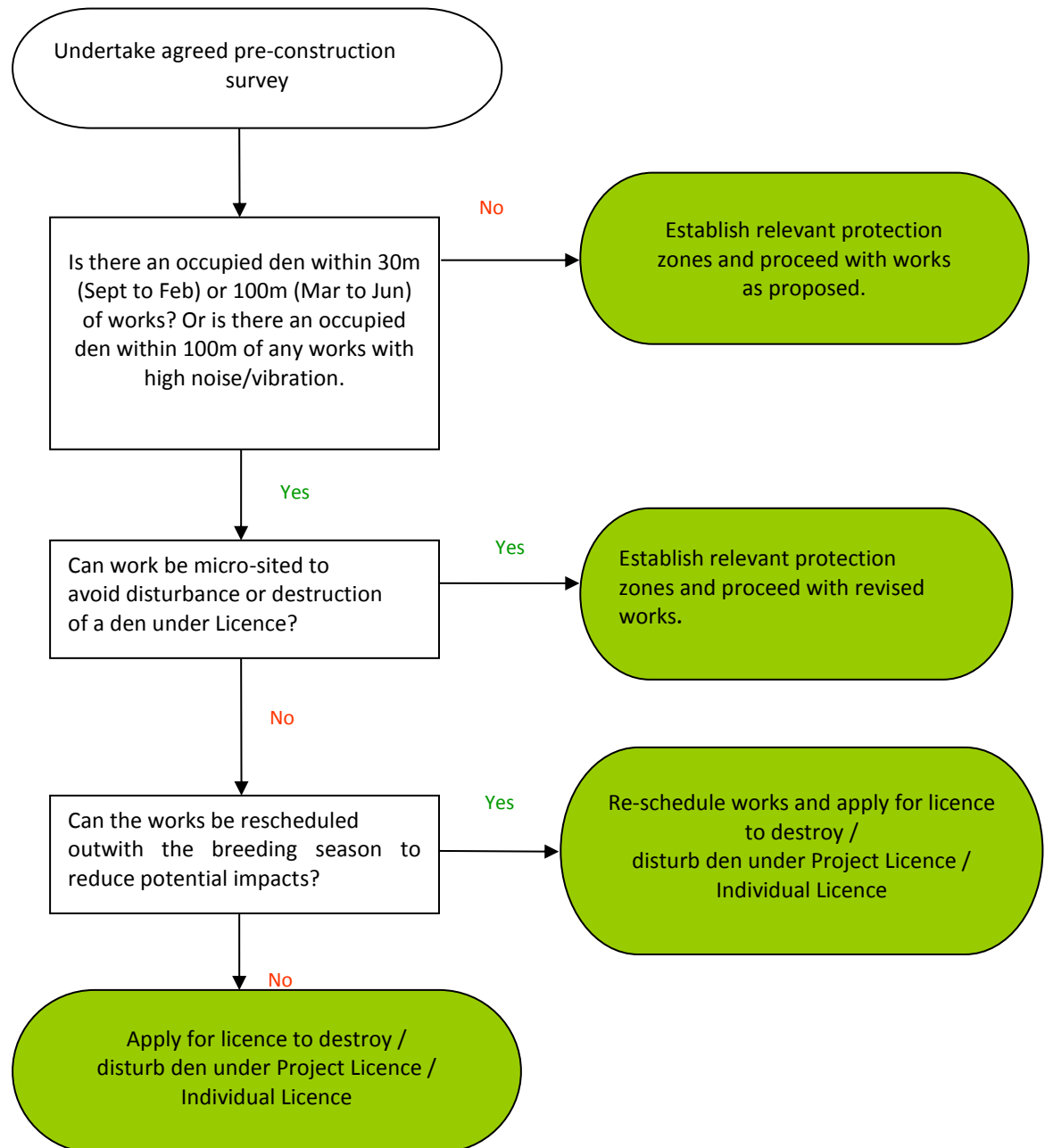
### 3.10 Individual Licence

For small scale projects expected to be completed over relatively short timescales, which will result in a low number of unavoidable pine marten offences an Individual SNH Licence is most likely to be appropriate. Licence applications should be accompanied by a Mitigation Plan and should be sent sufficiently in advance of the project start date to ensure the licence is in place prior to work commencing. Further guidance and details of how to apply for a pine marten Licence can be found on the SNH website

<https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/pine-martens-and-licensing>.

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| TG-NET-ENV-508 | Pine marten Species Protection Plan |                        | Applies to              |                   |
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### Pine marten Mitigation Decision Tree



|                |                                     |                        |                         |                   |
|----------------|-------------------------------------|------------------------|-------------------------|-------------------|
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## 4 Part 2: Project Licence Protection Plan

The following sections of this plan are to be read in conjunction with Part 1 of this document, the Project Licence (**insert Licence number**) and its conditions.

Mitigation activities permitted under Project Licence are included in this Part of the SPP (section A). More disruptive activities, listed in Section B below, will require a specific Method Statement to be submitted to SNH Licensing Team for approval, prior to works commencing (see Appendix A). It is the *Contractor's* responsibility to submit these Method Statements to both SHE Transmission and SNH for written approval. No works shall proceed without this written approval.

**Sufficient time should be allowed for in the programme to carry out any consultation work and obtain necessary approvals.**

The Project Licence will specify reporting requirements detailing all disturbance and destruction works carried out.

In advance of, and during construction at any location where there is the potential for pine marten to be present, it is **essential** that this plan is followed:

### A. Works allowed under the project licence without further approval from SNH Licensing Team

The following works may be carried out under this SPP without further approval from SNH, using the prescribed methodologies:

1. Disturbance to a den or place of shelter out with the breeding season. This includes ground and aerial dens, whether occupied, or unoccupied and located within known pine marten territory.

### Methodology:

Pine marten dens must not be damaged or destroyed, but protected from potential damage by setting up a modified protection zone (size determined by the site ecologist / EcoW). Protection zones must be clearly marked on the ground and signed, and must exclude all works personnel, machinery, vehicle and storage. The protection zone must be maintained until all works are finished. Works will be undertaken in as short a period as possible to minimise the level of disturbance. A project licence return must be sent to SNH licensing team detailing all disturbance works under the Project Licence.

- a. Before works commence, the ECoW will:
  - Attend the site in order to check whether pine marten is present or not. If pine marten is present, then works may need to be delayed until the ECoW is satisfied suitable access / egress away from the place of shelter is safeguarded. If no pine marten is present, works can proceed.
  - Brief the site personnel, including contractors and subcontractors, regarding the presence of the pine marten dens and the protected status of pine marten, their dens and the conditions

|                |                                     |                        |                         |                   |
|----------------|-------------------------------------|------------------------|-------------------------|-------------------|
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|                |                                     |                        | Distribution            | Transmission<br>✓ |
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of this Species Protection Plan, which allows for felling and construction within 30 m of the den

- Describe the actual den and state that no machinery must drive over it or if it is in a tree the den tree must not be cut down.

b. The den should be clearly marked with a blue tipped stick adjacent to the hole. For an aerial den the tree will be marked with a thick band of blue tape around the trunk.

c. For felling operations, the whole area within the 30 m protection zone, excepting the den tree itself, may be felled using a harvester.

d. Works within 30 m of the den will be undertaken within 1 day wherever possible. Where works take longer, the ECoW will carry out a pre-works check each morning for pine marten presence.

#### B. Activities requiring an SNH Approved Method Statement Prior to Works Commencing

The following activities require a formal Method Statement to be submitted and approved in writing by SNH licensing team prior to any works commencing:

- Temporary or permanent exclusion or destruction of a den.
- Any works within 100m of a breeding den during the breeding season.
- Any exceptional circumstances not covered in this SPP.

The Method Statement template in Appendix A has been developed in conjunction with SNH and should be used by the *Contractor / Named Agent* for all submissions.

## 5 Revision History

| No | Overview of Amendment and Text affected                    | Previous Document         | Revision | Authorisation   |
|----|------------------------------------------------------------|---------------------------|----------|-----------------|
| 01 | Transfer to new template and Nomenclature                  | TG-PS-LT-721 (Rev 1.00)   | 1.00     | Richard Baldwin |
| 02 | Typos, formatting and references to other species removed. | TG-NET-ENV-508 (Rev 1.00) | 1.01     | Richard Baldwin |

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|----------------|-------------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-508 | Pine marten Species Protection Plan |                        | Applies to              |                   |
|                |                                     |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal            | Issue Date: April 2017 | Review Date: April 2022 |                   |

## Appendix A Project Licence Method Statement Template

<PROJECT TITLE>

METHOD STATEMENT FOR WORKS UNDER *(insert licence details)*

*<insert species record reference>*

*<insert date>*

### Introduction

This document, prepared on behalf of SHE Transmission provides a Method Statement for *<insert details of works>* to be completed under *<insert licence details>*. These works are required in order to facilitate the delivery of the *<insert Project details>* (the Project).

Condition *<insert No.>* of the above Licence states that a *<insert species>* Protection Method Statement be submitted to Scottish Natural Heritage (SNH) licensing team for written approval, under specific circumstances, prior to commencement of works which could affect *<insert species>*. Therefore, no works which would *<insert licensed activity>* *<insert species>* shall take place without written confirmation of SNH approval of this method statement.

This Method Statement makes reference to the following documents:

- *<insert licence details>*, SNH
- Species Protection Plan (SPP): *<insert SPP No. and title>* Rev. X *<insert date>*

Further information is provided in Table 1: Summary of Data.

### Licensable Works

### Introduction

*<Insert details>*

### Baseline Description

*<Insert description, including photographs / location plan>*

|                |                                     |                        |                         |                   |
|----------------|-------------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-508 | Pine marten Species Protection Plan |                        | Applies to              |                   |
|                |                                     |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal            | Issue Date: April 2017 | Review Date: April 2022 |                   |

Table 1: Summary of Data

| Reference | Easting | Northing | Date recorded | Description | Date works exclusion zone demarcated & distance |
|-----------|---------|----------|---------------|-------------|-------------------------------------------------|
|           |         |          |               |             |                                                 |

## Survey Summary

<Insert details>

## Description of the Proposed Licensable Works

<Insert details>

## Works Duration

<Insert details>

## Consideration of Alternatives

<Insert details>

## Impact Assessment

<Insert details>

|                |                                     |                        |                         |                   |
|----------------|-------------------------------------|------------------------|-------------------------|-------------------|
| TG-NET-ENV-508 | Pine marten Species Protection Plan |                        | Applies to              |                   |
|                |                                     |                        | Distribution            | Transmission<br>✓ |
| Revision: 1.01 | Classification: Internal            | Issue Date: April 2017 | Review Date: April 2022 |                   |

## Method Statement Site Briefing (to be delivered to relevant staff prior to works)

Site: *<insert description>*

Reference number: *<insert species record reference>*

Client: SHE Transmission

Task: *<insert description of works>*

Prepared by: *<insert individual or Company name>*

Licensed Agent: *<insert name>*

Method statement for *<insert works description>*

**Before works commence:**

All relevant personnel will be made aware of the presence and location of the constraint and mitigation.

*<insert details of methodology>*

**During works:**

*<insert details of methodology>*

*<Insert Contractor's name>*

I, the undersigned, confirm receipt of this method statement and fully understand and agree to work to the conditions therein.

Signature of Contractor's Representative:..... Date .... / .. / ..

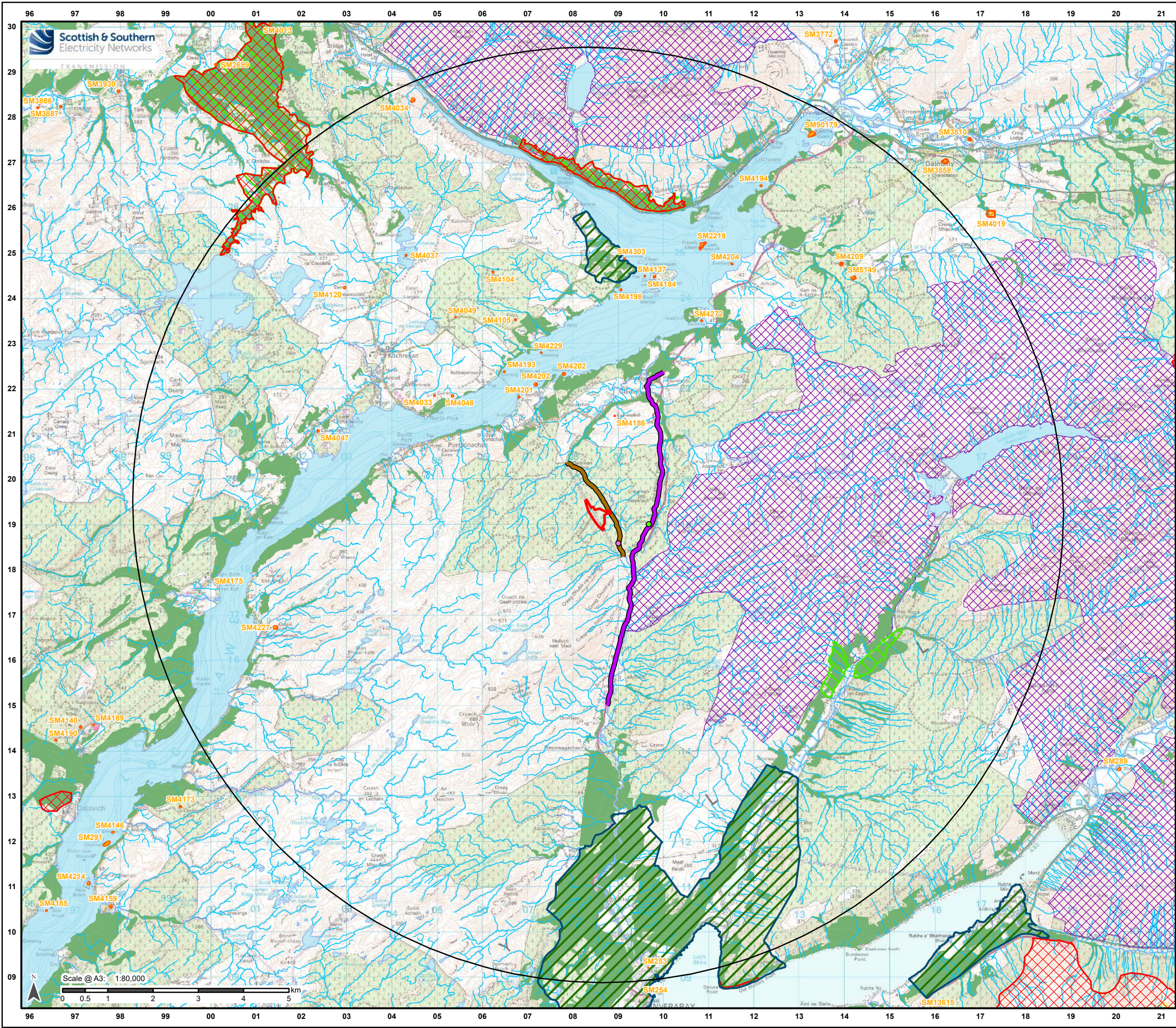
Print name in full: .....

All method statements must be submitted to, and agreed in writing by, SNH licensing team:

licensing@snh.gov.uk

Telephone 01463725364

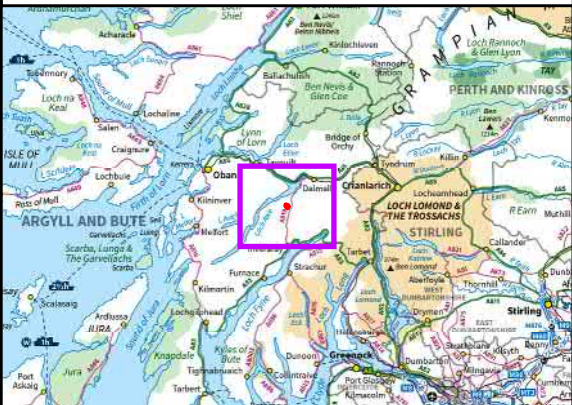
## **APPENDIX 3 – ENVIRONMENTAL CONSTRAINTS MAP**



# Legend

- Site Location
- 10km Buffer\*
- Environmental Constraints**
  - Watercourse
  - Waterbody
- Heritage Assets**
  - Neil Munro Monument
  - Shielding Huts
  - Footpath (former)
  - Military Road (former)
  - Scheduled Monument (SM1234)
- Landscape Designations**
  - Inventory Garden and Designed Landscapes
- Ecological Designations**
  - Site of Special Scientific Interest
  - Ancient Woodland
  - Special Area of Conservation
  - Special Protection Area

\*Each study area is topic specific.



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Project No: LT000029  
Project: 1700003673

Title:  
Inveraray to Taynuilt Tie-In to Creag Dhuhb Substation

Figure 1:  
Surrounding Environmental Constraints

Drawn by: AB Date: 15/02/2023

Drawing: R170\_3673\_ITETW\_Fig1\_SurroundingEnvConst\_E