

LT19 Tomatin Substation

Construction Environmental Management Plan

Phase One - Forestry and Access



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CONTENTS

1.	INTRODUCTION	6
1.1	Project Background	6
1.2	Purpose of the Plan	6
2.	PROJECT DESCRIPTION	7
2.1	Project Summary	7
2.2	Construction Methodologies	8
2.3	Legislative Requirements	11
2.4	Planning Consent Conditions and Project Commitments Register	12
2.5	Other Consents and Licenses	12
3.	PROJECT ENVIRONMENTAL MANAGEMENT	13
3.1	Environmental Personnel	13
4.	COMMUNICATIONS AND TRAINING PLAN	15
4.1	Environmental Reporting	15
4.2	Environmental Communications	15
4.3	Environmental Training	16
5.	ENVIRONMENTAL AUDITING AND MONITORING PLAN	17
5.1	Roles and Responsibilities	17
5.2	Project Environmental Auditing and Monitoring Requirements	17
5.3	Audit and Monitoring Reporting Procedure	17
5.4	Non-Compliance Procedure	18
6.	EMERGENCY RESPONSE PLAN	20
6.1	Roles and Responsibilities	20
6.2	Summary	20
6.3	Hazards and Incidents	20
6.4	Control Measures	20
6.5	Hazard and Incident Reporting Procedure	21
6.6	Emergency Contact Details	21
7.	WASTE MANAGEMENT PLAN	23
8.	WATER MANAGEMENT PLAN	24
8.1	Introduction	24
8.2	Water Environment Baseline	24
8.3	Management of the Water Environment	25
8.4	Groundwater Management	26
8.5	Construction Management and Mitigation Measures	26
9.	PEAT MANAGEMENT PLAN	31
9.1	Introduction	31
9.2	Construction Management and Mitigation Measures	31
10.	SITE RESTORATION AND REINSTATEMENT PLAN	32
10.1	Introduction	32
10.2	Roles and Responsibilities	32
10.3	Planning Works	32
10.4	Soil Management Process	32
11.	CULTURAL HERITAGE MANAGEMENT PLAN	34
11.1	Introduction	34
11.2	Cultural Heritage Baseline	34
11.3	Written Scheme of Investigation	34
11.4	Construction Management and Mitigation Measures	34
12.	ECOLOGICAL MANAGEMENT PLAN	35
12.1	Introduction	35
12.2	Habitats	35
12.3	Species	35
12.4	Biosecurity and Non-Native Species	36

12.5	Pre-construction Surveys	37
12.6	Licensing Requirements	39
12.7	Monitoring and Reporting	39
13.	AIR QUALITY MANAGEMENT PLAN	40
14.	CONSTRUCTION NOISE MANAGEMENT PLAN	41
14.1	Introduction	41
14.2	Baseline Characterisation Site Visits	41
14.3	Location of Receptors	41
14.4	BS5228: 2009 Assessment Methodology	42
14.5	Baseline Conditions	42
14.6	Potential Effects during Construction	43
14.7	Construction Management and Mitigation Measures	43
15.	OUTDOOR ACCESS PLAN	45
15.1	Introduction	45
15.2	Access Baseline	45
15.3	Potential Effects during Construction	45
15.4	Construction Management and Mitigation Measures	45

FIGURES

APPENDIX A – COMMITMENTS REGISTER

APPENDIX B – CULVERT DESIGN

APPENDIX C – SITE WASTE MANAGEMENT PLAN

APPENDIX D – ACCESS TRACK CONSTRUCTION DETAILS

APPENDIX E - PEAT MANAGEMENT PLAN

1. INTRODUCTION

1.1 Project Background

1.1.1 Scottish Hydro Electric Transmission Plc (SHE Transmission) has received Town and Country planning consent (Ref: 16/00792/FUL) from The Highland Council to construct and operate the Tomatin Substation, which is required as part of the LT19 Knocknagael to Tomatin 275kV Reinforcement scheme. The reinforcement also includes the construction of a new 275 kV Overhead Line (OHL) between the existing Knocknagael Substation and the Tomatin Substation.

1.1.2 Tomatin Substation lies approximately 6 km south-west of Tomatin, approximately 1.5km west of Corrievorrie in Strathdearn at National Grid Reference (NGR): 275458 825177 on the south facing side of Carn Meadhonach, postcode IV13 7YA. The project is shown on the location plan provided within Figure 1.

1.2 Purpose of the Plan

1.2.1 The project is being developed in two distinct phases, as follows:

- Phase 1 - Forestry works and construction of the new access track between the Farr windfarm and the Tomatin substation. The Principal Contractor for these works is Scottish Woodlands; and
- Phase 2 - Construction of the Tomatin substation. The Principal Contractor for these works is Amey.

1.2.2 The purpose of this Phase 1 Construction Environmental Management Plan (CEMP) is to set out the approach to the management of all environmental issues associated with the forestry works and construction of access track as set out above. The CEMP describes the arrangements in place to manage the environmental impacts of construction and identifies measures to be taken in the event of an environmental incident or emergency. It also details the implementation and management of the mitigation measures that were identified and agreed during the consenting process along with any other environmental licencing or consenting requirements.

1.2.3 Figure 2 presents the location of the access works and Figure 3 presents the forestry clearance works required for Phase 1 of the project.

1.2.4 The CEMP provides information in relation to the forestry works and construction of the new access track. The CEMP will be updated and reissued to the relevant consultees in March/April 2017 to include detail of the substation works in order to fully discharge the relevant planning conditions.

2. PROJECT DESCRIPTION

2.1 Project Summary

2.1.1 The Tomatin Substation (Proposed Development) is to be Gas Insulated (GIS) and will be contained within a building of lightweight steel portal construction with metal wall and roof cladding. To support this development surface water drainage proposals and upgrades to the existing forestry and hill tracks are required. As such the red line site boundary includes the proposed access routes and the area around the proposed substation.

2.1.2 The Proposed Development comprises:

Phase 1 – Forestry and Access

- a permanent new section of forest track to link the existing Farr wind farm haul road to the existing forest tracks within Garbole Forest. There may also be a requirement to strengthen and resurface sections of the wind farm haul road to facilitate access for heavy loads during the construction of the substation; and
- a 0.2 km section of site access road heading north west from the substation platform before forming a new junction off the existing forestry access track;

Phase 2 – Substation Platform

- a development platform with dimensions of 130 m (width) by 160 165 m (length), which does not include requirements for cut and fill engineering works;
- a steel portal frame building on concrete foundations, with metal cladding to walls and roof, of approximately 45 m wide by 50 m long and 15 m in height;
- a 2.4 m high steel palisade security fence (painted RAL 6003 Olive Green) to surround the substation building, coloured Olive Green (RAL 6003) to match the substation building;
- two 275kV/132kV supergrid transformers located external to the substation building, one on either side;
- a permanent platform immediately adjacent to the substation platform to be used initially as the site welfare and compound facility during construction and retained for future operations/maintenance requirements;.
- temporary laydown areas adjacent to the substation platform, which shall be removed and the land reinstated on completion of construction works;
- a post and wire fence around the substation site boundary to delineate the site extent;
- motion activated lighting will be installed sufficient to facilitate safe normal access / egress of the substation during the hours of darkness; and,
- upgraded visibility splay and access from the unclassified road (Coignafearn Road, Findhorn Valley) to the substation for access during the operational phase.

2.1.3 Detailed plans for the works under Phase One (access track construction and alignment) have been included within Appendix D.

2.2 Construction Methodologies

Forestry Operations

- 2.2.1 Different styles of forestry operations are to be conducted throughout the site due to tree species, proximity to water courses, age of trees, project specification and topography. All works are in line with all legislation as described in the Contractors Method Statement and Utilities Procedures Manual. Works will be carried out in line with Forestry and Water Guidelines 5th Edition¹ with no debris to be stored or spread a within 2 m of any water course.
- 2.2.2 All marketable timber is to be processed to desired specification and sizes as applicable to local market demand and dispatched to local markets with low ground pressure forestry timber haulage vehicles. All non-marketable timber (Immature Crop) is to be mulched to ground level.
- 2.2.3 All riparian zone operations around water courses are to be micro managed to minimise felling were possible. The wayleave corridor will be assessed based on tree species, topography and wind throw exposure to minimise the tree clearance surrounding the water courses on-site.
- 2.2.4 All operators will be briefed on all site requirements by the Contractor prior to operations beginning.
- 2.2.5 Pre-construction surveys will be carried out for the presence of any protected species and nesting birds by a suitably trained and experienced ecologist. If any evidence is found, works must stop, SHE Transmission must be informed and an appropriate exclusion zone should be implemented around the area. The Species Protection Plans (Appendix B) shall be followed at all times by the Contractor.
- 2.2.6 Ongoing checks for protected species and bird nesting activity will be carried out throughout the duration of the operations, with checks carried out prior to start of work shift and during works shift. The Contractor shall highlight to SHE Transmission any protected species and/or signs of birds making distress calls or other signs of birds being agitated. If any signs are discovered throughout operations, works are to stop immediately and SHE Transmission must be informed and an exclusion zone implemented around the area.
- 2.2.7 A machine exclusion zone will be put in place to restrict machine movements. All machinery will be maintained and used in accordance with the manufacturer's handbook and to the following regulations and guidance will be adhered to where appropriate: "PUWER and LOLER", Health and Safety regulations, HSE guidance notes/guidelines and FISA Guidelines. The operator will be briefed on all site restrictions and constraints and a fuelling and maintenance area will be designated on-site.

Harvesting Operations

- 2.2.8 All commercial conifer crops will be and processed by a purpose built forest harvester and converted into the required specifications and sizes for timber markets. All branch wood will be utilised in brash mat use to enable machinery to cross ground causing minimal damage to ground conditions. This brash mat will enable both machinery access to certain areas and timber extraction to roadside.

Chainsaw Operations

- 2.2.9 Chainsaw operations will be conducted to facilitate the felling of trees where machine access is not possible. The operators will also work in conjunction with the tractor skidder set up when working on edge trees that are over size for the harvester head, and when working along riparian zones. This will minimise machine

¹ Forest and Water: UK Forestry Standard Guidelines 5th Edition: Forestry Commission Scotland (2011)

movements adjacent to water courses and reduce the siltation risk to the water environment throughout the work site.

- 2.2.10 Only biodegradable plant oils are to be used as chain oil in the chainsaws. All debris arising from works will be utilised in the branch mat, stacked or chipped.

Skidder Operations

- 2.2.11 The skidder will be used to supplement the chainsaw operation activities in areas adjacent to forest roads and water courses in order to enable trees to be felled in the direction that is required by the chainsaw team. The skidder will also assist in the felling trees that are too large for the harvester.

Timber Extraction

- 2.2.12 Timber will be extracted to the designated stacking area by a purpose built forest forwarder, with no stacks exceeding 3 m in height. The operator will use branch residues to create and maintain a suitable extraction route throughout operations, minimising ground disturbance.

Mulching Operations

- 2.2.13 Throughout operations, the operator will identify any trees that can provide recoverable timber, and these will be retained and harvested by chainsaw operations in order to extract the recoverable timber, which will then be dispatched to local markets. Whole tree mulching is to be conducted in areas of immature forest crop where marketable timber recovery using conventional timber harvesting machinery is not possible.
- 2.2.14 Stump mulching operations are to be conducted for a 12 m corridor throughout the length of the project to enable a safe passage for operatives and machinery, clear of all debris. The stumps will be mulched to ground level and spread evenly across the site to allow vegetation to regenerate after conventional harvesting operations have been conducted.

Timber Dispatch

- 2.2.15 Timber haulage vehicles will be dispatched to site to transport timber from the designated stacking areas to markets. The vehicles will only follow designated timber transport routes in line with project commitment not to use the Coignafern Road.
- 2.2.16 For the access track creation a crop of 1970's planted Sitka Spruce (*Picea Sitchensis*) and Scots Pine (*Pinus Sylvestris*) will be felled using standard harvesting timber operations. The estimated volume of marketable timber is 617 tonnes, which can be broken down into approximately 51 tonnes of Sitka Spruce log, 141 tonnes of Scots Pine Log and 424 tonnes of chip wood. All this wood will be supplied to the closest market to minimize timber haulage movements on public road infrastructures.
- 2.2.17 For the sub-station platform a crop of 2004 planted Sitka Spruce (*Picea Sitchensis*) will be mulched to ground level by forestry built mulcher. It is estimated that approximately 336 tonnes of non-commercial timber will be mulched throughout the 5.6 ha area of trees on the platform Sub-station area. The works will be conducted in accordance with SEPA guidance on the Management of Forestry Waste (WST-G-02, version 2, issued July 2013).
- 2.2.18 Any removal of timber produce from site will be recorded by a delivery advice note which will detail the uplift and delivery of every load. Timber haulage vehicle movements will be assessed throughout the job based on weather conditions. Low ground pressure design vehicles will be implemented to ensure minimal damage to forest roads throughout operations.

Access track

- 2.2.19 Tracks for use during the construction phase would be capable of accommodating the substation equipment deliveries, and other heavy plant and vehicles required for the construction, including cranes and concrete as well as delivery of the supergrid transformers. For the section of new track from the end of the Farr wind farm haul road to the substation platform permanent stone access tracks will be constructed.
- 2.2.20 All constructed tracks would be constructed to the following guidance:
- Floating Roads on Peat: Scottish Natural Heritage and Forestry Commission (2010);
 - Forest and Water: UK Forestry Standard Guidelines 5th Edition: Forestry Commission (2011);
 - Outline Forest Road Design Layout: Forestry Commission (2014);
 - The Design and use of the structural pavement of unsealed roads: CONFOR (2014);
 - Constructed tracks in Scottish Uplands: Scottish Natural Heritage (2015); and
 - Watercourse crossings shall be designed and constructed to comply with legislation set out in The Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended.
- 2.2.21 The new section of access track will be microsited to avoid areas of deep peat where possible and ensure gradients are capable of meeting the specifications for delivery of the works. Section 9 of this plan details the project soil management requirements.
- 2.2.22 In areas of shallow or no peat (0 m - 1 m), a 'cut track' design would be utilised, for which the topsoil and peat would be stripped to expose a suitable foundation horizon on which to build the track. The track formation will be capped with a minimum compacted depth of 300mm of 75mm down angular aggregate overlaid with a compacted depth of 200mm utilising 50mm down angular aggregate. The running surface will be compacted throughout the works with a vibrating roller and also graded to achieve a suitable off set camber to allow water runoff, to minimise water holding on the track. The excavated soil, together with any vegetation, would be used for landscaping and reinstatement work around the track shoulders following construction.
- 2.2.23 Generally, a 'floating track' design would be utilised in areas where the peat depth is greater than 1 metre over a length of more than 20 metres. Where floating track design is used an appropriate geogrid will be placed on the existing vegetation and overlaid with a compacted depth of approximately 400mm with 75mm down angular aggregate. A further layer of geogrid will be placed on the aggregate and overlaid with a compacted depth of approximately 250 mm utilising 50mm down angular aggregate. This design will reduce the settlement of the track into the peatland. In areas where ground conditions are found to be particularly soft there may be a requirement to excavate to full depth to meet the specification for the delivery of the supergrid transformers.
- 2.2.24 Where ground conditions are found to be saturated, and potentially supporting ground water dependent ecosystems, the track construction would incorporate measures to maintain groundwater flows and levels, such as using perforated pipes wrapped in free draining geotextile membrane incorporated into the floating track formation.
- 2.2.25 Upon completion of works all areas will be re-profiled adjacent to the track with the excavated materials and the vegetative layer placed back on the top of the disturbed soil to allow regrowth.
- 2.2.26 A site specific peat management plan has been completed based on the site investigation, which is presented in Appendix E.

2.3 Legislative Requirements

2.3.1 The Principal Contractor will comply with all relevant legislation and regulations, and obtain and comply with all necessary consents relating to the construction phase. The relevant environmental legislation applying to this scheme is listed below:

- Environmental Protection Act 1990
- The Environment Act 1995
- European Directive 2008/50/EC on ambient air quality and cleaner air for Europe
- Air Quality Standards (Scotland) Regulations 2010 as amended 2016
- Ancient Monuments & Archaeological Areas Act 1979
- Wildlife and Countryside Act 1981 (Amendment) (Scotland) Regulations 2001
- Wildlife and Natural Environment (Scotland) Act 2011
- Nature Conservation (Scotland) Act 2004
- Protection of Badgers Act 1992
- The Habitats Directive (92/43/EEC)
- Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations 2012
- EU Council Directive 2006/12/FC (The Waste Management Directive)
- The Control of Pollution Act 1974 and Amendment 1989
- The Waste (Scotland) Regulations 2012
- Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991
- Environmental Protection (Duty of Care) Regulations 1991
- Special Waste Regulations 1996
- Noise and Statutory Nuisance Act 1993 (as amended)
- Environmental Noise (Scotland) Regulations 2006
- Planning etc. (Scotland) Act 2006 Consents and Permissions Required
- The Water Environment and Water Services (Scotland) Act 2003
- The Water Environment (Oil Storage) (Scotland) Regulations 2006
- Water Environment (Controlled Activities) (Scotland) Regulations (CAR) 2011 as amended
- Flood Risk Management (Scotland) Act 2009
- Sewerage (Scotland) Act 1968
- The Control of Substances Hazardous to Health Regulations 2002
- Control of Pollution (Registers) (Scotland) Regulations 1993 SI 1155
- Environmental Impact Assessment (Water Management) (Scotland) Regulations 2003 SSI 341
- Water Environment (Oil Storage) (Scotland) Regulations 2006 SSI 133
- EU Water Framework Directive 2000/60/EC
- Salmon and Freshwater Fisheries Act 1975
- Environmental Liability (Scotland) Regulations 2009
- Landfill Tax, Scotland Act 2014
- Environmental Protection, duty of care, Scotland Regulations 2014
- Control of Pollution Act 1974

2.4 Planning Consent Conditions and Project Commitments Register

- 2.4.1 A planning application for the Tomatin Substation has been approved by The Highland Council (THC) (planning reference 16/00769/FUL). The conditions of consent have been included into the project commitments register, which has been compiled from the mitigations described within the Tomatin Substation Environmental Appraisal. On approval of this CEMP by The Highland Council the CEMP and mitigation provided will form part of the conditions of construction.
- 2.4.2 The commitments register is provided in Appendix A, and will be updated for submission of the Phase 2 substation platform works in March 2017. Where further commitments are made throughout the project the commitments register will be updated as required.

2.5 Other Consents and Licenses

- 2.5.1 Indicative environmental consents and licences that may be required to enable the construction works are set out in Table 2.1 and will be updated prior to commencement of construction.

Issue/ Aspect	Legislation	Licence/permission required	Scheduling
Consent for noise generating activities during construction	Control of Pollution Act 1974, Noise and Statutory Nuisance Act 1993, Environmental Noise (Scotland) Regulations 2006	Consent from the Local Planning Authority to carry out construction works under Section 61.	During construction
Protected species	The Conservation of Habitats and Species Regulations 2010, Wildlife and Countryside Act 1981	Licences may be required if protected species are likely to be disturbed during construction, e.g. badger, bat, wildcat, red squirrel. See Species Protection Plans (SPP) in Appendix B.	During construction
Waste carrier licence	Waste (Scotland) Regulations 2012	Waste materials produced on-site which are to be moved from site to site will require a licence from the SEPA.	During construction
Waste Management Exemptions	Waste Management Licensing (Scotland) Regulations 2011	Activities exempt from waste management licensing	During Construction
Licencing under Controlled Activities Regulations	The Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended	Activities related to watercourse crossings or discharge from surface water drainage systems may require a licence or registration.	Prior to construction

3. PROJECT ENVIRONMENTAL MANAGEMENT

3.1 Environmental Personnel

3.1.1 Key personnel for the scheme are shown in Table 3.1.

Table 3.1: Key personnel

Personnel	Details
SHE Transmission Project Manager	Simon Robertson
SHE Transmission Environmental Project Manager	Kenneth Reid
SHE Transmission Environmental Advisor	Dan Thomas
Contractors Project Manager	Andrew Cooper
Contractors Site Manager/Foreman	TBC
Contractors Environmental Clerk of Works (ECoW)	Eddie Douglas

3.1.2 The specific environmental responsibilities of the Contractor's ECoW are shown in Table 3.2.

Table 3.2: Key Responsibilities of the Contractors ECoW

Responsibility
Lead environmental representative on site taking a proactive approach to the environmental management of the site
Key interface point for the Clients Environmental Project Team
Lead on environmental reporting, inclusive of environmental incident reporting
Lead on closing out any environmental corrective actions and non-compliance from audits/inspections
Lead on development of any environmental lessons learnt
Engage and manage specialist sub-contractors/consultants as per the requirements of consents/licenses and CEMP.
Implement and monitor compliance with all environmental and nature conservation mitigation works and working practises identified in consents/licenses, CEMP, and the Contractors Environmental Management Systems
Attendance at all site meetings
Attendance at stakeholder meetings
Ensure the Contractor is aware of project specific environmental constraints
Liaise with SHE Transmission, and other stakeholders, regarding project specific environmental management issues and lead on finding solutions to these issues.
Develop the environmental programme (including site surveys) for incorporation into the wider works programme and site look ahead programmes, and ensure it is delivered and updated as required.
Review and provide environmental input to RAMS
Apply for environmental licences or consents defined as Contractor responsibility and ensure any conditions are adhered to
Undertake inspections / audits, disseminate findings as corrective actions and/or non-conformance and lead on their close-out in accordance with the CEMP.
Review the CEMP throughout the works to ensure compliance between consents/licenses, CEMP and activities on site.
Provide weekly report on environmental works on site, inclusive of programme updates
Provide training (including induction and Tool Box Talks) to ensure works are undertaken in strict accordance with environmental requirements defined in consents/licenses, and CEMP.
Advise and support the project team to microsite works away from sensitive features, and ensure protection measures for environmental and nature conservation interests within, and adjacent to, the site are implemented.
Where the protection of the environment is being put at risk the ECoW will advise specific tasks/activities are halted and reported/managed in accordance with section 6 of this CEMP.
Monitor Key Performance Indicators

3.1.3 SHE Transmission's environmental team will monitor the works on a weekly basis to ensure the Contractor is undertaking the works in accordance with this CEMP.

3.1.4 The Contractor and all sub-contractors will adhere to the requirements of the CEMP without exception.

4. COMMUNICATIONS AND TRAINING PLAN

4.1 Environmental Reporting

- 4.1.1 All environmental incidents will be reported in line with the Emergency Response Plan detailed in section 6.
- 4.1.2 The Environmental Clerk of Works (ECoW) will liaise internally and externally as detailed below.

4.2 Environmental Communications

- 4.2.1 Throughout the construction period there will be weekly meetings on site between the Principal Contractor, any sub-contractors and SHE Transmission in conjunction with interface meetings with Amey in relation to the Phase 2 substation works. The main purpose of these meetings will be to discuss the construction programme ahead for the coming week(s) and as part of this any relevant environmental issues will be discussed and actions recorded and promptly addressed. The Contractors Project Manager, together with the ECoW and SHE Transmission, will decide whether environmental specialists will be required to input into these meetings.
- 4.2.2 Contract-specific information will be displayed on notice boards and briefed to all staff via tool box talks.

Internal Communications

- 4.2.3 The Contractor's Project Manager is responsible for producing Method Statements for each section of the works. This document will be passed to the ECoW for input into any environmental issues in that section. The Contractors Site Manager/ Foreman will receive a copy of the Section Method Statement and it will be their responsibility to ensure that each team sign a toolbox talk sheet to ensure they have read and understood the brief.
- 4.2.4 The ECoW will ensure that Section Method Statements are updated according to the latest environmental information.
- 4.2.5 Environmental issues will be reviewed at the Weekly Construction Meeting, with input from the ECoW. The following will be covered as a minimum:
 - Compliance with specific environmental requirements;
 - Legal compliance e.g. consents;
 - Environmental incidents & non-conformances to check that actions are completed by the deadlines and to identify trends and any further actions required;
 - Audit Corrective Action Requests to ensure actions are completed by deadlines; and
 - Environmental trends from inspections and checks.
- 4.2.6 It is the responsibility of the ECoW to ensure that the CEMP and Section Method Statements are kept up to date by ensuring that the relevant environmental surveys and checks are included; and the responsibility of the site team to report any new or potential environmental issues to the ECoW.

External Communications

- 4.2.7 SHE Transmission will act as the primary contact with all Environmental Regulators, Statutory Consultees and other non-statutory consultees. Where the Contractor wishes to liaise directly, the Contractor shall submit a request for the SHE Transmission Project Manager for acceptance. The Contractor will copy SHE Transmission into all correspondence with Statutory Authorities and provides adequate notice of all meetings proposed in order to allow the SHE Transmission to attend if they so wish.

4.2.8 Complaints from the public will be recorded on a Complaint Register and highlighted in the minutes of weekly meetings.

4.3 Environmental Training

Environmental training will be provided by the ECoW as appropriate. Induction attendance sheets and toolbox talk (TBT) sheets will be kept by the Site Manager/Foreman.

Training on this contract will include:

- Induction training including environmental requirements for all operatives and subcontractors are to be conducted covering, as a minimum, roles and responsibilities, expectations and targets, location rules, HSSE issues for that location.
- More detailed training will be provided for staff or subcontractors with specific environmental responsibilities.
- TBT's, depending on the type of work being undertaken and the environmental impacts that may result from these activities e.g. training on water pollution prevention before works near watercourses. A minimum of one Environmental TBT is expected per month, but may be higher depending on phase of works sensitivities.
- Training will be provided by appropriately qualified/informed personnel where deemed necessary and could include (but is not limited to):
 - Works adjacent to water and pollution prevention;
 - Ecological awareness (protected species, nesting birds, sensitive habitats);
 - Works near trees;
 - Works near cultural heritage features;
 - Biosecurity;
 - Environmental incidents;
 - Waste legislation and segregation;
 - Control of invasive non-native species; and
 - Management and storage/distribution of materials, fuels, lubricants and oils.
- In addition relevant bulletins / alerts shall be briefed to the team when received from across the industry.

5. ENVIRONMENTAL AUDITING AND MONITORING PLAN

5.1 Roles and Responsibilities

- 5.1.1 During the works the ECoW will be present on site, with other environmental specialists present on site during critical periods where this is deemed necessary (potential examples include during works close to cultural heritage features, where works are scheduled to take place during the bird nesting season and within the disturbance zone of a nesting Schedule 1 birds, and during certain watercourse crossings). Where watching briefs are specified in Method Statements no work will be undertaken until the ECoW or delegated representative is present.
- 5.1.2 The appointed ECOW for these works is:
Eddie Douglas
Tel: 07876 330369
- 5.1.3 Prior to works commencing on site (and within the required timescales for acquisition of any permissions etc as detailed in section 2.7) the ECoW will undertake or delegate to undertake all relevant pre-construction surveys and checks.
- 5.1.4 The ECoW will liaise with the Site Manager/Foreman to arrange for further survey/monitoring/application for consents, as appropriate.
- 5.1.5 The ECoW will input into Site Method Statements and ensure that the method statements are passed back to the Construction Manager for passing on to site teams. Together with the implementation of any environmental training required, the Site Method Statements will make site teams aware of all known and pertinent environmental constraints, along with site controls.

5.2 Project Environmental Auditing and Monitoring Requirements

- 5.2.1 Environmental monitoring and auditing is an essential tool to ensure all project environmental requirements are effectively implemented and environmental performance is continually improved. The ECoW will ensure that all on-site works are monitored.
- 5.2.2 During the works a site inspection will be completed by the ECoW on at least a weekly basis (more often as required) to ensure compliance with legal requirements and consents, contract requirements, the CEMP, method statements and the HSSE policy. The frequency of inspections will be determined in accordance with the programme but will be undertaken as a minimum once per month. After an environmental incident the inspection frequency may be increased. As the construction phase of the contract draws to a close the inspection frequency may decrease. Site inspection forms will be fed back to the Contractors site management team and audit reports will be documented in line with HSSE Document Control Procedure; any lessons learnt and further training or controls required as a result of the inspection will be implemented accordingly.
- 5.2.3 The Contractor will submit all audit and inspection results to SHE Transmission within one week of the audit or inspection taking place. The Contractor will make all areas of the site and relevant personnel available for monitoring and auditing by SHE Transmission.

5.3 Audit and Monitoring Reporting Procedure

- 5.3.1 Table 5.1 details the items to be monitored throughout the works.

Table 5.1: Monitoring Requirements

Monitoring Area	Indicative Audit Element
Waste Management	Appropriate recording of waste type and movements

Monitoring Area	Indicative Audit Element
	Appropriate segregation and storage of waste
	Evidence of appropriate licences and exemptions
	Appropriate disposal of special / hazardous waste
Peat Management	Appropriate handling and storage of peat, as per the Peat Management Plan
Water Management	Materials appropriately stored
	Vehicles parked in appropriate locations
	Chemicals, including fuel appropriately stored.
	Evidence of regular inspection
	Inspection of silt netting, check dams, settlement lagoons, cut-off drains etc.
	Ensure compliance with licenses under Controlled Activities Regulations
	Appropriate records kept of pollution incidents
Ecological Management	Ecological surveys are undertaken in line with the ecological management plan, and that appropriate buffer distances are marked out and maintained where they are required.
Noise Management	Compliance in accordance with the Noise Management Plan.
Environmental Emergency Response	Spill kits available in appropriate quantity and location on site
	On-site staff appropriately trained in their use
	Appropriate disposal of contaminated material
	SEPA contact details available on site
	Evidence of reporting and recording procedure for incidents being followed

5.3.2 At least once a month (more often if required) an environmental inspection shall be undertaken by SHE Transmission's environmental team to ensure compliance with legal requirements, consents/licenses, etc. and the CEMP.

5.4 Non-Compliance Procedure

5.4.1 Works shall be temporarily halted in any location where:

- There is evidence of breach of environmental commitments;
- There is a significant risk to the environment (including but not limited to, watercourses, ecology, ornithology and archaeology features);
- Adverse weather conditions increase the potential for serious pollution to occur.

- 5.4.2 If works are halted due to non-compliance they may only recommence where the appropriate corrective action has been implemented in agreement with SHE Transmission. The Contractor and all sub-contractors are required to take actions as soon as possible in order to close out the non-compliance.
- 5.4.3 Where appropriate, lessons learnt will be disseminated across all site staff and the relevant method statements, CEMP, toolbox talks etc. will be updated.
- 5.4.4 The procedure for addressing non-compliance and/or corrective actions identified by either the Contractor or SHE Transmission is as follows or via the most appropriate contractual mechanism dependent upon the particular non-compliance:
- Reports of any non-compliances shall be reported to SHE Transmission's Project Manager within 24 hours;
 - Non-compliances and/or corrective actions shall be addressed within 2 weeks. Where the Contractor fails to address a corrective action or non-conformance within one month (or earlier if SHE Transmissions Project Manager considers there is a potential to breach legislation or a consent / permit / license / registration) SHE Transmission shall issue an early warning notification; and
 - Where the Contractor fails to address a corrective action or non-conformance within two months (or earlier if the SHE Transmission 's Project Manager considers there has been a breach of legislation or a consent / permit license / registration) SHE Transmission's Project Manager will implement further contractual measures which could lead to Termination of the Contract.

6. EMERGENCY RESPONSE PLAN

6.1 Roles and Responsibilities

- 6.1.1 It is the responsibility of the Site Manager/Foreman, in consultation with the ECoW, to:
- ensure all personnel are aware of the potential hazards, via toolbox talks/daily brief;
 - control measures as defined in the CEMP are in place; and
 - monitoring of control measures is undertaken daily.

6.2 Summary

6.2.1 Although works are planned to aim to reduce the risk of an incident occurring, there may be a residual risk of a pollution incident such as a spillage that could cause serious environmental problems. This plan has been prepared to ensure mitigation measures are in place to minimise the consequences of an environmental incident.

6.2.2 A failure to implement adequate controls may lead to pollution of water, air or land, or adversely effect wildlife, and as such will be classed as an Environmental Incident.

- A major incident is considered to be an incident that has caused significant environmental damage, pollution or contamination and/or a breach of legal requirements including a breach of a consent condition or receipt of notice from a statutory authority.
- A minor incident is an incident that may cause environmental damage, pollution or contamination if no action is taken to correct it or a major incident that was narrowly avoided is referred to as a 'near miss'.
- Guidance on the classification of environmental incidents can be found in SEPA's Compliance Assessment Scheme Guidance Manual.

6.3 Hazards and Incidents

6.3.1 The types of hazards and the incidents likely to be encountered are described within the SHE Transmission Environmental Impact Classification (RF-SHE-404).

Upon discovery of an environmental incident it is the responsibility of all employees to take whatever steps they can to contain / remediate the incident (without putting the health and safety of themselves or others at risk).

All environmental incidents will be reported within 30 minutes to the Contractors management team, SHE Transmission's construction management team and SHE Transmission's 30 minute incident reporting number (0800 096 6210).

The environmental manager at SHE Transmission will decide whether the incident is reportable to SEPA or other regulators. If it is they shall inform the appropriate regulator within 24 hours of the incident. Regulators will be engaged during investigations, assessments and the implementation of appropriate corrective and preventive actions where appropriate.

In the event that a protected species has been identified and is in the line of works / may be inadvertently affected by the works e.g. great crested newt / Schedule 1 or breeding bird / bat / water vole etc., works are to stop immediately and the ECoW and SHE Transmission Environmental team contacted.

6.4 Control Measures

6.4.1 The following procedure must be undertaken following an incident:

- Cause or source should be identified and measures immediately taken to address/ stem issue if safe to do so.
- Pollution should be contained as close to the source as possible without compromising the safety of personnel.
- Any valves in the drainage system should be closed.
- Particular care must be taken when dealing with harmful chemicals.
- Where the incident cannot be dealt with safely and to a satisfactory standard by site personnel, a specialist clear up contractor must be contacted.

- Clean up materials or contaminated residue must be disposed of as special waste, using appropriately licenced carriers and disposal sites.
- Further detailed advice should be taken from internal procedures and SEPA Pollution Prevention Guideline (PPG) 22: Dealing with spills.
- Pollution incident response drills must be carried out on a six-monthly basis, along with photographic evidence for audit.

6.4.2 Spill kits will be located within the stores in the site compound, at strategic points around the site and within all working vehicles in order to speed up the emergency response process.

6.4.3 The minimum stock of spill kit to be held at a particular site will depend on the activities, equipment and risks associated with the individual location. The minimum stock required on each site will be assessed by the ECoW.

6.5 Hazard and Incident Reporting Procedure

6.5.1 The Employer operates strict safety, security and environmental incident reporting procedures. As such the Contractor will report all environmental incidents to SHE Transmission's Project Manager within 30 minutes who will produce a Safety and Environmental Awareness Report (SEAR) to record, manage and learn from the incident. The reporting of environmental incidents to the relevant statutory authorities shall be undertaken by SHE Transmission.

6.5.2 Following an environmental incident the Contractor must submit a report to SHE Transmission's Project Manager regarding the incident no later than one week from the incident occurring to include, but not be limited to:

- The date and time of incident;
- A description of the incident including, but not limited to, what caused the incident, its location, what was the impact, who or what was involved, who was informed, and the weather conditions at the time;
- Was this reported to SSE via the 30 minute rule?
 - If not, why not?
- Were statutory authorities contacted;
 - If yes, who was contacted, when, and what was discussed;
 - If not, why not?;
- How was the incident resolved, what mitigation was put in place, and who was informed;
- What lessons have been learnt; and
- How the Contractor can demonstrate procedures have been amended to prevent this type of incident happening again.

6.6 Emergency Contact Details

SEPA pollution Hotline	0800 80 70 60
Local SEPA office	Graesser House, Dingwall Business Park, Fodderty Way, Dingwall, IV15 9XB Tel: 01349 862021
Bob Laughton Findhorn Nairn and Lossie Fisheries Trust	Logie Steading, Dunphail, Forres, IV36 2QN Tel: 01309 611220

SEPA pollution Hotline	0800 80 70 60
Local Authority	The Highland Council, Glenurquhart Rd, Inverness, IV3 5NX Tel: 01349 886606
Local Authority Environmental Health Dept	Environmental Health Officer 38 Harbour Rd, Inverness, IV1 1UF Tel: 01463 228 703
Scottish Water	6 Castle Drive, Carnegie Campus, Dunfermline, KY11 8GG Tel: 0800 0778778
Specialist Clean-Up Contractor	RAW Group First Floor Office (East) 1 Cromwell Road Inverness IV1 1SX Tel: 0345 166 8491

7. WASTE MANAGEMENT PLAN

- 7.1.1 A Site Waste Management Plan (SWMP) is a framework for delivering materials resource efficiency. It is intended to be a working, living document from project inception to completion that aims to reduce waste, increase profit and maximise resource efficiency.
- 7.1.2 The SWMP is provided in Appendix C and it sets out the overall framework and approach for the project.

8. WATER MANAGEMENT PLAN

8.1 Introduction

8.1.1 The objective of the site Water Management Plan (WMP) is to inform and direct planning of the works in relation to the control of site drainage and the protection of the local water environment while construction works are being undertaken. It achieves this by identifying the following:

- Key measures, rules, consents and licences likely to be required in order to reduce the impact of construction on the local water environment; and
- A summary of the local water environment and the water resources likely to be available to the contractor for the construction period.

8.2 Water Environment Baseline

Topography

8.2.1 The scheme will be constructed at elevations of between 400m and 530m above ordnance datum (AOD). The site slopes south towards the valley floor in which the Allt a'Mharcaidh Burn flows south east. The site is surrounded by woodland with large expanses of moorland to the north.

Ecology

8.2.2 The main habitat types in the area are coniferous plantation woodland, and blanket bog with areas of dry heath, wet heath and acid grassland. No habitat can be described as a groundwater dependent terrestrial ecosystem (GWDTE).

Geology

8.2.3 Superficial geology in the area is of glacial origin, comprising of undifferentiated till (diamicton). Bedrock in the area is igneous, belonging to the Findhorn Pluton (comprising granodiorites).

Hydrogeology

Superficial

8.2.4 There are no superficial groundwater bodies classified by SEPA in the area. However areas of peat have been shown to be present across the site (see Appendix E Peat Management Plan).

Bedrock

8.2.5 Groundwater identified in bedrock in the area belongs to the Strathnairn, Speyside and Cairngorms groundwater body and has an overall status of good. This waterbody also has quantitative and chemical statuses of good.

Flooding

8.2.6 SEPA online flood maps show Allt a'Mharcaidh to be at high risk of pluvial flooding, but do not show flood risk for many of the other small watercourses in the area. It is reasonable to assume therefore that although pluvial flooding is unlikely to affect the substation site, however it is likely to affect the haul road given the number of small watercourse crossings. Therefore all water crossings will be designed to meet 1 in 200 year flood events, and track side drainage will be designed and built to best practise.

8.2.7 Small patches of woodland in the vicinity of the site area are also shown to be susceptible to surface water flooding, and given the likely increase of impermeable surfaces on site and the loss of vegetation this can be expected to increase during construction.

Surface waters

- 8.2.8 Most of the site drains in a southerly or south westerly direction, draining to either the Allt a'Mharcaidh or the Kyllachy Burn. The Allt a'Mharcaidh (not classified by SEPA) flows south easterly, and joins the Kyllachy Burn approximately 300m to the south west of the proposed development.
- 8.2.9 The Kyllachy Burn (overall status good, as of 2014) flows in a south easterly direction before eventually meeting the River Findhorn, nearly a kilometre south of the site. The River Findhorn (overall status good, as of 2014) flows north east towards the coast, discharging 45km away at Findhorn Bay, near Forres.
- 8.2.10 The area intended for the construction of the substation itself also appears to be drained to some extent by a surface water drainage ditch (catchment thought to be approximately 0.73km²) flowing south east, before eventually meeting the River Findhorn.
- 8.2.11 Consultation with the local fisheries trust has indicated trout are present in burns at higher elevations on the moor with salmon limited to lower elevations along the principal watercourses, such as Kyllachy Burn and Allt a'Mharcaidh. Therefore watercrossing design will need to ensure fish passage is not restricted.

Private Water Supplies

- 8.2.12 The Environmental Appraisal identified a number of controlled activities licences and private water supplies within 1km of the site. However, no impacts were anticipated, as a result of limited hydraulic connectivity

8.3 Management of the Water Environment

Surface Water Management

- 8.3.1 In the absence of mitigation, it is possible that the construction of the Phase 1 works may lead to an increased risk of surface water flooding and an increase in the level of suspended solids in runoff entering the local water environment. The creation of areas of hard standing or the compaction of existing road/track surfaces may lead to increased levels of runoff. The frequent use of vehicles and machinery will in turn increase the likelihood of suspended solids in any additional runoff. Finally the sloping nature of much of the surrounding terrain, accentuated by the removal of absorbent and soil-stabilising trees/vegetation, will reduce the extent to which runoff can be absorbed and filtered.
- 8.3.2 During intense rainfall events, there is a notable risk of surface water flooding and an increase in the volume of potentially contaminated surface water runoff entering the local water environment. Therefore appropriate and effective mitigation measures will be undertaken as per section 8.5 below.

Watercourse Crossings

- 8.3.3 The Farr Windfarm Haul Road will be utilised for access to site, and two of the existing bridges on this track require maintenance upgrades. The first bridge (chainage 3850) will require a registration under the Controlled Activities Regulations for bank protection works, with other works to the bridge progressed under General Binding Rule (GBR) 6. The estimated peak flow under this bridge 1.968 m³/s, which can equate to an average flow depth of up to 0.630m deep. The works to the second bridge will be progressed GBR 6 as only replacement of the deck is required.
- 8.3.4 The section of the existing track to be upgraded between the Farr Windfarm haul road and the Garbole Wood will require two existing culverts to be extended. These works have been progressed via a registration under the Controlled Activities Regulations and are now registered with SEPA under CAR/R/1153694. The estimated peak flow at the first culvert (chainage 9040) is calculated to be 2.779m³/s to achieve a 1: 200 year storm even plus a 20% allowance for climate change. The estimated peak flow at the second culvert (chainage 9825) is calculated to be 3.189m³/s to achieve a 1: 200 year storm even plus a 20% allowance for climate change. The existing culverts are 600mm diameter HDPE, and these will be replaced with a 1200mm diameter culvert to accommodate the estimated flows.

- 8.3.5 On the new access track to be constructed within Garbole Wood one new watercourse crossing will be required at Allt Chaillich Burn (chainage 10881). A temporary bridge will be utilised during the forestry and access works which can be progressed via GBR 6. For the main substation works a culvert will be constructed in line with SEPA guidance WAT-SG-25 and will be progressed via a registration or simple license under the Controlled Activities Regulations. A peak flow rate of 4.829m³/s is to be used for the design of the culvert. This is based upon a 1:200 +20% climate change growth allowance. The culvert design for this culvert can be found in Appendix B.
- 8.3.6 All water crossings along the route used by construction traffic must be fitted with splash boards. Drainage from such structures will be designed in order to mitigate against pollution from contaminated runoff using appropriate measures before entering a watercourse. Further guidance, in the form of SEPA's PPGs and GBRs will be utilised where localised conditions relating to bank conditions, local elevation and watercourse width dictate that settlement ponds or particular structures are not appropriate. Where possible, such measures will be incorporated into the construction site drainage plan (Appendix D).
- 8.3.7 Watercourse crossings must allow for the free passage of mammals and aquatic ecology and be designed by the contractor to allow for a climate change adjusted Annual Exceedance Probability (AED) of 0.5% (1:200 year flood event); also allowing for partial blockage. SEPA are likely to require flow calculations to have been undertaken as part of any CAR authorisation.
- 8.3.8 The cut off and filter drains provided along the access road shall be designed in accordance with the Forestry Commission Access Road specification (WI 12.3 Road Spec). The longitudinal drainage ditches can also be designed as infiltration ditches subject to the formation material. Trackside drainage ditches shall incorporate check dams for sediment control at a maximum of 25m centres and 4 check dams at 5m centres on approach to outfalls.
- 8.3.9 The ECoW will monitor construction works over watercourses and ensure that any conditions stipulated by SEPA as a result of the authorisation process are adhered to.
- 8.3.10 As described in section 8.6, the ECoW will also monitor the condition and effectiveness of any pollution prevention measures implemented at watercourse crossings.

8.4 Groundwater Management

- 8.4.1 Ground investigations have revealed groundwater in the area is limited. However, there are areas of peat within the site which will contain localised groundwater superficial resources. Therefore there is potential for dewatering and interactions with groundwater to occur. Further details of the management of the peat resource for the construction of the proposed development can be found in the Peat Management Plan (Appendix E).

8.5 Construction Management and Mitigation Measures

- 8.5.1 The obstruction of watercourses has the potential to sever habitats and influence in some cases the migration of certain fish species. The siltation of watercourses can have wide ranging effects on the health of a given ecosystem with the potential to reduce habitats for small fish species and invertebrates, influence their health and behaviour along with larger fish species and stifle the growth of submerged plants. Siltation also has the potential to influence water temperatures through changes in turbidity and may influence the flow characteristics of a given watercourse and its interaction with the surrounding hydrological environment.
- 8.5.2 The direct discharge of chemical pollutants also represents a significant risk to the water environment. Chemicals such as cement, fuel, oil or hydraulic fluid all have the potential to result in the mortality of resident species when introduced into the water environment.
- 8.5.3 In order to address these issues the following mitigation measures shall be followed and tool box talks will be undertaken as required to inform the site operatives of the requirements. Mitigation measures are also shown in Appendix D.

Receptor	Mitigation	Responsibility and Timing
Site Drainage	A 10m buffer zone will be established for all watercourses during construction within which works must not occur. If works are required within these watercourses, detailed method statement and risk assessments must be produced for the task, in consultation with SHE Transmission.	In advance of construction the Contractor will establish appropriate buffer zones under supervision from the ECoW.
	Filterbeds, silt netting, settlement ponds, checkdams or similar alternative systems will be utilised where appropriate to minimise the level of silt-laden water on site and prevent its entry into any watercourse.	In advance of construction the Contractor will establish appropriate locations for these items under supervision from the ECoW.
	Installation of upslope cut-off drainage.	Installation by Contractor during initial phase of civils works under supervision from the ECoW.
	All water crossings along the route used by construction traffic must be fitted with splash boards.	Any new water course crossings will incorporate splash boards. The contractor will be required to fit and maintain these. Their effectiveness will be monitored by the ECoW.
	If conditions on site dictate that a discharge of contaminated water may be required, where temporary site drainage is at risk of being over whelmed, SEPA must be contacted in advance in order to agree an appropriate course of action.	Contractor to inform SHE Transmission. SHE Transmission to contact SEPA. The Contractor can only contact SEPA where written authorisation is provided by the Project Manager.
	Dewatering excavations will take place according to best practice guidelines including consultation with SEPA on the disposal or re-use of extracted water.	This will be the responsibility of the Contractor and will take place in advance of construction.
	Where practicable, excavations will take place during dry weather and where possible and will be backfilled as soon as practicable.	This will be the responsibility of the Contractor during construction.
Storage of Fuels and Chemicals	No permanent or fixed fuel storage area will be permitted within 100m of any drain, ditch or watercourse.	To be constructed accordingly by the Contractor.
	Fuels oils and chemicals will be stored in a bunded storage, with regular checks undertaken of secondary containment. All bunds will be designed to equal to 110% capacity of the volume stored.	This will be the responsibility of the Contractor during construction.
	Fuels storage tanks will be regularly and systematically checked as part of the site EMS, with bunds/drip trays	This will be carried out by ECoW throughout construction process.

Receptor	Mitigation	Responsibility and Timing
	emptied as necessary.	
	No mobile storage of fuels or refuelling activities will be permitted within 30m of any drain or watercourse. Where refuelling is required on-site and cannot be carried out in an appropriately drained/bunded area of hard standing, appropriate temporary bunds or "plant nappies". Spill kits must also be available for all refuelling activities.	To be implemented by the contractor and enforced by ECoW through EMS during construction.
	Spill kits and absorbent materials will be available in abundance across the site wherever plant or machinery are operating or refuelling takes place.	To be implemented by the contractor and enforced by ECoW through EMS during construction.
	A designated COSHH (Control of Substances Harmful to Health) store will be installed on site. This will be suitably ventilated and bunded according to HSE guidance and positioned at least 30m from any watercourse, drain or ditch.	Appropriate equipment to be procured by the Contractor in advance of construction.
Materials, Wastes and Vehicle Storage	Materials will be stored in suitably designated areas of hard standing an appropriate distance from any drain, ditch or watercourse (to be agreed with ECoW). Impacts from peat and waste materials are reviewed and mitigated within the Peat Management Plan (Appendix E) and Site Waste Management Plan (Appendix C), respectively.	The Contractor will ensure that materials are suitably stored. This will be monitored through the construction site EMS by the ECoW.
	Storage areas will be sited in areas with lower ecological value and low stability risk.	The Contractor will ensure that storage areas are appropriately sited as part of the site EMS, throughout construction.
	Vehicles will be parked in areas of hard standing away from watercourses and to be regularly checked and maintained to minimise the risk of leakage, in particular vehicles with hydraulic attachments will be rigorously checked on a regular basis.	To be checked by the Contractor ECoW through the site EMS.
	Where there is potential for wastes or materials to contribute to sediment-laden run-off or windblown particulates, stockpiles will be suitably covered and/or bunded.	The Contractor will be responsible for ensuring that wastes and material are suitably covered/bunded. This will be monitored through the site EMS by the ECoW.
	Where storage on an area of hard standing is not practicable, for example where material is being excavated with a view to reinstatement at a later date, backfilling will take place as quickly as possible following excavation. Suitable storage areas away from drains, ditches and watercourses will be agreed with the Contractor ECoW.	It will be the responsibility of the Contractor to ensure that excavations are backfilled as soon as possible where practicable.
	Dust suppression will take place only when needed, and any systematic schedule for such activities should be flexible, to	Undertaken during construction as and when required by the

Receptor	Mitigation	Responsibility and Timing
	ensure that the use of water and the likelihood of run-off is minimised.	Contractor under supervision from the ECoW.
Welfare Facilities (Waste Water)	If a holding tank of any kind is used, this will be sited a sufficient distance from any water resources to mitigate against any failures.	The siting of any form of holding or septic tank will be the responsibility of the Contractor under the guidance of the Contractor ECoW and SEPA (if required).
	Discharge of such effluent is likely to require authorisation from SEPA or Scottish Water under the Controlled Activities Regulations or the Sewerage Act, respectively.	The Contractor will be required to submit such an application in advance of works taking place.
	Regardless of which solution is chosen, it is vital that such facilities are inspected regularly for leaks or potential failures and emptied when necessary.	To be checked by the Contractor ECoW through the site EMS.
Concrete	Ensure that appropriate volumes of concrete are ordered for a given task.	The Contractor will be responsible for this throughout the construction period.
	Any excess concrete must be returned to the supplier.	The Contractor will be responsible for this throughout the construction period.
	Appropriate additional cut-off ditches/drains will be installed where a risk of a spillage or a risk of run-off is identified by the Contractor ECoW. Such drains must contain any contaminated residue or concrete or carry any contaminated runoff to a suitably lined containment area.	The contractor will be responsible for implementing the design, amending where appropriate to maximise effectiveness, under the guidance of the ECoW.
	Surplus dry concrete will be used elsewhere on site if possible, as inert rubble. If this option is not available, such waste must be taken off-site by a suitably licenced waste contractor and disposed of at an appropriate waste management site.	It will be the responsibility of the contractor to ensure compliance with waste legislation throughout the construction period.
	Where possible, schedule concrete pours during dry weather.	The Contractor will be responsible for this throughout the construction period.
Concrete washout	It is not anticipated there will be significant volumes of concrete used during the phase 1 works. If bulk concrete deliveries are required, only concrete chutes will be washed out on site using Siltbuster Roadside Concrete Washouts (or similar) to ensure water is suitably treated prior to discharge.	In advance of construction the Contractor will establish appropriate locations for these items under supervision from the ECoW.
	Appropriate signage will be in place to inform operatives of the need to use designated areas.	This will be the responsibility of the Contractor in advance of

Receptor	Mitigation	Responsibility and Timing
		construction.

9. PEAT MANAGEMENT PLAN

9.1 Introduction

9.1.1 In order to assess the potential impact of the scheme on the surrounding environment and local community, the 'Tomatin Substation Environmental Appraisal' was produced by SHE Transmission in February 2016. It undertook an assessment of the likely environmental impacts of the scheme with technical appendix 2.2 detailing the peat management proposals.

9.1.2 In May 2016 SEPA requested further information in order to lift an objection to the consent application. Further site investigations were subsequently undertaken to better understand the potential volumes of peat on site, and a supplementary Phase 1 Peat Management Plan was produced. The additional information allowed SEPA to lift their objection.

9.2 Construction Management and Mitigation Measures

9.2.1 In order to address the requirements of a condition of consent a 'Phase 2 PMP' is required. As such a Phase 2 PMP for the forestry and access works is presented in Appendix E. A further Phase 2 PMP will be prepared for works to the substation platform.

9.2.2 The PMP outlines the overall design approach that has been applied to the scheme to minimise peatland disruption and to reduce the release of carbon. It ensures that all further opportunities to minimise peat disturbance and extraction during construction will be taken through appropriate and industry proven methods for the reuse of excess peat to restore the effects of construction activities, without significant environmental implications.

10. SITE RESTORATION AND REINSTATEMENT PLAN

10.1 Introduction

10.1.1 The objective of the site restoration and reinstatement plan is to inform and direct the Contractor in relation to the restoration and reinstatement of the works.

10.2 Roles and Responsibilities

10.2.1 It is the responsibility of the Contractor to identify any additional site restoration agreements over and above this plan with the landowners/occupiers (where appropriate). It is the responsibility of the Construction Manager together with the Site Engineer to ensure that the restoration and reinstatement plans are implemented, and for the ECoW to check compliance.

10.3 Planning Works

10.3.1 In order to undertake restoration to an acceptable standard (ensuring that the previous habitat and vegetation is reinstated to as near the original condition as possible), it is important to plan the works in such way as reinstatement is achievable. The way in which stripping, storage and replacement of soils / turfs is undertaken can significantly increase the successfulness of any reinstatement.

10.3.2 Micro-siting of works areas and access tracks will be undertaken in order to avoid the need for major earthworks, removal of natural features such as rocky outcrops, felling of mature trees, creation of gaps in hedges or walls, crossing of drainage ditches and bog (peatland) habitats. It is assumed that unless agreed with stakeholders and authorised by SHE Transmission all temporary accesses are restored to the original condition.

10.3.3 In order to plan for the works representative photographs or videos will be taken of all site accesses, storage and works areas before and after the work in order that a comparison can be made, and in order to respond to disputes, where applicable.

10.3.4 The Contractor is responsible for correcting defects resulting from works and SHE Transmission will monitor restoration and reinstatement to ensure compliance with agreed environmental commitments as defined in the contract.

10.4 Soil Management Process

General Principles

10.4.1 Unless otherwise agreed in writing with SHE Transmission all excavations shall adhere to the following process:

- Peat shall be managed in accordance with the Peat Management Plan (Appendix E);
- Turfs stripped to 300mm using large toothed bucket;
- Turfs stored vegetation side up and watered if drying out;
- Any remaining top soil and all subsoil layers to be removed and stored separately;
- Subsoil, topsoil and turfs replaced in same order as removed;
- Turfs reinstated vegetation side up;
- The toothed bucket should not be used to smooth over the excavation as it results in greater initial damage and slower recovery of the vegetation;
- The Contractor will adhere to industry best practice relating to biosecurity, including undertaking all reasonable precautions to minimise the risk of contamination and the spread of animal and plant diseases, pests, parasites and non-native species.

Stripping

10.4.2 Unless otherwise agreed in writing with SHE Transmission all soil stripping shall adhere to the following process:

- Plan soil stripping carefully in advance;

- Check all necessary pre-construction surveys have been completed prior to stripping;
- Follow all identified mitigation requirements for the location and method of stripping;
- Check whether the project archaeologist should be on site during the soil stripping; and
- Where possible, strip soil during drier periods. Do not strip soil during periods of very heavy rainfall.

Storage

10.4.3 Unless otherwise agreed in writing with SHE Transmission the storage of soils shall adhere to the following process:

- Topsoil should be stripped and stored within the pre-identified areas to ensure safe storage and swift and successful reinstatement;
- If space does not allow storage and the surplus is to be stored elsewhere on the site, consult the ECoW in advance to agree appropriate areas;
- Separate areas must be created for the different layers and topsoil must not be mixed with subsoil layers;
- Soil storage areas should be located away from watercourses (10m) protected from run-off from adjacent areas;
- Storage areas should be reinstated to the condition prior to use for storage;
- If soil storage is being carried out on sensitive habitats, consideration should be given to storage on top of a geotextile mat and storage duration should be minimised;
- Best practice would be adopted in order to minimise the amount of compaction or other disturbance of the general structure of the superficial deposits;
- Other site works should not impact on stored soil (e.g. Construction traffic must not track over stored soils);
- Record where all removed soils are stored including the different subsoil layers (this is important as subsoil layers will need to be reinstated in the order they are removed);
- If significant soil erosion is occurring from storage piles during periods of heavy rain consideration should be given to covering the stockpiles;
- If any stored soil is contaminated it should be disposed of in accordance with the waste management plan; and
- In periods of dry weather check the need for dampening down using bowsers to reduce dust and potential nuisance.

Reinstatement

10.4.4 Unless otherwise agreed in writing with SHE Transmission reinstatement shall adhere to the following process:

- Stripped soil should be reinstated as close to where it was removed as possible. This will help to maintain a local seed base and the local geological/hydrological characteristics;
- Unless otherwise agreed, turfs should be reinstated following the works and orientated vegetation side up;
- Where turfs are not available, areas would be left to revegetate naturally unless circumstances require otherwise;
- Where there are excess turfs from access works they will be reused where possible elsewhere on site;
- Any soil found to be contaminated should not be used for reinstatement and dealt with in line with the waste management plan;
- The reinstatement of the construction areas are to be undertaken to a high standard, using the existing soil and vegetation material wherever possible, in accordance with best practice.

11. CULTURAL HERITAGE MANAGEMENT PLAN

11.1 Introduction

11.1.1 The Tomatin Substation Environmental Appraisal' undertook an assessment of the likely environmental impacts of the scheme with chapter 7 detailing the assessment on cultural heritage. The findings of this assessment have been used to identify the baseline and prepare a written scheme of investigation.

11.2 Cultural Heritage Baseline

11.2.1 The baseline survey identified a post-medieval hill track (Site 1) of lesser heritage importance, to the south, and post-medieval townships (MHG26196, MHG26197, MHG26198 & MHG26218) lie further to the south, south-east, and west. The locations of these features are provided in the Written Scheme of Investigation (WSI) which has been submitted to the planning authority and is available from the e planning portal.

11.2.2 These features are located entirely within an existing commercial conifer plantation (Garbole Wood). As such these features are likely to have been damaged, lost or destroyed as a result of forest operations and management.

11.3 Written Scheme of Investigation

11.3.1 A Written Scheme of Investigation (WSI) was prepared to address the requirements of a condition of consent, and this has previously been submitted to the local authority for approval. The WSI has been provided for the Contractor as part of the commitments.

11.4 Construction Management and Mitigation Measures

11.4.1 The hill track (Site 1) is considered of lesser importance, and as such no mitigation is proposed for this feature.

11.4.2 No works are required in the vicinity of the townships identified in Figure 1. Notwithstanding this in order to ensure their protection the contractors shall:

- Fence off known cultural heritage features where works are in proximity to them, and microsite works around the feature to avoid damage; and
- No development is intended within these demarcated areas but if a site cannot be preserved in situ then a programme of mitigation (e.g. evaluation, excavation, watching brief) will need to be agreed in advance with THCHET.

11.4.3 No mitigation is proposed in any other part of the Development as no evidence of cultural heritage or archaeological features has been identified where construction works are required.

11.4.4 Where unexpected cultural heritage features are located works in the area will cease and the ECoW and SHE Transmission contacted for advice.

11.4.5 Guidance for the contractor in relation to archaeology is detailed in the WSI and provides brief and clear guidelines for all construction contractors undertaking any ground works such as topsoil and overburden stripping, cut/fill excavations, or access track construction. The guidelines contain details of arrangements for calling upon professional archaeological support in the event that buried remains of potential archaeological interest are discovered.

12. ECOLOGICAL MANAGEMENT PLAN

12.1 Introduction

12.1.1 The Tomatin Substation Environmental Appraisal' undertook an assessment of the likely environmental impacts of the scheme with chapter 7 detailing the assessment on ecology and ornithology. The findings from these surveys have been used to develop the ecological management plan detailed in this section.

12.2 Habitats

12.2.1 A desk study and an extended Phase 1 habitat survey of the site and a 30 m buffer of the site was completed in April 2014, and updated in December 2014 and July 2015 with all visits following best practice guidance and in accordance with SEPA's "Functional Wetland Typology for Scotland.

12.2.2 The Proposed Development is not within, or in close proximity to, any sites designated for their habitats. The habitats found on site predominantly consist of coniferous plantation woodland, and blanket bog with areas of dry heath, wet heath and acid grassland.

12.3 Species

12.3.1 The following species, which may be present within the proposed works areas, are of European importance and are protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland):

- Bats (all species);
- Otter;
- Mountain Hare; and
- Wildcat.

12.3.2 Under this legislation, it is an offence to intentionally or recklessly:

- Kill or injure or capture such an animal;
- Harass such an animal or group of animals;
- Disturb such an animal whilst it is in a place of shelter or protection;
- Disturb such an animal whilst it is rearing or caring for young;
- Obstruct access to a breeding site or resting place;
- Disturb such an animal so that it is likely to affect their distribution, abundance or ability to survive or breed.
- It is also an absolute offence to damage or destroy a breeding site or resting place of such an animal.

12.3.3 The following species, which may be present within the proposed works area, are protected under UK legislation:

- Badger;
- Water vole;
- Pine marten;
- Red squirrel; and
- Amphibians and reptiles.

12.3.4 Under this legislation it is an offence to:

- Wilfully kill, injure or take a badger, cruelly ill-treat a badger, dig for badger, possess a live or dead badger, or to intentionally or recklessly damage, destroy or obstruct access to a badger sett or disturb a badger whilst it is occupying a sett;
- Intentionally or recklessly disturb, damage, destruct or obstruct access to a water vole burrow;
- In respect of red squirrel or pine marten, to kill, injure or take (capture); damage, destroy or obstruct access to the places of shelter or protection, or disturb whilst using a shelter;
- In respect of reptile species (e.g. common lizard and adder) to recklessly kill, injure or sell such an animal;
- In respect of amphibian species (e.g. common frog, common toad, common newt) to sell or offer for sale.

12.3.5 All wild birds and their eggs and nests are protected under Section 1 (1) of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- Kill, injure or take any wild bird, capture or keep (alive or dead) any wild bird or their eggs;
- Destroy or take the egg of any wild bird; and
- Destroy, damage, interfere with, take or obstruct the use of the nest of any wild bird whilst it is in use or being built.

12.3.6 In addition it is an offence to intentionally or recklessly disturb any bird listed in Schedule 1 or the Wildlife and Countryside Act 1981 (as amended) whilst building or using a nest; and an offence to disturb their dependent young.

12.3.7 Site surveys have not recorded Black Grouse were recorded on site, however a goshawk was seen regularly approximately 500m west of the site and therefore it is considered likely to be nesting nearby. Further surveys are required to locate this nest site prior to start of works on site.

12.3.8 Stands of Juniper have been identified in proximity to the works and every effort will be made to avoid their removal by micrositing works or pruning.

12.4 Biosecurity and Non-Native Species

12.4.1 The Wildlife and Natural Environment (Scotland) Act 2001 (WANE) made it the landowner or land manager's responsibility to prevent the planting or otherwise causing to grow in the wild of any non-native plant, or releasing of any non-native animal or spread of any non-native species out-with its native range. There are two main areas that are considered applicable to this scheme:

- Non-Native Species (NNS) are any animal or plant introduced (deliberately or accidentally) by human activity to an area in which they do not naturally occur.
- Invasive Non-Native Species (INNS) are non-native species that have the ability to spread rapidly and become dominant in an area or ecosystem, causing adverse ecological, aesthetic degradation, biodiversity loss, loss of land function, access restrictions and increased risk to human and animal health and safety, environmental and economic impacts.

12.4.2 No non-native invasive species have been identified on site. However, it is still necessary to consider the potential ways NNS and INNS can be introduced onto site from elsewhere and for mitigation procedures to be put in place to prevent this. To maintain good site hygiene when dealing with any non-native species, the following will be applied:

- Briefing to all site personnel on what the INNS or NNS species looks like and the issues associated with them during tool box talks or within site inductions;
- Recording of any areas that are contaminated/infested with INNS or NNS found during the construction period within the CEMP and informing site personnel of containment measures, e.g. cordoning off areas, during tool box talks;
- Isolation of areas of INNS or NNS with fencing and restricted access signs. Signs will be erected to warn people working there that the area is infested / contaminated;
- Personnel working on or between sites will ensure their clothing and footwear are cleaned where appropriate to prevent spread;
- Where a risk of cross-contamination is identified (i.e. from one site to another), vehicles or machinery will be allocated to, and be required to stay within, specific sites to prevent spread;
- Ensure that vehicles are cleaned regularly to remove any accumulated mud, especially from wheels and wheel arches;
- Material / water left after vehicles have been pressure-washed will be contained, collected and disposed of appropriately;
- All chemicals used for the control of non-native species should be stored and used in accordance with The Control of Substances Hazardous to Health Regulations 2002;
- All wash facilities including waste water from washing vehicles, equipment or personnel should be managed in a responsible way so as not to not cause harm to the environment, as described in the Pollution Prevention Plan and the Site Water Management Plan;
- All vehicles leaving the infested area and / or transporting infested soil/materials will be thoroughly pressure-washed in a designated wash-down area before being used for other work; and

- Keep vehicular access to a minimum: do not enter areas unnecessarily and, where practicable, keep to established hard tracks.

12.5 Pre-construction Surveys

12.5.1 Prior to any site works commencing, a suitably qualified and experienced ecologist will undertake a walkover survey in order to gather up-to-date site-based information on ecological / ornithological constraints (based on the species noted in section 12.3) and provide advice in relation to the proposed works areas (which include all access routes, storage areas and works areas). These surveys are scheduled to commence in week beginning 30th January 2017.

12.5.2 The findings from such surveys will be presented on an ecological constraints map that shows the appropriate buffer for that species. SHE Transmission will also host a 'live' online version of the constraints maps, which will be updated as required following surveys undertaken prior to the start of works and from surveys undertaken during construction for use throughout the project.

12.5.3 Surveys must extend to appropriate buffer distances as required (with landowner permission), in line with standard survey guidance (which may therefore extend beyond working areas or access tracks). Appropriate monitoring should be undertaken where required. It is the responsibility of the ECoW to ensure that pre-construction surveys are undertaken in accordance with standard/best practice guidance and any licencing requirements.

12.5.4 This includes, but is not necessarily limited to, the following survey requirements:

- Habitat surveys according to Phase 1 (JNCC 2010) and / or NVC surveys (according to Rodwell) within 50m of proposed works and access areas;
- Invasive non-native species surveying within 50m of proposed works and access areas;
- Otter and water vole surveying on any watercourses / waterbodies located within 100m of proposed works and access areas;
- Bat roost, wildcat, badger, red squirrel, reptile and amphibians surveying within 50m of proposed works and access area;
- Camera trap monitoring of protected species to identify the use of places of shelter (this may require a licence from SNH);
- During the bird breeding season (mid-March to mid-August inclusive), undertake checks for active breeding birds (non Schedule 1 species) nests within 50m of proposed works areas (apart from existing hard standing and access track areas); and
- During the breeding bird season (mid-March to mid-August inclusive), undertake checks for Schedule 1 breeding birds' nests within 750m - 1km from proposed works areas (apart from existing hard standing and access track areas). This includes, but is not limited to, goshawk, hen harrier, merlin, osprey and peregrine.

12.5.5 Construction teams shall be advised of new constraints, together with mitigation and licencing requirements through updating of the constraints map, method statements and through Toolbox Talks, as required. Site teams should be informed of any new protected species constraints as soon as practicable.

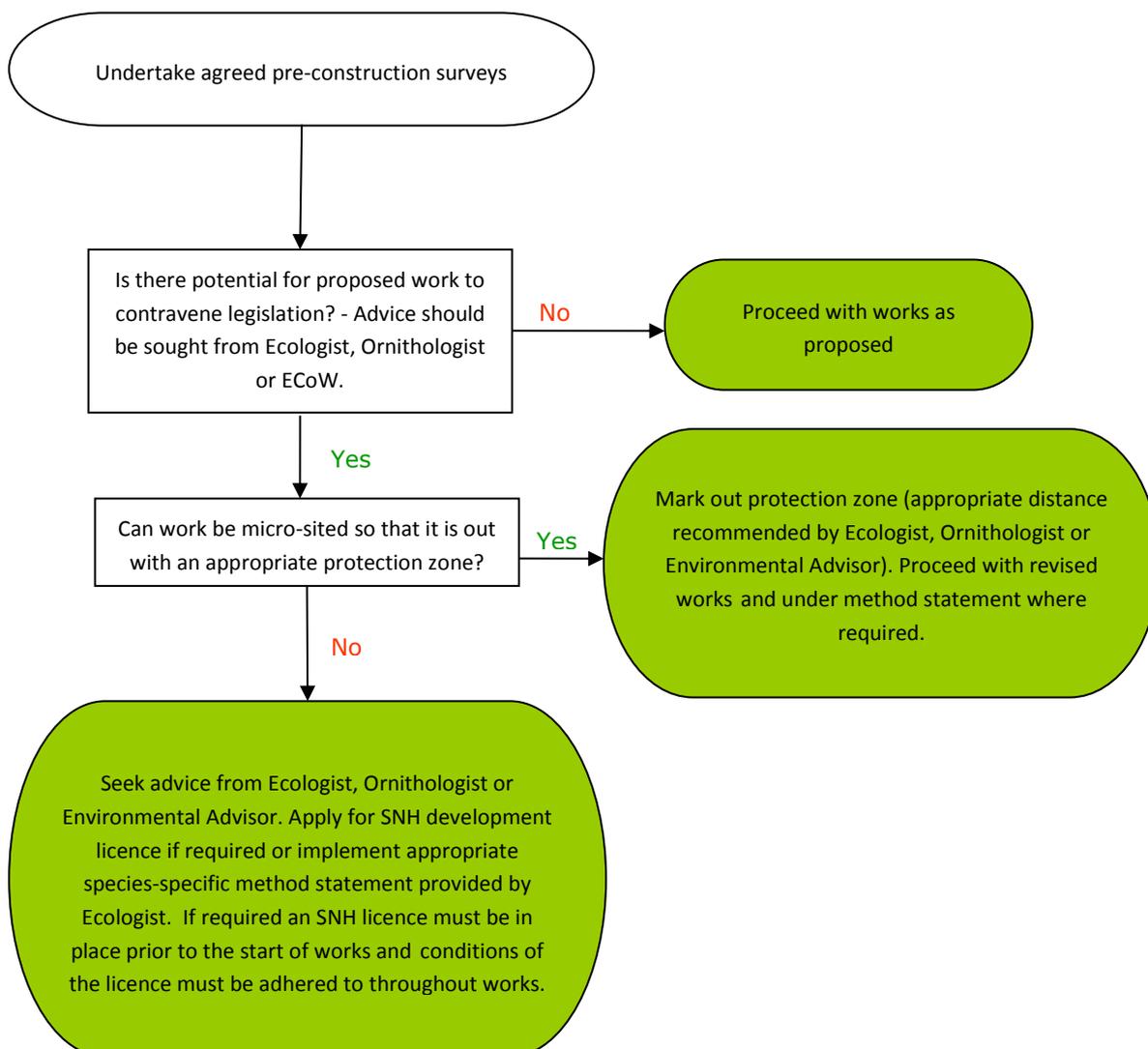
12.5.6 The course of action in response to any new findings will be determined by the ECoW according to the mitigation hierarchy (Table 12.1), and the mitigation decision tree.

Table 12.1 Mitigation hierarchy

Action	Method	Licensing requirement
Avoidance	<ul style="list-style-type: none"> • Implement appropriate-sized protection/buffer zone around feature for the duration of the work • Timing constraint (carry out work when feature is not in use) 	No license required

Action	Method	Licensing requirement
	<ul style="list-style-type: none"> • Toolbox talk 	
Disturbance	If avoidance is not possible: <ul style="list-style-type: none"> • Screening of work • Adoption of minimal disturbance methods 	Licence may be required
Destruction	If work cannot be limited to disturbance alone: <ul style="list-style-type: none"> • Destruction may only be undertaken under conditions of licence and in accordance with mitigation plan/species protection plan. • Monitoring, supervision and licence report may be required. 	Licence required

Mitigation Decision Tree



12.5.7 Species Protection Plans (SPP) have been developed by SHE Transmission in order to identify the likely risks to species from construction works. The relevant SPP are provided in Appendix B and shall be adopted whenever the presence of legally protected species is confirmed. Note: the SPP will not be submitted to the

statutory authorities unless specifically requested as they are as per prior agreement with SNH, but have been provided to the Contractor.

12.6 Licensing Requirements

12.6.1 The ECoW is responsible for ensuring that license applications are secured in advance of the work. If any licences are being applied for SHE Transmission Environmental team will be informed and offered an opportunity to review the application and be named as Agents on the licence. Applications must be submitted sufficiently in advance of the works to allow for processing (40 days approximately although this timescale will depend on the time of year and the complexities of the license application). Licensing forms and advice are available on SNH's website.

12.6.2 Completed application forms must be sent to the following:

Licensing Section
Scottish Natural Heritage
Great Glen House
Leachkin Road
Inverness
IV3 8NW

12.6.3 Advice and guidance can be sought from the SNH licensing team: 01463 725000 / LICENSING@snh.gov.uk.

12.7 Monitoring and Reporting

12.7.1 The ECoW / Ecologist / Ornithologist will attend site on a regular basis throughout the construction period to ensure all environmental mitigation is delivered. Reports will be submitted to SNH as required through a license. Pre-construction surveys will take place in line with project programme in advance of works and specific to planned work activities. Any changes to planned accesses should be confirmed with the ECoW before works can commence.

13. AIR QUALITY MANAGEMENT PLAN

13.1.1 The Contractor will employ best practices to eliminate, reduce or mitigate emissions to air. Controls that will be in place on this contract are presented in Table 13.1.

Table 13.1 Air Quality: Management Procedures

TASK	Responsibility
No burning on site.	All Staff
Protect very fine or dry material from the wind.	All Staff
Site and shape stockpiles to minimise potential for dust generation.	All Staff
Mix grout in enclosed / shielded area.	All Staff
Keep drop heights into hoppers and lorries to a minimum.	All Staff
Sheet vehicles carrying spoil to prevent dust nuisance and cross contamination.	Site Manager / Foreman
Check site accesses and local roads daily for mud and arrange for it to be cleaned up immediately.	Site Manager / Foreman
Turn off engines when not in use. If any plant or equipment is emitting black / heavy smoke, cease use and send for servicing.	All Staff
Make sure exhausts do not discharge directly at the ground.	All Staff
Enforce speed limits on site.	Site Manager / Foreman
Provide a road sweeper for use on public roads used by site traffic to remove mud and resultant dust (if necessary).	Site Manager / Foreman
<p>Dust suppression techniques will be utilised in order to reduce the potential impact of dust on the surrounding receptors.</p> <p>Dust suppression will take place only when needed, and any systematic schedule for such activities should be flexible, to ensure that the use of water and the likelihood of run-off is minimised.</p>	Site Manager / Foreman

14. CONSTRUCTION NOISE MANAGEMENT PLAN

14.1 Introduction

- 14.1.1 This construction noise management plan has been prepared to ensure neighbouring noise sensitive properties are protected from noise nuisance during the construction of the Tomatin Substation. This plan has been prepared in accordance with the guidance outlined within BS5228: 2009 Part 1.
- 14.1.2 The objective of this plan is to provide a framework for construction noise and vibration management to ensure that noise and vibration levels at neighbouring buildings remain within reasonable limits throughout the works.

14.2 Baseline Characterisation Site Visits

- 14.2.1 Background noise measurements have been collected over the course of two surveys, one short-term and one long-term.

Short-Term Noise Survey

- 14.2.2 A visit was made to the Proposed Development area over the evening and night of 17 June 2014 at which time background noise surveys were performed at three receptors, in accordance with BS 4142:1997 (the most up to date standard at the time of the survey).
- 14.2.3 The measurements collected at each receptor during the short-term survey consisted of three periods of at least three minutes of contiguous data, which was deemed sufficient to represent background noise levels, as the level was seen to have stabilised. The short-term measurements were collected at a quiet time of night between 20:44 and 23:00.

Long-Term Noise Survey

- 14.2.4 An additional long term noise survey was carried out at three noise sensitive receptors between 11 and 18 April 2016, with measurements conducted in accordance with the guidance of BS 4142: 2014 (the final draft of which was published in October 2014).
- 14.2.5 Continuous 15 minute measurements were taken over the course of the long-term measurement campaign, and these were screened to only include those taken between 22:00 and 04:00 (BST). Additional screening for periods of rainfall and suspected high wind was also carried out on the long-term noise data.

14.3 Location of Receptors

- 14.3.1 The noise sensitive receptors considered in this analysis are the residential properties known as Norwood, Asgard, Dalarossie and a new property (referred to as New Property henceforth) with planning permission located adjacent to the unclassified road between Garbole and Farr. Both Norwood and Asgard are situated approximately 1 km south of the Proposed Development. Dalarossie is located approximately 1.3 km to the south east of the Proposed Development. New Property is located approximately 600 m south west of the Proposed Development.
- 14.3.2 Table 9.1 provides the location of the four receptors and the Proposed Development. All coordinates are given in the British National Grid coordinate system (Easting (m), Northing (m)). Measurement locations for the four receptors are shown on Figure 4.

Table 9.1 : Receptor and Substation Coordinates

Receptor	Receptor location		Monitoring Carried Out	
	Easting	Northing	Short-Term	Long-Term
Asgard	275675	824205	✓	✓
Dalarossie	276551	824435	✓	✓
New Property	275271	824627	✗	✓
Norwood	275612	824156	✓	✗
Substation	275458	825177	-	-

14.4 BS5228: 2009 Assessment Methodology

14.4.1 Construction noise impacts on nearby receptors have been calculated according to BS 5228: 2009+A1 2014 assuming a maximum estimate of construction activities. BS 5228: 2009+A1 2014 specify the threshold noise levels outlined in Table 9.2.

Table 9.2: BS 5228: 2009+A1 2014 Threshold Noise Levels

Time of day	Threshold value (dB)		
	Category A	Category B	Category C
Night-time (23:00 – 07:00)	45	50	55
Evenings and weekends	55	60	65
Daytime (07:00 – 19:00) and Saturdays (07:00 – 13:00)	65	70	75

14.4.2 Where:

- Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values;
- Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values; and
- Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

14.5 Baseline Conditions

14.5.1 At the time of both noise surveys, the main contributor to background noise was judged to be flowing water from the River Findhorn, with birdsong and intermittent agricultural animal noises also noted.

14.5.2 The measured short-term background noise results are listed in Table 9.3.

Table 9.3 Measured Results at Receptors (Short Term)

Receptor	File no	Date	Time	LA90 (dB)
Asgard	0241. S3B	17 June 2014	22:17	36.6
	0242. S3B	17 June 2014	22:26	37.6
	0243. S3B	17 June 2014	22:29	36.8

Receptor	File no	Date	Time	L _{A90} (dB)
Dalarossie	0244. S3B	17 June 2014	22:51	35.4
	0245. S3B	17 June 2014	22:56	34.4
	0246.S3B	17 June 2014	22:59	35.8
Norwood	0237.S3B	17 June 2014	20:44	31.4
	0238. S3B	17 June 2014	21:49	32.0
	0239. S3B	17 June 2014	21:55	30.8

14.5.3 The data from the long term surveys is provided within the chapter 9 of the environmental appraisal.

14.6 Potential Effects during Construction

14.6.1 The predicted sound pressure levels, rounded to the nearest decibel, at the three receptors as a result of construction activities are:

- Norwood: 43 dB(A).
- Asgard: 43 dB(A).
- Dalarossie: 39 dB(A).
- New Property: 50 dB(A).

14.6.2 The background noise measurements, presented in Table 9.3, (when rounded to the nearest 5 dB) are less than category A values. Therefore, threshold values outlined in category A are to be used.

14.6.3 Comparing these with the criteria outlined in Table 9.2, the levels are acceptable at any time other than for night working.

14.7 Construction Management and Mitigation Measures

14.7.1 The normal working hours during the construction phase within the site shall be Monday – Friday between 0700hours and 1800hours and on Saturdays between 0800hours and 1300hours. Any work requiring too be conducted outwith these times shall only commence with prior written approval of the Council with an expectation that there will be no deliveries to site on Saturdays or Sundays and any workings outwith the permitted hours be limited to such activities that are not significantly audible beyond the site boundary.

14.7.2 A key aspect of construction noise management is stakeholder engagement. As such a community liaison group has been set up and will, which will meet to the timescales agreed during the start-up meeting for the duration of the works.

14.7.3 In addition to the liaison group there will always be a contact person available on site during works, and their contact details will be provided to the local residents.

14.7.4 Further information regularly provided to all neighbours with an update on the progress of the works, and the specific activities (including locations) due to be undertaken next. Prior to any particularly noisy processes identified in a construction noise management schedule, the nearest affected neighbours will be contacted individually. Neighbours will be informed of the proposed timing of the specific works and where practicable any times which are particularly sensitive for neighbours will be avoided.

14.7.5 The following general noise control measures have been identified as likely to be required to maintain compliance with the construction noise limits and conform to good practice:

- Fit engine exhausts with silencers;

- Noise enclosures should always have all doors/hatches closed when the equipment is in use.
- Operate equipment in a quiet and efficient manner;
- Do not leave equipment idling unnecessarily;
- Regularly inspect and maintain equipment to the manufacturers recommendations;
- Schedule particularly noisy activities as late as possible in the morning;
- Use quiet reversing alarms; and
- If you see anything/anyone making unnecessary noise and vibration then stop it/them. If the source cannot be stopped then report it to the site manager/foreman.

14.7.6 Weekly monitoring by the ECoW will be undertaken to ensure compliance with this plan

14.7.7 The following procedure shall be followed for all noise complaints:

- All noise and vibration complaints should be immediately directed to the project complaints contact.
- As soon as the complaint is received it will be recorded.
- Depending on the nature of the complaint the initial response could be to immediately cease the activity pending investigation, or to replace an item of equipment. However, in some cases it might not be practicable to provide immediate relief. The complainant and local authorities EHO will be informed of actions taken. Contact details for council are recorded in section 6.6.
- Where the initial response does not address the complaint, further investigation, corrective action and follow-up monitoring shall be undertaken as appropriate. The complainant and local authorities EHO will be informed of actions taken.
- All actions will be recorded and only upon resolution of the complaint will it be closed.

15. OUTDOOR ACCESS PLAN

15.1 Introduction

15.1.1 An Outdoor Access Plan (OAP) has been produced and submitted to The Highland Council in response to a pre-commencement condition to demonstrate how public access will be maintained and managed during construction, in accordance with the Land Reform (Scotland) Act 2003.

15.2 Access Baseline

Core Paths

15.2.1 The Development and associated access tracks do not cross any core paths. The following core paths are located within 5 km of the Development:

- Path number IN27.02, which is located within an area of plantation forestry west of Tomatin;
- Path number IN15.01, which is located within an area of plantation forestry by Littlemill to the north of Invernarnie; and
- Path number IN15.02, which is located within School Wood, at the northern edge of Farr. This path forms a loop around the woodland, to the west of the B851.

15.2.2 The existing core paths within the vicinity of the Development are shown in the OAP.

Other Recreational Routes

15.2.3 Wider access rights apply across the area surrounding the Development and a number of forestry tracks are located within 1 km of the Development, including tracks around Glen Kyllachy and Strathdearn. It is anticipated that these tracks may be used for recreational purposes including dog walking, hiking, horse-riding and mountain biking. It is also anticipated that walkers may climb to the summit of adjacent hills including Beinn Bhreac.

15.3 Potential Effects during Construction

15.3.1 Outdoor access may be temporarily affected during the construction period by construction traffic, with areas for potential interaction being as follows:

- Farr wind farm access track from the A9, and over Carn Dearg, Beinn Bhreac and Carn Odhar; and
- River Findhorn valley, section of construction access track along the Allt a'Mharcaldh.

15.3.2 Further detail is provided in the OAP which is available on the Council's e planning portal.

15.4 Construction Management and Mitigation Measures

15.4.1 Measures to mitigate potential safety issues arising from the interaction between outdoor access users and construction traffic will be set out in the Contractor's Construction Health and Safety Plan. These will include measures such as additional signage during particularly heavy traffic periods and appropriate speed limits along construction access tracks. All measures would be communicated to the local community through the dedicated project community liaison group.

15.4.2 All drivers will be briefed that the tracks may be used by recreational users.

15.4.3 Temporary construction site signage will provide warning of construction activities and associated construction vehicles, in order to maintain road safety along the construction access route. Signage will be located at the following points warning recreational users of construction traffic:

- Access to Farr Wind Farm Hall road from the A9
- Operational Site Access Track from the Strathdearn Public Road
- All track connection points to the proposed and existing Haul Road

- 15.4.4 A maximum 15 mph speed limit will be imposed for all construction related traffic on private roads / tracks, which would be reinforced through temporary construction traffic speed limit signs.
- 15.4.5 Information will be distributed through the communication team using a variety of methods including the project website, and local newsletters for distribution to properties along the most affected sections of the proposed access route, advising of construction programme, traffic movements and the measures put in place to ensure the safe and efficient operation of the road network.
- 15.4.6 Further detail is provided in the OAP which is available on the Councils e-planning portal.