SP TRANSMISSION

Construction Procedures Handbook

for the

Beauly to Denny 400kV Transmission Line

Section: Wharry Burn to Denny North Substation

CPH ISSUES RECORD AND REVISIONS CONTROL REGISTER

CONTROL REGISTER

Table 1.1 Issue Record

Issue Date	Issue No	Author	Owner	Issue Authority
26/07/2013	1	NC	IEC	SPT

Table 1.2 Revisions Control Register

Date	Revision No	Reviewed by	Amendment Details and Reason for Change	Pages Revised	Signed by
26/07/2013	1		• Document issued for public distribution		GD

Contents

APPENDICES

1. INTRODUCTION

1.1. Aims and Scope of Construction Procedures Handbook

1.1.1. This Construction Procedures Handbook (CPH) sets out requirements and guidance on environmental management activities to contractors working on the Wharry Burn to Denny North Substation section of the Beauly to Denny 400kV overhead transmission line.

1.1.2. The CPH is a requirement for the development as set out in the planning conditions (see Appendix 1) and it also provides a way of delivering good practice. In order to ensure a consistently high level of environmental management and corresponding mitigation measures the CPH will be enforced during all associated works not covered by the section 37 consent. Compliance with the CPH is a contractual requirement.

1.1.3. The Client for the works is SP Transmission Limited (SPT) and Iberdrola Engineering and Construction (IEC) are acting as a client representative for the works, they will coordinate and manage all of the contractors, technical specialists during the construction. IEC will ensure legal compliance during the works.

1.1.4. The project is broken down into work packages as detailed in Table 1.1, each work package managed by a different contractor.

Table 1.1 Project Work Packages

Work Package Reference	Title of Work Package	Disciplines within Work Package	Contractors
1	Preliminary Works	• Fibre optic civil and installation • Service transfers and terminations	• TBC
2	132kV Line Enabling Works	• 132kV tower and accesses • 132kV cable civil works • 132kV cable supply and installation	• TBC
3	400kV Overhead Line (OHL)	• Access tracks /roads • Tree felling • Dismantling Existing CN route OHL • 400/275kV Main OHL construction	• Iberdrola Engineering and Construction
4	Distribution OHL Works	• LV, 11kV & 33kV undergrounding Works	• Scottish Power - Energy Networks Connections
5	Landscape Package	• Landscaping works	• TBC
6	Wirescape Rationalisation (Condition 18 and 19)	• 132kV cable civils • 132kV cable Supply and Install • 132kV Stirling Grid Extension & Stirling Tee Cable Compound • 132kV OHL AB and BJ routes Installation and Dismantling Works	• TBC
7	Public Road Improvements	• Road upgrades/widening	• TBC

Each Contractor will produce a Site Environmental Management Plan (SEMP) that recognises the requirements of the CPH and any additional requirements specific to their work package.

1.1.5. The CPH is intended to provide the contractor with a useful and essential project specific tool to manage on-site construction activities that may affect the environment. The key aims of the CPH are to:

- ensure all environmental commitments and conditions are met (see Appendix 1);
- to achieve the requirements of all relevant statutory legislation, standards and guidance (see Appendix 2);
- to minimise and manage the risk of adverse environmental impacts (see Section 1.3 below);
- to achieve best practice environmental design and sustainability principles (see Appendix 3);
- to ensure effective engagement with key stakeholders is undertaken as appropriate, in the delivery of mitigation.

1.1.6. This document is intended to be user-friendly and so references to other relevant sources of information have been provided, rather than described in detail (Appendix 3).

1.1.7. Contractors are obliged to implement and adhere to all of this CPH. Any potential change / deviation from the requirements must first be approved by Iberdrola Engineering and Construction.

1.2. Overview of the Development

1.2.1. The Beauly to Denny Replacement Transmission Line Development is a joint undertaking by Scottish Hydro-Electric Transmission Limited (SHETL) and SPT. On 28 September 2005, SPT applied for consent (under Section 37 of the Electricity Act 1989), and planning permission (under Section 57(2) of the Town and Country Planning (Scotland) Act 1997), to construct a new 400kV transmission line between the Wharry Burn, near Dunblane and the proposed Denny North substation near Dunipace. This CPH has been developed by SPT for the section of the overhead line from the Wharry Burn to Denny North Substation, in compliance with Condition 8. SSE has separately prepared a CPH for the section of the overhead line from Beauly to the Wharry Burn.

1.2.2. The Wharry Burn to Denny Replacement Transmission Line Development consists of:

- Construction of a double circuit 400 kilovolt (kV) overhead transmission line supported on steel lattice towers between Wharry Burn and the proposed Denny North substation.
- Removal of the existing 132kV line between Wharry Burn and the proposed Denny North substation including restoration and reinstatement.
- Removal of the 132kV and distribution lines as set out in Condition 18
- Construction of temporary access tracks and working areas.

- Tree felling activities.
- Upgrading of existing access tracks.
- Junction works where access tracks join the public road network.
- Construction and restoration of site compounds.
- Various upgrades to the existing public road network to facilitate the required construction traffic.
- Mitigation measures as set out in the Stirling Visual Impact Mitigation Scheme (SVIMS) in compliance with condition 19. Such measures include landscaping, rower painting and low voltage wood pole undergrounding (see Appendices 15, 24 and 25).
- Temporary and permanent low voltage power line and telecoms diversions.

1.2.3. The construction of the Denny North substation is not covered by the CPH. The substation was subject to a separate planning application and the works will be controlled by a Code of Construction Procedures Handbook as required by the planning consent conditions.

1.2.4. The Development will take approximately four years to construct from the start of the works to the end of dismantling of the 132kV line and all associated restoration.

1.3. Key Environmental Issues

1.3.1. Potentially significant construction phase impacts that would be relevant to contractor activities along this section of the transmission line include:

- possible disturbance of habitats and species, although the Environmental Statement for the proposed Beauly to Denny 400kV Overhead Transmission Line has shown there would be no significant long term residual adverse effects on designated sites, protected species, habitats, birds, mammals or aquatic species should all of the proposed mitigation measures be implemented;
- potential to smother the benthic ecosystem and increase turbidity in adjacent watercourses through suspended solids from excavation and earth moving activities (e.g. for tower foundations and access routes) that are washed out during flash flood episodes;
- pollution caused by site activities (noise, vehicle movements, compressors, generators, waste and litter etc.);
- dust, debris and other waste caused by site activities; and
- oil, fuel or chemical leaks.

1.4. Development Environmental Commitments

The environmental commitments that underpin this development have originated through the planning process, from those identified in the Environmental Statement (ES), through Public Inquiry to further measures agreed with consultees and landowners. These are summarised in Appendix 1 that includes a compendium of committed mitigation together with the section 37 consent conditions.

The key objective of this CPH is to ensure that all environmental commitments are met.

Those relating to this development include:

- Conditions attached to the statutory consents granted by the Scottish Ministers to SPT.
- Mitigation measures set out in the Environmental Statement (ES); the first Addendum to the ES (December 2005); the second Addendum to the ES (October 2006) (the 'Addenda') and as agreed at the Public Inquiry.
- Further mitigation measures agreed post publication with consultees including the local authorities, Forestry Commission Scotland (FCS), Historic Scotland (HS), Scottish Environment Protection Agency (SEPA) and Scottish Natural Heritage (SNH).
- Conditions and commitments agreed between SPT and landowners / occupiers.
- Any conditions of Controlled Activities Regulations (CAR) authorisations.
- Any commitments relating to waste management, conditions of waste management licences, waste management exemptions and duty of care responsibilities.
- Any conditions included in European Protected Species (EPS) or other protected species licences.
- Any conditions attached to Scheduled Ancient Monument Consents (including for dismantling works).
- Any specific requirements relating to archaeological sites as agreed with Council Archaeologists and Historic Scotland.
- Environmental commitments in the Contractor's Environmental Management System (EMS), which is be certified to ISO 14001 or equivalent.
- Environmental best practice measures including those set out by statutory agencies such as the Scottish Government, SEPA, SNH, HS, Planning Authorities and FCS etc.

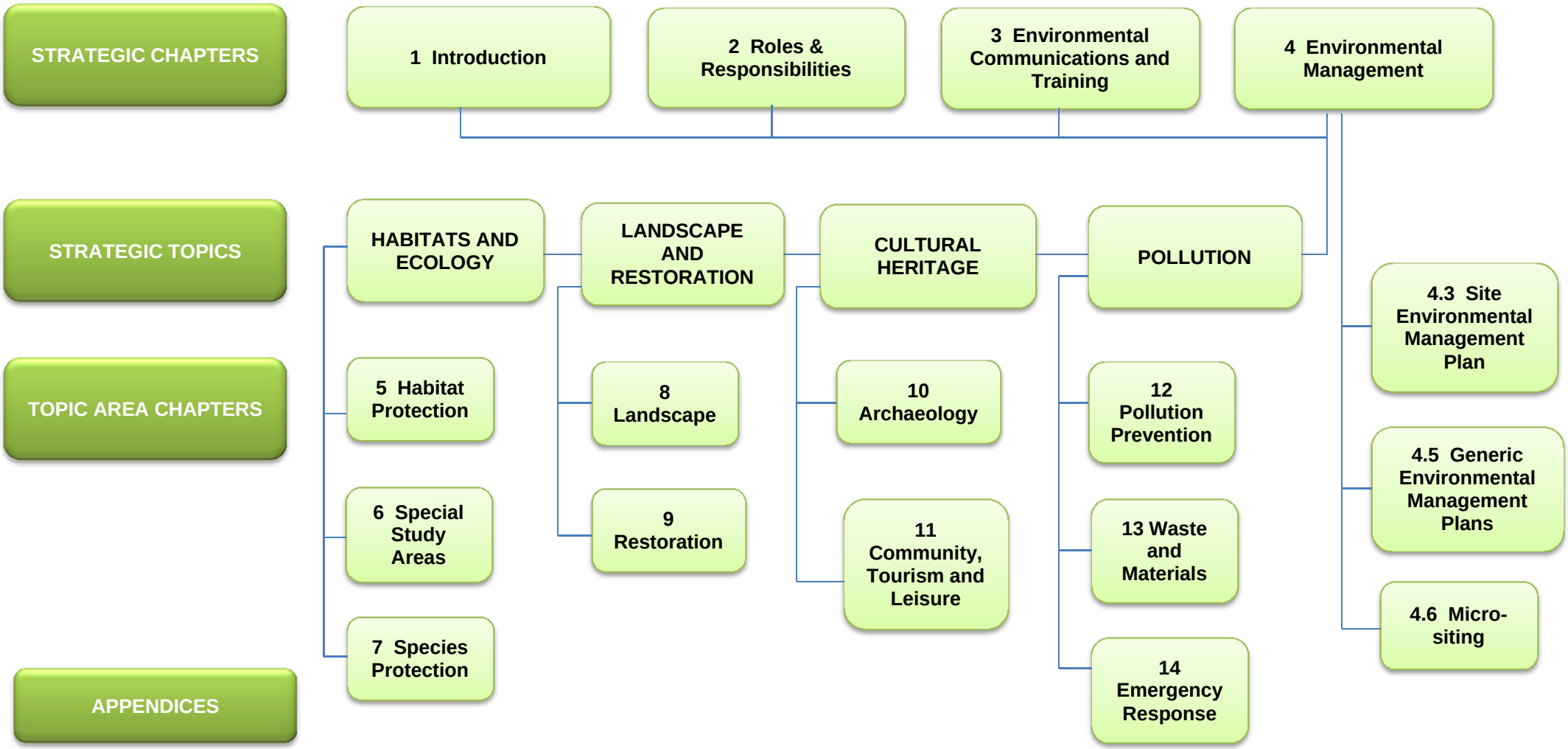
Contractors are required to implement a procedure for tracking performance against their respective commitments. This can be done by establishing a SEMP in the form of a schedule for the delivery of environmental responsibilities (see Appendix 4). This can be regarded as a stand-alone document 'owned' by Contractors and updated regularly.

The management of environmental impacts should be fully integrated with the quality control of Contractors' works including detailed design and health and safety. Relevant documents for the Development, including all health and safety plans, should also be referred to when planning construction works.

1.5. Layout of CPH

The remainder of the document is organised as shown in Figure 1.1 below:

Figure 1.1 Layout of CPH



2. ROLES AND RESPONSIBILITIES

2.1. Introduction

2.1.1. This section of the CPH introduces the project team and sets out specific roles and responsibilities for members of the team to ensure the commitments in the CPH are delivered.

2.2. The Project Team

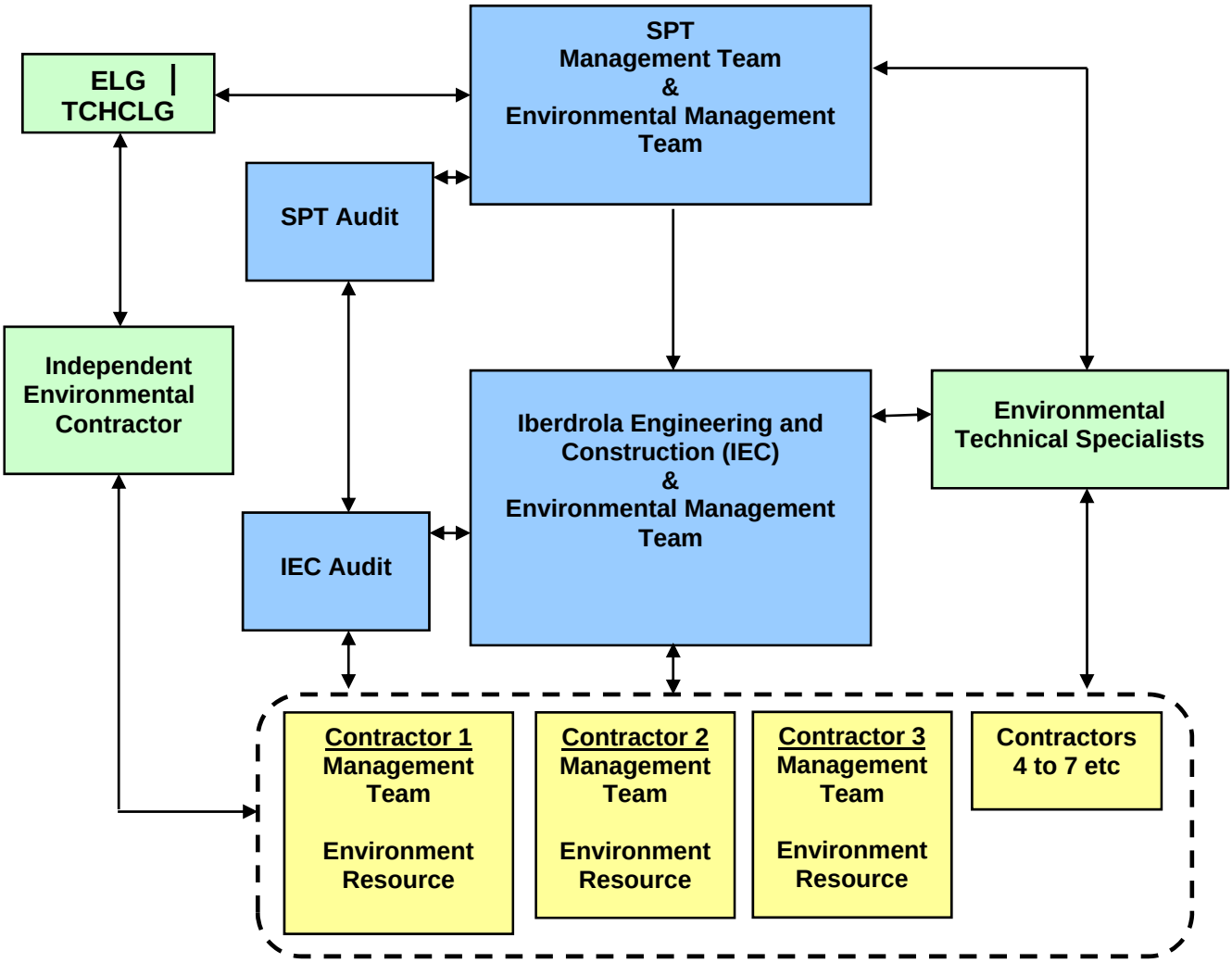
2.2.1. Table 2.1 below describes the key environmental roles and responsibilities of the Project Team and Figure 2.1 sets out the broad structure. Appendix 5 includes a list of the named individuals that have assumed the roles set out in Figure 2.1. This list will be developed through the contract award stages.

Table 2.1 Environmental Roles and Responsibilities

Title	Role and Responsibility
Environmental Liaison Group (ELG)	Provides advice on appropriate and necessary mitigation and construction procedures and any associated restoration and habitat management measures. Advises Scottish Ministers of any concerns relating to construction of the development.
Tourism, Cultural Heritage and Community Liaison Group (TCHCLG)	Provides advice on appropriate and necessary mitigation and construction procedures that impact on tourism, historic sites and cultural heritage. Advises Scottish Ministers of any concerns relating to construction of the development. Identifies opportunities associated with the development and makes recommendations to SPT and local / national enterprise and skills agencies how these can be delivered.
SPT Management Team	Responsible for overall delivery of the Development and associated works in compliance with the CPH, planning conditions and environmental commitments.
SPT Environmental Management Team	Responsible for overall delivery of the environmental commitments of the Development and associated works in compliance with the CPH and environmental commitments.
SPT Audit Team	Audits Contractors' works to ensure compliance with the CPH, EMPs and environmental commitments.
Iberdrola Engineering and Construction (IEC) Management Team	Responsible to SPT for overall contract delivery of the Development and associated works in compliance with the CPH, planning conditions and environmental commitments. IEC also fulfil the role of principle contractor on Work Package 2 – 132kV enabling works.
IEC Environmental Management Team	Responsible with SPT for overall delivery of the environmental commitments of the Development and associated works in compliance with the CPH and environmental commitments.
Contractors – (OHL and Access Tracks, Public Road Improvements, Diversions, Substations)	Responsible for delivery of their contracted works in compliance with the CPH. Required to develop and implement Environmental Management Plans on site to comply with the CPH, environmental commitments and mitigation measures. Also required to employ a full time Environmental Resource to support construction teams and facilitate compliance with CPH.
Technical Specialists	Appointed in accordance with Condition 8(5) to advise SPT

	/ IEC on the development and review of the CPH and provide advisory services to SPT / IEC and the Contractors' construction teams through specific Clerk of Works. The Specialists are required to provide appropriately experienced persons in ecology, earth science, forestry, cultural heritage and archaeology, landscape and tourism.
Ecological Clerk of Works	Specialist role provided by the Technical Specialists to oversee environmental / ecological issues on site ensuring compliance with the CPH and environmental commitments.
Archaeological Clerk of Works	Specialist role provided by the Technical Specialists to oversee archaeological issues on site ensuring compliance with the CPH and environmental commitments.
Independent Environmental Contractor	Appointed in accordance with Condition 9 to scrutinise the process of construction of the Development and compliance with the CPH, and to supervise if necessary the work of the Technical Specialists in order to secure compliance with the CPH on behalf of the ELG / TCHCLG.

Figure 2.1 The Project Team



2.3. Management of the Works

2.3.1 Contractor Roles and Responsibilities

2.3.1.1. The Site Contractor is responsible for ensuring, through the incorporation of the provisions outlined in this document that all relevant Planning Consent Conditions, licences and mitigation commitments that apply to site work are satisfactorily discharged thereby ensuring that the environmental impact of the line construction are kept to a practicable minimum. Overall day to day responsibility for ensuring that all general and site-specific environmental actions are adhered to, will fall to the Contractors Site Manager and Environmental Representative.

2.3.1.2. The Contractor will:

- ensure that the construction works under his responsibility are monitored as necessary by an Environmental Representative, appointed by the Contractor who will be based on site for the duration of the works;
- undertake regular meetings and site inspections to ensure that all construction works personnel are aware of the environmental commitments, mitigation measures and Planning Consent Conditions as referenced or detailed in this document (all to be found in Appendix 1); and
- take all reasonable precautions and undertake all reasonable measures within his control to ensure that all legal requirements are complied with and that no unnecessary damage, disturbance or pollution results from undertaking the works (see Appendix 2).

2.3.2 Communication and Ongoing Liaison Requirements

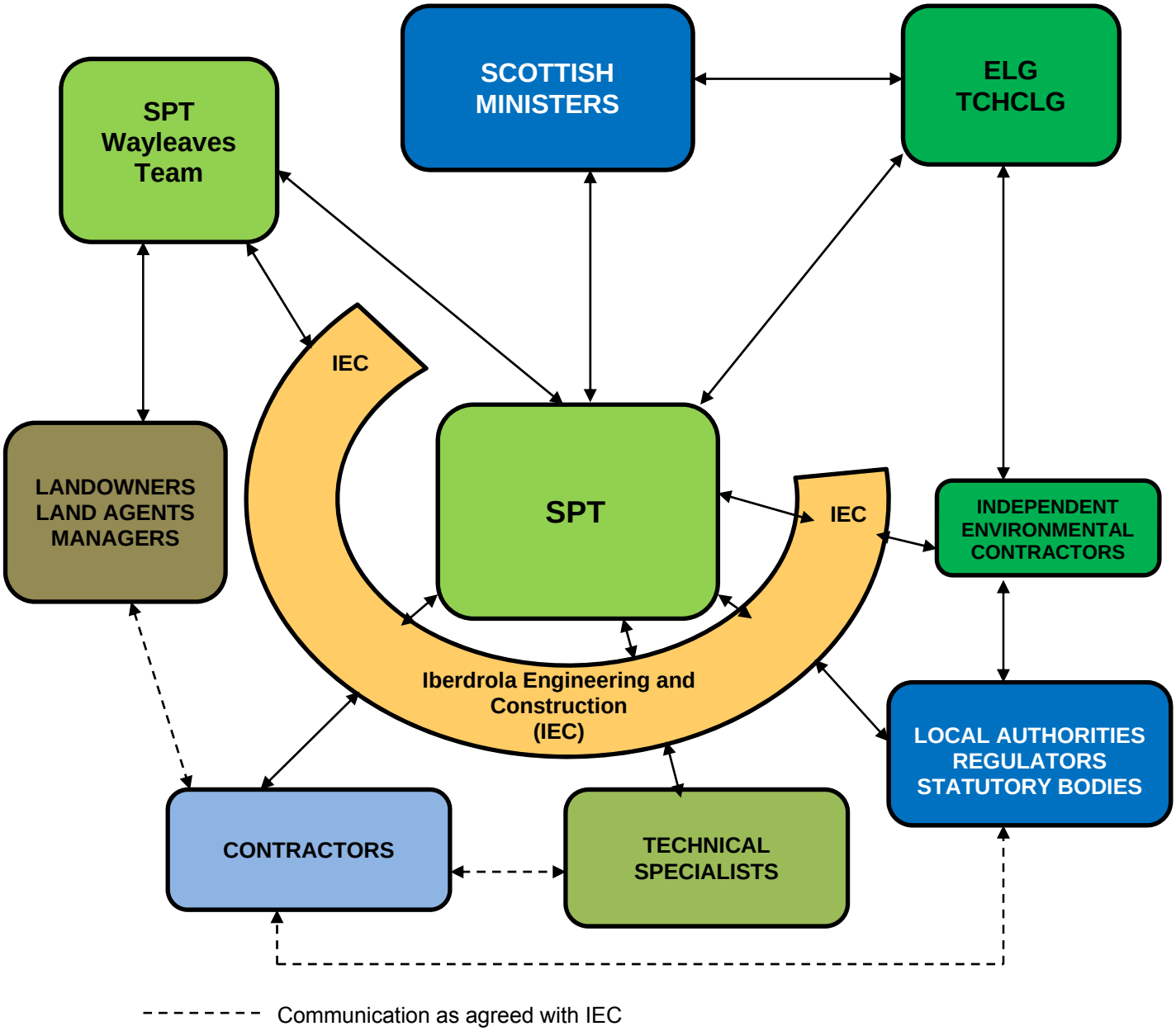
2.3.2.1. All communications and liaison with regulatory authorities and other interested parties will be through the SPT and IEC Teams together with the Site Manager.

2.3.2.2. Figure 2.2 below, illustrates the chain of communications between the key members of the Project Team. Contractors and all other site staff are required to maintain good relations with landowners and occupiers, and / or their agents, and to liaise through SPT Wayleave Staff on all matters relating to land access.

2.3.2.3. Key contacts should be kept up to date in accordance with the Community Liaison Scheme (see Appendix 6) prepared by SPT to ensure that members of the public are aware of the relevant contacts throughout the contract. See Section 11 for further information. The SPT Environmental Management Team will keep an up to date list of key project contacts provided by all Environmental Liaison Group / Tourism, Cultural Heritage and Community Liaison Group (ELG / TCHCLG) members (see Appendix 5). Routes of communications will be agreed with SPT / IEC.

2.3.2.4. Staff will be kept up to date with the project and all environmental management requirements through good internal communication and effective awareness training (see Section 3 and also Appendix 7 for an example toolbox talk).

Figure 2.2: Main Channels of Communication



2.4. Context of the CPH and its Delivery

2.4.1 Main Approach

2.4.1.1. To fulfil the aims of the CPH and meet all environmental commitments it is important to have a clear approach and structure for environmental management that outlines roles and responsibilities, required communication, appropriate hold points[1] (for example, requirements for consultation, further protected species surveys or for the Technical Specialists to be on site) and all the commitments, conditions and good

1 Hold points are points required in the development for the works at which activities / consultations etc must be completed before construction can continue.

working practices that require to be met. To this end, the CPH sets out a clear process whereby all these commitments are properly documented, agreed and implemented throughout the lifespan of the project.

2.4.1.2. A formal EIA was undertaken for the project under the Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2008. The EIA was submitted along with the application for section 37 consent to the Scottish Ministers. The EIA considered the potential for significant adverse effects on the environment and identified potential environmental impacts associated with the construction and operation of the project together with the identification of appropriate mitigation (see Appendix 1). The CPH draws together all relevant environmental information and requirements including but not limited to:

- conditions attached to the section 37 consent for the overhead line (see Appendix 1);
- mitigation measures set out in the Environmental Statement (see Compendium of Committed Mitigation in Appendix 1);
- further mitigation measures agreed post publication with consultees including Stirling Council, Scottish Environment Protection Agency (SEPA) and Scottish Natural Heritage (SNH) (see Appendix1);
- updated ecology surveys that may identify the need for protected species licences;
- conditions and commitments agreed between SPT and landowners / occupiers (see also Appendix 1);
- all appropriate licenses and consents (see Appendix 8)
- any commitments relating to waste management (see Appendix 1); and
- environmental best practice measures including those set out by statutory agencies such as the Scottish Government, SEPA, SNH and Forestry Commission Scotland (FCS) (some of which are also included in the ES mitigation where appropriate – see Appendices 1 and 3).

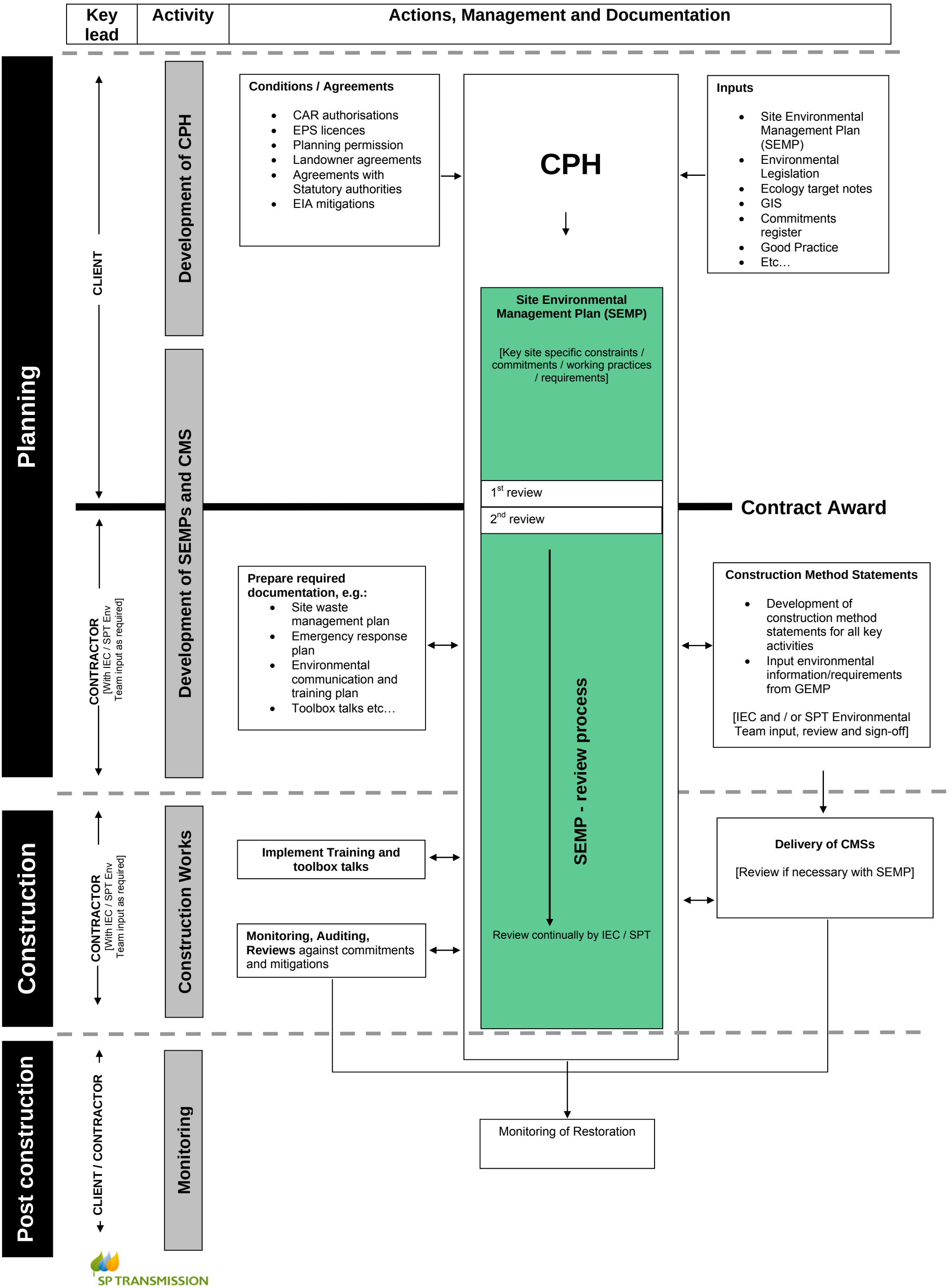
2.4.1.3. Generic Environmental Management Plans (GEMPs) have been produced to set out potential impacts, control measures and relevant guidance for the key activities of the project (see Appendix 9: Generic Environmental Management Plans).

2.4.1.4. Habitat Specific Protection Plans (Appendix 10), Special Study Area Plans (Appendix 11) and Species Protection Plans (Appendix 12) are also included which provide specific general requirements in relation to all key habitats and protected species that are likely to be encountered as part of the works.

2.4.1.5. The environmental information, commitments, mitigation, good practice and further agreements contained within the CPH are all used to directly input into the Contractor's Environmental Management Plan (EMP) and Construction Method Statements (CMSs).

2.4.1.6. The approach to the environmental management proposed in this CPH can be seen in Figure 2.3 and has been broken down into 4 key stages: 1) SPT / IEC planning, 2) SPT / IEC and Contractor planning, 3) Construction, 4) Post-construction.

Figure 2.3 Approach to Environmental Management



2.4.2 Stage 1: SPT / IEC Planning

2.4.2.1. Prior to contract award, SPT / IEC will further develop, where appropriate this CPH. Condition 8(6) of the consent requires that the Environmental Liaison Group (ELG) and the Tourism, Cultural Heritage and Community Liaison Group (TCHCLG) will be consulted on the content of the CPH together with the relevant landowners along the route of the overhead line. SPT / IEC will review comments made and where appropriate incorporate them in the CPH. Condition 8(2) requires that before work can commence on site SPT must have the written approval of the Scottish Ministers as to their approval of the CPH. SPT / IEC Project Management Teams will advise and comment on the CPH as it is developed and on any proposed amendments to the document once issued.

2.4.2.2. All changes shall be recorded and the document re-issued for incorporation into the contract prior to contract award. Thereafter, the document will be updated as and when required by SPT and / or IEC Environmental Project Manager (EPM) with input from the contractor throughout the pre-construction, construction and post-construction (operational) stages (see Section 2.4.6 for Change Control Process).

2.4.2.3. IEC will manage SEMP reviews (with SPT involvement where required) to allow identification of known constraints commitments and mitigation measures specific to the site together with responsibilities (these are summarised in Appendix 4).

2.4.2.4. IEC (with SPT involvement where required) will apply for the consents highlighted in Appendix 8. The contractor will be responsible for making sure that all consents / licences relevant to their activities are in place.

2.4.3 Stage 2: Contractor Planning

2.4.3.1. The following information, within appropriate timescales in advance of work commencing on site, must be provided by the Contractor and agreed in writing with IEC:

- Roles and Responsibilities of Contractors and Sub-contractors personnel in relation to implementation of all environmental requirements for the project, including the specific roles and responsibilities of the Contractor's environment team (Appendix 5);
- An environmental communications and training plan covering all project personnel. Detailed requirements of the plan are identified in Section 3.
- A Site Environmental Management Plan in accordance with the responsibilities set out Appendix 4 – Delivery of Environmental Responsibilities. The approach to environmental management for the development is summarised in Section 4. This forms the basis for ensuring all commitments are incorporated into the planning and carrying out of construction activities on site.
- A site waste management plan following the principles identified in Section 13 and Appendix 13.
- A materials management plan providing a materials budget for the project and illustrating how materials will be managed on site during

the construction and reinstatement phases following the principles identified in Section 13.

- Detailed requirements of the emergency response plan are identified in Section 14 and Appendix 14;
- A non-compliance reporting procedure to manage any Environmental incidents or non-compliance events for the project.
- A list of proposed construction method statements (CMSs) for key activities. The CMS will be required to implement and take account of specific limitations and restrictions contained within the CPH as well as implementing any commitments that have been agreed.
- Finalised programme of works to allow all pre-construction and construction surveys to be arranged and completed by SPT within the required timeframe. Where the Contractor wishes to change this programme, this must be agreed with SPT providing adequate time for SPT to undertake any required surveys or apply for relevant authorisations.

2.4.3.2. SPT / IEC will continue to develop the CPH with input from the Contractor. The CPH will be reviewed and the detail enhanced as and when new relevant information is provided by SPT and / or IEC or the Contractor (e.g. further consent conditions, landowner agreements, pre-construction surveys etc). All changes will follow the Change Control Process (see Section 2.4.6).

2.4.3.3. The Contractor must gain the written approval of SPT and IEC for their Environmental representative and environmental specialists prior to any work starting on site. The environmental representative must possess suitable experience of managing and implementing environmental procedures / requirements, on site, for similar projects. This role may be combined with another relevant role on site (e.g. the site manager or HSE manager). This approval will not be unreasonably withheld.

2.4.3.4. The environmental representative must be based on site for the duration of the project. The Contractor's environmental team must be of sufficient size and experience to ensure compliance with all environmental requirements of the project.

2.4.4 Stage 3: Construction

2.4.4.1. Stage 3 of the CPH deals with:

- Implementation
- Monitoring and review;
- Non-conformances; and
- Halting the works.

2.4.4.2. The Contractor has responsibility on site for delivering all commitments in the CPH, commitments register and associated SEMP. The Contractor is required to implement the procedures set out in the CPH as part of the contract with technical advice from competent environmental specialists where required. The Contractor is responsible for all their sub-contractors and ensuring they comply with all project environmental requirements.

2.4.4.3. The Contractor will be responsible for ensuring that all staff are familiar with the relevant environmental regulations (see Appendix 2) and that there is no breach in legislation throughout the duration of the construction period.

Monitoring and Review

2.4.4.4. The Contractor must ensure that all on-site works are monitored daily by the contractor's environment team. Compliance with the environmental commitments and the CPH will be monitored by SPT / IEC

2.4.4.5. Condition 9 requires SPT to appoint an Independent Environmental Contractor to monitor compliance with environmental commitments and the CPH. The consultant, approved by the Scottish Ministers, will undertake audits and provide findings to the members of the ELG and the TCHCLG on a monthly basis or more frequently if requested by anyone of the members of the ELG and the TCHCLG.

2.4.4.6. The ELG / TCHCLG or local representative will be invited to site to attend separate environmental progress meetings as required.

2.4.4.7. Environmental protection and implementation of all commitments will be reviewed as part of monthly environmental progress meetings. Representatives of SPT / IEC, the contractor(s) and when required the Technical Specialists and the Independent Environmental Consultant will attend the environmental progress meetings. The SPT Project Management Team will monitor the success of implementation of all measures and commitments.

2.4.4.8. SPT will report progress on the implementation of the CPH and the discharge of the consent conditions to the ELG and TCHCLG at regular intervals as considered appropriate by the ELG / TCHCLG. SPT Environmental Management Team will communicate any significant proposed amendments to the CPH, to the ELG / TCHCLG.

2.4.4.9. Contractors will be required to provide regular feedback and information to SPT/IEC on the progress and success in discharging all commitments.

2.4.4.10. Any environmental improvements to be made by Contractors will be done in consultation with SPT, the Technical Specialists and the ELG / TCHCLG as required. In addition feedback from the ELG / TCHCLG will be taken into account in auditing the implementation of all required environmental measures.

2.4.4.11. The success of implementing the requirements of the SEMP, CMSs and delivery of mitigation measures relating to the project will be the responsibility of the Contractor but as indicated above will be monitored by SPT / IEC.

2.4.4.12. Any improvements / deviations required to a completed contractor's SEMP will be made by IEC supported by SPT in consultation with the Contractor (see Appendix 4).

2.4.4.13. Appendix 4 will be used as a tracking register demonstrating progress in meeting the committed mitigation and consent conditions and will be audited by SPT / IEC. SPT and IEC will regularly audit works on-site and ensure that all conditions, committed mitigation and identified best practice are delivered in accordance with the CPH.

Non-conformances

2.4.4.14. In the event that there is any environmental non-conformance with the requirements of the CPH, a non-conformance report (NCR) must be raised by the IEC Environmental Management Team or the relevant Contractor (through the Contractor's Management System procedures), and the Contractor is required to take action as quickly as practicable to close out the NCR. Contractors must demonstrate to IEC that appropriate action has been successfully taken before the NCR can be closed out. Contractors are required to provide a review of the progress of NCRs relating to the environment at environmental progress meetings.

Halting / suspending the Works

2.4.4.15. SPT, IEC the Contractors and the Independent Environmental Consultant have the authority and an obligation, where appropriate, to halt / suspend works[2] temporarily in any location (including works undertaken by subcontractors) where there is:

- evidence of a breach of environmental commitments;
- significant risk to ecology, hydrology, the environment or cultural heritage, either actual or potential, identified;
- deviation from agreed access arrangements;
- where adverse weather conditions increase the potential for serious pollution.

2.4.4.16. Any temporary halting / suspending of works must be implemented through the relevant contract procedures. A proactive approach to implementation of all required mitigation should however be promoted since it is recognised that halting / suspending works can be expensive and should only be used as a last resort. Works should only recommence once appropriate corrective action has been implemented in agreement with those persons detailed above and the Technical Specialists as appropriate.

2.4.4.17. All site personnel are encouraged to draw attention to any environmental risk or potential environmental risk as it may arise on site (for example, discharge of silty water to watercourses or risk of concrete spill to fresh waters or working out with the agreed limits of deviation etc). Personnel should raise these using a Safety Observation Reporting Procedure (SOR) or equivalent.

2.4.4.18. This approach should be promoted in all site inductions and training. SPT and / or the Independent Environmental Consultant will report on the status of relevant NCRs to the ELG / TCHCLG through progress meetings and other agreed reporting processes as required.

2.4.4.19. Any incidents or non-compliance with commitments will be recorded. All contractors will submit their methodology for recording observations, incidents and non-conformances for approval to IEC prior to their arrival on site. All contractors will be required to report figures on a monthly basis to IEC. Subsequent reports will be reviewed by SPT on a monthly basis.

2.4.4.20. Immediately prior to construction the Contractor and IEC will undertake a site condition survey of each section of the project (photographic record). This will be copied to SPT and used to ensure effective reinstatement

2 As defined in their contracts and Section 37 Conditions

following completion of the works and provide a 'baseline' to assess any compensation claims with landowners.

2.4.4.21. Where necessary IEC with relevant contractors will remove trees and shrubs from the site working areas in advance of the civil works. The Contractor must take care not to damage any trees (including roots) and ensures that trees are not felled or lopped without written agreement from SPT.

2.4.4.22. IEC / Technical specialists will undertake all ecological surveys required as part of the CPH, SEMP or Commitments register. Survey information and any update to mitigation proposals will be provided to relevant contractors.

2.4.5 Stage 4: Post Construction Requirements

2.4.5.1. The Contractor will be responsible for correcting defects, including any ineffective reinstatement of excavations, for 3 years following the completion of the project. In addition SPT will also monitor the restoration / reinstatement to ensure compliance with all agreed commitments.

2.4.5.2. Table 2.4 summarises the roles of Project Team members in the delivery of the CPH.

Table 2.4: Summary of CPH Responsibilities

Party	Responsibilities
SPT and/or IEC Project Management Team	• Oversee planning of the project • Ensure delivery of committed mitigation and discharging of planning conditions • Development and update of the CPH • Compliance auditing of contracted works against CPH • Halting works in the event of non-compliance with CPH • Feedback to ELG / TCHCLG on CPH implementation • Review and approve the Contractor's Site Environmental Management Plans • Review and approve the Contractor's Construction Method Statements • Commissioning survey work • Appointing Independent Environmental Contractor and Technical Specialists
SPT Wayleaves Team	• Liaison with landowners and land managers • Ensure delivery of landowner requirements and committed mitigation and
CONTRACTOR(S) Construction Team	• Delivery of all committed mitigation measures and compliance with planning conditions • Implementation of CPH requirements • Identify environmental risks and protection measures • Production and implementation of method statements • Maintaining environmental mitigation tracking register • Addressing hold point requirements • Closing out non-conformances
Local Authorities Regulators Statutory Bodies	• Advice to SPT, IEC and Contractors on best practice and legal requirements • Licensing of particular aspects of the works • Comment on CPH content through ELG / TCHCLG
ELG TCHCLG	• Oversee development and implementation of CPH • Provide feedback to Scottish Ministers on compliance with CPH and project progress

2.4.6 Change Control Process

2.4.6.1. The Wharry Burn to Denny Development and its entire associated works are a major construction project. As the project develops, the design will be further progressed and on-site situations may arise where Contractors wish to propose different working practices or detailed siting of works which vary from those which have been assumed.

2.4.6.2. This section of the CPH describes the process which must be followed if such a change is proposed.

Change within Limits of Deviation

2.4.6.3. The Overhead Line Contractor must confirm that all proposed changes are within the identified Limits of Deviation (LODs)[3] for the line and access tracks.

2.4.6.4. Works will be micro-sited within the agreed LODs to avoid environmental constraints or help with construction, but the implications of any change to the positions assumed for towers assessed in the Environmental Statement (ES) and Addenda must be considered, and further field survey carried out if the implications of the change are not clear. The change should not result in environmental effects which are, on balance, more adverse than those described in the ES. All environmental aspects must be considered in planning the change.

2.4.6.5. Appendix B of the ES describes the approach to working within LODs. SPT and IEC must be made aware of any proposed change in advance of implementation. Any new survey data must be submitted to the SPT Environmental Management Team as soon as practicable for inclusion in the geo-database and associated SEMPs. The Technical Specialists must be given opportunity to check that any proposed change does not pose a significant environmental impact.

2.4.6.6. The ELG / TCHCLG members and / or other individual relevant consultees for specific areas of the works should be consulted on such proposed changes where considered appropriate by SPT.

Change within Boundaries of Planning Permissions

2.4.6.7. Contractors must ensure that all proposed changes are within the identified boundaries of any given planning permissions. In the event of a change outside of the planning permission boundary, the original applicant should seek a variation or alternative formal consent through the normal planning process.

2.4.6.8. Any such change must be fully documented and the environmental implications of the change considered before seeking an amendment to the planning permission. SPT should be made aware of the proposed amendment and the application to the relevant Council made only with agreement of all relevant landowners / occupiers. No work should proceed outwith agreed boundaries without required permissions.

Change to Agreed Working Methods and Mitigation

2.4.6.9. Proposed changes to agreed working methods and / or mitigation must be discussed and agreed with SPT, IEC and appropriate parties prior to implementation.

3 LODs identify a corridor for the proposals within which individual towers can be moved laterally or longitudinally

2.4.6.10. Contractors must follow their contract procedures for seeking approval for any change. For changes to agreed Site Environmental management Plans (SEMPs) and mitigation the following should be documented as a minimum:

- the location of the proposed change - including National Grid Reference (NGR);
- the reason for the proposed change;
- a detailed description of the change (with illustrations / photographs etc if relevant);
- a description of the environmental baseline features which would have been affected by the original solution and a description of those which will be affected by the proposed change;
- a description of any additional mitigation which is proposed;
- a table demonstrating any change in the significance of residual effects for all environmental topics for the proposed changed proposals as compared with those assessed in the ES and its Addenda;
- a clear summary of the key findings including a record of any statutory and other consultations undertaken on the proposed change;
- a list of documents and information sources used in the assessments.

2.4.6.11. Contractors must wait for agreement to the proposed change in writing from SPT / IEC before it is implemented.

3. ENVIRONMENTAL COMMUNICATIONS AND TRAINING

3.1. General

3.1.1. The environmental communication and training plan is essential to ensure all staff employed in the execution of the works fully understand all environmental requirements and are properly equipped to implement these requirements. This section identifies the minimum requirements of the environmental communication and training plan, to be produced by the Contractor.

3.2. External Communications

3.2.1 The Contractor should not contact statutory consultees (e.g. SEPA, SNH or the local authorities) directly (see Section 2.3.2 and Figure 2.2). SPT / IEC will act as the primary contact with all Statutory Consultees.

3.2.2 As also mentioned in Section 2.3.2 key contacts should be kept up to date in accordance with the Community Liaison Scheme (see Appendix 6) to keep members of the public aware of the relevant contacts throughout the contract and to update them when appropriate on progress.

3.3. Internal Communications

3.3.1 The Contractor should ensure there is adequate and suitable communication from an environmental perspective to all staff employed in the execution of the works.

3.3.2 The Contractor must communicate to each person including subcontractors, IEC and SPT, employed on the site and other working areas, the following:

- details and statistics for environmental incidents and near misses;
- details of any pending and actual enforcement action in respect of any environmental incidents;
- monthly and cumulative statistics;
- site and other working areas specific environmental information which the site and other working areas based staff should be aware of; and
- any other site or other working areas specific requirements.

3.3.3 The Contractor should provide weekly and monthly reports to IEC confirming the status of the project, implementation of environmental requirements, proposed amendments to the CPH, SEMP and commitments register, and updates on environmental audits, monitoring and any environmental incidents. The structure of these reports should be included in the environmental communication and training plan.

3.4. Access to Data – Use of Project Wise

The following procedure shall be used to ensure all members of the project have centralised access to the most up to date mapping and survey information available.

3.4.1 Project Wise Folders

3.4.1.1 All Contractors working on the project have access to IEC's Project Wise (PW) service which will act as the store for data.

3.4.1.2 A dedicated folder for Surveys and Licences will be used as the focal point. Sub-folders will be created here for each Contractor. The internal structure of each folder will be kept as uniform as possible for ease of navigation.

3.4.1.3 Contractors should then upload project-related documents to their corresponding folders.

3.4.1.4 A sub-folder for important project-related environmental emails will also be kept in the Licence & Surveys folder.

3.4.2 Email Alerts

3.4.2.1 Every new revision of a file uploaded to PW should be accompanied by an email alert sent out to all Contractors containing the filename, date of upload, summary of the file submitted and a direct filepath to PW (as web-links do not work for external contractors).

3.4.3 File Naming Policy, Inventory and Maintenance

3.5.1.1 Files are to follow the naming policy outlined in the email dated 03/07/2013. This makes revision iterations easier to track and superseded versions can then be purged weekly/monthly from folders by IEC with confirmation from the file uploader/author.

3.5.1.2 Natural Capital shall keep an up to date spreadsheet of the contents of the Surveys and Licences folder checking for changes on a weekly basis.

3.5. Training

3.6.1 The purpose of environmental training is to ensure that all the Contractor's site personnel have the appropriate knowledge to successfully implement the CPH, SEMP and the environmental requirements of the project. Contractors are required, therefore to ensure that all staff receive environmental awareness induction training before starting work on site.

3.6.2 The Training section of the environmental communication and training plan should be developed by the contractor and should incorporate the following:

- general induction / awareness training for all site personnel should be provided. This should include waste management, working in or near watercourses, surface water pollution and control, ecology, dust management, noise management and working in peat;
- emergency preparedness and response;
- weekly 'toolbox talk' sessions to cover specific relevant issues appropriate to the work being undertaken at the time (see Appendix 7 for examples of SPT Toolbox talk sheets, the first of which can be used as a basis for inducting new staff to the site and before working on particular activities, the others that will help employees to identify relevant protected species on site), which can also act as refresher training;
- any specific training requirements for key, identified roles. Specific training for key, identified roles should include any training that will be required to comply with specific commitments / mitigations and general good practice contained within this document. Specific training that may be required could include 'Peat stripping and storage' for excavator drivers, 'surface water management' for site supervisors / managers, 'reinstatement techniques' for excavator drivers etc.

- staff should also receive specific training relevant to working in particularly sensitive areas or on sensitive activities.

3.6.3 Toolbox talks should incorporate best practice as appropriate and include any specific requirements of SEMPs, GEMPs, SPPs and Construction Method Statements when developed.

3.6.4 The purpose of the toolbox talks is to:

- Raise awareness amongst site personnel of general and specific environmental commitments relating to the Development.
- Highlight the CPH and its importance in delivering environmental commitments.
- Help ensure the successful implementation of mitigation measures.

3.6.5 Records of all training required and provided to all employees should be maintained and made available to IEC for inspection.

4. ENVIRONMENTAL MANAGEMENT

4.1. General Requirements

4.1.1. The proposed approach to environmental management for the Development is summarised in this section (see also Section 2.4).

4.1.2. This approach is to be implemented by all Contractors and SPT / IEC in addition to other requirements detailed in this CPH, forming the basis for ensuring all commitments are incorporated into the planning and carrying out of construction activities on site.

4.2. Site Environmental Management Plans (SEMPs)

4.2.1. Contractors, with help from the SPT / IEC Environmental Management Teams, will identify potential environmental risks and mitigation measures for each key site activity as part of producing detailed SEMPs and Method Statements[4] before construction in each area begins (see Appendix 4).

4.2.2. Site Environmental Management Plans (SEMPs) will be developed by Contractors based on the following information sources:

- Environmental survey data;
- Micro-siting information (where relevant);
- CPH requirements (GEMPs – Section 4.5) and Development Environmental Commitments (see Section 1.4 and Appendix 1); and
- Landowner and other SPT requirements (where relevant).

4.2.3. SEMPs should include the following information as a minimum where relevant:

- Topographical constraints;
- Ecological constraints (important habitat and protected species areas);
- Forestry and landscape constraints;
- Geological and soils constraints;
- Aquatic and hydrological constraints including water crossings and private water supplies;
- Archaeological constraints;
- Land use constraints and sporting interests;
- Property constraints – visual amenity, noise etc;
- Peat slide risk areas;
- Restoration and aftercare plans; and
- Specific landowner requirements.

4.2.4. The scope of works covered by SEMPs will be agreed between Contractors and IEC prior to works commencing and updated as required by the

[4] Method Statements will be produced for key activities (e.g. constructing floating roads, culverts, towers etc) which indicate risks and protection measures and demonstrate how the contract requirements are met.

Contractor. All SEMPs must be reviewed and accepted by IEC, in consultation with SPT and where appropriate members of the ELG / TCHCLG5, and issued to appropriate parties prior to those works commencing.

4.2.5. In identifying risks and protection measures, minimum requirements are provided in Section 4.5.

4.2.6. Environmental protection measures will also be integrated into appropriate Method Statements for all key activities, which Contractors are required to produce, and any necessary hold points identified (e.g. requirements for consultation, further protected species surveys or for the Technical Specialists to be on site).

4.2.7. In drafting SEMPs the potential for environmental impacts from unforeseen / unplanned events will also be considered and emergency protection measures identified. Contractors are required to identify general procedures for such emergencies as part of their site management practices. See Section 14 and Appendix 14 for further information.

4.2.8. The SEMPs will be used to ensure all environmental commitments are delivered on site and that the environment is adequately protected. The checklists and other guidance in the CPH Appendices will be updated by SPT and IEC throughout the construction period, if required, and control measures amended or expanded as necessary.

4.3. Site Documentation

4.3.1. Some specific method statements to be implemented by Contractors where appropriate are included in SPPs, GEMPs etc. Other method statements have been developed for CAR licence applications and Scheduled Monument Consent (SMC) applications etc. in consultation with the relevant Contractors and appropriate ELG / TCHCLG members.

4.3.2. Where works are required under a European Protected Species (EPS) Licence, the relevant Contractor will produce a specific method statement for submission by SPT to the Regulator.

4.3.3. Site Information and Instruction Packs (SIIPs) will be developed from SEMPs for overhead line works and given to Construction Teams for reference in preparing method statements and implementing mitigation measures. SIIPs will also use specific information stored in the online geo-database.

4.4. Geo-database

4.4.1. A geo-database of all environmental constraints information (e.g. ecology, archaeology, topography and ground conditions, private water supplies etc) relevant to the delivery of the works will be collated using GIS. This information should be used by Contractors to prepare SEMPs.

4.4.2. The geo-database will be updated as new survey information is generated. It will be managed by SPT and IEC Environmental Management Teams and made available to all Project Team members plus other appropriate parties determined by SPT.

5 Relevant EMP's will be submitted to appropriate members of the ELG/TCHCLG for review 30 days prior to related construction commencing.

4.5. Generic Environmental Management Plans (GEMPs)

4.5.1. Appendix 9 includes Generic Environmental Management Plans (GEMPs) relating to activities and issues likely to be encountered during the Development. These plans contain both generic and specific guidance and should be incorporated into SEMPs as a minimum where appropriate.

4.5.2. GEMP 1 includes a general environmental checklist for all construction activities common to the Development. The purpose of the checklist is to assist Contractors in identifying environmental risks and protection measures in the preparation and review of SEMPs and method statements.

4.5.3. The following plans are included:

- GEMP 1: General environmental protection measures
- GEMP 2: Tower erection
- GEMP 3: Tower removal
- GEMP 4: Permanent and temporary access track construction
- GEMP 5: Site compound construction
- GEMP 6: Peat management
- GEMP 7: Watercourse crossings
- GEMP 8: Working in or near watercourses
- GEMP 9: Private water supplies
- GEMP 10: Soil storage and removal
- GEMP 11: Unexpected contaminated land
- GEMP 12: Oil storage and refuelling
- GEMP 13: Dust management
- GEMP 14: Control of impacts from construction traffic
- GEMP 15: Helicopter pads and use of helicopters
- GEMP 16: Removal of rhododendron
- GEMP 17: Control and removal of invasive plants
- GEMP 18: Bad weather contingency
- GEMP 19: Archaeology and Cultural Heritage
- GEMP 20: Tree felling
- GEMP 21: Micro-siting checklists
- GEMP 22: Geological Conservation Protection Plan

4.6. Micro-siting

General Requirements

4.6.1 GEMP 21 provides some reference checklists to be used by Contractors when micro-siting the following areas of work:

- Towers and working areas.

- Access tracks.
- Helicopter works.
- Public road improvements.

4.6.2 The aim of these checklists is to ensure that environmental constraints are taken into account before work commences on site.

5 HABITAT PROTECTION

5.1. General Requirements

5.1.1. This section details the specific Plans to be complied with by Contractors when planning and carrying out work in different types of habitat, including restoration after construction has finished. These Habitat Specific Protection Plans (HSPPs) are included in Appendix 10.

5.1.2. General guidance on restoration is included in Section 9 and Appendix 17.

5.1.3. Studies for the EIA indicated that some areas within the identified Limits of Deviation (LODs) for the works in the zone from Wharry Burn to Denny Substation could be considered as sensitive, in particular the following:

- Wet heath
- Dry heath
- Unimproved, semi-improved grassland of high local, regional, national or international value
- Marshy grasslands of moderate and high local value, regional, national or international value

5.1.4. HSPPs have been developed for the following (see Appendix 10):

1. Wet heath
2. Dry heath
3. Arable land
4. Grasslands
5. Forests and woodland
6. Flush, springs, swamp and standing water

5.1.5. Habitat protection measures for works which could affect running water are included in GEMP 8: Working In and Near Watercourses. When working in any Special Study Area the requirements in Section 6 should be complied with and also guidance in the Temporary Access Track Construction Methodology (see Appendix 18).

5.1.6. Due to the difference between the habitat classifications used in the ES and those used for production of the HSPPs and CPH, a translation table has been included in Appendix 10.

5.2. Zoned Maps

5.2.1. In order to assist contractors in identifying particular features along the Wharry Burn to Denny substation corridor that may require specific procedures or action plans in order to deal with them, the transmission line route has been divided into four key corridor zones and each has been mapped. These are set out in Table 5.1 and are included in Appendix 10.

Table 5.1 Location of Key Zones in Wharry Burn to Denny Substation Corridor

Zone	Location	Towers	Figure Nos in Appendix 10
1	Upper area from Sheriff Muir Wood to Yellow Craig Wood	TD 189/1A to TD 199	**10.1 and 10.4**
2	The escarpment through Yellow Craig Wood to Logie Villa	TD 199 to TD 204A	**10.2 and 10.5**
3	The Carse from Logie Villa to Burnhead	TD 204A to TD 225A	**10.3 and 10.6**
4	The Burnhead to Denny Substation	TD 225A to TD 248A	**10.4 and 10.8**

5.2.2. An indication of the key habitats and the location of any particularly important habitats is included on these maps.

6 SPECIAL STUDY AREAS

6.1 General Requirements

6.1.1 This section lists the Special Study Area Plans (SSAPs) which SPT / IEC and Contractors must comply with when planning and carrying out works in, or in the vicinity of, the following sites of European nature conservation value or geological / geo-morphological importance:

- SSAP 1: Firth of Forth Special Protection Area (see Appendix 11)
- SSAP 2: Ochil Hills AGLV
- SSAP 3: Wester Moss SSSI

6.1.2 Information on working methods relevant to other designated sites (Sites of Special Scientific Interest (SSSIs); Wildlife Sites; Regionally Important Geological Site (RIGS) etc) should be included in specific EMPs and Method Statements. Designated sites are delineated on the Geographic Information System (GIS) geo-database.

7 SPECIES PROTECTION

7.1. General Requirements

7.1.1 Appendix 12 contains Species Protection Plans which Contractors are required to comply with in designing and carrying out works likely to impact on protected European and UK animals. The species covered in these Plans are protected by law and it is therefore important that all legislative requirements are met and the agreed mitigation implemented where required.

7.1.2 Species Protection Plans (SPPs) for the following species have been developed in consultation with SNH and are included in Appendix 12:

- European Protected Species (EPS) (SPP1 Bats, SPP7 Reptiles and SPP8 Otters).
- Schedule 5 species (SPP 2 Red Squirrel, SPP3 Water Vole, SPP7 Reptiles, SPP6 Otters and SPP8 Pine Marten).
- Schedule 6 species (SPP 4 Badgers).
- SPP5 Birds.
- SPP9 Fish (pending creation).

7.1.3 The Overhead Line Contractor is required to fit Bird Diverters to the earth wire of the new line at locations shown on the plans in Appendix 19, in line with Condition 22 (f).

8 LANDSCAPE

8.1. General Requirements

8.1.1. This section of the CPH provides some general background to the proposed landscape works associated with the Development.

8.1.2. The forestry design and site-works needed to cover the installation of towers in Sheriffmuir Wood in the upper Wharry Burn area are covered by the Forestry Wayleave Design Plan (Appendix 16) with advice on tree felling activities in GEMP 20.

8.2. Sensitive Areas and Landscape Mitigation Measures

8.2.1. Sensitive areas within the Wharry Burn to Denny Substation zone part of the transmission line corridor include the following:

- locations identified as incurring significant residual adverse landscape or visual effects as a result of the presence of the proposed overhead line (as identified in the ES and subsequent related documents);
- the Ochil Hills Area of Great Landscape Value (AGLV);
- other areas of sensitive landscape character;
- areas where towers (particularly angle towers) will be located in close proximity (within 50m) of a road or right of way;
- areas of ancient or semi-natural woodland.

8.2.2. Sensitive areas have been identified and mapped at a scale of 1:25,000 in order to indicate the location and distribution of these within the route of the proposed overhead line. These are shown in the zoned maps in Figures 10.1 to 10.8 in Appendix 10.

8.2.3. The areas proposed for landscape mitigation have been mapped at a more detailed scale in order that the landscape proposals can be more clearly identified. The information will also form part of the GEMPs for towers and access tracks. In addition, further information has been provided regarding the mitigation measures as identified in a suite of Landscape Plans for specific locations. These comprise of a detailed description of the planting measures to be provided at each location, and the objectives to be achieved by the provision of the mitigation measures (see Appendix 15).

8.2.4. These proposals are to be put to the relevant landowner, for discussion, and, if the landowner is agreeable to the implementation of these measures, agreement will be sought of any modifications deemed necessary and appropriate, before more detailed plans are developed.

8.2.5. These more detailed plans will be provided at appropriate scales depending on the nature of the proposed work.

8.2.6. Plans will be accompanied by a specification and schedule of works in order that the work may be implemented to the necessary standards. A commitment to the future maintenance of the area of planting, for a period of five years, will also be included and the detail of the relevant works included in the information provided for each site.

8.3. Constraints

8.3.1. Constraints to the successful implementation of the landscape mitigation measures may comprise the following:

- Possible disturbance to the areas concerned as a result of ongoing construction of the proposed overhead line, or from the dismantling of the existing 132kV overhead line.
- Potential conflicts with other environmental interests.

8.3.2. These constraints may be mitigated through:

- Careful working practice generally throughout the route of the proposed overhead line.
- Ensuring that all works in an area are completed in advance of the preparation of the area for planting (or for other work).
- Ensuring that proposals are circulated widely prior to finalising in order that consideration for potential conflicts of interest can be highlighted and addressed.

9 RESTORATION

9.1. General Requirements

9.1.1 Once the new 400kV overhead line is commissioned and the existing 132kV line has been dismantled the site and other working areas must be reinstated by the Overhead Line Contractor to a condition equivalent to that existing prior to the commencement of works unless agreed with SPT, IEC and relevant parties[6]. Some areas may be reinstated during the construction of the new line and during dismantling of the 132kV line. Contract requirements include:

- Removal of all temporary access tracks;
- Restoration of all work sites around new line towers and where the 132kV line and towers are removed; and
- Reinstatement of all construction compounds and other associated works areas.

9.1.2 All work must be carried out taking account of the environmental commitments listed in Appendices 1 and 4.

9.1.3 It is essential that plans for restoration of all areas which are to be disturbed by construction are considered as part of the design to ensure that benefits are maximised. Reference should be made to all environmental commitments (see Appendix 1: Environmental Commitments Register), and also specific Landscape Design Plans (Appendix 15) and Forestry Wayleave Design Plans (FWDPs) (included in Appendix 16).

9.1.4 Appendix 17 provides guidance on restoration (including a summary of 'lessons learnt' and best practice gained from other sites in Scotland) and landscaping. These principles should be considered along with any best practice guidance from SNH and Forestry Commission Scotland (FCS) to inform the site restoration proposals. Further information about restoration in specific habitats is included in Section 5 (HSPPs) and works in Special Study Areas (SSAPs) in Section 6.

9.1.5 Following construction SPT will ensure that monitoring of restoration post-construction is carried out and any necessary remedial actions taken.

6 In this section the terms reinstatement and restoration are used interchangeably. Each site will be re-instated as close as possible to its original condition and habitats restored.

10 ARCHAEOLOGY AND CULTURAL HERITAGE

10.1 General Requirements

10.1.1 Archaeological and Cultural Heritage resources found along the route of the new line were identified during the Planning Process and are detailed in the Environmental Statement (ES). These resources are listed in Table 13.1 below. Where appropriate a risk assessment will be undertaken to identify the potential for damage to these features during felling and construction operations.

Table 13.1: Archaeological and Cultural Heritage Resources

Resource	Types
Statutorily Designated Areas	• Scheduled Ancient Monuments (SAMs). • Listed Buildings and Conservation Areas.
Non-Statutorily Designated Areas	• Sites and areas (including Properties in Care). • Historic Gardens and Designed Landscapes. • Historic battlefields. • Other cultural heritage or archaeological sites. • World Heritage Sites.
Archaeological and Cultural Heritage Features	• Dry stone dykes or sheepfolds. • Grassy humps and lumps in the ground. • Concentrations of stones.

10.1.2 Information on the location and nature of these resources is contained in the GIS geo-database and the ES Technical Annex 26.2.

10.1.3 Contractors are required to implement the measures detailed in GEMP 19: Archaeology and Cultural Heritage, and comply with any other relevant environmental commitments and mitigation defined by the Archaeological Clerk of Works, to ensure the protection and conservation of known and unknown features, and designated sites and areas.

10.1.4 The measures detailed in GEMP 19 should be briefed to site staff where appropriate.

10.2. Scheduled Monuments

10.2.1 Where construction works are likely to impact on Scheduled Ancient Monuments, SPT will apply for a Scheduled Monument Consent. Contractors are required to comply with any conditions included in such Consents and associated working practices set out in Method Statements.

10.2.2 The following site may require a Scheduled Monument Consent before works can be carried out:

- The crossing of the Roman Road at Tor Wood.

10.3. Properties in Care

10.3.1 Where works could affect access to Properties in Care[7] SPT and Contractors will notify stakeholders in advance of works through the ELG / TCHCLG.

[7] historic environment properties for which Scottish ministers are responsible

Those properties with the potential to be affected by the Development are listed in GEMP 19: Archaeology and Cultural Heritage.

10.4. Surveys and Evaluations

10.4.1 The GIS Geo-database will be updated with any newly identified features to enable Contractors to incorporate mitigation measures into relevant SEMPs in accordance with GEMP 19.

11. COMMUNITY, TOURISM AND LEISURE

11.1. General Requirements

11.1.1 To ensure the development is completed with the minimum of disruption to communities SPT, through its Community Liaison Team, will liaise with Local Authorities, Community Councils and other parties to identify when events and other potential conflicts are planned within areas close to the Wharry Burn-Denny route.

11.1.2 Such events and conflicts will include;

- Local events (such as entertainment, sporting, fundraising and local community events).
- Tourism events and peak times (e.g. summer holidays).
- Other road works and closures.
- Other commercial road users planning increases in traffic (e.g. quarries or other construction projects).
- Other utility networks operations.
- Additional energy developments being constructed.

11.1.3 SPT has identified specific routes to be used by construction traffic which avoid, wherever possible, sensitive areas (see Appendix 22). Combined with the public road improvements these seek to minimise local disruption and reduce safety risks to other road users. Contractors are required to comply with any programming and traffic routeing restrictions set out by SPT.

11.1.4 Contractors are also required to input into community and landowner communications, possibly through the appointment of dedicated site staff who will liaise with the SPT Community and Wayleave Teams.

11.2. Landowners and Wayleaves

11.2.1 Landowner liaison, to ensure that all landowner / land manager interests and requirements are met, will be carried out through SPTs Wayleave Team.

11.2.2 Pre-construction site and access Condition Reports will be prepared for each landowner / occupier who could be affected by the works identified in the course of the Wayleave process. These Reports will be prepared prior to construction by SPT to make sure that specific landowner / occupier commitments will be implemented.

11.3. Public Access

11.3.1 IEC and Contractors will design the works to ensure that public accesses (such as Rights of Way, bridleways, paths and other accesses) are maintained throughout the development wherever possible.

11.3.2 The Access Management Plan in Appendix 21 gives further detail on specific accesses and any temporary diversions / closures which cannot be avoided.

11.4. Noise Management

11.4.1 IEC and Contractors will endeavour to avoid causing nuisance to local residents during construction. A Noise Management Plan (Appendix 22) has been produced which details noise reduction measures to be employed by all Contractors working on the development. In addition the plan details specific mitigation measures to be employed at key Noise Sensitive Locations as required by Condition 27.

12 POLLUTION PREVENTION

12.1. General Requirements

12.1.1 Contractors are required to design and carry out works in a manner which avoids causing pollution of watercourses and water bodies or contaminating land with hazardous materials (e.g. fuel, oils).

12.1.2 Specific buffer distances and other site requirements have been stipulated in the development environmental commitments (see Section 1.4) for certain activities, including:

- Storage of fuel and oils.
- Refuelling of plant and vehicles.
- Siting of towers, access tracks and soil storage areas.
- Concrete washout and vehicle cleaning.
- Dewatering and drainage outfalls.
- Conductor stringing / de-stringing.
- Creation of settlement ponds and surface water drainage.

12.1.3 Contractors are required to comply with these requirements, which are included in Appendices 1, 4 and 8 of this CPH.

12.2. Watercourse Crossings

12.2.1 Water crossings for access tracks will be constructed in accordance with the Water Environment (Controlled Activities) (Scotland) Regulations 2010. As a minimum the relevant Contractor will implement those measures included in applicable General Binding Rules (GBRs).

12.2.2 SPT and / or IEC, with input from the Contractor, will consult with SEPA on water crossings which require higher levels of authorisation (i.e. Registration or Licence) and ensure these are in place prior to works commencing. Appendix 23 contains a Schedule of all water crossings between Wharry Burn and Denny.

12.3. Private Water Supplies General Requirements

12.3.1 SPT / IEC is required to carry out a risk assessment and propose mitigation measures for all Privates Water Supplies that may be affected by construction activities during the Development.

12.3.2 Contractors are required to integrate any mitigation measures developed from the PWS risk assessment, and industry best practice, into SEMPs and site documentation to ensure the protection of PWSs in terms of quality and quantity of supply.

12.4. Risk Assessment Process

12.4.1 Forestry operations, the construction, use and removal of access tracks and the installation and removal of transmission towers could disturb the quantity and quality of private water supplies (PWS) along the route of the Development. It is therefore important to identify all PWS in proximity to the route and assess any potential risks from these activities.

12.4.2 A phased risk assessment will be undertaken which will identify any specific mitigation measures required (which are over and above good construction practices already employed) for those supplies close to areas of construction. The basic methodology to be employed and a summary of results and mitigation measures is included in Appendix 20. For confidentiality reasons the details of individual PWS users and supply information are not included.

13 WASTE AND CONSTRUCTION MATERIALS

13.1. Waste Management Plans

13.1.1 Waste is defined as “any substance or object which the holder discards, intends to discard or is required to discard”. This includes materials that other people want, or for which they can find a beneficial use (including material that is to be recovered or recycled). During construction of the transmission line there will be a variety of different wastes generated which require identifying and correctly managing in compliance with legislation and best practice.

13.1.2 SPT and IEC are committed to reducing the amount of waste generated during the development including packaging (e.g. pallets, plastic shrink wrap and cardboard) and construction materials (including dismantled towers / conductor and soils / aggregates – see Section 13.2).

13.1.3 The Site Waste Management Plan for the development is included in Appendix 13 which sets out the framework for managing waste by all Contractors.

13.1.4 Site Waste Management Plans (SWMPs) will be developed by all Contractors, in accordance with the requirements of the Development Waste Management Plan, and accepted by IEC Environmental Management Teams. The purpose of the SWMP is to identify how resources will be managed and waste controlled at all stages during the development.

13.1.5 The dismantling of the existing 132kV line will result in large quantities of materials (steel from the towers, steel and aluminium from the conductors, concrete from foundations and glass from insulators) becoming surplus to requirement. SPT and IEC are committed to recycling or re-using all of these materials where possible.

13.1.6 IEC and Contractors are responsible for reporting relevant waste streams and keeping waste records throughout the contract in accordance with the Site Waste Management Plan.

13.2 Aggregates and Soils

13.2.1 Large quantities of aggregates will be required for the construction of access tracks to facilitate the construction of towers. These materials will be sourced locally wherever practicable to minimise environmental impacts from traffic movements.

13.2.2 Additional aggregates may also need to be imported to make up any shortfall in locally quarried material should this become an issue. These materials will be from recycled sources wherever practicable.

13.2.3 The purpose of the site waste management plan is to:

- Provide an overall strategy for managing aggregates and soils.
- Identify all aggregates and soils (including topsoil, subsoil, overburden and peat) which will be used or excavated during the development.
- Detail how excavated materials will be characterised, stored, managed and re-used for restoration.

- Identify at what point options are to be explored for recycling / re-use of surplus materials off site. Waste materials will be identified and managed through SWMPs produced by the Contractors (see Section 13.1 above).

14 EMERGENCY RESPONSE REQUIREMENTS

14.1. General Requirements

14.1.1 The CPH provides guidance on a wide range of required mitigation which is designed to ensure a proactive approach to protecting the environment from the risks of construction activities. Unforeseen emergencies may occur on site such as oil and fuel leaks, vehicle accidents, accidental fires, extreme weather conditions, flooding and silt release etc.

14.1.2 Contractors are required to develop and implement a suitable Environmental Emergency Plan in consultation with the SPT / IEC Environmental Management Team. This plan should comply with the requirements of ISO 14001 and be tested to ensure its suitability. An example of the sort of information that should feature in such a plan is given in Appendix 14.

14.1.3 Contractors should carry out appropriate staff training on emergency procedures to ensure the plan's effectiveness.

15 GLOSSARY

- **Alien species**: Plant or animal thought to have been introduced by man but now more or less naturalised.
- **Ancient Woodland**: Sites shown as woodland on readily available map sources from 1750 onwards, and as semi-natural woodland on the 1750 map. These are sites with a proven continuity of woodland cover for at least 230 years, and which are likely to be the modified remnants of Scotland's original forest cover. The total area of each site is divided into the present day extent of semi-natural and plantation woodland.
- **Annual mean**: The average (mean) of the concentrations measured for each pollutant for one year. Usually this is for a calendar year, but some species are reported for the period April to March, known as a pollution year. This period avoids splitting winter season between 2 years, which is useful for pollutants that have higher concentrations during the winter months.
- **Aquifer**: Geological strata which is sufficiently porous to contain groundwater and allow movement of groundwater and which may be commercially exploited as a water supply source
- **Arable land**: Land under temporary crops, temporary meadows for mowing or pasture, land under market and kitchen gardens and land temporarily fallow (less than five years).
- **A-weighting, dB(A):** The unit of sound level, weighted according to the A-scale, which takes into account the increased sensitivity of the human ear at some frequencies.
- **Basic**: Relating to soils that are rich in alkaline minerals
- **Bifurcated:** The breaking of a linear feature.
- **Birds Directive**: Addresses the conservation of all wild birds throughout the E.U. including marine areas and covers their protection, management, control and exploitation.
- **Blanket bog / peat bog**: An area of extensive peat deposits, usually waterlogged, and of significant thickness. Acid peat bog covering large stretches of country.
- **Boreal**: Relating to area with a continental type of climate. Northern geographical region.
- **Brashing**: Cutting away the dead side branches from young conifers, to a height of about 6ft, to aid fire protection or provide easier access.
- **Calcareous**: Chalky soil / Composed chiefly of calcium carbonate (lime).
- **Canopy**: Collectively, the mass of branches and foliage formed by the crowns of trees.
- **Catchment**: Geographical area in which run-off and watercourses drain to a single main river system
- **Clear felling**: Practice of cutting down all the trees in a given area at the same time.
- **Compartment**: A distinct sub-division of the woodland suitable as a basis for long term management and record keeping.
- **Compensation Measure**: Compensation may be a measure(s) taken to counteract an adverse effect, which cannot be entirely mitigated.
- **Conservation area:** Area designated as being of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance.
- **Coppice**: Broad-leaved woodland which is cut over at comparatively short periods of years (1 to 25), causing the growth of many small shoots from each stump.
- **Coppicing**: Woodland management practice in which trees such as willow, birch, hazel and sweet chestnut are regularly cut back to ground level every few years.
- **CPH**: Construction Procedures Handbook
- **Critical height**: The tree height at which windthrow is likely to start.
- **Crown**: The canopy of the branches of the tree.
- **Cultural Heritage:** The built remains of the past, these include upstanding historical buildings.

- **Culvert**: A covered pipe or channel used to carry water under a road. A form of stone-built drain.
- **Decibel (dB):** A scale for comparing the ratios of two quantities, including sound pressure and sound power. The difference in level between two sounds s1 and s2 is given by 20 log10 (s1 / s2). The decibel can also be used to measure absolute quantities by specifying a reference value that fixes one point on the scale. For sound pressure, the reference value is 20□Pa.
- **Development, The**: The scope of works pertaining to the Section 37 Consent and deemed planning permission, as detailed in Annex 1 of the Consent Letter dated 6th January 2010.
- **Dewatering**: Pumping or drainage of water which has collected in a void or other receptacle.
- **Domestic:** Relates to the home and hearth, the routines of daily life.
- **Drey**: A squirrel's nest or resting up site.
- **Earthwork:** A general term describing any group of banks, ditches, mounds, scoops, hollows, platforms, or other structures of earth and stone.
- **Ecology**: The branch of science studying the interactions between living organisms and their environment.
- **EIA**: Environmental Impact Assessment.
- **ELG**: Environmental Liaison Group
- **ES**: Environmental Statement
- **European Site**: A site designated as of European importance under statutory directives, e.g. Special Protection Area (SPA) –EC Birds Directive 1979. See Natura Sites.
- **European Protected Species (EPS):** Species of plants and animals (other than birds) protected by law throughout the European Union. They are listed in Annexes II and IV of the European Habitats Directive
- **Eutrophic**: Of water bodies, rich in nutrients and therefore usually highly productive.
- **Evaluation:** A limited programme of non-intrusive and / or intrusive fieldwork, which determines the presence or absence of archaeological features, structures, deposits and artifacts. This may take the form of trial trenching a percentage of the site, geophysical or topographical survey. The results of this investigation will establish the requirements for any further work.
- **Excavation (archaeological):** Intrusive fieldwork with a clear purpose, which examines and records in detail archaeological deposits, features and structures and recovers artifacts and other remains within a specified area or site. Although a destructive process the remains that were present prior to excavation are preserved through record.
- **Exceedence**: A period of time where the concentrations of a pollutant is greater than, or equal to, the appropriate air quality standard.
- **Façade:** At a distance of 1m in front of a large sound reflecting object such as a building façade.
- **Fen**: Marshy or low lying ground, covered with shallow, stagnant water originating from groundwater.
- **Flush**: Area of habitat associated with water movement. Occur on gently sloping ground and may include small watercourses.
- **Forest**: Predominantly tree covered land (woodland) whether in large tracts (generally called forests) or smaller units (known by a variety of terms such as woodlands, woods, copses and shelterbelts).
- **FCS (Forestry Commission Scotland)**: Forestry Commission Scotland is the devolved department of the Forestry Commission with responsibility for forestry policy. It has an agency (known as Forest Enterprise) which is charged with the management of the Forestry Commission's own forests. For all woodland not owned by the Forestry Commission, the Forestry Commission Scotland is charged with the promotion of high standards of sustainable forestry management and administration of grant aid. This work is undertaken by that part of the FCS historically known as the Forest Authority.
- **Free-Field:** Far from the presence of sound reflecting objects (except the ground), usually taken to mean at least 3.5m
- **Geology:** The science which deals with the physical structure and substance of the earth.
- **GEMP:** Generic Environmental Management Plan

- **Groundwater vulnerability**: Degree to which groundwaters are exposed to potential contamination e.g. through passage of pollutants through permeable strata
- **Groundwater**: Water occurring within the saturation zone of an aquifer (beneath the water table)
- **Heath**: Vegetation developing on poor usually acid, sandy or gravelly soils, dominated by gorse and heathers.
- **Historic Garden and Designed Landscape (HGDL):** A historic garden and / or a designed landscape considered of value and included in the Inventory of Gardens and Designed Landscapes in Scotland published in 1987 and subsequent supplementary volumes published in 1997 and 2003.
- **Holts**: Refers to more permanent and usually underground resting up site for otter e.g. under tree rootplate.
- **HSPP**: Habitat Specific Protection Plan
- **Hydrology**: The science dealing with water on land or under the surface of the ground, including its properties, distribution and effects
- **Impact**: An impact is a change in an environmental parameter over a specified period of time occurring as a result of a proposed development action or change of use
- **In Situ:** Left undisturbed in its original place.
- **L10,T:** A noise level index. The noise level exceeded for 10% of the time over the period T. L10 can be considered to be the "average maximum" noise level. Generally used to describe road traffic noise.
- **L90,T:** A noise level index. The noise level exceeded for 90% of the time over the period T. L90 can be considered to be the "average minimum" noise level and is often used to describe the background noise.
- **LAE:** The single event noise exposure level – a noise index used to describe discreet sound events such as a train or vehicle pass-by or overflying aircraft. Defined as the A-weighted sound level which, if it lasted for a period of one second, would contain the same amount of A-weighted sound energy as the actual noise event that was recorded.
- **Lek**: Special arena removed from feeding and nesting grounds, used for communal courtship display for black grouse and capercaillie.
- **Leq,T:** A noise level index called the equivalent continuous noise level over the time period T. This is the level of a notional steady sound that would contain the same amount of sound energy as the actual, possibly fluctuating, sound that was recorded.
- **Listed Building:** A building of special architectural or historic interest which is for the time being included in a list compiled by the Scottish Ministers.
- **Lmax,T:** A noise level index defined as the maximum noise level during the period T. Lmax is sometimes used for the assessment of occasional loud noises, which may have little effect on the overall Leq noise level but will still affect the noise environment.
- **Long-Established Woodland of Plantation Origin**: Sites which appear to be plantation woodland in c 1860 but not shown as woodland at all in 1750 (or shown as plantation on these maps). These are woods that were apparently planted between 1750 and 1860 (or even before 1750) and thus have a proven continuity as woodland for at least 120 years. Omissions from the 1750 maps will mean that some of these sites may be ancient in origin. Many of the older plantations have considered conservation value in their own right. The total area of each site is divided into the present day extent of semi-natural and plantation woodland.
- **Long-established Woodland of Semi-Natural Origin**: Sites which appear to be semi-natural woodland in c 1860 (i.e. those on the OS 6 First Edition maps) but not shown as woodland on the 1750 maps. These are woods that have apparently arisen between 1750 and 1860 and have a proven continuity of woodland cover for at least 120 years. However, omissions from the 1750 maps were such that many of these sites will be ancient, but cannot be proved to be so. The total area of each site is divided into the present day extent of semi-natural and plantation woodland.
- **Lying-up site**: Refers to more open and temporary resting up site for mammals, in particular otter.
- **Mesotrophic**: This term is applied to clear water lakes and ponds with beds of submerged aquatic plants and medium levels of nutrients
- **Mire**: Bog or fen.

- **Mitigation measures**: Methods of ecological management which focus on the minimization of environmental impact and / or the recovery of damaged areas. Measures have three main categories: avoidance (involves making the maximum effort to have development avoid areas that are especially environmentally sensitive or coming up with alternative plans for development), minimization (used only when avoidance is not possible and involves the maximum extent possible for reducing the effects of development), and compensation (creation of alternative ecological areas).
- **Muirburn**: The practice of periodically burning strips of heather to create a mosaic of short and long heather favoured by red grouse.
- **Natura 2000 site**: Natura 2000 is a European network of protected sites which represent areas of the highest value for natural habitats and species of plants and animals which are rare, endangered or vulnerable in the European Community. The term Natura 2000 comes from the 1992 EC Habitats Directive; it symbolises the conservation of precious natural resources for the year 2000 and beyond into the 21st century.
- **Natural regeneration**: The re-growth of a forest crop from self-sown seed, without artificial planting or sowing.
- **Natural**: In which the human impact has been negligible.
- **Noise Level Indices:** Noise levels usually fluctuate over time, so it is often necessary to consider an average or statistical noise level. This can be done in several ways, so a number of different noise indices have been defined, according to how the averaging or statistics are carried out.
- **Palaeo-environment:** An ancient or past environment.
- **Passerines**: An order of birds that includes small and medium sized perching birds and songbirds, e.g. crows, tits, warblers, thrushes and finches.
- **Peak Period**: The period, which may be more or less than an hour, which is deemed to represent the duration of the morning or evening peak for traffic modeling purposes.
- **Phase 1 habitat survey**: A habitat classification system based principally on vegetation, augmented by reference to topographic and substrate features, where vegetation is not the dominant component of the habitat.
- **Pollarding**: The annual removal of all of the previous year's growth, resulting in a flush of slender shoots and branches each spring.
- **Post excavation (archaeological):** The analysis and interpretation of the results of excavation, which ultimately results in publication and archiving.
- **Precautionary Principle**: A way of assessing activity that may have a damaging effect on the environment that takes the 'better safe than sorry' approach. It advocates the ideas that preventative or other action should be taken in advance of rigorous scientific proof if the damage that can be foreseen would be serious.
- **Private water supply**: A non mains water supply, usually taken from hill streams and springs serving isolated properties and farms
- **Ramsar site**: Ramsar sites are wetlands of international importance designated under the International Convention on Wetlands of International Importance (the Ramsar Convention).
- **Raptors**: Birds of prey such as eagles and owls etc.
- **Residual Effects**: Adverse impacts that can't be satisfactorily avoided or mitigated.
- **Resting-up site**: This includes dens, holts, lying-up sites, couches, bat roosts, water voles burrows badger setts and squirrel dreys.
- **Ride**: Broad track running through a wood; a ride has a natural surface, whereas a road is metalled and made up.
- **RIGS**: Regionally Important Geological Sites. A designated site for geological features.
- **Riparian**: Relating to or situated on the banks of a river.
- **Roman Fort:** A Roman military construction that combines accommodation for troops, their transport, and equipment.
- **Rotation**: Interval of years between the repetition of an operation; a felling rotation naturally equals the maximum age to which trees are grown in a given forest or compartment.

- **Rough shooting:** Walked-up shooting of wide range of wild birds and game using dogs to flush game.
- **Ruderal Species**: Weedy species – good colonisers that are often a pioneer of bare substrates.
- **Run-off Water**: which drains downslope across the surface of the ground
- **Salmonids**: Family that includes fish such as salmon, rainbow and brown trout.
- **Scats**: Mammal droppings e.g. pine marten (Martes Martes) or fox (Vulpes vulpes) etc.
- **Scheduled Ancient Monument (SAM):** Archaeological or cultural heritage site afforded statutory protection under the *Ancient Monuments and Archaeological Areas Act 1979*.
- **Scoping**: A detailed consideration of the likely significant impacts resulting from a proposal and how they need to be addressed in an EIA.
- **Scottish Environment Protection Agency (SEPA)**: SEPA is a Scottish Government agency, which is responsible for the protection of the environment in Scotland, in particular in relation to pollution of air and water and to waste issues.
- **Scottish Executive Environment and Rural Affairs Department (SEERAD)**: SEERAD (now Scottish Government Rural Directorate) is responsible for advising Ministers on policy relating to agriculture, rural development, food, the environment and fisheries, and for ensuring the implementation of those policies in Scotland.
- **Scottish Natural Heritage (SNH):** SNH is a Scottish Government agency that works to conserve and enhance Scotland's natural heritage of wildlife, habitats and landscapes.
- **Semi-natural Ancient Woodland SNAW**: Ancient and Semi-natural Woodlands are defined as those known to be continuously present since 1600 AD (1750 AD in Scotland)
- **Semi-natural**: An area where the basic type of vegetation cover has been altered by human activities but where there has been no cultivation or intentional alteration of species composition.
- **SEMP**: Site Environmental Management Plan
- **Shelterbelt Woodland**: Normally a long narrow strip, designed primarily for agricultural shelter. May also perform a visual screening or sporting function
- **Shieling:** Hut in upland grazings used for summer occupation during the Medieval and Post-Medieval periods.
- **Soakaway**: Process of allowing natural infiltration of water into soils and groundwaters
- **Sound Power Level, LW:** Sound power measured on a decibel scale, relative to a reference value of 10-12 W.
- **Sound Power:** The sound energy radiated per unit time by a sound source. Measured in Watts (W).
- **Sound Pressure Level (Sound Level):** The sound level is the sound pressure relative to a standard reference pressure of 20□Pa (20x10-6 Pascals) on a decibel scale.
- **Sound Pressure:** Sound, or sound pressure, is a fluctuation in air pressure over the static ambient pressure.
- **Spawning**: Egg laying pertaining to fishes.
- **Special Area of Conservation (SAC)**: These are areas designated under the Designated under the EC Habitats and Species Directive for the Protection of Habitats and (non-bird) Species, commonly known as the 'Habitats Directive'. They are intended to safeguard the habitats and protect them from significant disturbance. Together with SPAs (Special Protection Areas) SACs form the network of Natura 2000 sites. A cSAC is a Candidate special Area of Conservation, under consideration for international designation under European law.
- **Special Protection Area (SPA)**: These are areas designated under the EC Directive on the Conservation of Wild Birds, commonly known as the 'Birds Directive'. They are intended to safeguard the habitats and protect them from significant disturbance. Together with SPAs (Special Protection Areas) SACs form the network of Natura 2000 sites Species richness. The number of different species within a given area.
- **Sphagnum**: Species of mosses of the type found in peat bogs.
- **Spraints**: Otter faeces or droppings.
- **SPP**: Species Protection Plan

- **SSAP**: Special Study Area Plan
- **SSSI**: Site of Special Scientific Interest. A designated site for ecological and / or geological features.
- **Stand**: A defined area of woodland, usually of similar size, species and age.
- **SWMP**: Site Waste Management Plan
- **Thinning**: Removing selected stems from a crop of trees, so as it give the remaining stems more growing space; a tree so removed.
- **Topography**: The landforms or surface features of a landscape.
- **Topping**: The removal of up to 50% of the live crown of a tree as a means to reducing the tree height in proximity to the overhead line conductors.
- **Township:** A group of five or more buildings and their related enclosures and fields.
- **Transects**: A line, strip or profile chosen to sample the organisms present within a particular habitat and to gain an idea of their distribution.
- **UK Biodiversity Action Plan (BAP)**: This is the UK government response to the Convention of Biological Diversity signed in 1992. It describes the UK's biological reserves; commits a detailed plan for the protection of these resources; has 391 Species Action Plans, 45 Habitat Action Plans and 162 Local Biodiversity Action Plan with targeted actions.
- **Waders**: Shore and inland birds that wade in shallow water to feed.
- **Water Quality Classification**: A system used by SEPA based on chemical and biological criteria to determine the quality of watercourses
- **Waterbodies**: Watercourses including rivers, burns, lochs and lochans which have been designated by SEPA as part of preparation for implementation of the Water Framework Directive
- **Watercourses**: Waterbodies or other natural courses of permanently flowing water which have potential significance for their aquatic and / or riparian habitat or species they support. They do not include drainage ditches or channels which are man-made. Watercourses have been classed in this assessment as those burns which are identifiable on Ordnance Survey mapping at 1:50,000 scale.
- **Watershed**: An imagined line, often along a ridge of high land that separates adjacent drainage basins.
- **Wetland**: Swampy or marshy land.
- **Windblow**: Uprooting of trees by the wind, or a tree so uprooted.
- **Wind-break**: Breakage of tree stems by the wind, or a tree so broken.
- **Windfirm**: Considered unlikely to suffer the effects of windthrow
- **Windthrow risk**: A technical assessment of risk based on local climate, topography, site conditions and tree height
- **Windthrow**: Uprooting of trees by the wind, or a tree so uprooted.
- **World Heritage Site:** A cultural and natural site of outstanding universal value included on the world heritage list created under the World Heritage Convention, which was adopted by UNESCO in 1972 and subsequently ratified by the United Kingdom.