# SPECIAL STUDY AREA PLAN (SSAP) 1: FIRTH OF FORTH SPA

## 1 INTRODUCTION

The Firth of Forth is classified as a Special Protection Area (SPA) because it qualifies under Article 4.1 of the Birds Directive by supporting wintering populations of birds of European importance and under Article 4.2 by supporting wintering populations of migratory species of both European and international importance that include pink-footed geese. In addition the site qualifies under the same article as a wetland of international importance (Ramsar Site) by regularly supporting at least 20,000 wintering waterfowl.

Working practices and mitigation in relation to the Firth of Forth SPA need to be applied at a scale that would prevent disturbance to the relevant qualifying interests of the Firth of Forth SPA/Ramsar site. Species that could be affected include any of the waders and geese that move around the Firth of Forth area between feeding (in arable fields and grasslands) and roosting sites (on mudflats).

The extent of the 400kV and 132kV lines and associated infrastructure (tracks, working areas, compounds etc.) under consideration as part of this plan are as follows:

| **400kV** | | | |
|---|---|---|---|
| **Tower Ref.** | TD201A | to | TD248A |
| **Location** | Yellowcraig Wood | to | Denny substation |
| **Grid ref.** | NS 815 974 | to | NS 825 846 |
| **Distance** | 16.4km | | |
| **Number of Towers** | 50 | | |

| **132kV** | | | |
|---|---|---|---|
| **Location** | Yellowcraig Wood | to | Denny substation |
| **Grid ref.** | NS 815 974 | to | NS 825 846 |
| **Distance** | 13.1km | | |

## 2 MITIGATION PLAN

The following is to be applied throughout the extent of the SPA area as described above (unless otherwise stated). Details for specific locations within the SPA are presented as individual location plans. The mitigation measures collated below in relation to the Firth of Forth SPA are in addition to more general mitigation measures presented in sections and appendices of the CPH, including:

- Species Protection Plan 10: Birds
- Appendix 17 Further Guidance on Mitigation

## 2.1 GENERAL PRINCIPLES

1. Appropriately experienced and qualified staff who are specialists in ecology shall be in attendance throughout any period that construction takes place within 1km of the SPA to ensure that all environmental mitigation measures, the CPH and any mitigation measure required by virtue of any condition are delivered.
2. No permanent access tracks would be constructed within the SPA and all temporary tracks used for construction of the new line would be fully restored. Existing access tracks would be used wherever possible to transport equipment and materials to tower construction locations. New accesses would be routed where possible through land of low ecological sensitivity, defined as Low Local or Negligible Value in the ecological assessment.
3. No site compounds to be located within the SPA.
4. Borrow pits not to be located within the SPA.

## 2.2 CONSTRUCTION

5. During the winter period (September to April inclusive) the use of helicopters to assist in stringing the line shall be limited to a maximum of one day in one local area as defined by the Independent Environmental Contractor. The potential disturbance, although temporary, on geese and cormorants shall be considered on an area by area basis, by the Independent Environmental Contractor in liaison with SNH.

## 2.3 MAINTENANCE

6. The overhead transmission line shall not transmit electricity in the Firth of Forth SPA area until a plan for maintenance and emergency repair works within the SPA area has been submitted to and approved by the Scottish Ministers in consultation with SNH and the particular planning authority. Thereafter any such works shall be carried out in accordance with the approved plan. The plan to be approved shall specify inter alia that:
7. Maintenance works which have the potential to cause disturbance to the qualifying species of the Firth of Forth SPA shall not be undertaken during the winter period (September-April inclusive).
8. Emergency repair works (i.e. works to prevent loss of security of supply or for reasons of human safety) shall be carried out with due regard to the protection of the qualifying species of the Firth of Forth SPA.

## 2.4 DISMANTLING

9. Any dismantling work undertaken using helicopters would consider potential disturbance. Any disturbance (e.g. access track construction, when transmission line towers are being dismantled or conductors de-strung, etc.), although temporary, on pink-footed geese or other waterfowl species would be considered on an area by area basis taking account of their potential presence and avoiding disturbance. Any fields within 1km of the line which are identified with large numbers of pink-footed geese or other qualifying waterfowl, these areas would be avoided during times when wintering waterfowl were present, i.e. September to April (inclusive), unless discussed and agreed in advance with SNH.
10. There would be no use of helicopters for dismantling in the vicinity of the River Forth during the autumn/winter/spring period, defined as September to April inclusive, to prevent disturbance to qualifying waterfowl that use the Firth of Forth SPA and Ramsar Site. The exclusion areas are defined as 350m to the north of the River Forth to the A907 trunk road and 400m to the south of the river to properties at Lower Taylorton. These exclusion areas represent distances to existing sources of disturbance, and to which distances helicopter use is considered unlikely to result in disturbance.
11. No dismantling works would be undertaken in vicinity of the River Forth during the autumn/winter/spring period defined as September to April to prevent disturbance to qualifying waterfowl that use the Firth of Forth SPA area. This exclusion area is defined

as 250m to the north of the River Forth to the A91 trunk road and 300m to the south of the river to properties at Balfornought, as these exclusion areas represent distances to existing levels of disturbance.

# SPECIAL STUDY AREA PLAN (SSAP) 2:
# OCHIL HILLS AREA OF GREAT LANDSCAPE VALUE (AGLV)

## 1 INTRODUCTION

The Ochil Hills has been designated as an Area of Great Landscape Value (AGLV) in recognition of its unique landscape value. The Ochils form a dramatic backdrop to the upper Forth Estuary and the Eastern Scotland lowlands and provide a contrast between the steep scarp slope and flatness of the adjoining carselands.

Working practices and mitigation in relation to the Ochil Hills AGLV need to be applied at a scale that would prevent disturbance to the qualifying interests of the AGLV. The extent of the 400kV and 132kV lines and associated infrastructure (tracks, working areas, compounds *etc*.) under consideration as part of this SSAP are as follows:

| **400kV** | | | |
|---|---|---|---|
| **Tower Ref.** | TD190 | to | TD203 |
| **Location** | Sheriffmuir | to | A91 Hillfoots Road |
| **Grid ref.** | NN 820 019 | to | NS 819 965 |
| **Distance** | 5.4km | | |
| **Number of Towers** | 18 | | |

| **132kV** | | | |
|---|---|---|---|
| **Location** | Sheriffmuir | to | A91 Hillfoots Road |
| **Grid ref.** | NN 821019 | to | NS 820966 |
| **Distance** | 5.4km | | |

## 2 MITIGATION PLAN

The following is to be applied throughout the extent of the AGLV as described above (unless otherwise stated).

### 2.1 GENERAL PRINCIPLES

1. No permanent access tracks would be constructed within the AGLV and all temporary tracks used for construction of the new line would be fully restored. Existing access tracks would be used wherever possible to transport equipment and materials to tower construction locations.
2. No site compounds to be located within the AGLV.
3. Borrow pits not to be located within the AGLV.

### 2.2 CONSTRUCTION

1. Natural contours will be followed and cut and fill avoided where possible when designing tracks.
2. Major earthworks will be avoided wherever possible.

3. Natural features such as rocky outcrops will be retained wherever possible to aid in successful restoration.
4. Working areas would be kept to the minimum necessary for safe implementation and the site boundary clearly marked with appropriate methods to prevent incursion out with the corridor.
5. All soils and peat that is removed during construction will be stored carefully and replaced on site as soon as construction allows.
6. Loss of mature trees will be avoided wherever possible; for example, by removal of young regenerating birch in preference to mature trees which may have biodiversity and landscape value and will give structure to the finished works.
7. Tracks will be sited around groups of trees where possible to leave natural features rather than dissecting groups/copses which again will reduce the necessary restoration works.
8. Trees will be coppiced or pollarded rather than removed where possible.
9. Where possible, seed bearing trees will be left as seed sources which will promote natural regeneration.
10. When crossing hedges or walls, gaps will be used, where possible, to avoid having to re-instate.
11. Informal and formal tracks and paths will be conserved to avoided un-necessary intrusion.
12. Drainage measures will be carefully designed to avoid unnecessary long term effects on adjacent habitats which could be difficult to restore.
13. All site activities will be planned to reduce the need for vehicle movements to the minimum necessary for safe implementation of the works which will help in final restoration by minimising compression etc.

## 2.3 DISMANTLING

1. Low ground pressure vehicles will be used to dismantle the line to reduce the need for temporary track construction.
2. Spurs will be taken using temporary matting from existing, new or temporary track to facilitate dismantling of the line and associated infrastructure.
3. Working areas will be kept to the minimum necessary for safe implementation and the site boundary clearly marked with appropriate methods to prevent incursion out with the corridor.
4. All required temporary access will be fully restored after dismantling of the line is complete.
5. All working areas and tower bases will be restored to integrate with the surrounding vegetation.
6. The dismantling of each tower would be assessed on an individual basis. If no other safety or environmental implications were present the tower would be felled in a controlled manner. Otherwise the tower would be unbolted and lowered using a crane.
7. The excavated topsoil and subsoil from the limited excavations around each tower leg will be stockpiled separately adjacent to the foundation in readiness for reinstatement. The concrete from excavated foundations will be removed from site and disposed of in accordance with the waste regulations/best practice.

# SPECIAL STUDY AREA PLAN (SSAP) 3: WESTER MOSS SSSI

## Introduction

The Wester Moss SSSI is situated between the towns of Fallin to the North and Cowie to the south, around 5km southeast of Stirling and just to the south of the River Forth. The existing transmission towers are situated less than 1km west of the SSSI. However, the proposed 400kV line and access track passes in close proximity to the boundary of the designation. As such this plan will consider the impact of the extent of the 400kV line.

The following description of the interests of the Glen Garry SSSI has been extracted from the citation held by Registers of Scotland:

*Wester Moss Site of Special Scientific Interest, Stirling, Site Code: 1616*

The SSSI is described as raised bog. The site is a remnant of the far larger expanse of peatland that once covered most of the valley floor. Birch and pine woodland surround the central active raised bog area, which supports a variety of plants, mainly heaths, sedges, cotton-grasses and bog-mosses (*Sphagnum* spp.), which are adapted to live in waterlogged, nutrient poor conditions. As the surface of the bog is raised above the local water table the only source of water and nutrients feeding the bog is rainwater.

Other important features of the bog include several locally uncommon plants, notably bog-rosemary, cranberry and common sundew, though, on their own, these are not qualifying features of the SSSI.

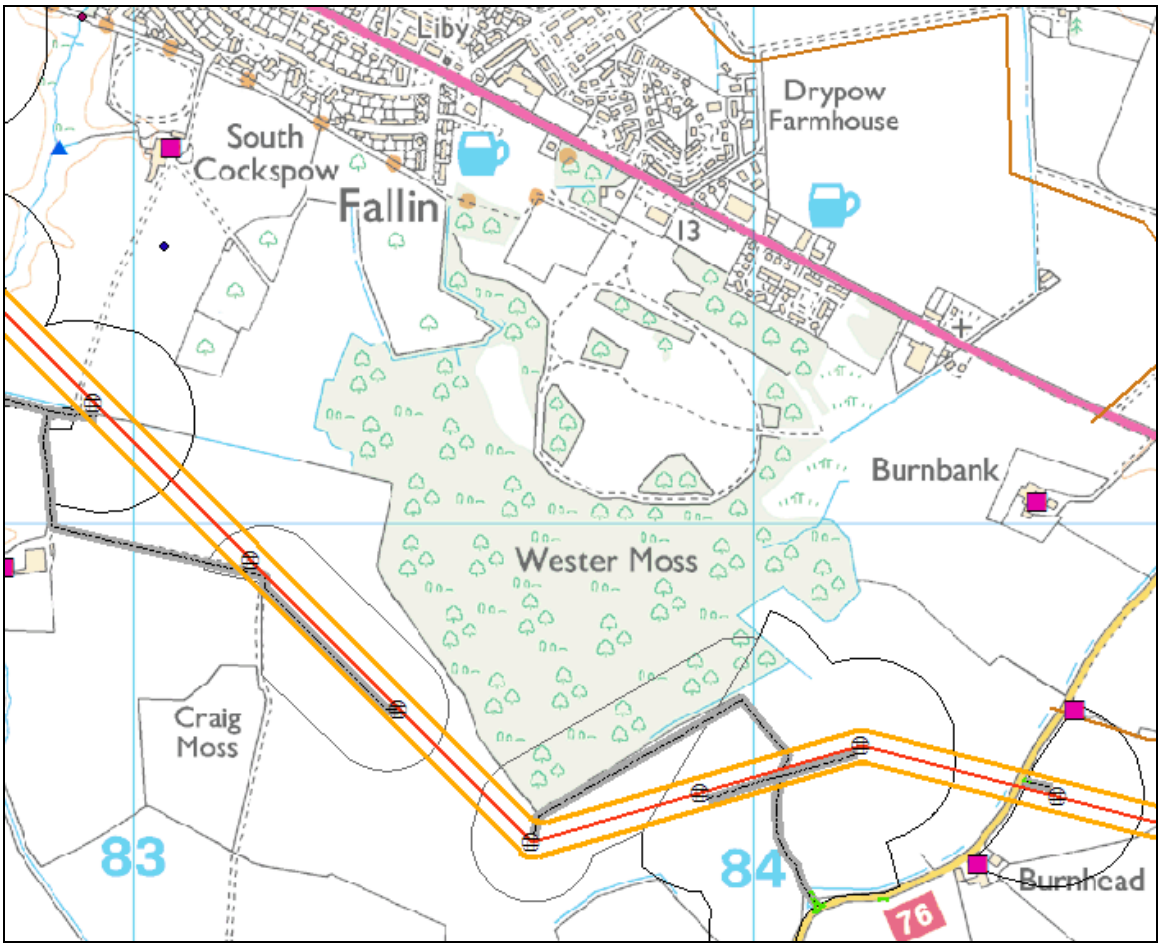
The 'raised bog' feature of Wester Moss SSSI (last monitored in January 2008) was not found to have met all the targets for vegetation composition in that there was too high an abundance of plants such as heather and cotton-grass, which are indicative of historical peat drying. Tree and scrub cover was also found to be too high. The site is therefore in unfavourable condition, however given the ongoing positive management being implemented on the SSSI, this feature should be considered as being in an unfavourable, recovering condition.

The extent of the 400kV line and associated infrastructure (tracks, working areas, compounds etc.) under consideration as part of this plan are as follows:

| **400kV** | | | |
|---|---|---|---|
| **Tower Ref.** | TD219 | to | TD225A |
| **Location** | Hartsmailing (residential property) | to | Cowiehall Quarry |
| **Grid ref.** | | to | |
| **Distance** | 2.3km | | |
| **Number of Towers** | 9 | | |

The SSSI and its proximity, to the towers proposed 400kV line and access track are shown in the following figure.

**Figure 1: Wester Moss SSSI**



## Mitigation Plan

There are five towers of the proposed 400kV line in close proximity to the boundary of the SSSI. These are:

| SPT Tower Reference | Map Zone | Principal Habitat |
|---|---|---|
| TD221A | Zone 1 | |
| TD221/1A | Zone 1 | |
| TD222 | Zone 1 | |
| TD222/1A | Zone 1 | |
| TD223 | Zone 1 | |

There are no towers planned to be located within the SSSI nor are there to be wires directly crossing over it. The towers would be located within fields that are currently either arable or improved grassland.

The following EMPs would be particularly relevant for any works close to the SSSI:

- Generic Environmental Management Plans (in Appendix 9) in particular:
  - GEMP 1 – General Environmental Protection Measures
  - GEMP 2 – Tower erection
  - GEMP 10 – Soil storage and removal
- Habitat Specific Protection Plans (in Appendix 10) in particular:
  - HSPP 4 – Grassland

### General Principles for Work in the Area

1. The Project Ecological Clerk of Works shall have a crucial role throughout planning and construction close to the SSSI to ensure that all environmental mitigation measures are adhered to and the risk of damage to any qualifying habitat is minimised.
2. Existing access tracks would be used wherever possible to transport equipment and materials to tower construction locations. New accesses would be routed through the land of low ecological value (the arable or grassland fields).
3. No site offices / depots to be located near to the SSSI.
4. Construction is to use the minimum footprint necessary to operate safely.