

## CPH APPENDIX 10

### HABITAT SPECIFIC PROTECTION PLANS (HSPPs)

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## TABLE 1: HABITAT CLASSIFICATION TRANSLATION

Table 1 below provides a translation from the Phase 1 Habitat Types classification used in Chapter 22 of the Beaulieu-Denny Environmental Statement and those used in the CPH for production of these HSPPs.

ES Table 22.5 Phase 1 Habitat Type	CPH Habitat Classification
Broad-leaved Semi-natural woodland	HSPP 6: Forest and Woodland
Broad-leaved Plantation Woodland	HSPP 6: Forest and Woodland
Coniferous Plantation	HSPP 6: Forest and Woodland
Mixed Plantation	HSPP 6: Forest and Woodland
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Improved Grassland	HSPP 4: Grassland
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Bracken	HSPP 2: Wet Heath HSPP 3: Dry Heath HSPP 7: Forest and Woodland
Other Tall Herb & Fern	HSPP 2: Wet Heath HSPP 3: Dry Heath HSPP 4: Grassland HSPP 7: Forest and Woodland
Dry Heath/Acid Grassland Mosaic	HSPP 3: Dry Heath HSPP 4: Grassland
Wet Heath/Acid Grassland Mosaic	HSPP 2: Wet Heath HSPP 4: Grassland
Dry Heath/Wet Heath Mosaic	HSPP 3: Dry Heath HSPP 2: Wet Heath
Raised Bog	HSPP 1: Blanket Bog
Fen	HSPP 7: Flush, Springs, Swamps and Standing Water
Swamp	HSPP 7: Flush, Springs, Swamps and Standing Water HSPP 1: Blanket Bog
Marginal Vegetation	HSPP 7: Flush, Springs, Swamps and Standing Water
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Arable	HSPP 5: Arable Land
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## HABITAT SPECIFIC PROTECTION PLAN (HSPP) 1: BLANKET BOG (INCLUDING RAISED BOG)

### Planning

1. Avoid working in raised bog wherever possible.
2. Discuss access requirements in advance with landowner / occupier as local knowledge may be of benefit.
3. If working in raised bog cannot be avoided consider depth of peat and best working methods (refer to Access Track Construction Methodology (ATCM) in Appendix 18) and GEMP 6: Peat Management).
4. In areas of peat over 1m in depth use temporary floating roads wherever possible.
5. Avoid cut and fill operations wherever possible as these will affect the hydrology of the bog.
6. Design works to ensure water passage is not impeded and that the hydrology of the bog will be maintained (draw on specialist advice from project team as required).
7. Avoid creating drainage ditches at the edge of access tracks unless essential for the stability of the track – calculate requirements for stone on floating roads carefully and plan to reduce traffic on the road to minimum necessary for the works.
8. Plan to ensure any removed materials are stored in compliance with best practice (see ATCM and GEMP 10) and in accordance with specific plans for Special Study Areas (see Section 6 of the CPH) and discuss proposed storage areas with landowner/occupier in advance as local knowledge may be of benefit.
9. Remember careful planning with help from relevant experts will save time in the end-working in blanket bog can be difficult and dangerous.

### Operations

10. Request guidance from the project environmental representative(s) in micro-siting construction works (including shape of construction area) to avoid areas of most sensitive habitat.
11. Ensure all construction works are within the limits of deviation (LOD).
12. If possible do not break the surface vegetation; if this cannot be avoided store all removed materials for re-use in restoration.
13. Take advice from the project environmental representative(s) to define specific mitigation to restore peat surface (see GEMP 6).
14. Avoid tracking across raised bog other than as essential for the safe delivery of the works so as to avoid unnecessary compression particularly on floating roads.
15. Consider use of temporary matting wherever possible to reduce impacts from track construction or use floating roads (see ATCM).
16. Use temporary matting to protect all areas of the LOD affected by construction (as advised by the project ecologist) to protect the surface of the bog.
17. Undertake regular inspections to monitor over-wetting/drying-out of adjacent habitats and take mitigative action as advised by project ecologist and hydrologists as required.
18. Use any excess materials from excavations in raised bog to restore sites elsewhere in bog.
19. Fell towers to avoid use of stone overlay tracks - use temporary matting in work areas and protect habitats with tyres/straw bales.
20. Remove all protective materials after use including stone from floating roads.

## Restoration

21. Raised bog is difficult to restore and it is better to avoid impacts wherever possible.
22. Use removed materials to backfill excavations for tower legs.
23. Take advice from environmental representative(s) and project ecologist before undertaking any restoration works.
24. Ensure all geotextile and stone from floating roads is removed but try not to further disturb surface.
25. Consider how water could affect any eroded areas after construction and plan restoration works to ensure that these will not be made worse or extend to drain lochans etc.
26. Consider use of deer fencing to promote restoration. Take advice from environmental representative(s) and project ecologist.
27. Monitor restored areas and take remedial action with appropriate advice as required.

## HABITAT SPECIFIC PROTECTION PLAN (HSPP) 2: WET HEATH

### Planning

1. Avoid working in wet heath wherever possible.
2. Ensure all construction works are within the limits of deviation (LOD).
3. Discuss access arrangements with landowner / occupier as local knowledge may be of benefit.
4. If working in wet heath cannot be avoided consider depth of vegetation and underlying peat and best working methods (refer to the Access Track Construction Methodology (ATCM) in Appendix 18 and GEMP 6: Peat Management).
5. Request guidance from the project environmental team to micro-site construction works (including shape of construction area) to avoid areas of most sensitive wet heath habitat.
6. Plan works to avoid tracking across wet heath other than as essential for the safe delivery of the works so as to avoid unnecessary compression.
7. Design works to ensure water passage is not impeded and that the hydrology of the wet heath will be maintained (draw on specialist advice from project team as required).
8. Plan to avoid cut and fill operations wherever possible and to avoid creating drainage ditches at the edge of access tracks unless essential for the stability of the track and maintenance of hydrology.

### Operations

9. If possible do not break the surface vegetation; if this cannot be avoided remove vegetative turfs to a depth of 10-20cm to avoid damage to roots.
10. Turfs containing cotton grasses (*Eriophorum* species) or purple moor-grass (*Molinia caerulea*) should be cut to a depth of 30cm to adequately protect roots. The Ecological Clerk of Works should be consulted to ensure correct identification of these species.
11. For access tracks store turfs on the exposed face of cut slopes on the up-slope side of the track.
12. Peat should be stripped and stored separately (as for soils) in order to assure correct replacement during restoration.
13. For tower leg locations store turfs in a single layer on geotextile matting at a site well away from any qualifying habitat, the extent of the storage area to be the minimum necessary (approximately 9m by 9m).
14. Subsoil and soil/peat excavated for the tower foundations should be stored separately on geotextile matting up to a maximum depth of 1m and used later to backfill excavations for tower legs.
15. For all work, store any removed materials in compliance with best practice (see ATCM and GEMP 10) and in accordance with specific plans for Special Study Areas (see Section 6 of the CPH) and discuss storage areas with the landowner/occupier as local knowledge may be of benefit.
16. Consider use of temporary matting wherever possible to reduce impacts from track construction.
17. Use temporary matting in all working areas to protect the surface of the wet heath wherever possible.
18. Undertake regular inspections to monitor over-wetting/drying-out of adjacent habitats and take mitigative action as advised by project ecologist and hydrologists as required.
19. Fell towers to avoid use of stone overlay tracks-use temporary matting in work areas and protect habitats with tyres/straw bales.

## Restoration

20. Remove all protective materials at the end of construction/dismantling activities.
21. Replace and match turfs into the surrounding vegetation.
22. Use advice from the project environmental representative(s) to define specific mitigation to restore peat surface of wet heath (see GEMP 6).
23. Use deer fencing to promote restoration if advised by project environmental representative(s).
24. Use any excess materials from excavations in wet heath to restore sites elsewhere in heath areas.
25. Monitor restored areas and take remedial action with appropriate advice as required.

## HABITAT SPECIFIC PROTECTION PLAN (HSPP) 3: DRY HEATH

### Planning

1. Avoid working in areas of dry heath which have been identified as important wherever possible (although dry heath may be preferable to wet heath or raised bog in some locations - because it may be possible to use less intrusive techniques and will be easier to restore- the project ecologist will advise).
2. Discuss access requirements with landowner / occupier as local knowledge may be of benefit.
3. Plan all construction works within the limits of deviation (LOD).
4. If working in dry heath plan to avoid cut and fill operations wherever possible and use low ground pressure vehicles or temporary matting wherever possible.
5. Request guidance from the project environmental team to micro-site construction works (including shape of construction area) to avoid areas of most sensitive dry heath habitat.
6. Design works to ensure natural water passage is not impeded and that the hydrology of the affected areas will be maintained (draw on specialist advice from project team as required).

### Operations

7. Wherever practicable do not break the surface vegetation.
8. For areas containing heather (*Calluna vulgaris*) soil / vegetation management and restoration should be undertaken in accordance with SNH's "Information and Advisory Note Number 44: Heather re-establishment on mechanically-disturbed areas". This identifies five methods for restoring heather cover. An appropriately qualified Ecological Clerk of Works will be consulted to ensure the most appropriate method is employed at each location and a method statement produced by the Contractor.
9. For access tracks store turfs on the exposed face of cut slopes on the up-slope side of the track.
10. Peat should be stripped and stored separately (as for soils) in order to assure correct replacement during restoration.
11. For tower leg locations any cut turfs will be stored in a single layer on geotextile matting at a site well away from any qualifying habitat, the extent of the storage area should be as small as practicable. If storage has to be on other heathland existing heather should be cut or burned (in agreement with the Site Manager, Landowner and Ecological Clerk of Works) and sheeted with a geotextile so that turfs can be deposited and lifted with minimal impact.
12. Turfs **cannot** be stacked. In dry weather desiccation may occur rapidly so provision should be made to cover them or water if required.
13. Subsoil and soil/peat should be stored separately on geotextile matting up to a maximum depth of 1m and used later to backfill excavations for tower legs.
14. For all work, store any removed materials in compliance with best practice (see ATCM and GEMP 10) and in accordance with specific plans for Special Study Areas (see Section 6 of the CPH) and discuss storage areas with landowner/occupier as local knowledge may be of benefit.
15. Avoid tracking across dry heath other than as essential for the safe delivery of the works to avoid unnecessary compression.
16. Consider use of temporary matting wherever possible to reduce impacts from track construction wherever possible.

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17. Use temporary matting in all working areas to protect the surface of the heath (as advised by the project ecologist).
  18. Avoid creating drainage ditches at the edge of access tracks unless essential for the stability of the track.
  19. Undertake regular inspections to monitor impacts of work on adjacent habitats and take mitigative actions as required on advice of Ecological Clerk of Works.

## Restoration

20. Replace and match turfs into the surrounding vegetation.
21. Place turfs carefully to avoid risk of wind erosion.
22. Use advice from the Ecological Clerk of Works to define specific mitigation to restore surface of dry heath.
23. Use deer fencing to promote restoration if advised by Ecological Clerk of Works.
24. Use any excess materials from excavations in dry heath to restore sites elsewhere in heath areas taking advice from the Ecological Clerk of Works.



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## HABITAT SPECIFIC PROTECTION PLAN (HSPP) 4: GRASSLANDS

### Introduction

There is a wide range of grassland types that could be encountered along the proposed route ranging from unimproved acid grasslands to lowland amenity grasslands. Grasslands identified as of conservation significance or sensitivity are at greater risk from development than improved or amenity grasslands. The principles for working in and restoring grasslands affected by the works will broadly follow the guidance below although specialist advice should be sought from the project ecologist when planning activities which could affect grasslands of greatest value.

### Planning

1. Avoid working in sensitive grassland habitat wherever possible (e.g. marshy grassland).
2. When working in grasslands consider the depth of vegetation and underlying soil/peat horizons and adopt best working methods -refer to Access Track Construction Methodology (ATCM) (see Appendix 18).
3. Request guidance from the project environmental team to help plan construction works and to micro-site works (including shape of construction area) to avoid areas of most sensitive grassland habitat.
4. Plan all construction works are within the Limits of Deviation (LOD's).

### Operations

5. Avoid cut and fill wherever possible and use low ground pressure vehicles or suitable plant to avoid unnecessary disturbance to any grassland but in particular those defined as sensitive.
6. If possible do not break the surface vegetation; if this cannot be avoided remove grassland turfs to a depth of 10-20cm to avoid damage to grass and associated herb roots.
7. For access tracks store grass turfs on the exposed face of cut slopes on the up-slope side of the track.
8. Underlying peat if present should be stripped and stored separately (as for soils) in order to assure correct replacement during restoration.
9. For tower leg locations store grass turfs in a single layer on geotextile matting at a site well away from any other nearby qualifying habitat in as small as area as feasible (9m by 9m approximately). If storage has to be on adjacent heathland (as possibly in the case of acid grassland) existing heather should be cut or burned and sheeted with the geotextile so that turfs can be deposited and lifted with minimal impact (see HSPP 3).
10. Grass turfs should not be staked. In dry weather desiccation may occur rapidly so provision should be made to cover the turfs or water if required.
11. Subsoil and soil/peat should be stored separately on geotextile matting up to a maximum depth of 1m and used later to backfill excavations for tower legs.
12. For all work, store any removed materials in compliance with best practice (see ATCM and GEMP 10) and in accordance with specific plans for Special Study Areas (see Section 6 of the CPH) and discuss storage areas with landowner/occupier as local knowledge may be of benefit.
13. Avoid tracking across sensitive grasslands more than essential for the safe delivery of the works to avoid unnecessary compression.
14. Consider use of temporary matting wherever possible to reduce impacts from track construction and particularly when ground conditions are wet.

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15. Avoid working in areas of sensitive grasslands when ground conditions are poor-take advice from the project ecologist if in any doubt.
  16. If working in a mosaic of habitats use temporary matting in all working areas to protect the surface of adjacent habitats such as heath.
  17. If working in marshy grassland design the works to ensure water passage is not impeded and that the hydrology of the marsh will be maintained (draw on specialist advice from project team as required).
  18. Avoid creating drainage ditches at the edge of access tracks in damper areas unless essential for the stability of the track.
  19. Use temporary matting to protect all areas of the LMA where there will be construction activities.
  20. Undertake regular inspections to monitor over-wetting/drying-out of adjacent habitats.

## Construction

21. Replace and match turfs into the surrounding vegetation.
22. Use advice from the project environmental team to define specific mitigation to restore peat surface of acid grassland and other specific features.
23. Use deer fencing to promote restoration if advised to do so by the project environmental representative(s).
24. Use any excess materials from excavations in grasslands to restore sites elsewhere in grassland areas.

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## HABITAT SPECIFIC PROTECTION PLAN (HSPP) 5: ARABLE LAND

### Planning

1. To avoid unnecessary permanent loss of arable land request guidance from the project environmental team on micro-siting of towers, planning of access routes and careful development of access tracks in consultation with the land interest, followed by re-instatement of agricultural land post construction and dismantling.
2. Ensure landowners/ occupiers are aware of all access route requirements before taking entry.
3. Plan works to allow access for landowners/managers to their agricultural land at all times during the construction process and post construction.
4. Provide financial compensation for the loss of any areas of land that would be lost to agriculture according to the SPT Wayleave agreement (only agreed through the SPT Wayleave Officers).
5. Give notice of intention to commence construction, dismantling or ongoing maintenance work to the owners and occupiers of all land along the proposed route before entry is made to such land.
6. Agree a programme of works that minimises disturbance to arable land through consultation with the landowners and occupiers and carry out work in accordance with the agreed programme as far as is practically possible.
7. Prepare a schedule of condition for arable land (with photographs) including drainage, farm tracks and paths likely to be affected, make available to the owner or occupier and use as a basis to ensure that land, roads and paths are restored to the reasonable satisfaction of the landowner or occupier.

### Operations

8. Carefully excavate, store and replace topsoil and subsoil to prevent damage to soils and soil structure and to protect the agricultural capability (see GEMP 10).
9. Take particular care to ensure that the minimum amount of damage or disturbance to field drains is caused.
10. Secure the integrity of the drainage system in advance through the installation of header drains (cut off drains) to facilitate construction of the towers.
11. Lay any new drains as required to keep the affected and adjoining arable land in good order.
12. Where ancillary apparatus and material is sited on arable land it should be done so with agreement of the land owner/occupier.
13. Take all reasonable precautions during construction, dismantling and ongoing maintenance to prevent as far as is possible, the spreading of soil borne crop pests and diseases. Precautions as recommended by the Scottish Government Rural Directorate should be observed.
14. If access to arable fields needs to be altered either temporarily or permanently as a result of construction, dismantling or ongoing maintenance, alternative access for machinery should be provided where appropriate in consultation with the land owner/occupier.

## Restoration

15. Re-instate all arable land to a condition as near as is reasonably practicable to that existing before the commencement of the works. Topsoil, where disturbed, should be left in a loose friable condition and where agreed appropriate cover should be replaced.
16. Remedial sub-soiling / cultivation might be required in some locations depending on the levels of compaction and taking account of any environmental constraints such as buried archaeology etc.
17. Repair and reinstate any field drains agreed with the land owner/occupier.
18. The landowner / occupier must be invited to inspect all drain repairs prior to excavations being reinstated.
19. Re-instate all boundary features such as fences, walls and hedges with appropriate materials, where these have been removed as a result of construction, dismantling or ongoing maintenance.
20. Re-instate all farm tracks/roads and paths to a condition equivalent to that before the commencement of any works or as agreed with landowner/occupier.

## HABITAT SPECIFIC PROTECTION PLAN (HSPP) 6: FOREST AND WOODLAND

### Planning

1. Discuss all proposed works affecting woodlands both within and outwith the corridor with the landowner and project forestry specialist and seek consents where appropriate.
2. Define the access to build the line as set out in the Access Strategy (see Appendix D of the ES). Use existing tracks wherever possible to minimise soil disturbance and compaction during construction and maintenance, and use sensitive access tree harvesting and extraction methods.
3. Site any new tracks to minimise future windthrow and in positions that will be of long-term advantage to the management of the woodland thus avoiding unnecessary duplication of road construction.
4. Assess the risk of windthrow from any proposed felling and define management measures for each section of woodland.
5. Discuss with the landowner management measures outwith the corridor that would help to prevent windthrow and implement where agreed.
6. Plan for the new felling edge to be expanded beyond the overhead line corridor in woodland areas where a high risk of early windthrow is identified. In such cases the felling boundary should make use of relatively windfirm edges such as natural openings in the woodland, or existing roads, rides and watercourses. Where no such edges exist within the near vicinity of the corridor of the overhead line, cutting should be restricted to the minimum practical width.
7. Limit felling to the minimum necessary to construct and maintain the line, notwithstanding landscape and visual concerns in areas of native woodlands.
8. Create new sympathetic boundaries when felling to create a windfirm edge, taking account of the landscape and visual design opportunities.
9. Follow best practice forest landscape design principles, as defined by the Forestry Commission (shape, scale, diversity, visual force, unity and 'spirit of the place') in creating and managing new boundary edges, taking account of feedback from discussions with landowners/occupiers.
10. Design the corridor where possible to appear as though it passes through a series of irregular spaces with irregular tree heights. Make sure that the forest appears to meet across the open space at least in some places to reduce the linear nature of the corridor and severe vertical edges.
11. Plan the introduction of different species (conifers, broadleaves, evergreen, deciduous, varieties of size and shape) where appropriate to help to mitigate adverse visual effects.
12. Plan to make use of low-growing shrub species below the line and small trees such as rowan, hazel, hawthorn and some species of willow (eg goat willow) towards the edge of the overhead line corridor. The design and management of such planting should incorporate access routes required for maintenance, and comply with SPT's safe working practices.
13. Follow guidance in GEMP 20 where relevant.

### Operations

14. Where there are no windthrow or landscaping and visual issues, minimise tree felling to that necessary to allow the safe construction and operation of the line.
15. Where practicable consider topping, pollarding and coppicing rather than felling.
16. Avoid pre-emptive felling of individual larger hardwoods, even if essential felling for the line potentially exposes such trees to the wind.

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17. Assess the benefits of retaining trees affected by windthrow which are leaning against neighbouring trees but have not been thrown beyond about 15 – 20 degrees. Trees interlocked in this way can increase stability by the reduction of swirling in high winds.
  18. Whilst topping, and where appropriate, remove a maximum of half of the live crown of the tree so that some growth will continue and so disguise the felling line.
  19. Take full advantage of slopes, hollows, gullies, internal access tracks and rides passing across the corridor of the overhead line to provide for the new edge of the corridor.
  20. Management of vegetation in the line corridor should be carried out by SPT during the working life of the overhead transmission line to prevent safety clearances being compromised.
  21. In areas of high visual sensitivity establish small amounts of planting of quick-growing species close to roads and other locations in agreement with the landowner and with the advice of the project landscape architect.
  22. Implement a maintenance programme of on-going woodland management where this does not conflict with operational safety considerations.

## Restoration

23. Start the planting, restocking, and management of natural regeneration in agreed designated areas, following negotiation with relevant landowners. A target area for such treatment would be commensurate with the identified losses within affected woodlands designated under SNH's Inventories of Ancient and Semi Natural Woodland Sites, categories 1a and 2a.
24. Encourage natural woodland regeneration in areas of ecological importance and prescribed ancient woodland sites of high ecological sensitivity. Where such regeneration is not successful re-stock with appropriate low growing species.
25. Consideration should be given to encouragement of natural regeneration, and, where not readily successful, supplementary planting with appropriate species should be considered.
26. Recognise the potential for windthrow to deliver ecological benefits by creating new habitats, especially where felling outwith the corridor would not have significant landscape and visual benefits.
27. Carry out replacement planting of agricultural and sporting shelterbelts in areas where loss of shelter has had a significant effect, subject to the agreement of the landowner.
28. Make sure that all restoration follows best practice as defined by current Forestry Commission guidelines.

## **HABITAT SPECIFIC PROTECTION PLAN (HSPP) 7: FLUSH, SPRINGS, SWAMPS AND STANDING WATER**

### **Planning**

1. Avoid working in these sorts of habitat wherever possible.
2. If works cannot be avoided be aware that licensing may be required under CAR - always check the need with the environmental representative(s) and/or SEPA in advance of works in these areas.
3. Ensure all construction works are within the land made available (LMA).
4. Discuss access arrangements with landowner / occupier as local knowledge may be of benefit.
5. If an access track needs to cross a flush, spring, standing water or area of swamp or works in such areas cannot be avoided then follow the methodology set out in the Access Track Construction Methodology (ATCM) guidance in Appendix 18.
6. Request guidance in advance of construction from the project environmental team to micro-site construction works (including shape of construction areas) to avoid areas of most sensitive flush, spring and swamp-type habitat.
7. Plan works to ensure that water flow through the track structure is maintained to keep the integrity of the flush, spring, swamp intact and to avoid pollution from run off with high sediment content.
8. If working to any extent in swamp and flushed ground design the works to ensure water passage is not impeded and that the hydrology of the flush will be maintained (draw on specialist advice from project team as required).
9. Plan to use low ground pressure vehicles wherever possible and use matting to protect sensitive habitats.

### **Operations**

10. For all work, store any removed materials in compliance with best practice (see ATCM and GEMP 10) and in accordance with specific plans for Special Study Areas (see Section 6 of the CPH) and discuss storage areas with landowner/occupier as local knowledge may be of benefit.
11. Avoid tracking across sensitive spring/flush/swamp areas other than where essential for the safe delivery of the works to avoid unnecessary disturbance and compression to the wet areas.
12. Consider use of temporary matting wherever possible to reduce impacts from track construction on spring/flush areas.
13. If working in a mosaic of habitats use temporary matting in all working areas to protect the surface of adjacent habitats such as swamp or marshy grassland.
14. Avoid creating drainage ditches at the edge of access tracks in the spring/flush areas unless essential for the stability of the track.
15. Use temporary matting to protect all areas of the LMA affected by construction activities.
16. Undertake regular inspections to monitor over-wetting/drying-out of adjacent habitats and take mitigative action as advised by the environmental representative(s).

### **Restoration**

17. Use advice from the project environmental team to define specific mitigation to restore flushed or swamp areas.
18. Replace any boulders removed to allow access in the same orientation as in the original area.
19. Use any excess materials from excavations in marshy areas to restore sites elsewhere in swamp or flushed areas.

## INTRODUCTION

In order to assist contractors in identifying particular environmental features along the Wharry Burn to Denny North 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. Details of the zoned maps are set out in Table 1.

**Table 1 Location of Key Zones in Wharry Burn to Denny Substation Corridor**

<b>Zone</b>	<b>Location</b>	<b>Towers</b>	<b>Figure No's in Appendix 10</b>
<b>1</b>	Upper area from Sheriff Muir Wood to Yellow Craig Wood	TD 189/1A to TD 199	<b>10.1, 10.5</b>
<b>2</b>	The escarpment through Yellow Craig Wood to Logie Villa	TD 199 to TD 204A	<b>10.2, 10.6</b>
<b>3</b>	The Carse from Logie Villa to Burnhead	TD 204A to TD 225A	<b>10.3, 10.7</b>
<b>4</b>	The Burnhead to Denny Substation	TD 225A to TD 248A	<b>10.4, 10.8</b>

An indication of the following is included on maps 10.1-4:

- the key habitats and the location of any particularly important habitats, including designated areas;
- the location of key cultural, historical heritage or archaeological features; and
- the location of proposed water crossings and private water supplies.

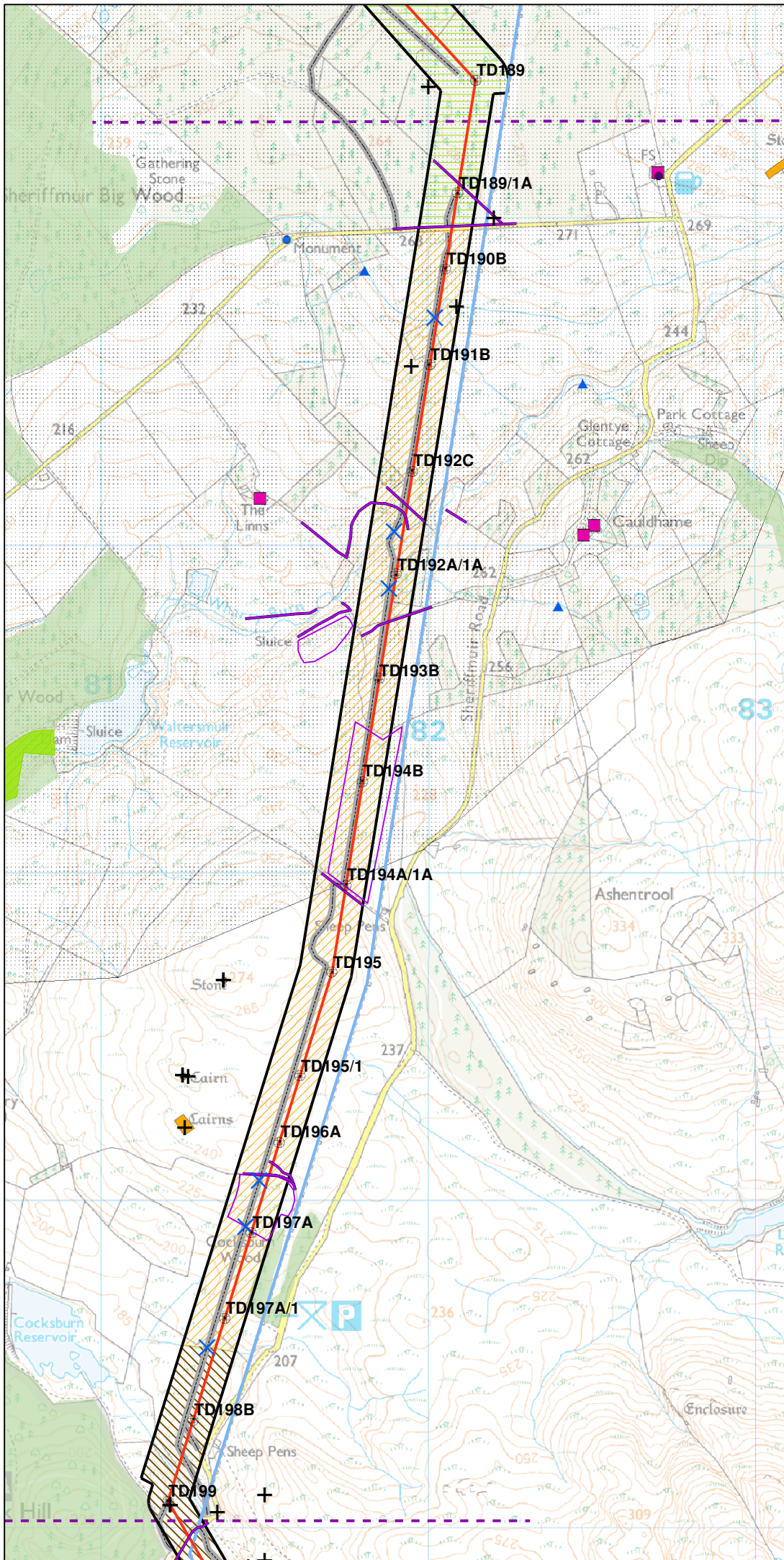
An indication of the following is included on maps 10.5-8:

- the key habitats and the location of any particularly important habitats; and
- the key protected species and indications of either where they have been observed or where there is potential habitat that would support the species.



## **ZONED MAPS**

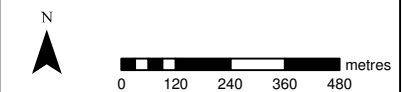
### **ZONE 1: SHERIFF MUIR WOOD TO YELLOWCRAIG WOOD**



**Key:**

- ⊕ Tower
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- - - Zone Boundary
- ▨ Bracken Mix
- ▨ Coniferous Plantation
- ▨ Grassland
- SAC
- ▨ SSSI
- Ancient Woodland
- Scheduled Ancient Monument
- ▨ Historic Battlefield
- × Water Crossing
- ▲ PWS
- + Archaeological Features
- Linear Archaeological Features
- Zone of Archaeological Importance
- Properties
- Listed Buildings:
- A
- B
- C (S)

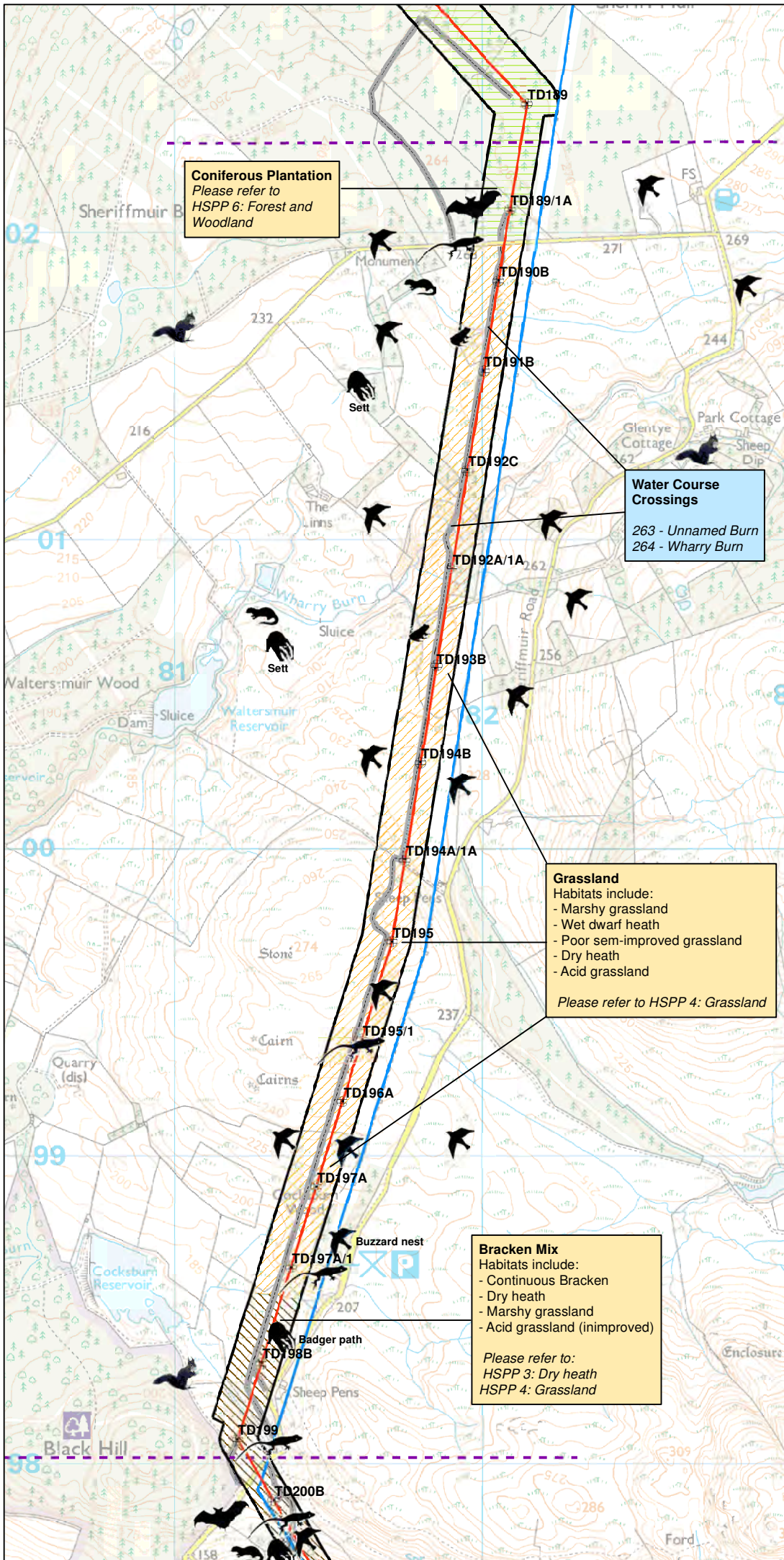
**Wharry Burn - Denny**  
CEMD  
**Zone One**



DRAWN: AG / BE	CHECKED: PS	DATE: 20.05.2013
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Figure 10.1: Constraints Map





**Coniferous Plantation**  
Please refer to  
HSPP 6: Forest and  
Woodland

**Water Course  
Crossings**  
263 - Unnamed Burn  
264 - Wharry Burn

**Grassland**  
Habitats include:  
- Marshy grassland  
- Wet dwarf heath  
- Poor sem-improved grassland  
- Dry heath  
- Acid grassland  
  
Please refer to HSPP 4: Grassland

**Bracken Mix**  
Habitats include:  
- Continuous Bracken  
- Dry heath  
- Marshy grassland  
- Acid grassland (inimproved)  
  
Please refer to:  
HSPP 3: Dry heath  
HSPP 4: Grassland

**Key:**

- Tower
- Zone Boundary
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- Bracken Mix
- Coniferous Plantation
- Grassland
- Woodland
- Arable

**Landscaping:**

- Refer To:
- Forestry Wayleave Design Plan: Sherriff Muir
  - Broader Landscaping (Section 8.2.3 in CPH)

**Protected Species:**

- Bats: Good foraging and potential roosts  
Refer to SPP 1
- Potential Badger habitat, tracks, setts and historic data for presence  
Refer to SPP 4
- Otter presence noted in this area  
Refer to SPP 5
- Red Squirrel noted in this area of woodland  
Refer to SPP 2

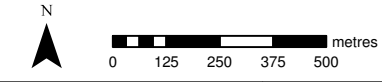
**Birds:**

- Breeding Birds noted in this area  
Refer to SPP 6

**Reptiles and Amphibians:**

- Reptile presence noted in this area  
Refer to SPP 7
- Amphibian presence noted in this area

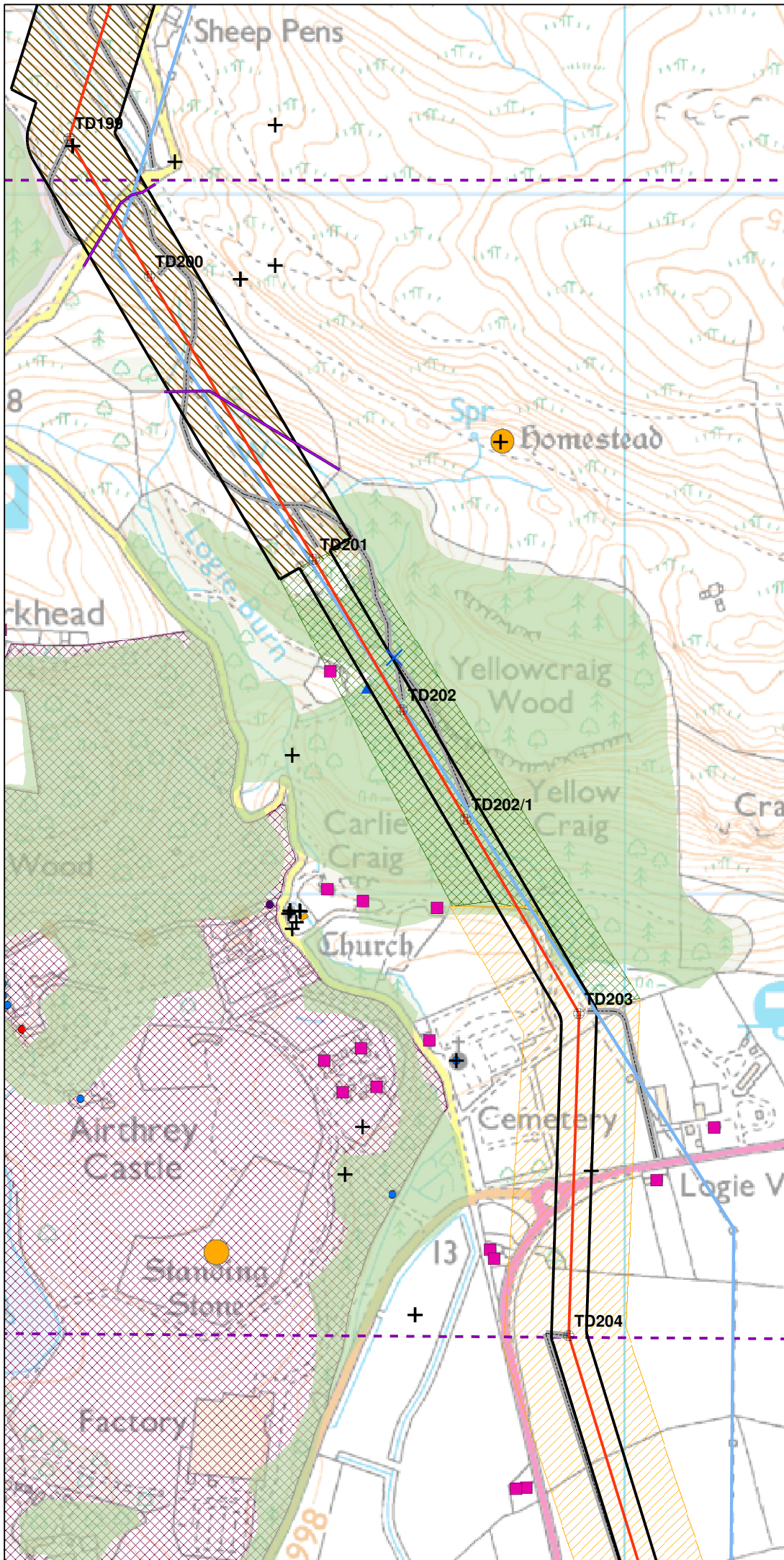
**Wharry Burn - Denny  
Zone One  
CEMD - Habitat Map**



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Figure 10.5: Habitat Map

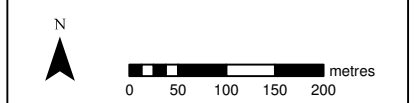
## **ZONE 2: ESCARPMENT THROUGH YELLOWCRAIG WOOD TO LOGIE VILLA**



**Key:**

- ⊕ Tower
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- - - Zone Boundary
- ▨ Bracken Mix
- ▨ Coniferous Plantation
- ▨ Grassland
- ▨ Woodland
- ▨ Arable
- ▨ Ancient Woodland
- ▨ Scheduled Ancient Monument
- ▨ Gardens & Designed Landscapes
- ⊗ Water Crossing
- ▲ PWS
- + Archaeological Features
- Linear Archaeological Features
- Properties
- Listed Buildings:
- A
- B
- C (S)

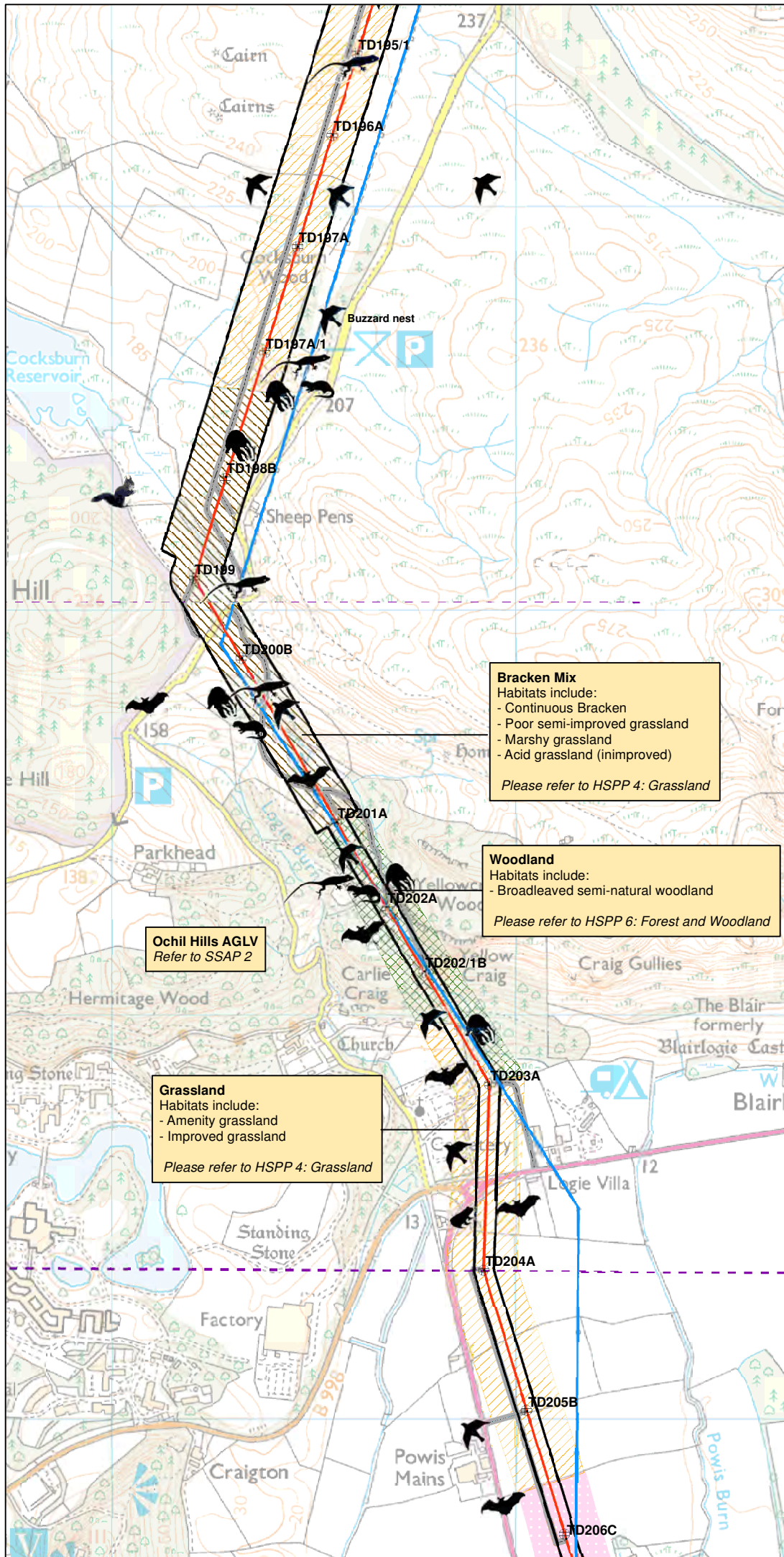
**Wharry Burn - Denny**  
CEMD  
**Zone Two**



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Figure 10.2: Constraints Map





**Key:**

- Tower
- Zone Boundary
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- Bracken Mix
- Grassland
- Woodland
- Arable

**Landscaping:**

- Refer To:
- Forestry Wayleave Design Plan: Sherriff Muir
  - Broader Landscaping (Section 8.2.3 in CPH)
  - Tower Painting (applies to Towers 202, 202/1 and 203)
  - Undergrounding (Low Voltage Lines) (Low voltage lines to be undergrounded in Logiekirk area)

**Protected Species:**

- Bats: Good foraging and potential roosts  
Refer to SPP 1
- Potential Badger habitat, tracks, setts and historic data for presence  
Refer to SPP 4
- Otter presence noted in this area  
Refer to SPP 5
- Red Squirrel noted in this area of woodland  
Refer to SPP 2

**Birds:**

- Breeding Birds noted in this area  
Refer to SPP 6

**Reptiles and Amphibians:**

- Reptile presence noted in this area  
Refer to SPP 7
- Amphibian habitat noted in this area

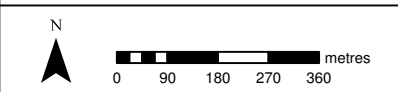
**Bracken Mix**  
Habitats include:  
- Continuous Bracken  
- Poor semi-improved grassland  
- Marshy grassland  
- Acid grassland (inimproved)  
*Please refer to HSPP 4: Grassland*

**Woodland**  
Habitats include:  
- Broadleaved semi-natural woodland  
*Please refer to HSPP 6: Forest and Woodland*

**Ochil Hills AGLV**  
Refer to SSAP 2

**Grassland**  
Habitats include:  
- Amenity grassland  
- Improved grassland  
*Please refer to HSPP 4: Grassland*

**Wharry Burn - Denny  
Zone Two  
CEMD - Habitat Map**

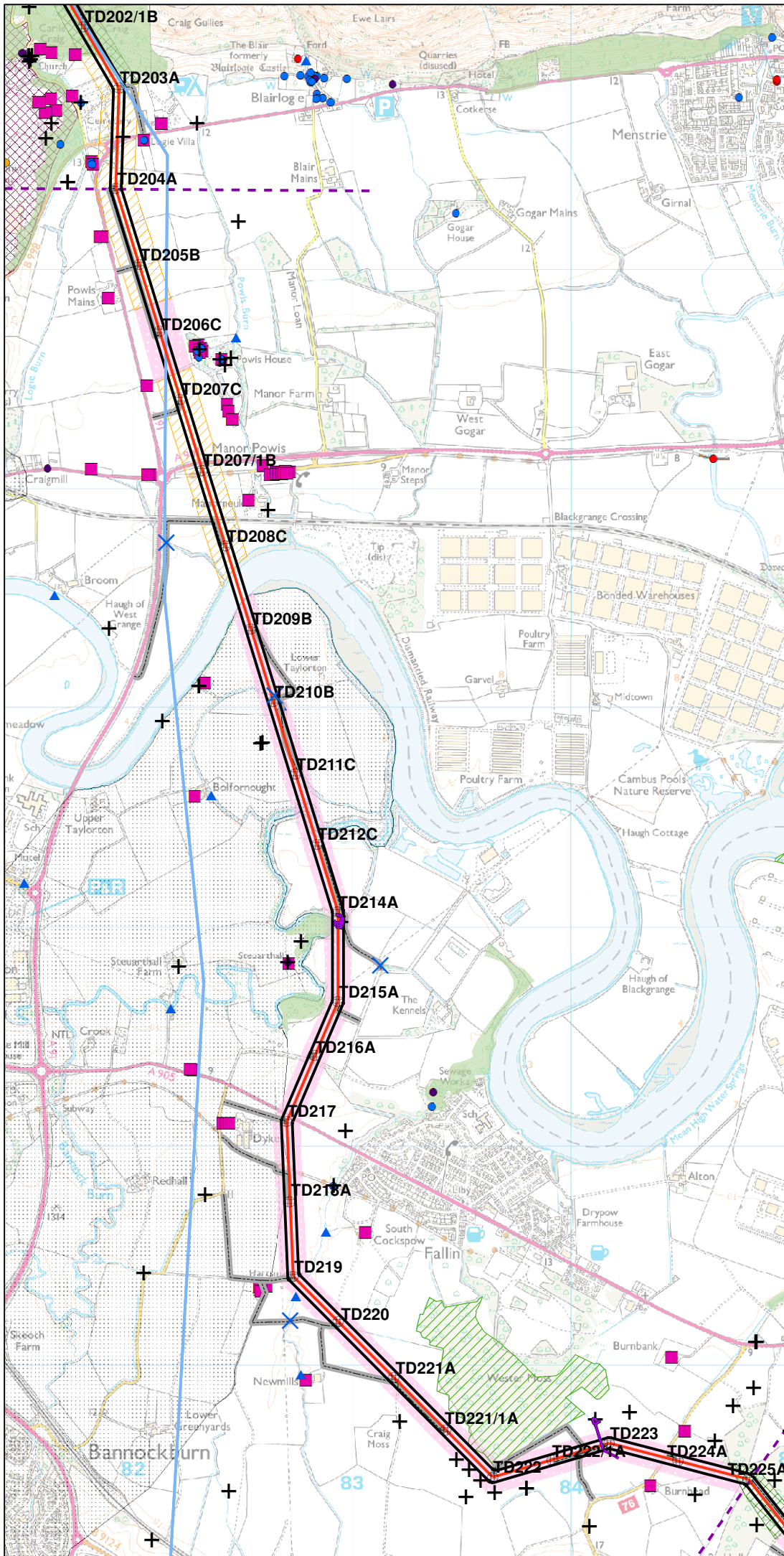


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Figure 10.6: Habitat Map



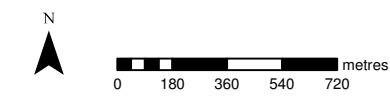
## **ZONE 3: THE CARSE FROM LOGIE VILLA TO BURNHEAD**



**Key:**

- ⊕ Tower
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- - - Zone Boundary
- ▨ Grassland
- ▨ Woodland
- ▨ Arable
- ▨ SSSI
- ▨ Ancient Woodland
- ▨ Scheduled Ancient Monument
- ▨ Historic Battlefield
- ▨ Gardens & Designed Landscapes
- ⊗ Water Crossing
- ▲ PWS
- ⊕ Archaeological Features
- Archaeological Trial Trench
- Properties
- Listed Buildings:
- A
- B
- C (S)

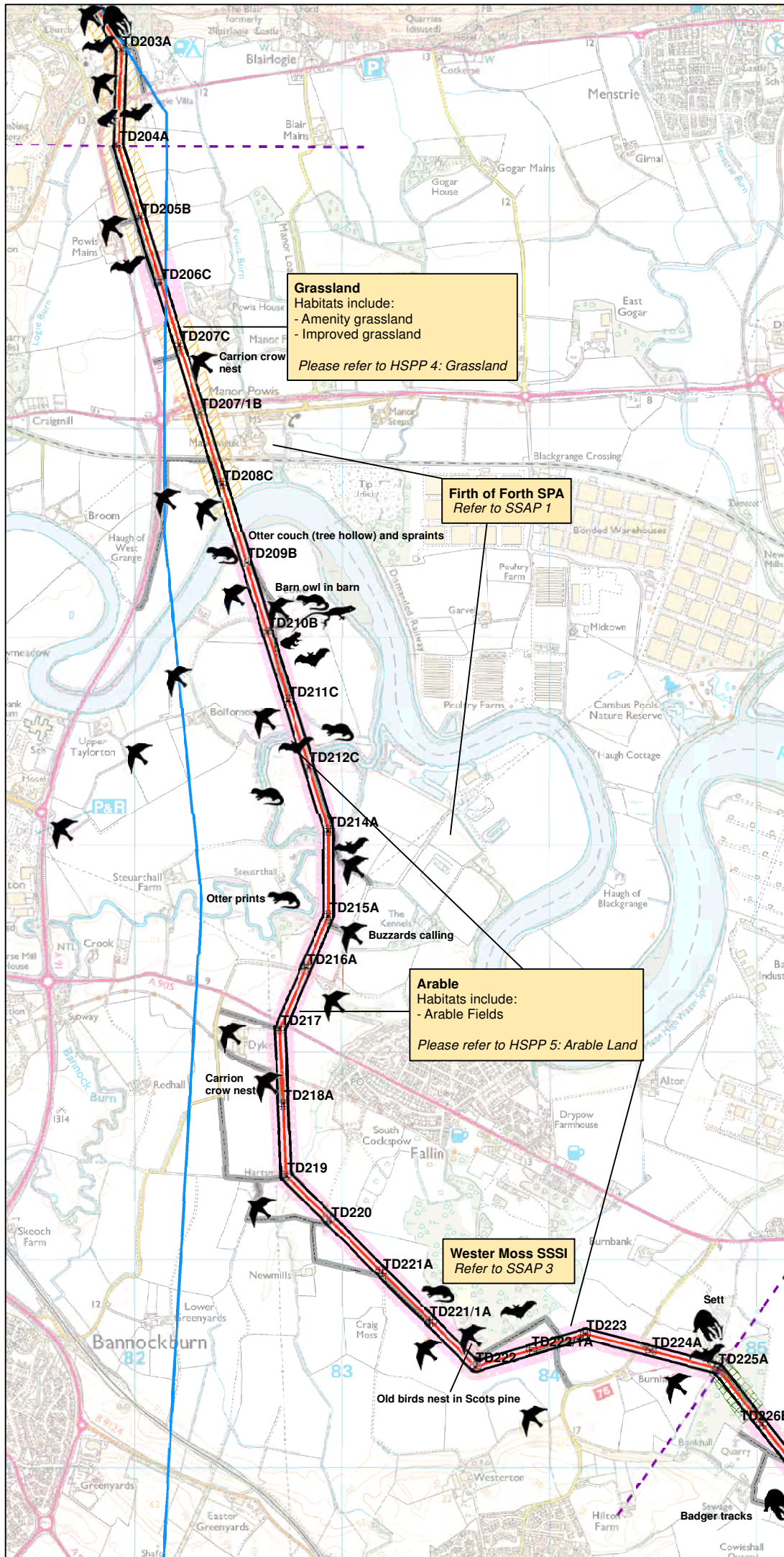
**Wharry Burn - Denny**  
CEMD  
**Zone Three**



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Figure 10.3: Constraints Map





**Key:**

- - - Zone Boundary
- ⊕ Tower
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- ▨ Grassland
- ▩ Woodland
- Arable

**Landscaping:**

- Refer To:
- Screen Planting (Section 8.2.3 in CPH)
  - Undergrounding (Low Voltage Lines)
  - Powis House
  - Manomeuk
  - Bolfornought
  - Burnbank

**Protected Species:**

- Bats: Good foraging and potential roosts  
Refer to SPP 1
- Potential Badger habitat, tracks, sets and historic data for presence  
Refer to SPP 4
- Otter noted in this area  
Refer to SPP 5

**Birds:**

- Breeding Birds noted in this area  
Refer to SPP 6

**Reptiles and Amphibians:**

- Reptile presence noted in this area  
Refer to SPP 7
- Amphibian presence noted in this area

**Grassland**  
Habitats include:  
- Amenity grassland  
- Improved grassland  
*Please refer to HSPP 4: Grassland*

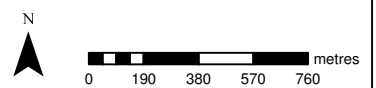
**Firth of Forth SPA**  
*Refer to SSAP 1*

**Arable**  
Habitats include:  
- Arable Fields  
*Please refer to HSPP 5: Arable Land*

**Wester Moss SSSI**  
*Refer to SSAP 3*

**Wharry Burn - Denny Zone Three**

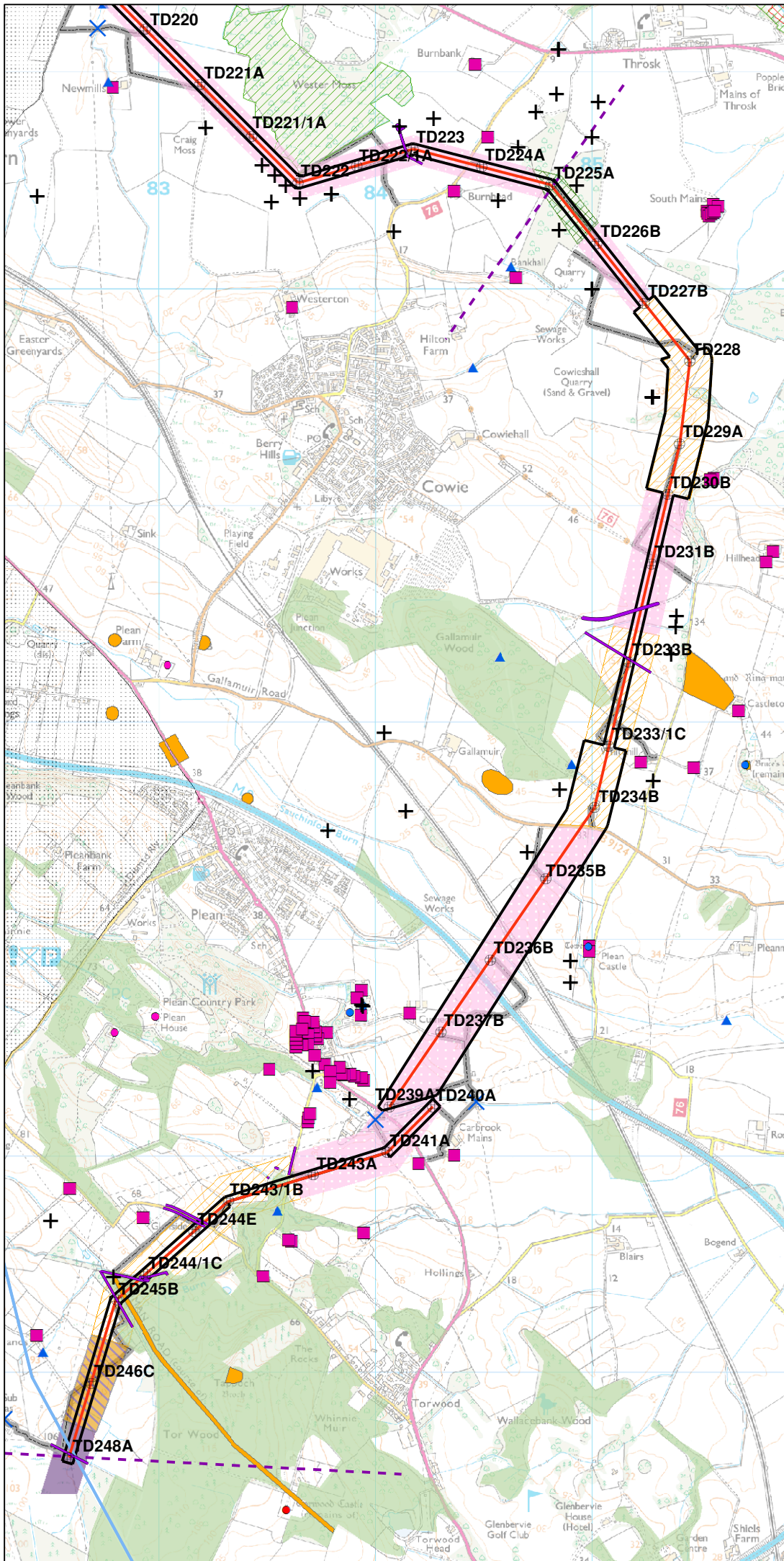
CEMD - Habitat Map



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Figure 10.7: Habitat Map

## **ZONE 4: THE BURNHEAD TO DENNY NORTH SUBSTATION**



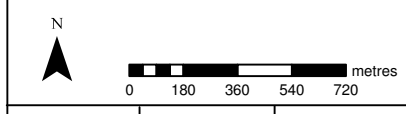
**Key:**

- Tower
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- Zone Boundary
- Grassland
- Marshy Grassland / Wet Heath
- Woodland
- Arable
- Raised Bog
- SPA
- SSSI
- Ancient Woodland
- Scheduled Ancient Monument
- Historic Battlefield
- Water Crossing
- PWS
- Archaeological Features
- Linear Archaeological Features
- Properties

Listed Buildings:

- A
- B
- C (S)

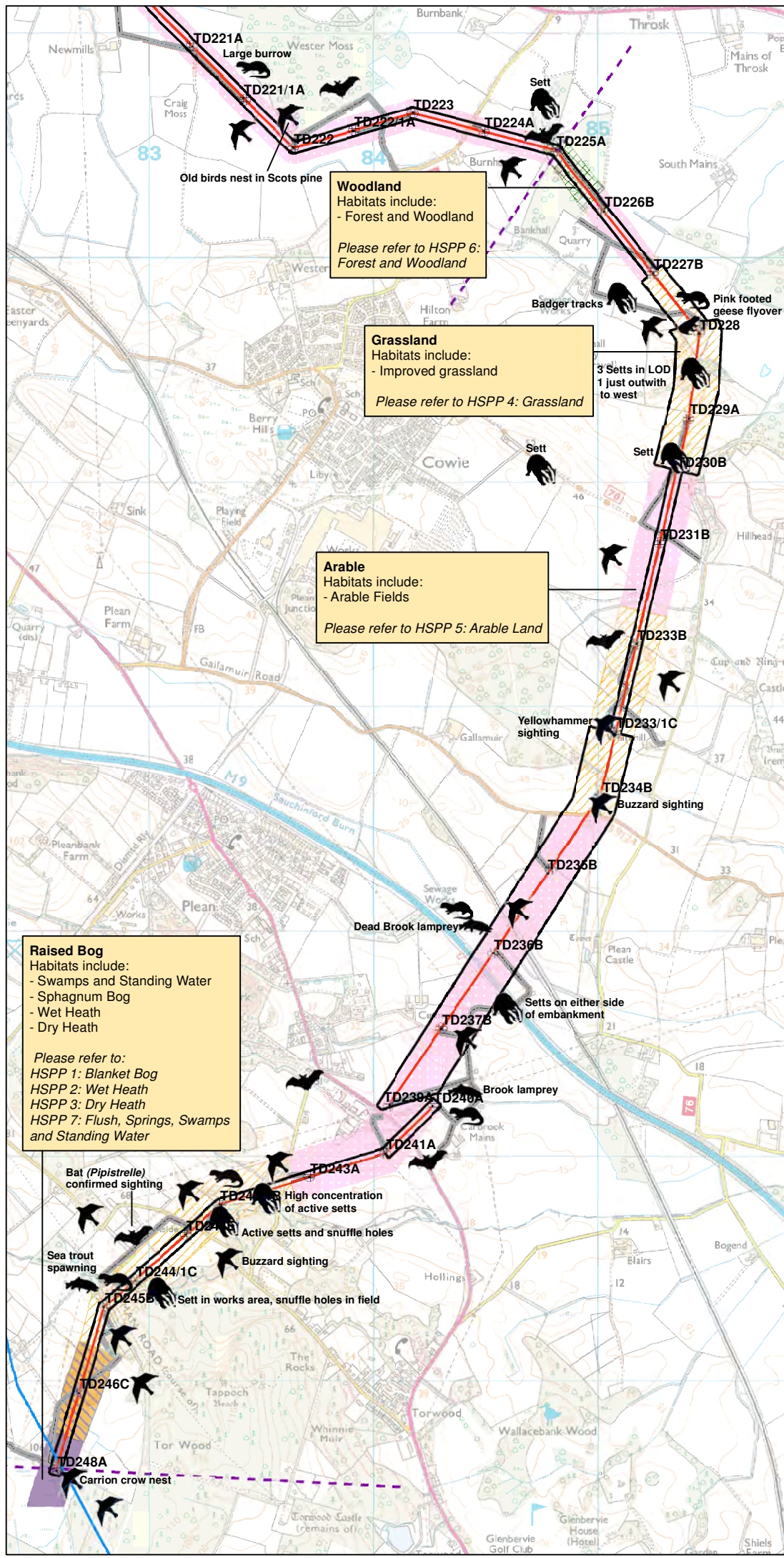
**Wharry Burn - Denny**  
CEMD  
**Zone Four**



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Figure 10.4: Constraints Map





**Key:**

- Tower
- Zone Boundary
- Proposed Transmission Line
- Existing 132kV line
- Transmission Line (LOD)
- Access Track
- Grassland
- Marshy Grassland / Wet Heath
- Woodland
- Arable
- Raised Bog

**Landscaping:**

- Refer To:
- Screen Planting (Section 8.2.3 in CPH)
  - Broader Landscaping (Section 8.2.3 in CPH)

**Protected Species:**

- Bats: Good foraging and potential roosts  
Refer to SPP 1
- Potential Badger habitat, tracks, setts and historic data for presence  
Refer to SPP 4
- Otter presence noted in this area  
Refer to SPP 5

**Birds:**

- Breeding Birds noted in this area  
Refer to SPP 6

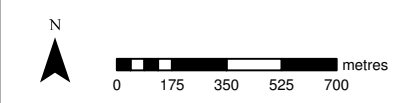
**Reptiles and Amphibians:**

- Amphibian presence noted in this area

**Fish:**

- Fish species present in this area  
Refer to SPP 8

**Wharry Burn - Denny  
Zone Four  
CEMD - Habitat Map**



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Figure 10.8: Habitat Map