Appendix 7.2

Habitats Baseline Report

SCOTTISHPOWER RENEWABLES

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1 Introduction

1.1 Project Background

1. This appendix presents information relevant to the Carrick Windfarm (hereafter the 'Proposed Development'). It should be read in conjunction with the Environmental Impact Assessment Report (EIAR) for full details of the Proposed Development.

2. The Site earmarked for the Proposed Development is located 6km south of Straiton, South Ayrshire. It is encompassed by the Site Boundary shown in **Appendix 7.1 Ecology Baseline Report, Figure 7.1.1 Carrick Site Location and Layout** of the EIAR.

1.2 Brief and Objectives

3. Baseline data are required to inform an Ecological Impact Assessment (EcIA) of the Proposed Development, which forms **Chapter 7: Ecology and Biodiversity** of the EIAR. This report presents baseline data collected, a desk-based review of existing data and current data from field surveys.

4. This report describes the methods and results of a National Vegetation Classification (NVC) survey. The purpose of the survey was to provide a baseline description of the Site's vegetation communities and their distribution relative to the Proposed Development, with particular regard to the potential to be:

- Groundwater Dependent Terrestrial Ecosystems (GWDTEs);
- Annex I habitat under the European Union Habitats Directive; and/or
- Habitats of principal importance to nature conservation as per the Scottish Biodiversity List (SBL) under Nature Conservation (Scotland) Act 2004; and
- Legally protected and notable plant species.

5. **Annex A** provides further details on legislation and policy context of these classifications.

6. **Chapter 6: Hydrology, Hydrogeology, Geology and Soils** of the EIAR qualifies the likelihood of plant communities identified herein as potential GWDTEs. This chapter assesses potential impacts on GWDTEs using a combination of NVC data and other characteristics.

2 Methods

2.1 Desk Study

7. A desk study was undertaken in April 2020 to review existing ecological baseline information available in the public domain and held by relevant third parties. Relevant to this appendix, designated sites with botanical interest, and notable plant records were sourced from the South West Scotland Environmental Information Centre (SWSEIC) and from the Botanical Society of Britain and Ireland (BSBI) up to 2 kilometres (km) from the Site Boundary. The results pertaining to flowering plants, bryophytes and lichens are summarised within this appendix, however further detailed information is presented in **Appendix 7.1: Ecology Baseline Report** of the EIAR.

8. SWSEIC also provided bog and woodland habitat maps available up to 2km from the Site Boundary, summarised in this report. This map shows the Intermediate Bog Inventory, Lowland Raised Bog Inventory and Ancient Woodland Inventory as well as results of the Native Woodland Survey of Scotland which details native woodland, nearly native woodland and Planted Ancient Woodland Sites (PAWS).

2.2 Field Survey

9. The NVC survey was undertaken on 28, 29 and 30 July, and 21 August 2020 across targeted areas at the Site. On 7 May 2021 a targeted NVC survey was carried out to cover the revised Substation Compound location. The 'Survey Area' for NVC was based on the 'Proposed Development Area', established as a specific term relating to the minimum area for ecology surveys.

- Proposed Development Area - encompasses a 50 metre (m) buffer surrounding the outermost wind turbines (the 'wind turbine envelope'); plus the outline of access roads and other infrastructure; and
- Survey Area - encompasses the Proposed Development Area plus 250m buffers around wind turbines and borrow pits; and 100m around all other forest roads, access roads and infrastructure.

10. These NVC survey buffers were applied to help identify potential GWDTEs, based on the depth of ground excavations associated with each element of the Proposed Development, in accordance with guidance from the Scottish Environment Protection Agency (SEPA, 2017).

11. The survey was undertaken by a WSP Principal Ecologist with over nine years of experience undertaking habitat assessments, and a working knowledge of the link between hydrology and plant communities; useful to inform GWDTE identification. The WSP Principal Ecologist holds associate membership of the Chartered Institute of Ecology and Environmental Management (CIEEM) and is 'capable-accomplished' in habitat identification and evaluation, as per their competency framework (CIEEM, 2019).

12. The survey was completed in line with NVC guidelines (Rodwell, 2006), classifying communities in accordance with the NVC system (Rodwell, 1991-2000). The NVC survey method provides a standardised system for classifying and mapping plant communities and enables surveys to be carried out to a consistent level of detail and accuracy. Homogenous stands and mosaics of vegetation were mapped in the field as distinct polygons (areas) and to accommodate forest rides, as polylines (lines). Polygons and polylines were surveyed qualitatively to record dominant and constant species, sub-dominant species and other species present. The Domin scale was used as the measure of cover/abundance of species within a community. NVC communities were attributed to the polygons and polylines using surveyor experience and matching field data against published floristic tables. Wherever possible, communities were classified to sub-community level, although in some cases a community level classification was recorded due to species-richness not being sufficient to allow meaningful sub-community determination.

13. NVC field guides for heaths and mires (Elkington et. al., 2001), grasslands (Cooper, 1997) and woodlands (Hall *et al.*, 2001); and An Illustrated Guide to British Vegetation (Averis *et al*., 2004) were referred to during the surveys and later during preparation of this report to corroborate findings and aid in the assignment of vegetation communities.

14. Where a mosaic of differing communities or sub-communities was encountered, the broad area was mapped as a single polygon and vegetation communities recorded in order of dominance.

15. Quadrat sampling was not used in this survey as it is not always necessary if vegetation types can be reliably identified in the field using sufficient qualitative data. Most NVC communities and sub-communities are defined by inter-stand frequency, not by the abundance of the constituent species. It is better in many cases to record several qualitative samples than one quantitative sample; furthermore, qualitative information can be vital for understanding the dynamics and trends in vegetation patterns.

16. Target notes were recorded of species composition and where differences within the same communities were observed across the Survey Area (influenced by changes in land use, topography, aspect, etc.). Target notes were made to capture the composition of communities, recording multiple samples to assess variation across the Survey Area. Target notes are included in **Annex B**.

2.3 Evaluation

17. The communities found during the NVC survey were evaluated in relation to the protection afforded to them (see **Annex A** for further details).

18. Communities were identified with potential to be GWDTE using the SEPA Guidance Note 31 (SEPA, 2017).

19. Communities were then identified with potential to be Annex I or SBL habitats using guidance correspondence tables available from the Joint Nature Conservation Committee (JNCC) website (JNCC, 2008) and using descriptions of the Annex I and SBL habitats from the JNCC and NatureScot[1] websites respectively (JNCC, undated; NatureScot, undated).

2.4 Nomenclature

20. Scientific nomenclature for higher plant species (e.g. vascular, flowering plants) follows that provided in the latest edition of New Flora of the British Isles (Stace, 2019). Nomenclature for lower species follows that provided in Mosses and Liverworts of Britain and Ireland (British Bryological Society, 2010). Labels have been used for non-NVC communities. Coniferous plantation is referred to as 'CP'. Other non-NVC communities were labelled using the same preceding letter as NVC communities for the same broad vegetation type where possible. This included non-NVC communities that could be described as heath, mire and mesotrophic grassland. Codes used for these communities are 'Hx'; 'Mx' and 'MGx' respectively.

2.5 Notes and Limitations

21. The results of the NVC survey, and the matches made in describing communities, represent a current community evaluation (as opposed to one seeking to describe what the community was before any human interference or may become in the future). In the absence of changes in land use, hydrology, or otherwise, and depending on the sensitivity and condition of communities identified, it is likely that NVC data remain valid for up to five years.

22. Vegetation surveys are limited by the time of year, whereby it is not always possible to identify plant species if certain life-stages of the species are missed (such as flowering or fruiting). The life-stages within a community will vary from species to species and therefore it is usual to miss certain life-stages of several species in any one season. It should be noted, that the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. The majority of this survey was undertaken at an optimal time for identifying and classifying heath communities (July/August), which comprise a key focus of this report.

23. The survey did not consist of surveying all parcels of land within the Survey Area. Instead, samples of areas considered to be most diverse or of likely high nature conservation interest were sampled (**Figure 7.1.1 Carrick Site Location and Layout, Annex C Figures**). Samples excluded coniferous plantation woodland, which accounted for the vast majority of vegetative cover throughout the Survey Area. The survey included open areas of moorland, with bog, heath, grassland, flush and fen habitats sampled. The samples were considered to be characteristic of the Survey Area sufficient to extrapolate across un-surveyed areas and to inform an EcIA and Habitat Management Plan.

24. In particular, forest rides, which made up the majority of the unforested areas, could not all be sampled. Instead assumptions were made as to the likely composition of unsurveyed forest rides. This was based on a combination of the most frequently occurring communities within the forest rides sampled and the communities of highest nature conservation value as Annex I, SBL or potential GWDTE habitats.

3 Results

3.1 Desk Study Results

25. No national statutory designated sites for nature conservation were identified within the Site during the desk study. Merrick Kells Special Area of Conservation (SAC) and SSSI is located 6.7km south of the Site.

26. Altogether four non-statutory designated sites for nature conservation were identified during the desk study, with three of these considered to be designated primarily for botanical interest. These include the following potential Local Wildlife Sites (pLWS) on the edge of the Site or within 2km of it, and all citing upland or wetland habitats as interest features for designation:

- River Stinchar (Milton to Black Hill)
- Craigenreoch and Eldrick Hill; and
- Straiton Hills.

27. During the desk study SWSEIC provided information on intermediate and raised bog, native woodland, ancient woodland and plantation on ancient woodland. None of these areas were located within the Site Boundary, or hence the Proposed Development Area.

28. The desk study notes that there are no areas of intermediate or raised bog within the Site Boundary. Areas of ancient woodland, native woodland and PAWS were all located in the peripheries of the Site Boundary; and not therefore within the Proposed Development Area.

29. No records of notable flora species were provided from within the Site Boundary. Outwith the Site, one record for legally protected bluebell *Hyacinthoides non-scripta* from 2018 was provided. Notable outwith the Site, SWSEIC provided records of the lichen *Hypotrachyna sinosa* and BSBI provided records of the notable species alpine clubmoss *Diphasiastrum alpinum* and corn spurrey *Spergula arvensis*.

30. No records of non-native invasive plant species were provided.

3.2 Field Survey Results

31. This section provides discussion of the communities found within Survey Area, the nature conservation importance of these communities and the potential for these communities to be GWDTEs.

[1] Formerly Scottish Natural Heritage (SNH)

32. The Survey Area was dominated by coniferous plantation consisting of almost exclusively of Sitka spruce *Picea sitchensis*. Forest rides were all modified in some way due to drainage ditches created for the forestry, though communities identified within still tended to be very wet and included blanket bog. Clearings near Garleffin Fell in the west of the Survey Area, around Linfern Loch in the centre of the Survey Area and by Clashverains to the north of the Survey Area held the greatest botanical diversity and interest and included dry and wet heath, blanket bog, flush and marshy grassland communities.

33. Details of the plant communities are provided in **Table 7.2.1**; this should be read in conjunction with **Figure 7.2.1 NVC Survey Area and Results** (**Annex C**). Communities are listed in alphabetical order. The numerical score of abundance from the Domin scale is noted in brackets against the species' names where one sample of the community was available. Where more than one sample was recorded, a qualitative summary of the frequencies of species within is made.

34. The majority of the non-forested habitats, particularly along the access track wayleaves and forest rides, were composed of variable mosaics of bog/mire, wet heath and marshy grassland communities, as demonstrated **Figure 7.2.1 NVC Survey Area and Results**, as opposed to distinct, homogenous vegetation communities. Most of these mosaics could not be clearly distinguished from one another to enable each composite to be assigned a relative proportion. Instead, the composite communities within each mosaic were recorded in order of dominance and are labelled as such in **Figure 7.2.1 NVC Survey Area and Results**. **Table 7.2.2** lists the various vegetation communities recorded within the NVC Survey Area and categorises them under the broad habitat types within which they most closely fall. These broad habitat types are also represented in **Figure 7.2.1 NVC Survey Area and Results**.

35. Nature conservation importance and potential GWDTE status is also provided in **Table 7.2.2**, this should be read in conjunction with **Figures 7.2.2 Annex 1 Habitats** and **7.2.3 Potential GWDTE Habitats** (**Annex C**). Where a community is a potential GWDTE, they have been highlighted in a similar style to SEPA Guidance Note 31 (SEPA, 2017). Those NVC communities which may have a limited dependency on groundwater in certain settings have been highlighted in orange; and those that are likely to be sensitive are marked in red. These communities are shown in these colours on **Figure 7.2.2 Annex 1 Habitats** (**Annex C**).

36. Where these communities have been identified as potentially Annex I or SBL habitat, the corresponding habitat description for these designations has been provided. Where a conservation designation is not applicable, a dash '-' has been inserted.

37. Unsurveyed forest rides were assumed to consist of a combination of M18, M19, M23 and M25 NVC communities.

38. A full species list for the Survey Area and communities are provided in **Annex D**. Selected photographs showing the communities are provided in **Annex E**.

NVC community code	NVC community title	Description
H1	*Calluna vulgaris*–*Festuca ovina* heath	This is a species-poor community type, usually with the only woody species being *Calluna vulgaris* and typically accompanied by bryophytes or lichens only (Elkington *et al*., 2001). Vegetation with affinity to this community was found on two occasions. In the first, it was located in the south west of the Survey Area in mosaic with H10 and H12. It tended to be most prevalent on the southern aspect of the hill and consisted of dominant *C. vulgaris*. On the second, the community was located further south west of the Survey Area in combination with H10/U4/MG10 (see below).
H10	*Calluna vulgaris*–*Erica cinerea* heath	'Commonly occurring across the more oceanic parts of Scotland, particularly in the south west, this community is indicative of acid to circumneutral and generally free-draining soils. Management regimes (grazing and burning) often contribute to the composition and structure of this community, resulting in a varied sub-shrub canopy' (Rodwell, 1991). Vegetation with affinity to this community was recorded on a couple of occasions, located in the south west of the Survey Area, occurring with H1 as above, as well as H12, MG10 and U4. The community consisted of *C. vulgaris* (8), *Erica cinerea* (6), *Pleurozium schreberi* (6), *Polytrichum commune* (3), *Racomitrium lanuginosum* (3), *Hylocomium splendens* (6), *Vaccinium myrtillis* (2), *Sorbus aucuparia* (1), *Cladonia* sp.
H12	*Calluna vulgaris*-*Vaccinium myrtillus* heath	H12 is typical sub-shrub community of acidic to circumneutral free draining mineral soils throughout the cold and wet zone between 200m-600m; the community is similarly influenced by grazing, burning and climatic factors (Elkington *et al*., 2001). Vegetation with affinity to these communities was recorded on several occasions, in mosaic with U4; in mosaic with H1 and H10; an in mosaic with M19 in the south west of the Survey Area; and in areas towards the tops of slopes of a shallow valley of the unnamed tributary of the Palmullan Burn in the north west of the Survey Area, with several other communities. The community composition consisted of abundant *C. vulgaris,* frequent *V. myrtillis, P. schreberi,* occasional *H. splendens, Nardus stricta,* and *Avenella flexuosa.*
Hx	Heath communities	Two undescribed heath communities were identified. Hx(1) was identified along one of the forest rides in mosaic with M19 and U4. Vegetation consisted of *V. myrtillis* (8) and *H. splendens* (8) on gentle slope along the ride. Another undescribed heath community, Hx(2) was identified in the far south east of the Survey Area. The community consisted of a heath ground layer overlaid with regeneration of *P. sitchensis*. The heath ground layer comprised *C. vulgaris* (5), *V. myrtillis* (4), *P. schreberi* (7), *J. effusus* (3), *P. commune* (3).
M2	*Sphagnum cuspidatum/ fallax bog pool community*	This community tends to be dominated by soft wet carpets of either *Sphagnum cuspidatum, S. fallax*, or both. It tends to be found in pools and lawns on very wet and acidic raw peats on ombrogenous and topogenous mires in the less oceanic parts of Britain. Its range coincides closely with that of M18, often forming the pool, wet hollow and lawn elements of the community (Elkington *et al*., 2001). Vegetation with affinity to this community was recorded on one occasion in the south west of the Survey Area. The composition was dominated by completely submerged *S. cf. fallax*; immediately surrounded by *E. angustifolium* and beyond, *E. vaginatum*.
M6	*Carex echinata*–*Sphagnum fallax/auriculatum* mire	This community has a distinct general character but includes a wide variation in composition; essentially it is a poor-fen with small sedges or rushes dominating over a carpet of oligotrophic and base-intolerant *Sphagnum* spp. (Elkington *et al.,* 2001). Vegetation with affinity to this community was found multiple times across the Survey Area. The community was often found with either M23 or

NVC community code	NVC community title	Description
		M25, where the M6d *Juncus acutiflorus* sub-community was the dominant type. Species richness of this community type was generally poor and consisted of dominant species *J. acutiflorus* (9) and *Sphagnum* spp (9).
M15	*Trichophorum germanicum–Erica tetralix* wet heath	This wet heath community is characteristic of moist and generally acidic and oligotrophic peats and peaty mineral soils in the wetter western and northern parts of Britain. It is also associated with thinner or better drained areas of ombrogenous peat. It is a vegetation type with few constants and a wide variation in the pattern of dominance and in associated flora (Elkington *et al.,* 2001). Vegetation with affinity to this community was found on two occasions covering small areas. The community included *T. germanicum* accompanied by *C. vulgaris* (6), *Erica tetralix* (4), *V. myrtillis* (3), *P. sitchensis* (3), *Cladonia* spp., *Sphagnum capillifolium* (4), *Molinia caerulea* (3).
M17	*Trichophorum germanicum–Eriophorum vaginatum* blanket mire	M17 *Trichophorum germanicum – Eriophorum vaginatum* blanket mire is the characteristic blanket bog vegetation of the more oceanic parts of Britain, including the south west of Scotland. It occurs extensively on waterlogged ombrogenous peat (Elkington *et al*., 2001). Vegetation with affinity to this community was prevalent across the Survey Area, where the topography was relatively flat. The community occurred with M23a, M25, M18 and M15. The community was characterised by abundant *M. caerulea* and prominent *V. myrtillis* (5), *S. capillifolium* (4), *E. tetralix* (4), *E. nigrum* (3), *P. erecta* (3), *C. vulgaris* (3).
M18	*Erica tetralix–Sphagnum papillosum* raised and blanket mire	This community is generally dominated by *Sphagnum* spp., where ericoid sub-shrubs and monocotyledons often subordinate. The community is characteristic of waterlogged ombrogenous peats, typically at low altitudes and in the more oceanic parts of Britain. It is characteristic of raised bogs but can also be found within blanket and basin mires. (Elkington *et al*., 2001). Vegetation with affinity to this community occurred on several occasions including within a shallow valley in the north west of the Survey Area with M19, M23a, M6d, H12 and MG10a. Here it occurred in flat areas at the top of the shallow valley. The community also occurred with M17 (see above) in the south west and centre of the Survey Area. The community was characterised by dominant *E. vaginatum* (6), *C. vulgaris* (5), *V. myrtillis* (5), *Sphagnum cf. magellanicum* (5), *S. capillifolium* (5), *Eriophorum angustifolium* (4), *Potentilla erecta* (3).
M19	*Calluna vulgaris–Eriophorum vaginatum* blanket mire	M19 - *Calluna vulgaris - Eriophorum vaginatum* blanket mire is a blanket bog vegetation type which is found at high-altitudes on ombrogenous peats in the wet and cold climate of the uplands of northern Britain. The community tends to occur at altitudes of over 300m, on deeper peats usually more than 2m (Elkington *et al.,* 2001). Vegetation with affinity to this community was prevalent across the Survey Area occurring with several other communities. The community tended to comprise equal abundance of *E. vaginatum* (5). *C. vulgaris* (5) and *V. myrtillis* (5). Other species included *A. flexuosa* (4), *Narthecium ossifragum* (4), *E. angustifolium* (4), *E. tetralix* (4), *S. capillifolium* (4).

NVC community code	NVC community title	Description
		Near the Black Hill of Garleffin *E. vaginatum* dominated. Elsewhere bryophytes were more dominant, including *S. cf. fallax*, *H. splendens* and *P. schreberi*.
M23/M23a	*Juncus effusus/acutiflorus–Galium palustre* rush-pasture, *Juncus effusus* sub-community	This vegetation is ill-defined and characterised by the abundance of either *Juncus effusus* or *J. acutiflorus*, sometimes both, in a ground of mesophytic herbs common in moist agricultural grassland. The rushes often have a high cover, but they may also be sparser. *J. effusus* is more abundant in the east, while *J. acutiflorus* has a distinctly western distribution (JNCC, 2001). Across the Survey Area, *J. acutiflorus* was generally the dominant species, typical of this region. As a result, the community could often be further determined as sub-community M23a *Juncus acutiflorus* sub-community. The community was associated with flushes and hollows, and margins of small streams / forestry drains. Typically, the community comprised abundant *J. acutiflorus*. Other species included occasional *Epilobium palustre, Galium palustre, Cirsium palustre*, *Viola palustris*, *Rumex acetosa*, and *Holcus lanatus.*
M25 / M25a	*Molinia caerulea-Potentilla erecta* mire	This mire is a community of moist, but well-aerated, acid to neutral peats and peaty mineral soils in the wet and cool western lowlands of Britain. The community is found on gentle slopes, where it grades into flushed margins of slow-moving water. It occurs at locations where high water tables are maintained by low lying ground (topogenous) as well as where high water tables are maintained by precipitation (ombrogenous). The soil and drainage conditions of this community considered to be similar to those of M23, and it is a frequent community of southern Scotland (Elkington *et al.*, 2001). Vegetation with affinity to this community was present in several locations across the Survey Area. *M. caerulea* was consistently abundant, with *C. vulgaris* consistently found across all. *E. tetralix* was consistently present in a couple of locations enabling this community to be identified to the sub-level of M25a *Erica tetralix* sub-community. Other species across the locations present included frequent to occasional *V. myrtillis*, *Carex echinata*, *Carex nigra*, *P. erecta*, *Hypnum jutlandicum*, *Deschampsia cespitosa*, *Succisa pratensis*.
Mx	Mire communities	As a result of being heavily modified by forestry, there were a number of communities ill-described by Rodwell (1991-2000). These were predominately located in the forest rides, where drainage, shading and other effects of neighbouring forestry has likely influenced these communities. These communities varied, where some were dominated by sedges, others, mosses; and occasionally with grasses; or else a mix of these. Due to their tendency to be wet, they have been grouped as mire communities and are each described in detail by target notes in **Annex B Target Notes** and summarised below. In a small number of locations, Mx(1) and Mx(4) had a community of frequent *C. nigra* and *V. myrtillis.* Elsewhere forest ride communities

NVC community code	NVC community title	Description
		were dominated by *Sphagna* Mx(2), Mx(5) and Mx(7). In some, non-*Sphagna* mosses characterised the community, such as *P. commune* and *H. splendens,* including Mx(3), Mx(6), Mx(9) and Mx(10). Others were mixed, including Mx(8), Mx(11), and Mx(12); where Mx(12) consisted of *P. commune* (6) *S. cf fallax* (6), *P. schreberi* (5), *R. loreus* (4), as well as *P. sitchensis* seedlings interspersed amongst a community recognisable as M25a.
MG6	*Lolium perenne-Cynosurus cristatus* grassland	This community is a major permanent pasture type, found on moist freely draining to moderately impeded circumneutral soils across the lowlands of Britain (Cooper, 1997). A small area of this community was located in the open moorland to the north east of the Survey Area. The community comprised of dominant *L. perenne* (8)*, Cerastium* sp. (2)*, Ranunculus repens* (3)*, T. repens* (5)*, A. capillaris* (3)*.* Occasional *R. acris* and *R. repens* (2). *J. effusus* was locally dominant.
MG10a	*Holcus lanatus-Juncus effusus* rush pasture, typical sub-community	The *Holcus-Juncus* rush-pasture is characteristic of strongly impeded drainage in a wide range of mineral soils of varying pH throughout the British lowlands and on the upland fringes. The community is generally grazed between the clumps of rushes, and this can often strongly affect the vegetation (Cooper, 1997). This community was prevalent throughout the Survey Area and often associated with U4. The community was generally found in relatively drier areas across the tops of small hummocks in the north west of the Survey Area; in patches along forestry access roads across the Survey Area. The vegetation composition characteristically comprised abundant *H. lanatus* and occasional *J. effusus* allowing this community to be identified to the MG10a typical sub-community.
MGx	*Grassland community*	One undescribed grassland community was identified within along a forest ride towards the centre of the Survey Area. The wet neutral grassland consisted of *Poa* spp. (4), *R. repens* (3), *Viola palustris* (3), *H. lanatus* (4), *J. effusus* (1) and *D. cespitosa* (3).
U4	*Festuca ovina–Agrostis capillaris–Galium saxatile* grassland	This grassland is usually found on relatively well-drained, more base-poor mineral soils throughout the wet and cool regions of north west Britain, where it dominates extensive areas of hill pasture (Cooper, 1997). The U4 *Festuca ovina–Agrostis capillaris–Galium saxatile* grassland is scattered across the relatively drier areas on the tops of small hummocks and hilly areas of the north and south west of the Survey Area. The community was most frequently found with MG10.
		The community was generally characterised by a high prevalence of *A.capillaris*. In one location, *H. lanatus* was equally prevalent. Elsewhere *V. mytillis* was unusually frequent. Other species recorded included frequent to occasional *Anthoxanthum odoratum, P. erecta, Galium saxatile, Rhytidiadelphus squarrosus, C. palustre, D. cespitosa*, and *C. vulgaris.*
U6	*Juncus squarrosus-Festuca ovina* grassland	This grassland is usually found on acidic, moist peats and peaty mineral soils, on level and sloped areas in uplands of north west Britain (Cooper, 1997). Vegetation with affinity to this community was found on only one occasion, in mosaic with M17 and M6d in the far south west of the Survey Area. The composition consisted of *V. myrtillis* (7), *J. squarrosus* (6), *A. flexuosa* (4), *A.capillaris* (4), *H. splendens* (7), *G. saxatile* (3), *F. ovina* (3), *M. caerulea* (3).
Non-NVC – Plantation woodland	-	Coniferous plantation woodland was dominant across the remaining area of the Survey Area.

Table 7.2.1 Plant Communities' Descriptions

NVC community code	Broad Corresponding Habitat Type(s)	Annex I habitat	SBL habitat	GWDTE
H1	Dry heath	Dry heaths[2]	Lowland heathland[3]	
H10	Dry heath	Alpine and subalpine heaths[2] Dry heaths[2]	Upland heathland[4] Lowland heathland[3]	
H12	Dry heath	Alpine and subalpine heaths[2] Dry heaths[2]	Upland heathland[4] Lowland heathland[3]	
Hx	Dry heath			
M2	Acid/neutral flush	Active raised bogs[2] Depressions on peat substrates[2]	Fens[3] Blanket bog[6]	
M6	Blanket bog		Fens[3]	High
M15	Wet heath	Wet heathland with *E. tetralix*[5]	Upland heathland[4]	Moderate

[2] This NVC code overlaps with the definition of this Annex I habitat.

[3] This NVC code may be included in the definition of this SBL habitat.

[4] This NVC code is contained within the definition for this SBL habitat.

[5] This NVC code is contained within the definition for this Annex I habitat.

NVC community code	Broad Corresponding Habitat Type(s)	Annex I habitat	SBL habitat	GWDTE
		Depressions on peat substrates[2] Blanket bog[2] Degraded raised bog[2]	Lowland heathland3 Blanket bog[6]	
M17	Blanket bog	Depressions on peat substrates[2] Blanket bog[2]	Blanket bog[6]	
M18	Blanket bog	Active raised bogs[2] Depressions on peat substrates[2] Blanket bog[2] Degraded raised bog[2]	Fens[3] Blanket bog[6]	
M19	Blanket bog	Active raised bogs[2] Blanket bog	Fens[3] Blanket bog[6]	-
M23	Marshy grassland (also occurring in blanket bog and wet heath mosaics)		Purple moor grass and rush pasture[3]	High
M25	Blanket bog (also occurring in wet heath mosaics)	Blanket bog[2] Degraded raised bog[2]	Fens[3] Purple moor grass and rush pasture[3] Blanket bog[6]	Moderate
Mx	Blanket bog			High*
MG6	Semi-improved neutral grassland			
MG10	Semi-improved neutral grassland			Moderate
MGx	Semi-improved neutral grassland			Moderate**
U4	Acid grassland		Lowland dry acid grassland[4]	
U6	Acid grassland			Moderate
Non-NVC – Plantation woodland	Coniferous plantation woodland			

[6] This NVC code overlaps with the definition of this SBL habitat.

Table 7.2.2 Plant Communities Nature Conservation Importance and Potential GWDTE Status

*contained communities similar to flush which tend to be of high GWDTE potential, therefore a precautionary approach has been taken.

**contained species similar to MG10, which is has moderate GWDTE potential, therefore a precautionary approach has been taken.

4 Conclusions

39. This Habitats Baseline Report has provided a baseline description of sites, habitats and communities of botanical interest within influence of the Survey Area through desk study and field survey.

40. No statutory designated sites for nature conservation are within the Site, with the nearest located 6.7km north of the Proposed Development Area. Four non-statutory designated sites for nature conservation are located within the Site, one of which overlaps with the Proposed Development Area.

41. From the records provided, no notable species were recorded within the Site. Notable species are outwith the Site and include the legally protected *H. non-scripta*.

42. The NVC survey has identified several communities with the potential to be GWDTEs, consisting of:

- M6 *Carex echinata–Sphagnum fallax/auriculatum* mire;
- M15 *Trichophorum germanicum–Erica tetralix* wet heath;
- M23 *Juncus effusus/acutiflorus–Galium palustre* rush-pasture;
- M25 *Molinia caerulea-Potentilla erecta* mire;
- MG10 *Holcus lanatus-Juncus effusus* rush pasture; and
- U6 *Juncus squarrosus-Festuca ovina* grassland.

43. Many communities were identified as, or have overlapping definitions for Annex I and/or SBL habitats. Only U6, non-NVC communities and coniferous plantation were excluded from either.

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Annex A Relevant Legislation

GWDTES

GWDTEs have specific protection originating under the European Union (EU) Water Framework Directive (WFD) (Council Directive 2000/60/EC), transposed and implemented in Scotland through the Water Environment and Water Services (Scotland) Act 2003 (WEWS Act) and The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR). The purpose of this legislation is to prevent further deterioration of terrestrial ecosystems in regard to their water needs. In Scotland this is regulated through CAR which controls activities affecting the water environment.

Annex I habitats

Certain habitats also have protection under the EU Habitats Directive (Council Directive 92/43/EEC), transposed in Scotland as the Conservation (Natural Habitats, &c.) Regulations 1994. The Act provides for the identification of sites which are important for habitats (listed as Annex I habitats of the Habitats Directive), known as Special Areas of Conservation (SAC).

SBL habitats

Habitats have protection under the Nature Conservation (Scotland) Act 2004. Under section 1 of the Act it is:

'*the duty of every public body and office-holder, in exercising any functions, to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions*'

The Act requires Scottish Ministers to produce a Scottish Biodiversity Strategy, including providing a published list of habitats considered to be of principal importance for the purpose of the conservation of biodiversity (referred to as the Scottish Biodiversity List). This list is to be used to assist public bodies to meet section 1 of the Act.

Legally protected species

All wild plant species in Scotland are protected under the Wildlife and Countryside Act 1981 (as amended) from intentional or reckless uprooting without the permission of the owner or occupier of the land it grows on.

Under Schedule 8 of the Act *H. non-scripta* has further, partial protection; whereby it there are prohibitions against the sale and advertisement for sale of this plant.

Annex B Target Notes

TN	NVC Community	Notes
1	M6d/M17/M9/M25	M17: *E. vaginatum (7) C. vulgaris (7) V. myrtillis (5) E. tetralix (4) A. flexuosa (4) P. schreberi (4) S. capillifolium (4) Carex binervis (3).* M6d*: J. acutiflorus (7) S. fallax (6) S. palustre (6) P. commune (4).* M9 (10%)*:* species poor, dominant *Carex rostrata (6)* and *S. fallax (6).* M25: *M.caerulea (7)* with relative high proportion of *C. vulgaris (5) V. myrtillis (5)* sedges *C. echinata (3)* and *C. nigra (3).*
2	H12/U4	Mosaic: Heath 75% grassland 25%. Heath: *C. vulgaris (8) V. myrtillis (7) P. schreberi (7) H. splendens (4) N. stricta (3) A. flexuosa (4) Agrostis stolonifera (5) Empetrum nigrum (3) R. squarrosus (3) J. squarrosus (2) C. binervis (2).* Grassland: *A.stolonifera (5) A. odoratum (4) A. flexuosa (4) G. saxatile (4) Thuidium tamariscinum (3) P. schreberi (4) P. erecta (3).*
3	U4/M23a/M25a/M6d	U4: *H. lanatus (4) A. odoratum (4) P. erecta (3) G. saxatile (4) R. squarrosus (3) C. palustre (4) Galium verum (2) Campanula rotundifolia (2) A. capillaris (4) V. myrtillis (2) C. vulgaris (2)* M23a: *J. acutiflorus (3) E. palustre (3) G. palustre (3)* M25a: *M. caerulea (8) C. vulgaris (5) P. erecta (3) H. jutlandicum (3) D. cepistosa (3) E. tetralix (3) S. pratensis (2). U2: D. cespitosa (7) J. acutiflorus (4).*
4	U6/M17/M6d	U6: with abundant *V. myrtillis (7) J. squarrosus (6) A. flexuosa (4) A. capillaris (4) H. splendens (7) G. saxatile (3) Festuca ovina (3) M. caerulea (3)* M17: Lacking in *Sphagna* though *E. vaginatum* abundant *(7), E. tetralix (4) Trichophorum germanicum (3) V. myrtillis (4) P. erecta (3) S. papillosum (4) V. vitis idaea (2) A. flexuosa (4) F. ovina (3) N. ossifragum (3) E. angustifolium (3).* M6d: *remaining area.*
5	H10/H1/H12	H10: *C. vulgaris (8) E. cinerea (6) P. schreberi (6) P. commune (3) R. lanuginosum (3) H. splendens (6) V. myrtillis (2) S. aucuparia (1) Cladonia spp.* H1: species poor *C. vulgaris* dominant *(10)* H12: *C. vulgaris (8) V. myrtillis (6) A. flexuosa (5) P. erecta (4) N. stricta (3) A. stolonifera (3) H. splendens (6).*
6	M19/H12	Bog: *E. vaginatum (5) C. vulgaris (5) V. myrtillis (5) A. flexuosa (4) N. ossifragum (4) E. angustifolium (4) E. tetralix (4) S. capillifolium (4) P. schreberi (4).*
7	M23a/M19	M23a: *J. acutiflorus (8) C. palustre (2) V. palustris (3) E. palustre (2) H. lanatus (3) R. acetosa (2)* M19 with *C. vulgaris (8) E. vaginatum (7) E. tetralix 3) P. schreberi (8) H. splendens (4) R. squarrosus (3) V. myrtillis (4) S. capillifolium (4) M. caerulea (3) E. nigrum (3) G. saxatile (3) P. commune (3).*
8	M17/M15	*E. vaginatum* dominating to the north *(7)* then *T. germanicum* to the south *(8).* Becoming encroached by natural regeneration of spruce. *T. germanincum* accompanied by *C. vulgaris (6) E. tetralix (4) V. myrtillis (3) P. sitchensis (3) Cladonia spp. S. capillifolium (4) M. caerulea (3).*
9	M25a/M17	M25 with *M. caerulea (8) P. erecta (3) V. myrtillis (3) C. vulgaris (4) E. tetralix (4)* M17 with abundant *M. caerulea* and prominent *V. myrtillis (5) S. capillifolium (4) E. tetralix (4) E. nigrum (3) P. erecta (3) C. vulgaris (3)*
10	M23a/M17	M17 with high representation from *M. caerulea (5).* M23a with *R. acetosa (5) J. acutiflorus (7) P. erecta (3) C. palustre (2) H. lanatus (4).*
11	U4	With locally abundant *A. capillaris, D. cespitosa, H. lanatus. A. odoratum;* also present *(4) Poa sp. (4) G. saxatile (3) P. erecta (3).*
12	MG10a/MG6a	MG6a with *L. perenne (8); Cerastium sp. (2), R. repens (3), T. repens (5), A. capillaris (3).*
13	M17	Viewed from afar - very wet ground.
14	M17	Natural regeneration of P. sitchensis over bog, M17: *M. caerulea (7)* constant amongst *E. vaginatum (4) C. vulgaris (5) Cladonia spp (3) P. erecta (3) E. tetralix (3).*
15	N/A	Quarry 1.
16	N/A	Quarry 2.
17	U4/M19	Grassy knoll of U4 with relatively high prevalence of *C. vulgaris (4) and V. myrtillis (4).* Mosses also form relatively high proportion *(8)* with *H.* splendens dominating. *P. sitchensis (3).* Becoming boggy towards the south of the knoll. Species-poor community resembling M19 with dominant *E. vaginatum (7)* and *V. myrtillis (5).*
18	N/A	NOT ACCESSED. Windblow encountered along two separate forest rides to this area, blocking access.
19	M18	Bog with most affinity to M18, with dominant *E. vaginatum (6) C. vulgaris (5) V. myrtillis (5) S. fallax/magellanicum (5) S. capillifolium (5) E. angustifolium (4) P. erecta (3) A. flexuosa (4) P. schreberi (5) E. nigrum (2).*
20	M19	Dominant *E. Vaginatum (8) C. vulgaris (6) V. myrtillis (4) A. flexuosa (5) P. schreberi (5) Picea sp. (3) H. jutlandicum (3) R. lanuginosum (3) Polytrichum cf. piliferum (2) E. tetralix (3) E. angustifolium (3) S. capillifolium (5) S. palustre (5).* Showing hummocks and hollows. Hollows typically co-dominated by *E. vaginatum* and *Sphagnum* spp.
21	M18/M19/M23a/M6d/H12/MG10a	Grassland resembling MG10a in patches. Lacking *J.effusus* but lacking characteristics of *U4.* M23a and M6d on lower slopes and adjacent to burn in middle of valley. H12 on upper steeper slopes of

TN	NVC Community	Notes
		valley. H12 with *C. vulgaris (6), V. myrtillis (5) G. saxatile (2) A. flexuosa (2) H. splendens (5) Athyrium filix-femina (2) A. capillaris (2).*
22	M23a/M6d	M6d: dominant species *J. acutiflorus (9)* and *Sphagnum* spp *(9)*
23	M19/N/A	M19, where *S. cf fallax* occupies the hollows *(7)* and *P. schreberi* and *H. splendens* the hummocks *(7). E. vaginatum (7) V. myrtillis (5) C. vulgaris (5) P. commune (4) A. flexuosa (4) E. angustifolium (4).* At top of hill and to the north a heath community of *H. splendens and V. myrtillis* dominates.
24	U4/Hx(1)/M19	Forest ride with U4 with dominant *A. capillaris.* Heath community of *V. myrtillis (8)* and *H. splendens* on gentle slope *(8*). M19 in lower flatter areas. M19 with similar proportions of *C. vulgaris (5) E. vaginatum (5) V. myrtillis (5) E. nigrum (4) P schreberi (4) H. splendens (5) S. cf fallax (6).*
25	M23a	Community located at base of valley.
26	Hx(2)	Heath like ground layer and regeneration of *P. sitchensis*. with abundant *C. vulgaris 5, V. myrtillis 4, P. schreberi 7, J. effusus 3, P. commune 3 E. vaginatum 3.*
27	Mx(1)	Forest ride with *C. nigra (7) V. myrtillis (6) C. vulgaris (5) M. caerulea (4) C. binervis (2) C. echinata (2) P. commune (6) A. flexuosa (3) P schreberi (7) J. effusus (1) J. squarrosus (1) P. erecta (4) G. saxatile (3) C. panicea (1).*
28	Mx(2)	Forest ride with *E. vaginatum (3) C. vulgaris (3) P. commune (5) Sphagnum spp. fallax and S. palustre (7) P. schreberi (6) E. tetralix (3) V. myrtillis (4) A. flexuosa (3) Rhytidiadelphus loreus (3) E. nigrum (2).*
29	Mx(3)/M23b/MG10a	Forest ride with *P. commune (7) M. caerulea (5) C. vulgaris (6) J. effusus (3) V. myrtillis (3) A. flexuosa (3) E. tetralix (3) H. jutlandicum (2) Rhytidiadelphus sp. (3) P. schreberi (4) C. nigra (3) D. cespitosa (3) G. saxatile (3) H. lanatus (3).*
30	N/A (M23a)	Flush with open running water and dominant *Juncus acutiflorus (8) P. erecta (2) Cirsium palustre (2) Ranunculus flammula (2) Epilobium palustre (2).*
31	Mx(4)	Forest ride dominated by *C. nigra. (7) V. myrtillis (5) H. splendens (4) Rhytidiadelphus* sp. *(4).*
32	M18/M19	*E. nigrum* prominent here *(3).*
33	Mx(5)/N/a	High proportion of *Sphagnum* spp., and other mosses *(8)* and either *E. vaginatum (3)* or other sedges *C. nigra (+) C. echinata (+)*
34	Mx(6)/M25	Forest ride. Carpet of mosses overlaid with sedges. Mosses include *H. jutlandicum (3) R. loreus (3) S. cf. fallax (7).* Also present *M. caerulea (4) C. echinata (4) P. schreberi (4) S. cf palustre (3) P. sitchensis (2) J. effusus (2) P. commune (3).*
35	MG10a/U4/M23a	*Track. With verges predominantly MG10a/U4/M23a.*
36	Mx(7)	Community of *Sphagnum* mosses *(8) S. cf. fallax and A. flexuosa (4).* Then *P. trivalis* locally abundant *(7),* then becoming boggy with *E. vaginatum* abundant *(7).*
37	Mx(8)	Forest ride. Alternating in dominance between grasses, sedges and mosses. *M. caerulea* dominates grassy areas. Elsewhere *C. echinata* is abundant. *C. binervis* is occasional*. V. myrtillis* constant at varying abundance.
38	Mx(9)	*Carpet of mosses almost exclusively P. commune and S. cf fallax. A. flexuosa (2).*
39	M18	Forest ride. Most akin to M18. With areas of codominant *E. vaginatum (7)* and *Sphagnum* spp. *(7).* Also present *V. myrtillis (3) and C. vulgaris (3).* Elsewhere *Sphagnum* spp. and *V. myrtillis* co-dominate.
40	M18/M19	M19 where patches of *Sphagnum* mainly *S. capillifolium.* Other species include *E. nigrum (3) V. myrtillis (4) C. vulgaris (4) P. schreberi (5) P. erecta (3) E. tetralix (2).*
41	M19/Mx(10)	With *H. splendens* replacing *sphagnum* in large areas (*8).* Otherwise species-poor and *E. vaginatum (7) V. myrtillis (6) J. squarrosus (2) C. nigra (2).*
42	M19/Mx(11)	Impoverished community of *E. vaginatum (6) V. myrtillis (5) H. splendens (7)* and *Sphagnum spp. (7).* Elsewhere more diverse with *C.* vulgaris present *(4) C. nigra (3)* and *M. caerulea*
43	M25/Mx(12)	Forest ride. M25 with associates closer to grassland including *H. lanatus, (5) P. erecta (3)* and *V. palustre is (2).* Mx dominant mosses include *P. commune (6) S. cf fallax (6) P. schreberi (5) R. loreus (4). Picea* sp. Seedlings throughout.
44	M25/M17	Forest ride with M25 and patches of M17.
45	M25/MGx	Forest ride with wet neutral grassland with *Poa spp., (4) R. repens (3) V. palustris (3) H. lanatus (4) J. effusus (1) D. cespitosa (3).*
46	MG10a	*H. lanatus (7) C. palustre (3) Prunella vulgaris (3) R. repens (3) L. autumnalis (2) P. erecta (4) D. cespitosa (4). Poa spp. (4) A. odoratum (3) A. capillaris (4).*
47	M19/M25a/M23b	M19: *C. vulgaris (7), E. vaginatum (7), V. myrtillis (5), A. flexuosa (4), M. caerulea (4), S. capillifolium (5), E. tetralix (3), P. schreberi (5), E. nigrum (3).*
48	U6	With abundant *V. myrtillis (7) J. squarrosus (6) A. flexuosa (4) A.capillaris (4) H. splendens (7) G. saxatile (3) F. ovina (3) M. caerulea (3).*
49	M17	Lacking in *Sphagna* though *E. vaginatum* abundant *(7), E. tetralix (4) Trichophorum germanicum (3) V. myrtillis (4) P. erecta (3) S. papillosum (4) V. vitis idaea (2) A. flexuosa (4) F. ovina (3) N. ossifragum (3) E. angustifolium (3).*
50	Mx(13)	Patch of dominant *C. echinata (8)* and *Sphagnum spp. (8).*

TN	NVC Community	Notes
51	M2	Bog pool surrounded by *E. vaginatum. Dominant S. cf. fallax (9)* completely submerged. *E. angustifolium (2).*
52	Wx	Small patch of semi-natural *Betula pubescens.*
53	Mx(14)	Small flush with *Briza media* and *Pinguicula vulgaris* and sedge species.

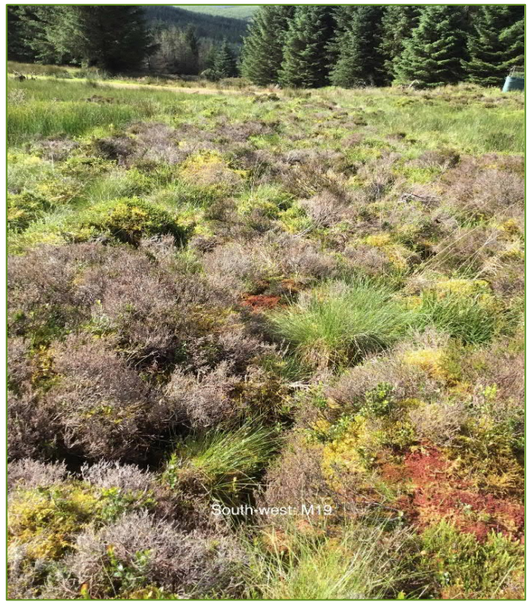
Annex C Figures

Annex D Species List

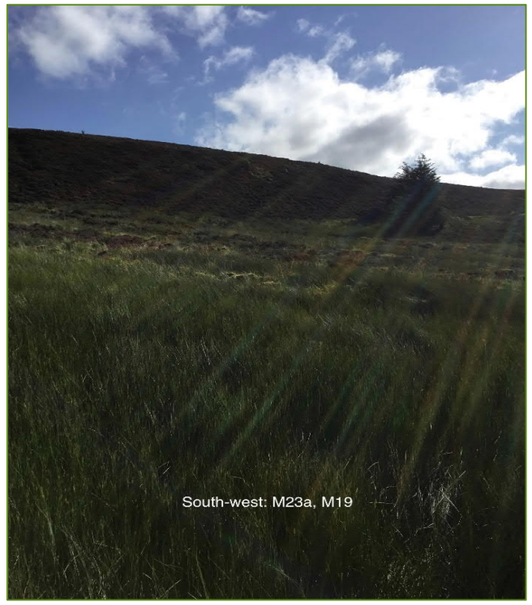
Scientific name	Common name
Agrostis stolonifera	creeping bent
Anthoxanthum odoratum	sweet vernal-grass
Athyrium filix-femina	lady fern
Betula pubescens	downy birch
Calluna vulgaris	heather
Campanula rotundifolia	harebell
Carex binervis	green-ribbed sedge
Carex echinata	star sedge
Carex nigra	common sedge
Carex rostrata	bottle sedge
Cerastium sp	mouse-ear
Cirsium palustre	marsh thistle
Cladonia spp.	reindeer-moss lichen
Deschampsia cespitosa	tufted hair-grass
Deschampsia flexuosa	wavy hair-grass
Empetrum nigrum	crowberry
Epilobium palustre	marsh willowherb
Erica cinerea	bell heather
Erica tetralix	Cross-leaved heath
Eriophorum angustifolium	common cottongrass
Eriophorum vaginatum	Hare's-tail cottongrass
Festuca ovina	sheep's fescue
Galium palustre	marsh bedstraw
Galium saxatile	heath bedstraw
Galium verum	lady's bedstraw
Holcus lanatus	Yorkshire-fog
Hylocomium splendens	glittering wood-moss
Hypnum jutlandicum	heath plait-moss
Juncus acutiflorus	sharp-flowered rush
Juncus effusus	soft rush
Juncus squarrosus	heath rush
Leontodon autumnalis	autumn hawkbit
Lolium perenne	perennial rye-grass
Molinia caerulea	Purple moor-grass
Nardus stricta	mat-grass
Narthecium ossifragum	bog asphodel
Pinguicula vulgaris	common butterwort
Pleurozium schreberi	red-stemmed feather-moss
Poa sp	meadow grass
Polytrichum cf. piliferum	bristly haircap
Polytrichum commune	common haircap moss
Potentilla erecta	tormentil
Racomitrium lanuginosum	woolly fringe-moss
Ranunculus acris	meadow buttercup
Ranunculus flammula	lesser spearwort
Ranunculus repens	creeping buttercup
Rhytidiadelphus loreus	little shaggy-moss
Rhytidiadelphus squarrosus	spring turf-moss
Rumex acetosa	common sorrel
Sorbus aucuparia	rowan
Sphagnum capillifolium	red bog-moss
Sphagnum fallax	flat-topped bog-moss
Sphagnum cf. papillosum	papillose bog-moss
Sphagnum cf. magellanicum	magellanic bog-moss

Scientific name	Common name
Succisa pratensis	devil's-bit scabious
Thuidium tamariscinum	common tamarisk-moss
Trichophorum germanicum	deergrass
Trifolium repens	white clover
Vaccinium myrtillis	bilberry
Viola palustris	marsh violet

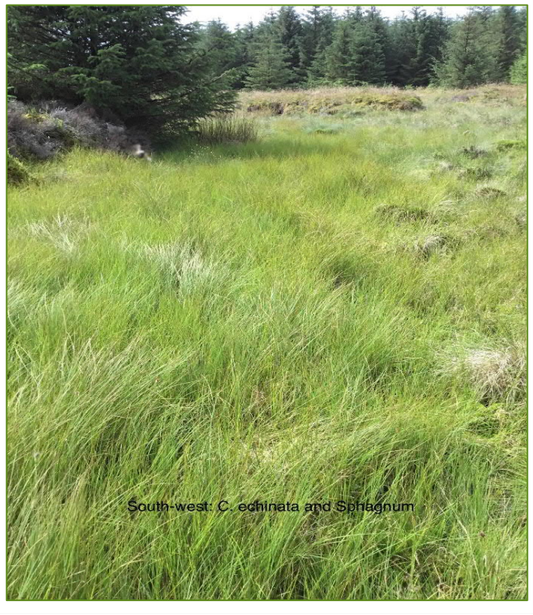
Annex E Photographs



South-west: M19



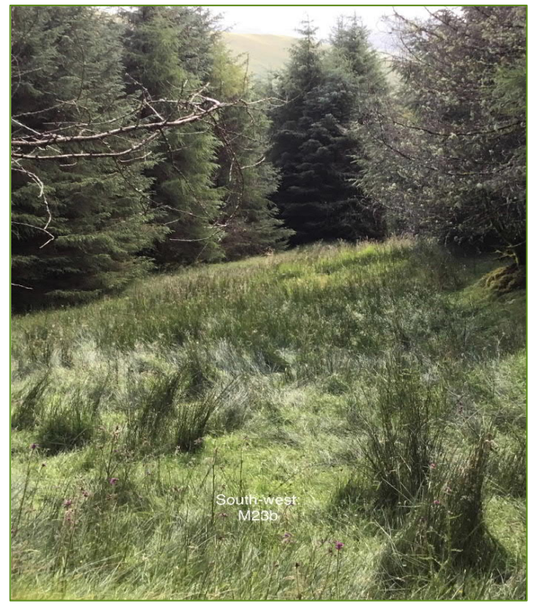
South-west: M23a, M19



South-west: C*. echinate and Sphagnum*

South-west: M17

South-west: U5

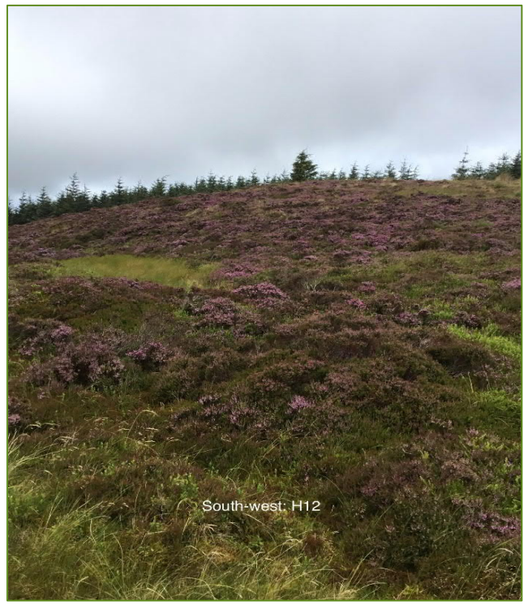


South-west: M23b

Forest Ride 3

Forest ride 2: Sphagnum

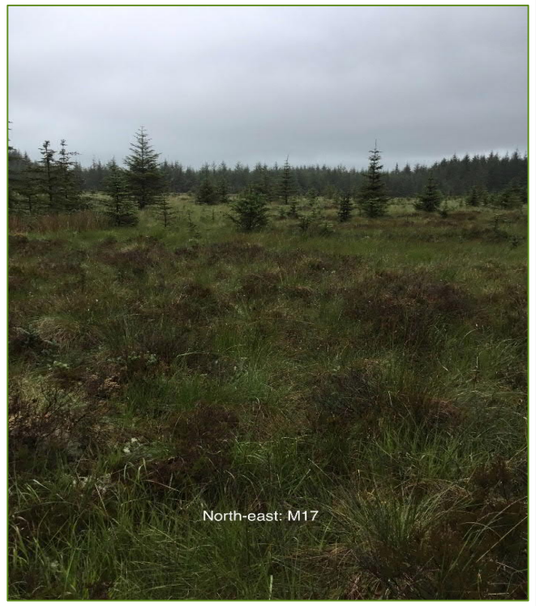
South-west: U4



South-west: H12

M6c

Forest ride 1

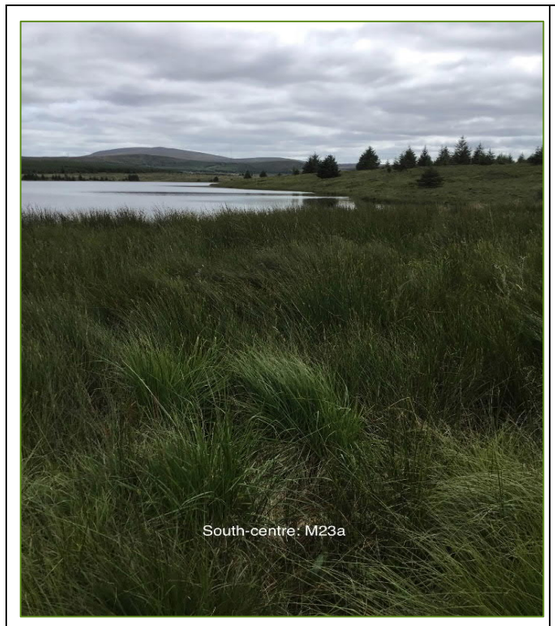


North-east: M17

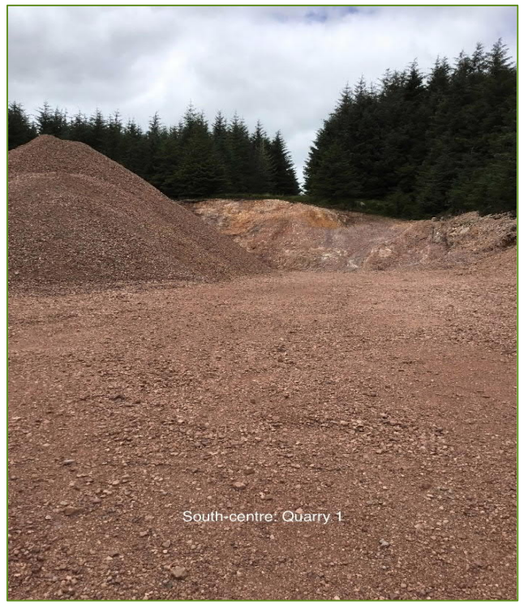
North-west: Forest ride

North-west: M23a/M6d

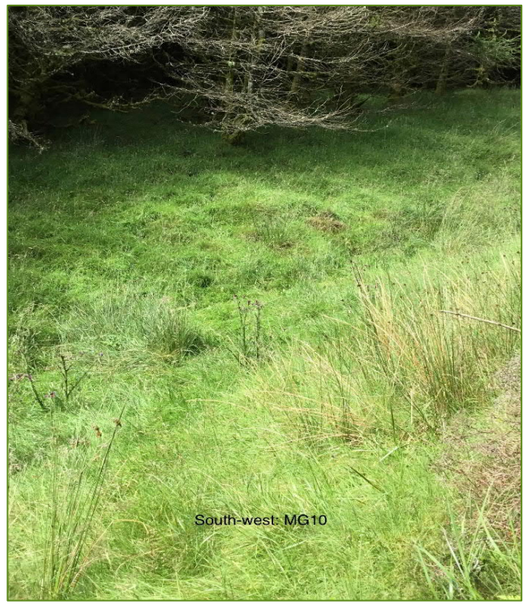
South-centre: U4



South-centre: M23a

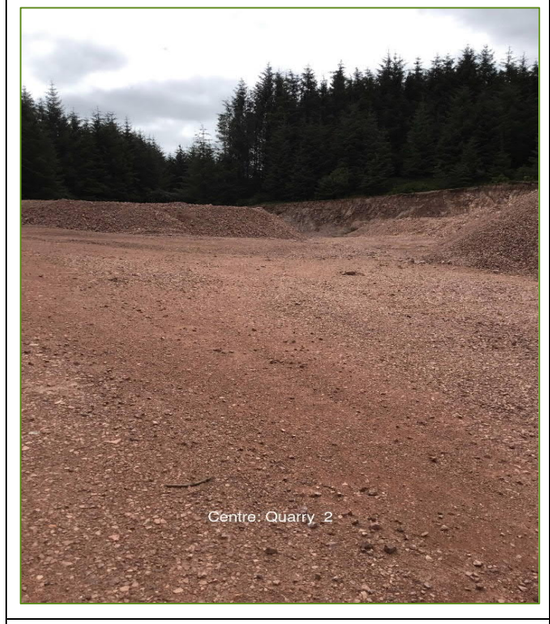


South-centre: Quarry 1

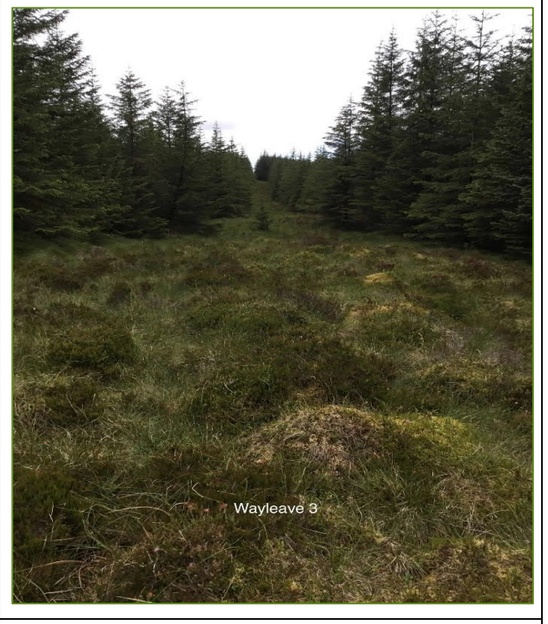


South-west: MG10

Forest ride 1: *Sphagnum palustre*



Centre: Quarry 2



Forest ride 3

Carrick Windfarm Project Team

ScottishPower Renewables
9th Floor
320 St Vincent Street
Glasgow
G2 5AD

carrickwindfarm@scottishpower.com

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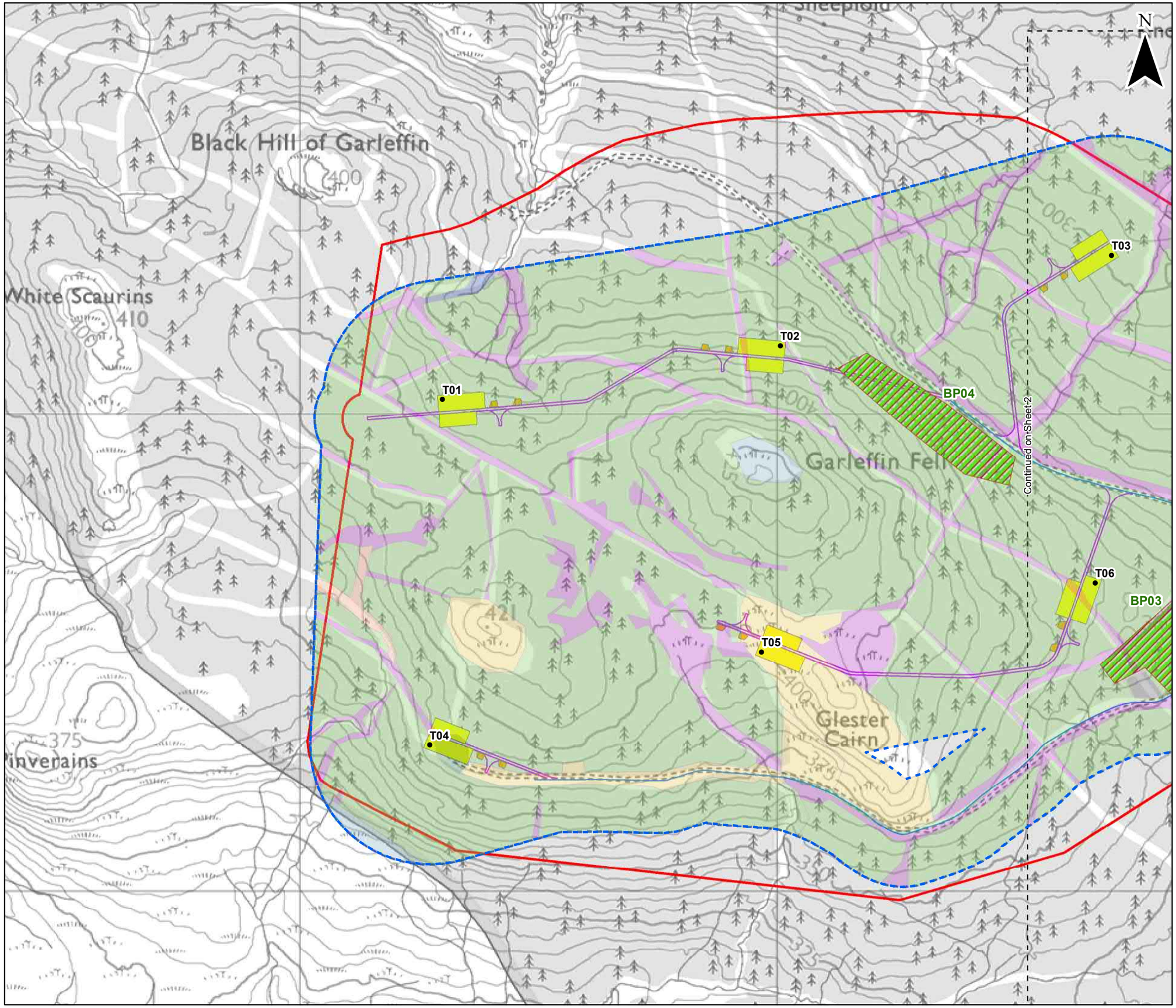

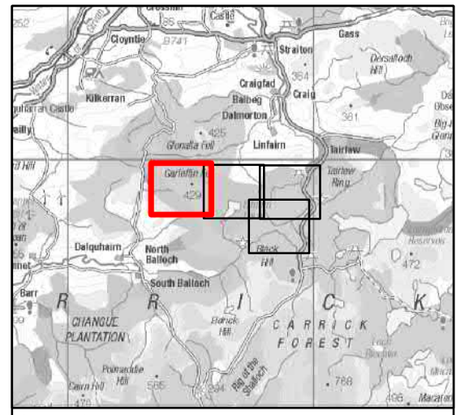

Legend

- Site Boundary
- Habitat Survey Area

Proposed Infrastructure

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- Temporary Construction Compound
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- Carrick Access Track - Existing Forestry Track to be Upgraded

Broad Habitat Type

- Acid Grassland
- Acid/Neutral Flush
- Blanket Bog Mosaic
- Conifer Plantation
- Dry Heath
- Marshy Grassland
- Quarry
- Semi-Improved Neutral Grassland
- Wet Heath Mosaic

0 200 400 Metres

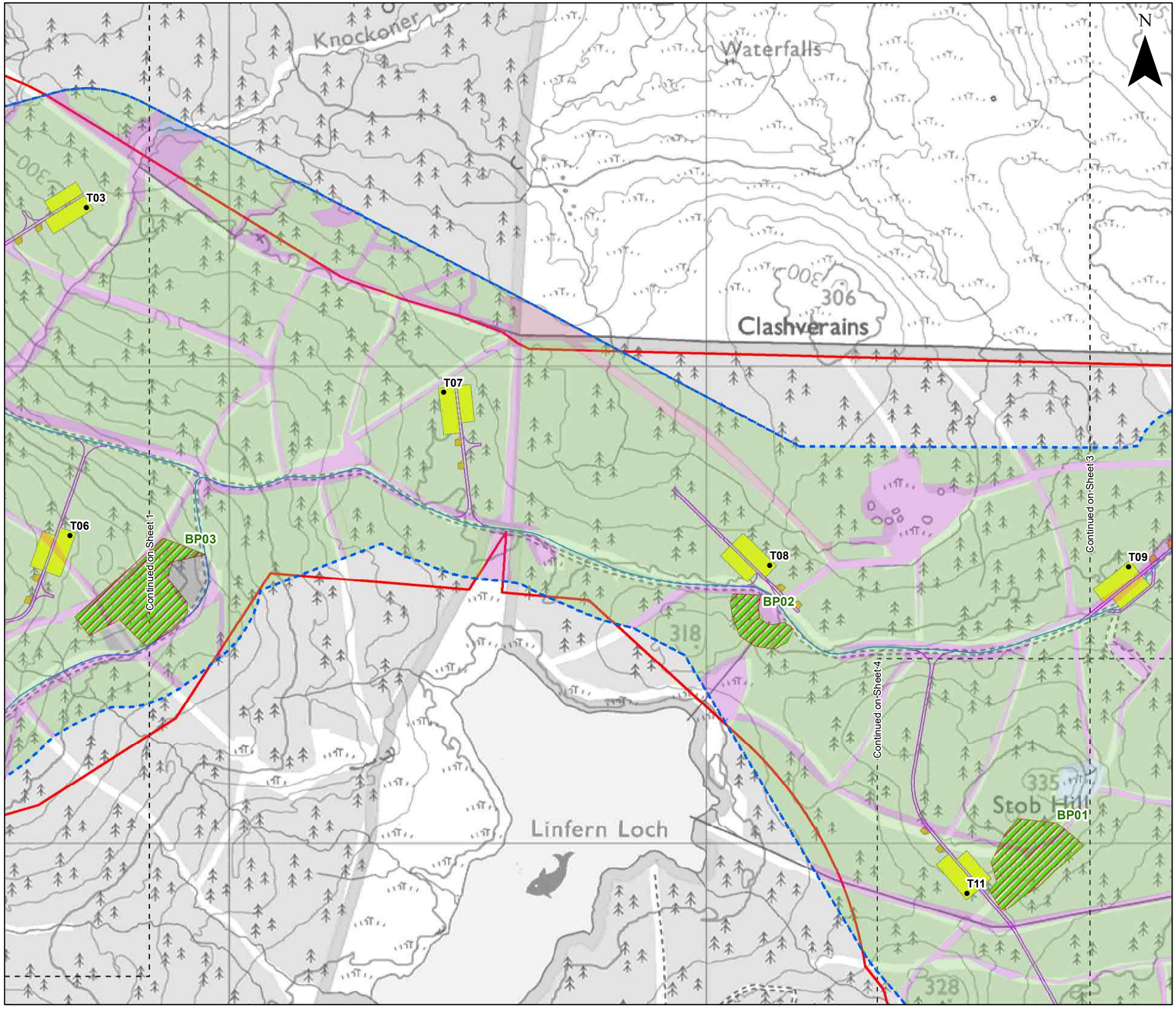
Rev	Date	By	Comment
C	29/10/2021	JO	Third Issue.
B	20/11/2020	BG	Second Issue
A	17/11/2020	BG	First Issue.

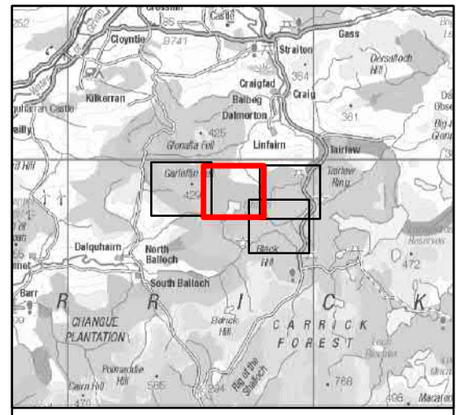
SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.1 - NVC Survey Area and Results

Drg No	Carrick-WSP-I-152
Rev	C
Date	29/10/2021
Scale	1:7,500 @ A3





Legend

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- Habitat Survey Area

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SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.1 - NVC Survey Area and Results

Drg No	Carrick-WSP-I-152
Rev	C
Date	29/10/2021
Scale	1:7,500 @ A3

240000

N

Craiganstirrup

Knockbuckle

Tairlaw Toll

Drumfa

Pulreoch Burn

Quarry (dis)

MS

T09

T10

T12

Continued on Sheet 2

Continued on Sheet 4

Tallaminnoc

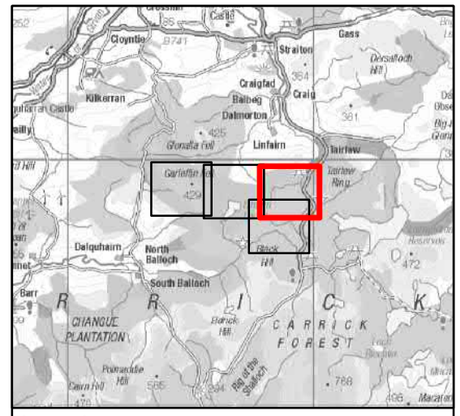
Cairnwh

Ston

Tairlaw Burn

Pit (dis)

240000



Legend

- Site Boundary
- Habitat Survey Area

Proposed Infrastructure

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SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.1 - NVC Survey Area and Results

Drg No	Carrick-WSP-I-152
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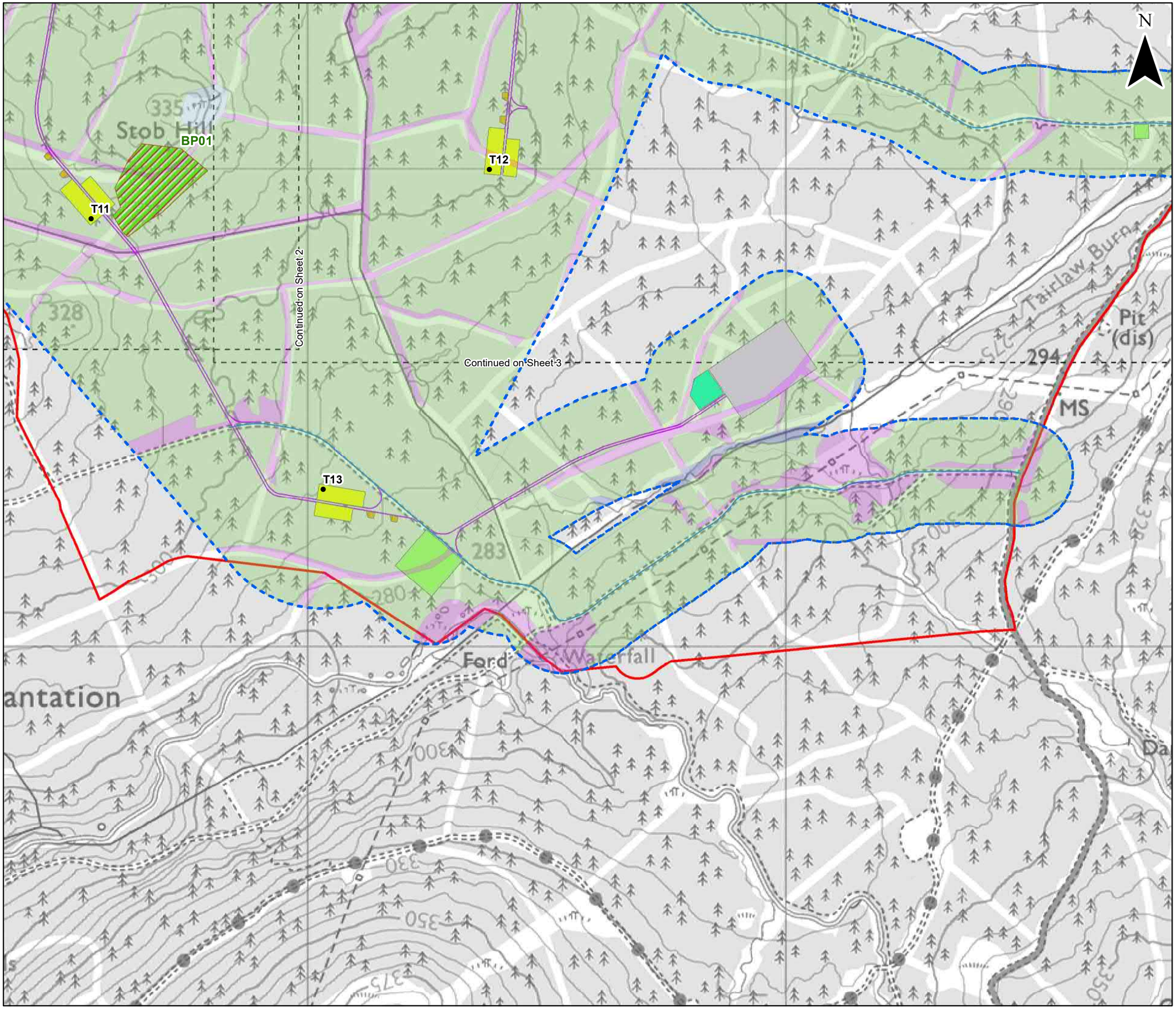

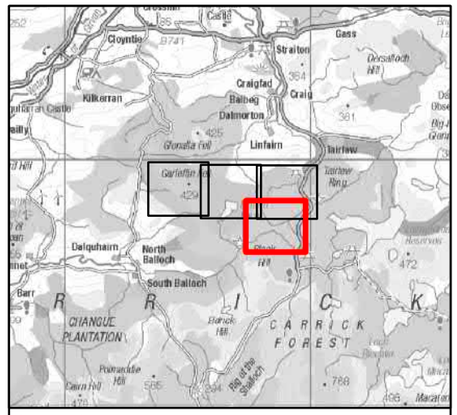

Legend

- Site Boundary
- Habitat Survey Area

Proposed Infrastructure

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0 200 400 Metres

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SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.1 - NVC Survey Area and Results

Drg No	Carrick-WSP-I-152
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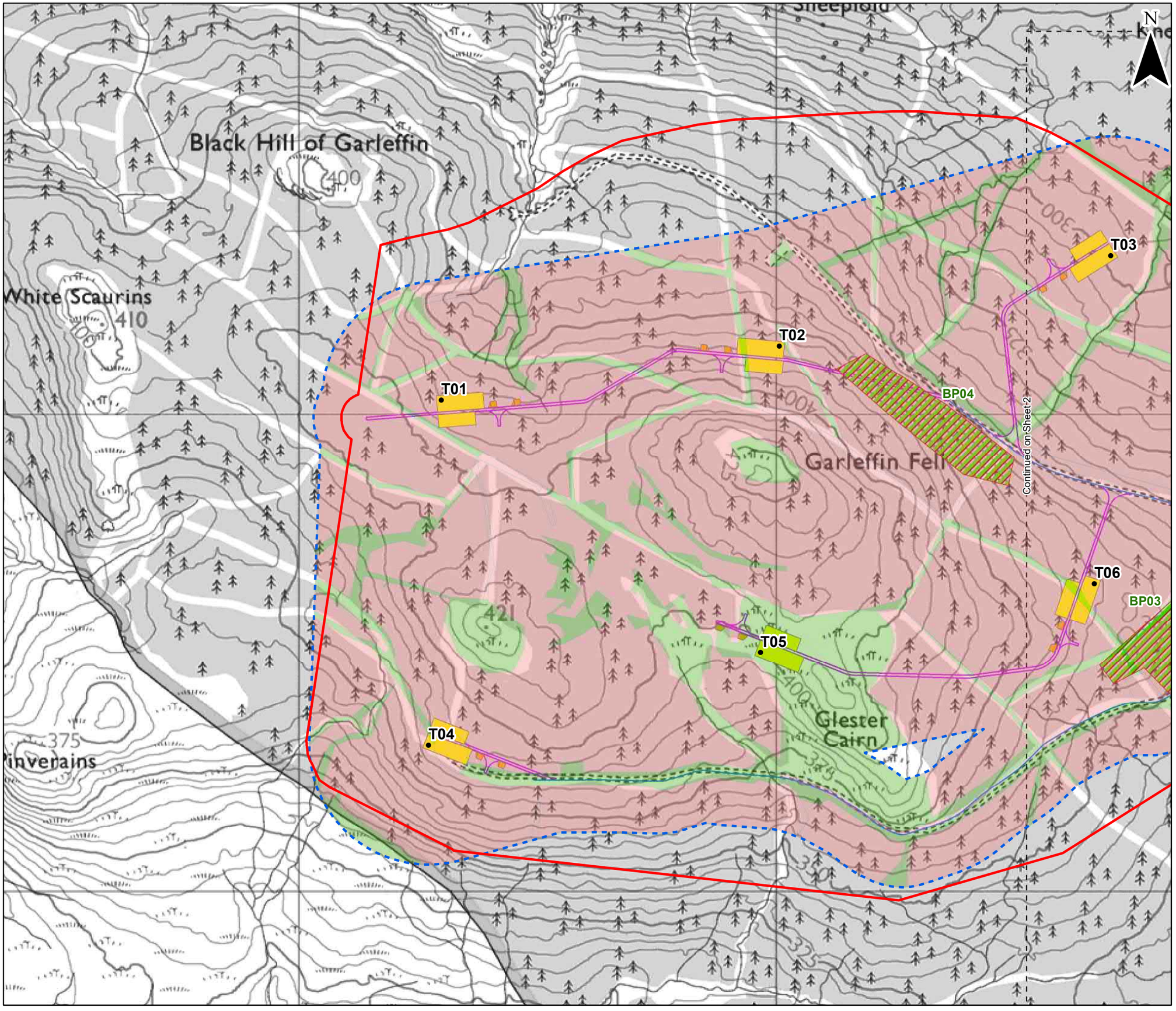

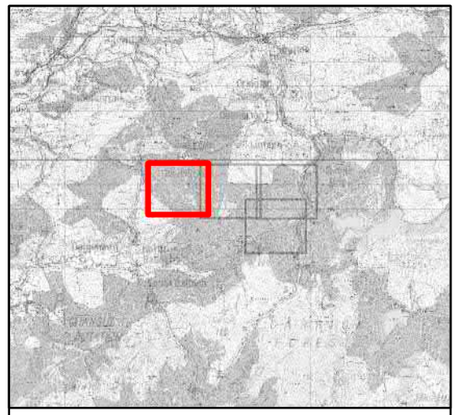

Legend

- Site Boundary
- Habitat Survey Area

Proposed Infrastructure

- Substation Compound
- Temporary Construction Compound
- Crane Pad
- Hardstanding
- Temporary SPEN Construction Compound
- Borrow Pit Search Area
- Wind Turbine
- Carrick Access Track - New Construction
- Carrick Access Track - Existing Forestry Track to be Upgraded

Annex 1 Status

- N/A
- Yes/ Potential

0 200 400 Metres

Rev	Date	By	Comment
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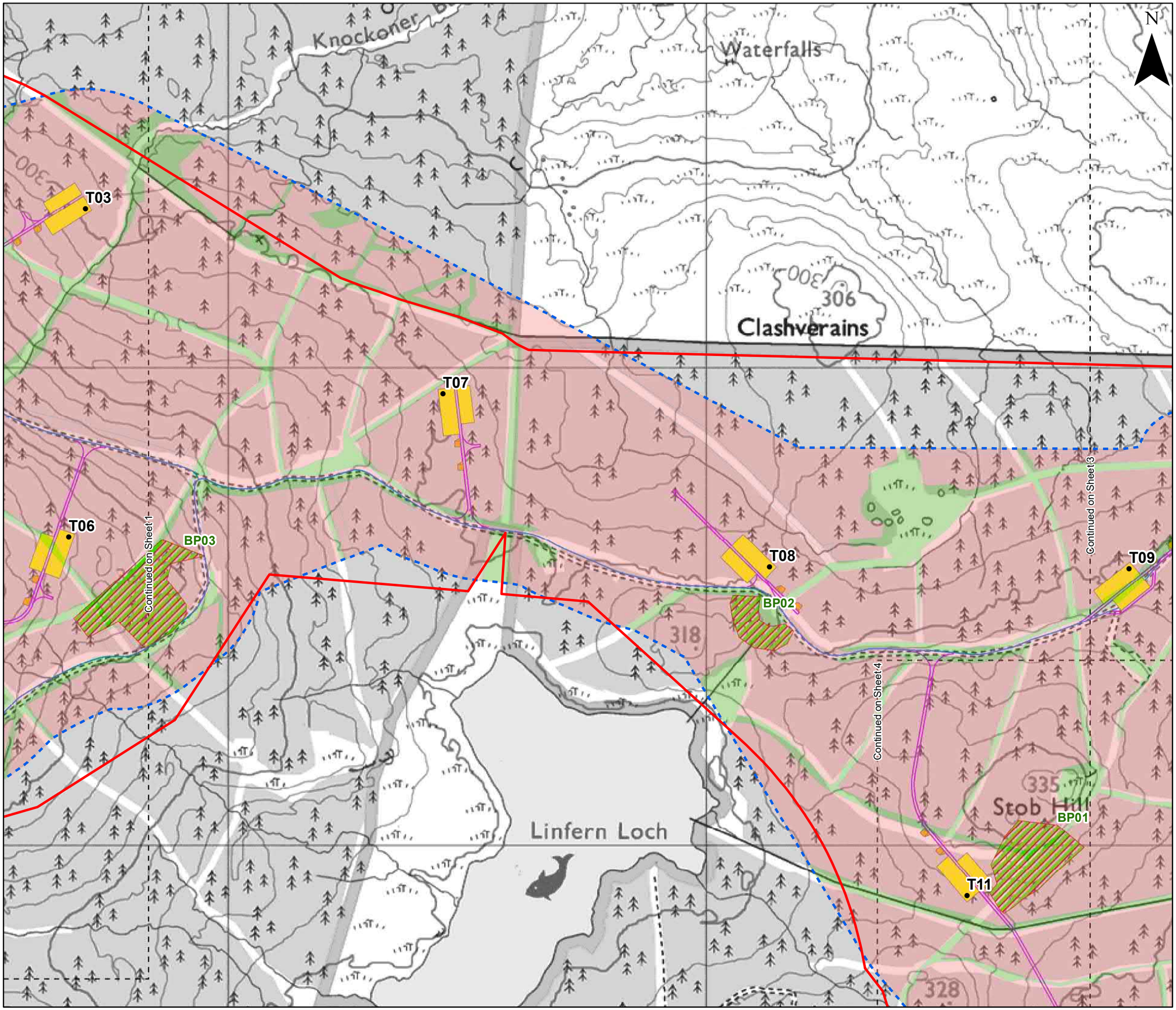
A	17/11/2020	BG	First Issue.

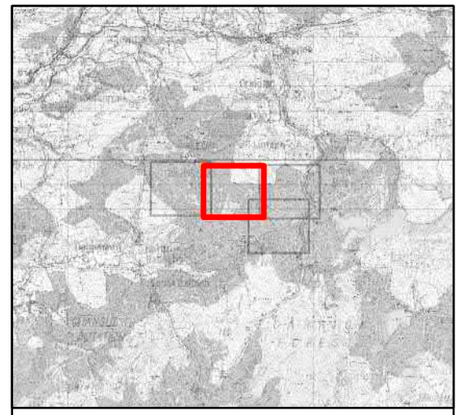
SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.2 - Annex 1 Habitats

Drg No	Carrick-WSP-I-153
Rev	C
Date	01/11/2021
Scale	1:7,500 @ A3





Legend

- Site Boundary
- Habitat Survey Area

Proposed Infrastructure

- Substation Compound
- Temporary Construction Compound
- Crane Pad
- Hardstanding
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- Borrow Pit Search Area
- Wind Turbine
- Carrick Access Track - New Construction
- Carrick Access Track - Existing Forestry Track to be Upgraded

Annex 1 Status

- N/A
- Yes/ Potential

0 200 400 Metres

Rev	Date	By	Comment
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A	17/11/2020	BG	First Issue.

SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.2 - Annex 1 Habitats

Drg No	Carrick-WSP-I-153
Rev	C
Date	01/11/2021
Scale	1:7,500 @ A3

240000

Craiganstirrup

Knockbuckle

Tairlaw Toll

Drumfa

Pulreoch Burn

Quarry (dis)

MS

Tallaminnoc

Cairnwh Ston

Tairlaw Burn

Pit (dis)

T09

T10

T12

Continued on Sheet 2

Continued on Sheet 4

240000

N

Legend

- Site Boundary
- Habitat Survey Area

Proposed Infrastructure

- Substation Compound
- Temporary Construction Compound
- Crane Pad
- Hardstanding
- Temporary SPEN Construction Compound
- Borrow Pit Search Area
- Wind Turbine
- Carrick Access Track - New Construction
- Carrick Access Track - Existing Forestry Track to be Upgraded

Annex 1 Status

- N/A
- Yes/ Potential

0 200 400 Metres

Rev	Date	By	Comment
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SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.2 - Annex 1 Habitats

Drg No	Carrick-WSP-I-153
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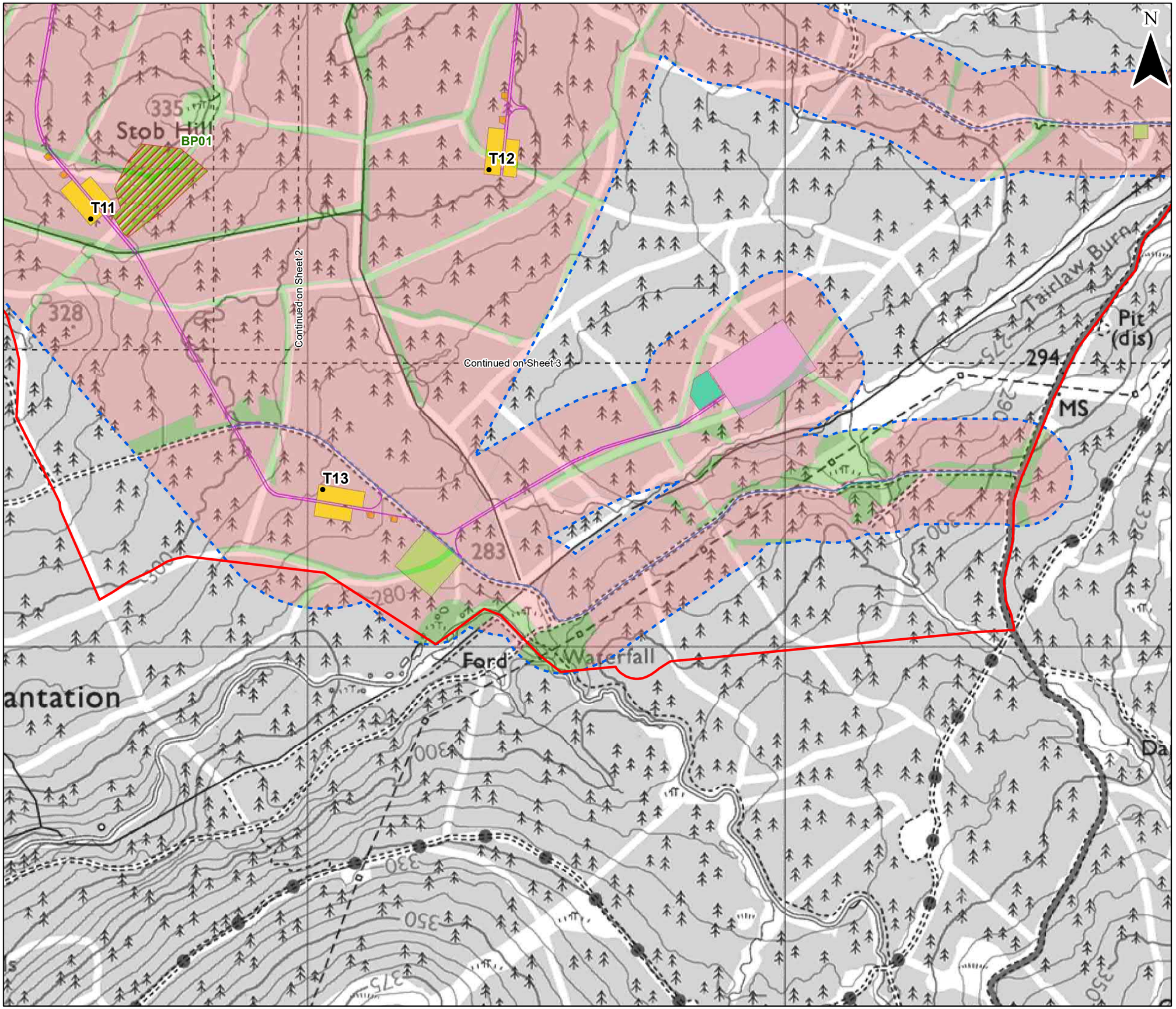
Scale	1:7,500 @ A3



Legend

- Site Boundary
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- Substation Compound
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Annex 1 Status

- N/A
- Yes/ Potential

0 200 400 Metres

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SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.2 - Annex 1 Habitats

Drg No	Carrick-WSP-I-153
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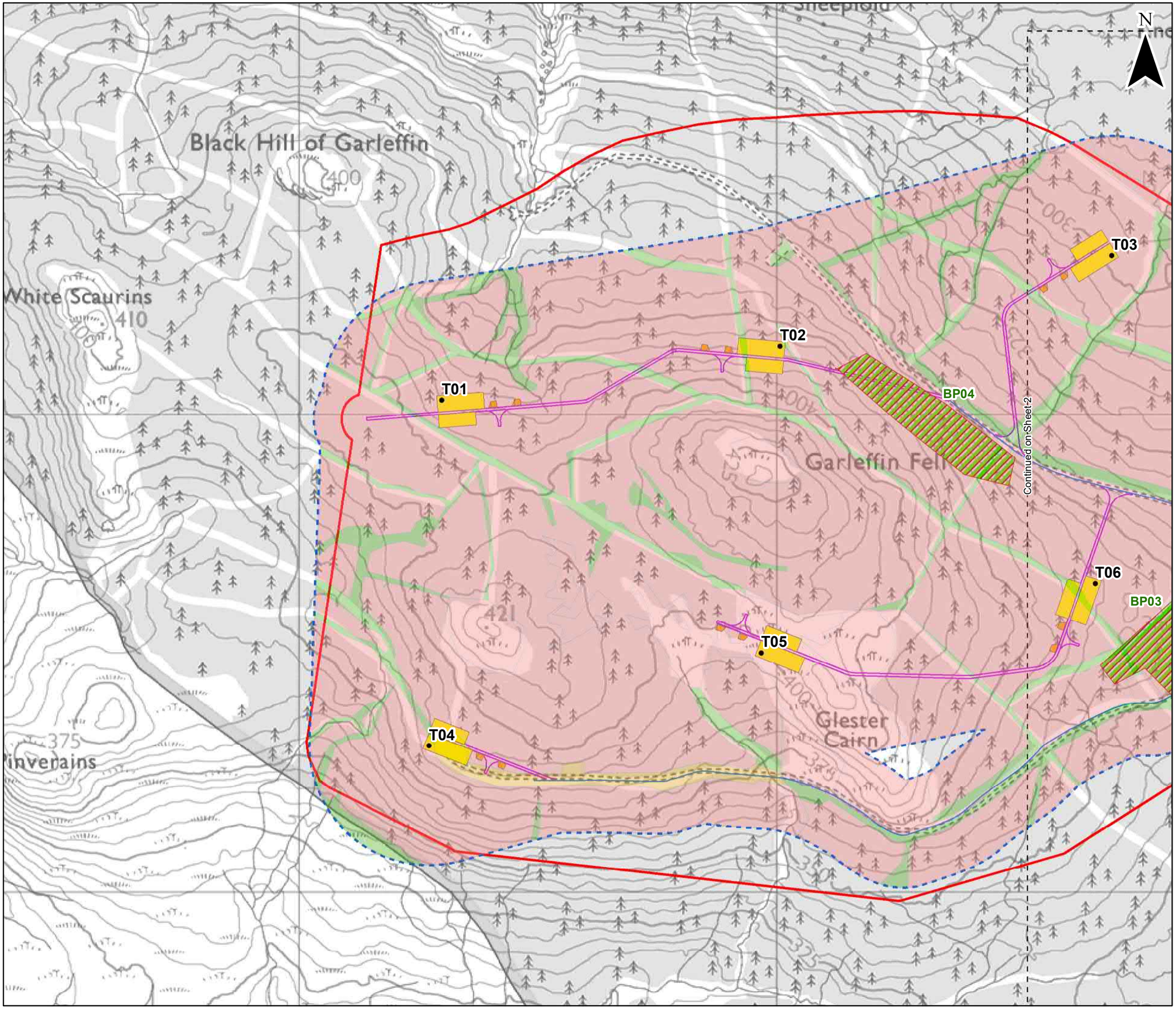
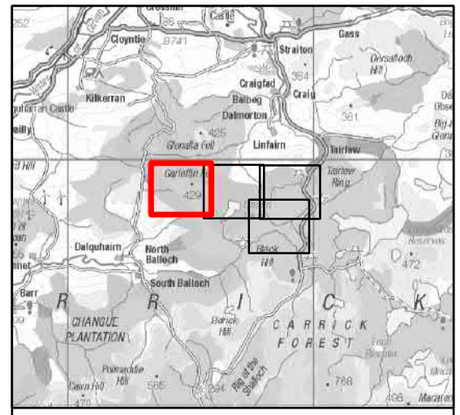
Date	01/11/2021
Scale	1:7,500 @ A3





Legend

- Site Boundary
- Habitat Survey Area

Proposed Infrastructure

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- Temporary Construction Compound
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- Hardstanding
- Temporary SPEN Construction Compound
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- Carrick Access Track - Existing Forestry Track to be Upgraded

GWDTE Status

- High
- Moderate
- N/A

0 200 400 Metres

Rev	Date	By	Comment
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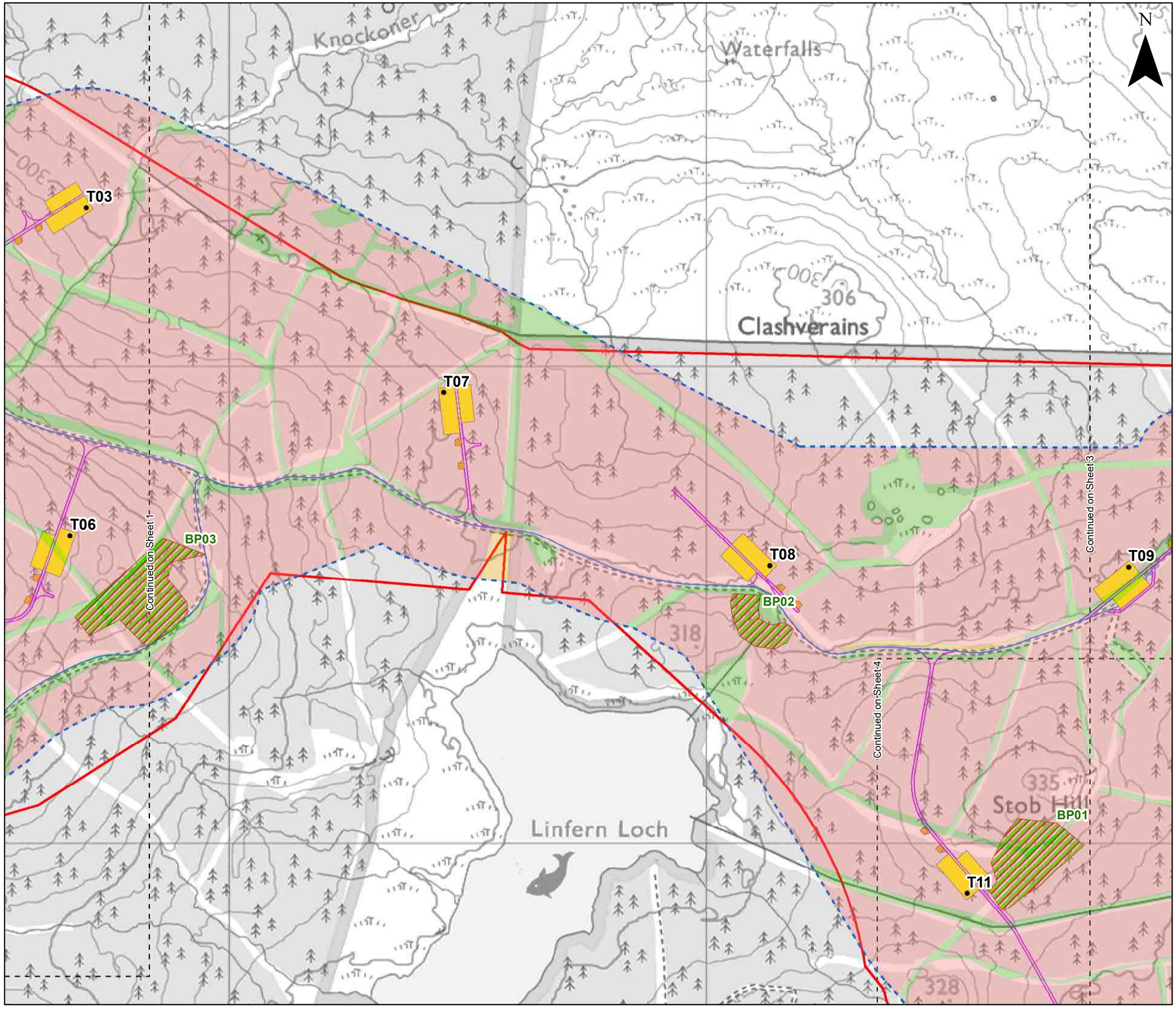
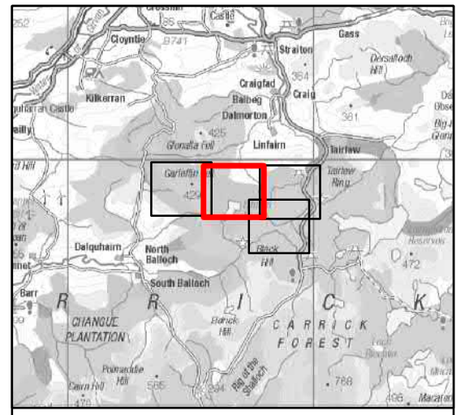
SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.3 - Potential GWDTE Habitats

Drg No	Carrick-WSP-I-154
Rev	C
Date	01/11/2021
Scale	1:7,500 @ A3





Legend

- Site Boundary
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Proposed Infrastructure

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- Carrick Access Track - Existing Forestry Track to be Upgraded

GWDTE Status

- High
- Moderate
- N/A

0 200 400 Metres

Rev	Date	By	Comment
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SCOTTISHPOWER RENEWABLES

Carrick Windfarm

Figure 7.2.3 - Potential GWDTE Habitats

Drg No	Carrick-WSP-I-154
Rev	C
Date	01/11/2021
Scale	1:7,500 @ A3

240000

N

Craiganstirrup

Knockbuckle

Tairlaw Toll

Drumfa

Pulreoch Burn

Quarry (dis)

MS

T09

T10

T12

Continued on Sheet 2

Continued on Sheet 4

Tallaminnoc

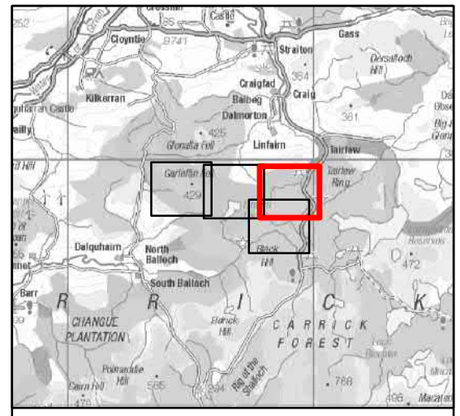
Tairlaw Burn

Pit (dis)

Cairnwh

Ston

240000



Legend

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GWDTE Status

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- Moderate
- N/A

0 200 400 Metres

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SCOTTISHPOWER RENEWABLES

Carrick Windfarm

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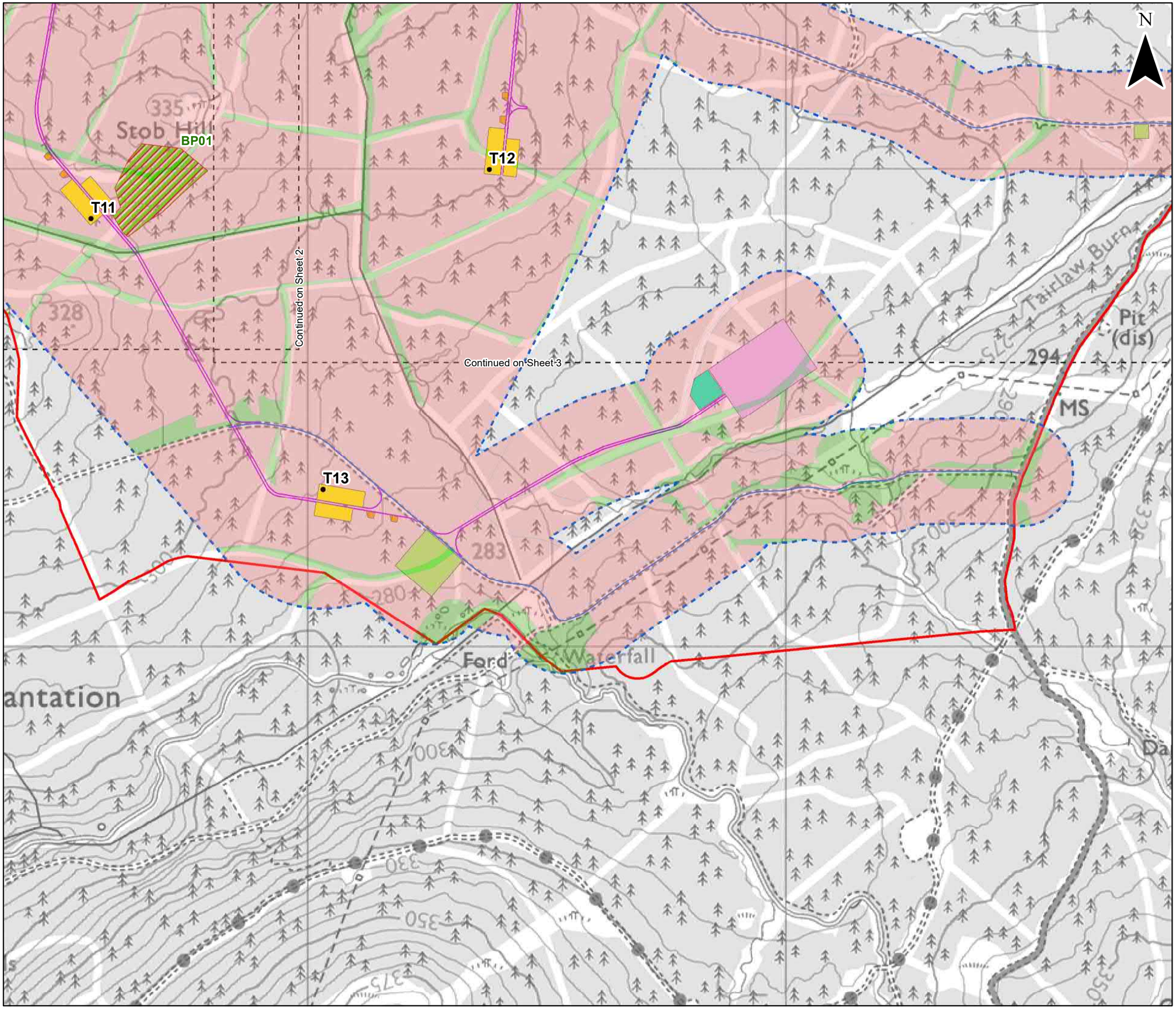

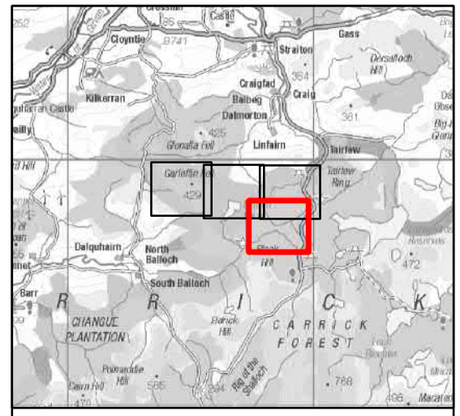

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