

Technical Appendix 6.2: Habitat Survey Report



Alba Ecology Ltd.



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Summary

Alba Ecology Ltd. was commissioned by Neshion Ltd ('the Applicant') to conduct a Phase 1 Habitat and National Vegetation Classification (NVC) survey, to report on potential groundwater dependent terrestrial ecosystems (GWDTE) and to consider the condition of the peatland habitat using the Peatland Condition Assessment (PCA) for Neshion Energy Park ('the Proposed Development'), a proposed renewable energy development in Shetland, Scotland.

Field survey work was undertaken in July 2022 and included a Phase 1 Habitat Survey, an NVC survey and assessment of potential GWDTE. As much of the habitat was peatland, a Peatland Condition Assessment (PCA) was also undertaken as part of the survey.

The Study Area was characterised by blanket bog and dry modified bog with the most common NVC community mapped across the Study Area being M17b. Less frequently recorded habitats including dry heath, wet heath, acid grassland, coastal grassland and marshy grassland. There were multiple flushes across the Study Area. These habitats and vegetation community types are typical for Shetland.

The condition of the blanket bog was described using standard PCA terminology (which is capitalised within the text). The condition of the peatland habitat was very variable across the Study Area, and was on a continuum from very wet, high quality blanket bog in Near-Natural condition to Modified and Drained bog. There were widespread degraded areas that were Actively Eroding.

Some of the habitats in the Study Area were defined as wetland habitat and potential GWDTE. The NVC communities M6 and M29 are considered to be potentially highly groundwater dependent, although many/all of the M6 flushes were considered likely to be associated with historic drainage ditches.

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Introduction

Alba Ecology Ltd. was commissioned by Neshion Ltd ('the Applicant') to conduct a Phase 1 Habitat and National Vegetation Classification (NVC) survey, to report on potential groundwater dependent terrestrial ecosystems (GWDTE) and to consider the condition of the peatland habitat using the Peatland Condition Assessment (PCA) for Neshion Energy Park ('the Proposed Development').

The Proposed Development is a renewable energy development comprised of up to eight wind turbines, a Battery Energy Storage System (BESS) and associated infrastructure adjacent to Sullom Voe Oil Terminal (SVT) and the Shetland Gas Plant in Shetland, Scotland. The Proposed Development is described in **Chapter 2: Proposed Development (EIAR Volume 2)**.

This document reports the findings of the Phase 1 Habitat survey, NVC survey, PCA and potential GWDTE assessment undertaken by Alba Ecology Ltd. in July 2022. The report was written in February 2023. It was updated in 2026, to include information regarding the NatureScot guidance that was published in November 2023 and updated in March 2026.

Aims and Objectives

The objectives for this survey report are:

- To identify, map and describe Phase 1 Habitats and NVC communities in the Study Area;
- To consider the condition of the peatland habitats using the PCA; and
- To identify if the wetland habitats are potential GWDTEs.

Study Area

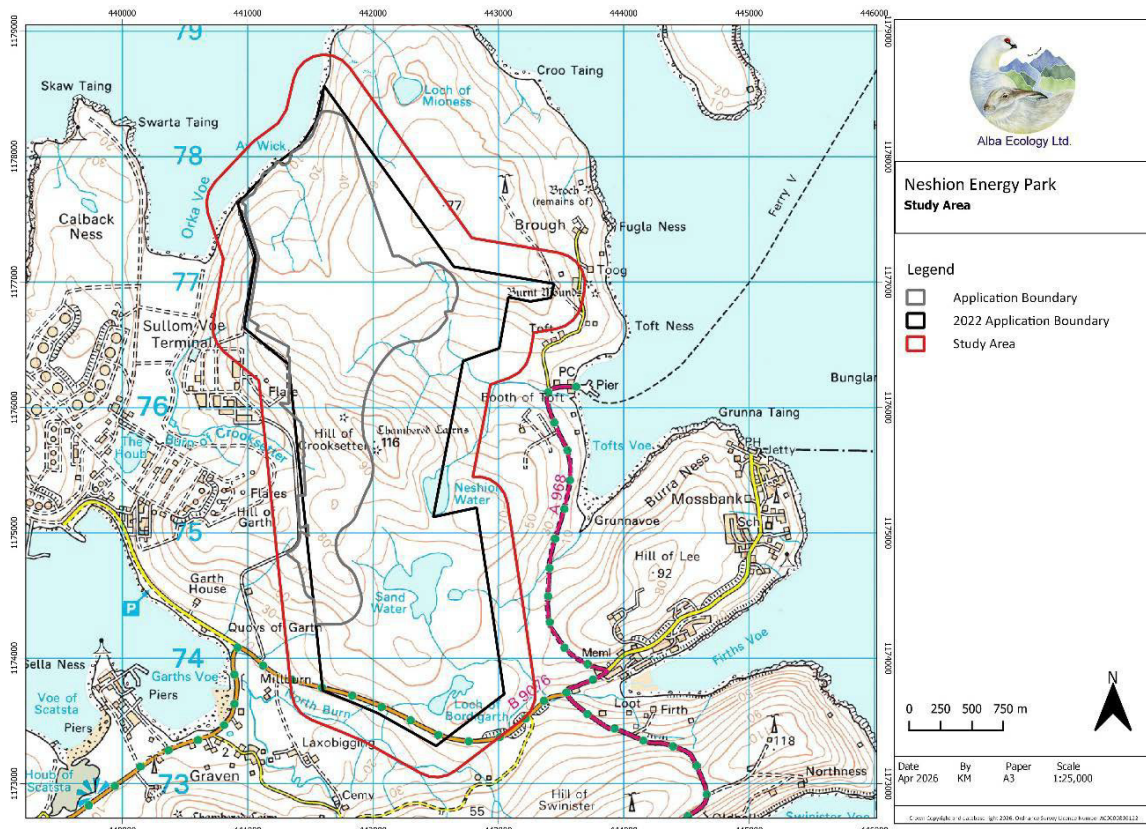
What constitutes the Study Area is an important consideration for habitat and vegetation surveys. A 250 m buffer is usually required around all proposed development infrastructure (with >1 m excavation) to comply with SEPA guidance (2017a). Therefore, for the purposes of this Phase 1 Habitat, NVC, PCA and GWDTE survey the Study Area included the Application Boundary (from 2022) plus a 250 m buffer except where there were clear areas that could not be surveyed (e.g. SVT) or there were clear boundaries (such as roads watercourses and the sea).

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Figure 1: Study Area shows the Study Area, and the Application Boundary that was correct at the time the surveys were undertaken (July 2022). **Figure 1: Study Area** also has the final Application Boundary shown.

The total Study Area was ca. 9.2 km² (**Figure 1: Study Area**). The 2022 Application Boundary is to the east of Sullom Voe centred on Crooksetter Hill, c. HU 42 76.

Figure 1: Study Area



Background Information

Soil and geological information can provide insight into the vegetation expected in the Study Area and can inform decisions regarding GWDTE. Therefore, the British Geological Society's (BGS) hydrogeological and geological mapping and the Carbon and Peatland (2016) Map has been consulted to inform this survey report and details are presented in **Table 1**.

The predicted Carbon and Peatland Map (2016) for the Study Area is shown in **Figure 2: Extract of the predicted Carbon and Peatland Map (2016) for the Study Area**. It predicts that much of the Search Area is Class 1 peatlands, with other areas mostly predicted to be Class 4 or Class 5. It should be noted that the Carbon and Peatland Map is a high-level predictive planning tool which provides an indication of the likely presence of peat on each individually mapped area, at a coarse scale. The map is not a definitive account of where important carbon rich soils, deep peat and priority peatland habitats exist.

Figure 2: Extract of the predicted Carbon and Peatland Map (2016) for the Study Area

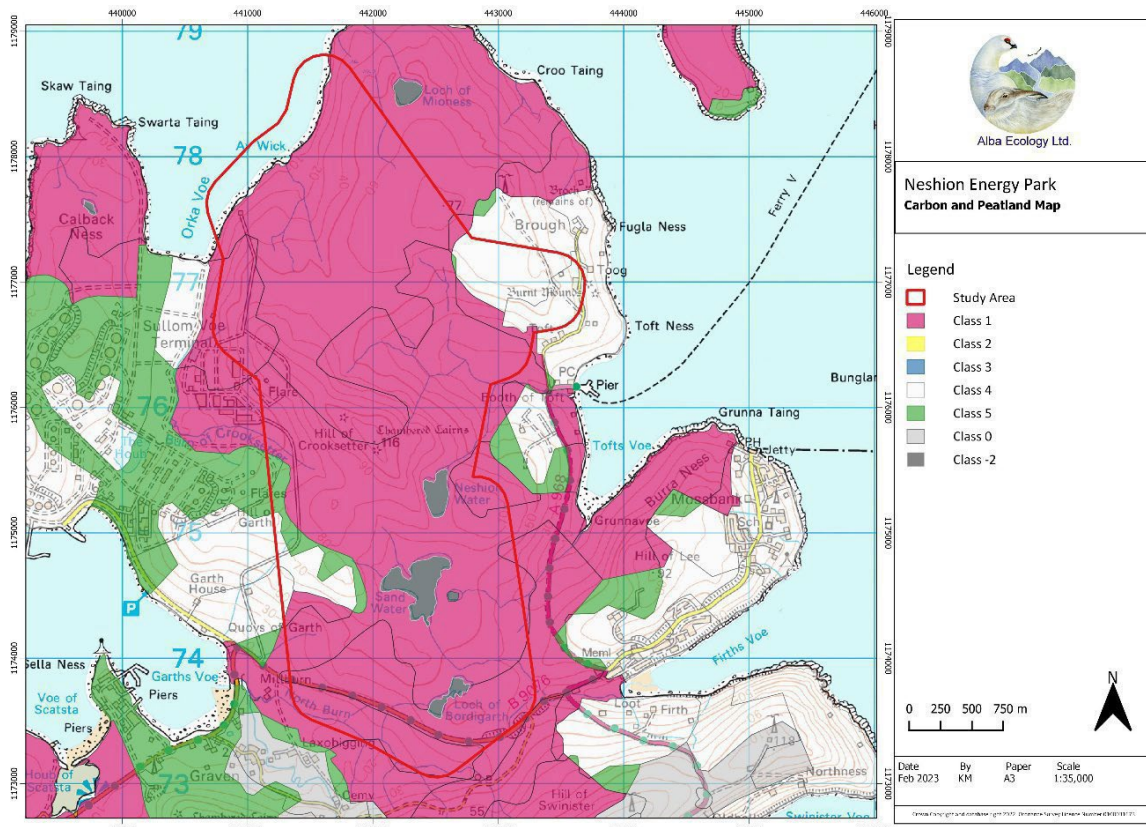


Table 1 provides an overview of the geological information recorded for the Study Area.

Table 1: Summary descriptions of the soils, bedrock, and hydrogeology for the Study Area (BGS, 2023a; BGS, 2023b; Scotland's Soils, 2016).

Source	Details
Carbon and Peatland map	Predicted mixture of: - Class 1 - Nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value. - Class 3 - Dominant vegetation cover is not priority peatland habitat but is associated with wet and acidic type. Occasional peatland habitats can be found. Most soils are carbon-rich soils, with some areas of deep peat. - Class 4 - Area unlikely to be associated with peatland habitats or wet and acidic type. Area unlikely to include carbon-rich soils. - Class 5 - Soil information takes precedence over vegetation data. No peatland habitat recorded. May also include areas of bare soil. Soils are carbon-rich and deep peat. - Class 0 - Mineral soil - Peatland habitats are not typically found on such soils. - Class -2 - Non-soil (e.g. loch, built up area, rock and scree).
BGS – superficial deposits	The majority of the superficial deposits in the Study Area were described as: - Peat. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period. - Glacial Deposits - diamicton. Sedimentary superficial deposit formed between 2.588 million and 11.8 thousand years ago during the Quaternary period.

Source	Details
	Marine Beach Deposits - gravel, sand and silt. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.
BGS – bedrock	The bedrock found in the Study Area are described as: North and west of the Search Area: - Yell Sound Psammite Formation - psammite and pelite. Metamorphic bedrock formed between 1000 and 541 million years ago between the Tonian and Ediacaran periods. West of Search Area: - Yell Sound Psammite Formation - psammite, gneissose. Metamorphic bedrock formed between 1000 and 541 million years ago between the Tonian and Ediacaran periods. South of Search Area: - Graven Complex - granodiorite. Igneous bedrock formed between 419.2 and 393.3 million years ago during the Devonian period.
BGS - hydrogeological maps	Low productivity aquifer with small amounts of groundwater in near surface weathered zone and secondary fractures.

Survey Methods

The habitat and vegetation surveys were led by highly experienced habitats surveyor Dr Kate Massey (MCIEEM) of Alba Ecology Ltd., with Dr Fergus Massey of Alba Ecology in July 2022 in good weather conditions, suitable for conducting habitat surveys.

The surveys were conducted using 1:50,000 Ordnance Survey maps and aerial photographs with a resolution of 0.25 m purchased from Emapsite. The Phase 1 Habitat survey and the NVC survey were conducted at a scale of 1:5,000 using the Ordnance Survey maps and aerial photographs.

Phase 1 Habitat Survey

Phase 1 Habitat surveys are a standard national classification scheme of broad habitat types and are based on plant species presence and some abiotic indicators such as apparent peat depth. The vegetation was described and mapped following the methods described in the Joint Nature Conservation Committee (JNCC) Handbook for Phase 1 Habitat surveys ([JNCC, 2010](#)).

National Vegetation Classification (NVC) Survey

The NVC is a detailed survey of plant communities using plant species presence and abundance. The vegetation was classified and mapped following the methods described in the JNCC National Vegetation Classification User's Handbook ([Rodwell, 2006](#)). Reference was made to NVC field guides (e.g. Hall *et al.*, 2004; Elkington *et al.*, 2001; Cooper, 1997) the published NVC communities and the floristic tables (e.g. Rodwell, 1991a; Rodwell, 1991b; Rodwell, 1992; Rodwell, 1995; Rodwell, 2001; Averis *et al.*, 2004).

The minimum size of vegetation mapped was approximately 20 m × 20 m. Smaller stands were described as target notes, located by GPS. Target notes were also made of any unusual features, rare species, management activities or other points of particular interest.

Groundwater Dependant Terrestrial Ecosystems (GWDTE)

Where wetlands were identified, following the Functional Wetland Typology (SNIFFER, 2009a and 2009b) and Botanæco GWDTE guides ([Botanæco, 2021](#)), an assessment was made as to whether they were likely to be potential GWDTEs as defined in SEPA Guidance Notes (SEPA, 2017a; SEPA, 2017b).

Peatland Condition Assessment (PCA)

As much of the Site was on peatland the PCA was conducted during the surveys and consideration given to the condition of the peatland based on this guide ([Peatland Action, 2016](#)).

PCA bases the condition of blanket bog on indicators such as bog-moss cover, extent of bare peat and evidence of grazing and burning (Peatland Action, 2016). The PCA recognises four categories of peatland condition:

1. Near-Natural - peat forming bog-mosses dominant, with no recent fires, little or no grazing pressure and little or no bare peat, heather is not dominant.
2. Modified – Bare peat is in small patches, fires may be recent, grazing impacts are evident, bog-mosses are absent or rare, extensive cover of heather or purple moor-grass.
3. Drained – within 30 m either side of an artificial drain or a revegetated hagg or gully system.¹
4. Actively Eroding – actively eroding hagg/gully system, extensive continuous bare peat surfaces.

At least one category from the PCA was assigned to each mapped peatland area.

The PCA Support Tool also gives descriptions of peatlands as being 'good', 'intermediate' or 'bad' condition (Glenk *et al*, 2017). The criteria for these are shown in Table 2.

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¹ Drainage ditches were mapped in 2023. Mapping was updated in 2026 to include erosion features, peat cuttings and any additional features such as drainage ditches that were noted.

Table 2: Peatland Condition Assessment Support Tool categories of good, intermediate and bad peatland (Glenk *et al.*, 2017).

Signs	Good	Intermediate	Bad
Water	Plenty of water, visible on the surface.	Surface water is rarely visible.	Deep gullies have formed from wind and water erosion.
Vegetation	Small grasses, bog-mosses (<i>Sphagnum spp.</i>) common and very wet.	Taller plants, such as cottongrasses (<i>Eriophorum spp.</i>) and heather.	Rarely any plants grow on the areas that are exposed. Patches of grasses or heather are still found on 'islands' in between exposed bare peat.
Bare peat	Little to no bare peat patches.	Bare peat patches are occasional, burning may occur.	Bare peat areas will continue to expand, leaving less plant cover as protection on the surface. Peat will continue to be lost until the solid rock is exposed.
Water quality	Water flowing from good quality peatland is clear.	Water flowing from peatland likely to be slightly brown, especially after heavy rainfall.	Bad water quality, it can be dark brown from the peat content.
Wildlife	Good for wildlife.	Wildlife less abundant than in good condition.	Home to little wildlife.
Resultant activity level	Active.	Stopped growing, inactive.	Inactive.

Nomenclature

Common species names only are given in this report. Nomenclature follows Streeter (2016) for higher plant species, and Atherton *et al.* (2010) for bryophyte species. Plant groups comprising many micro-species (such as dandelions *Taraxacum*) are treated as aggregates. These micro-species are not important for defining habitats or communities.

Limitations

Standard sampling methods were followed, and any biases or limitations associated with these standard methods could potentially affect the results collected. Furthermore, while every effort was made to provide a full assessment and comprehensive description of the Study Area, it is unlikely that one survey can achieve full characterisation due to temporal variations. Typical limitations to Phase 1 Habitat, NVC, PCA and GWDTE surveys include:

- Maps are only indicative of the boundaries as there was often no clear boundary between vegetation types, there being instead a gradual change.
- Some Phase 1 Habitats and NVC communities are made up of a similar assemblage of species, and there can be transitional stages between two community types.
- The fit of NVC communities to the published communities is often imperfect and the closest approximation of the communities are described. Surveying in Scotland has the added limitation that many of the NVC community descriptions were derived in England

and so the published descriptions may not match well with those found for example in the Study Area.

- Phase 1 Habitat and NVC surveys are not floristic surveys and not intended to create full species inventories or count all individuals of any plant species but to map and describe the vegetation communities. Species were recorded when they were encountered, but it is likely that additional species, not listed, are present within the Study Area, particularly as species presence and visibility varies throughout the growing season.
- Plant species occurrence and visibility change both temporally and spatially. This is particularly true for colonising and invasive species. The data provided by habitat surveys is a snapshot in time (July 2022 for this survey) and cannot account for changes that occur outwith this time period. Non-native invasive species can be prolific colonisers. For example, Japanese knotweed spreads from rhizomes, rhizome fragments, as well as stem and crown fragments. Spread is usually a result of human intervention, such as spreading fragments in tyre treads (Fennell *et al.*, 2018). Additionally, at different times of year (e.g. winter) or life-stage (e.g. early colonisation) the identification of non-native invasive species can be challenging. Therefore, although non-native invasive species were considered during field surveys and field surveys were conducted at a suitable time of year, it is possible for non-native invasive species to be present within the Study Area and to have remained undetected.
- Habitat categories and the 'condition' of these categories are human (or artificial) constructs and, therefore, to a degree are subjective and a matter of professional judgement. Furthermore, different conditions can co-exist in an area of habitat (e.g. through drainage, preferential grazing, trampling etc.) and so it is not appropriate to assume an entire area of habitat is in one condition or another. Under these circumstances, it is usually reported that the habitat is approaching a particular condition or provided the most commonly occurring condition. This is fully recognised in Phase 1 Habitat, NVC and PCA assessments and consequently it is not always possible to be unequivocal when making judgements such as whether a particular habitat is classified under one condition or another. Where discrepancies have occurred with vegetation communities, they have been noted and explained.

The limitations were minimised by conducting the field survey within a suitable survey period by a highly experienced upland habitat surveyor.

It is important to note that measuring peat depth was outside the scope of these surveys. Apparent peat depth as discussed in this report is estimated based on identification of visual vegetation assessments, through estimating peat depth from available features such as hags, and ditches and by using a short peat probe (ca. 1 m in height).

Results

The Phase 1 Habitat and NVC survey map is shown in **Figure 3a: Phase 1 Habitats and NVC communities – North** and **Figure 3b: Phase 1 Habitats and NVC communities – South**. A list of vegetation communities recorded in the Study Area are displayed in **Table 3**. These are supported with a list of target notes and photographs (**Annex A: Target Notes; Figure 6: Target Notes**).

The Study Area was characterised by blanket bog habitat (M2, M17b, M19a). There were large areas of dry modified bog (No NVC community), and wet modified bog (M15c, M25). There was also dry heath (H10a), wet heath (M15c), acid grassland (U4, U5, U6), marshy grassland (MG10a, M28) and coastal grassland (MC10a). There were numerous flushes across the Study Area (M6b, M6c, M29).

Table 3: The total area of each of the Phase 1 Habitat/ NVC community found in the Study Area (Phase 1 Habitats in bold).

Phase 1 Habitat	NVC Community	Area (Ha)	% of Study Area
Acid flush		5.8	0.6
	M29	0.1	0.0
	M6b	0.2	0.0
	M6b:M6c	0.4	0.0
	M6c	4.6	0.5
	M6c:M3	0.2	0.0
	M6c:MG10a	0.1	0.0
	M6c:U6	0.3	0.0
Acid grassland		49.5	5.4
	U4	8.3	0.9
	U4:MG10a:U6	8.6	0.9
	U4:U6	2.5	0.3
	U5	2.2	0.2
	U5:U6:U4:MG10	6.6	0.7
	U6	10.5	1.1
	U6:MG10:M25a	0.5	0.1
	U6:MG6	1.6	0.2
	U6:U5	7.1	0.8
	U6:U5:U4	1.6	0.2
Bare peat		0.1	0.0
	M3	0.1	0.0
Blanket bog		560.6	60.8
	M17b	488.6	53.0
	M17b:M2	24.7	2.7
	M19a	35.2	3.8
	M19a:M2	3.3	0.4
	M19a:M2:H10a:U6	8.3	0.9
	M19a:M2:M6	0.7	0.1
Coastal grassland		1.2	0.1
	MC10a	1.2	0.1
Dry heath		49.2	5.3
	H10a	49.2	5.3
Dry heath/acid grassland		28.1	3.0
	H10a:M19a:U5:U6	7.1	0.8
	H10a:MG10a:U4	1.6	0.2
	H10a:U4	3.7	0.4

Phase 1 Habitat	NVC Community	Area (Ha)	% of Study Area
	H10a:U6	7.0	0.8
	H10a:U6:M19a	1.3	0.1
	H10a:U6:M6c:M6b	0.5	0.1
	H10a:U6:MG10a	2.6	0.3
	H10a:U6:U5	2.0	0.2
	H10a:U6:U5:MG10a	1.2	0.1
	U6:H10a:U4:MG10a	1.2	0.1
Dry modified bog		157.1	17.0
	M15c:DMB:U6	2.2	0.2
	DMB:H10a	25.1	2.7
	DMB:M15c:M17b:M2:M3	4.2	0.5
	DMB:M15c:U6:H10	8.8	1.0
	DMB:M3:BP	64.1	6.9
	DMB:M3:BP:M17b	50.9	5.5
	DMB:M3:BP:U6:M2	1.8	0.2
Improved grassland		10.9	1.2
	MG6	10.9	1.2
Marshy grassland		8.9	1.0
	M28	0.0	0.0
	MG10a	1.0	0.1
	MG10a:M28	2.6	0.3
	MG10a:U5	0.5	0.1
	MG10a:U6	1.4	0.2
	MG10a:U6:H10a	2.4	0.3
	MG10a:U6:U5	1.1	0.1
Open water		24.7	2.7
Private		3.2	0.3
Road		1.5	0.2
Sand		0.0	0.0
Wet heath		4.7	0.5
	M15c	0.6	0.1
	M15c:M17b:U6:M2	4.1	0.4
Wet modified bog		17.3	1.9
	M15c:U6	1.5	0.2
	M17b	3.0	0.3
	M17b:M15c:U6	0.9	0.1
	M17b:M19:H10:U6	6.6	0.7
	M17b:MG10a	1.9	0.2
	M19a	0.9	0.1
	M25:U6	0.4	0.0
	U4 (WMB)	1.6	0.2
	U6 (WMB)	0.6	0.1
Total		922.7	100

Figure 3a Phase 1 Habitats and NVC communities – North

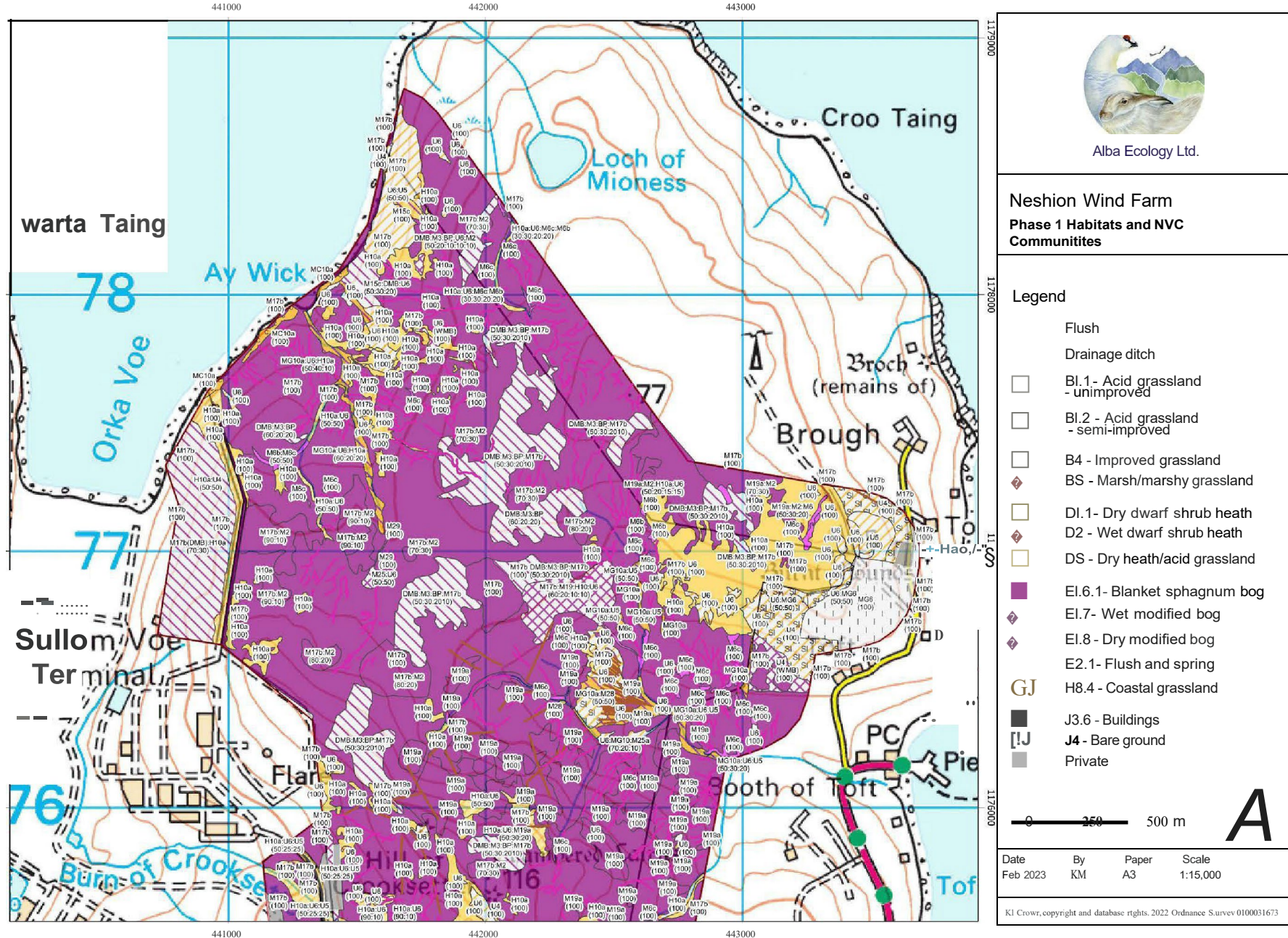
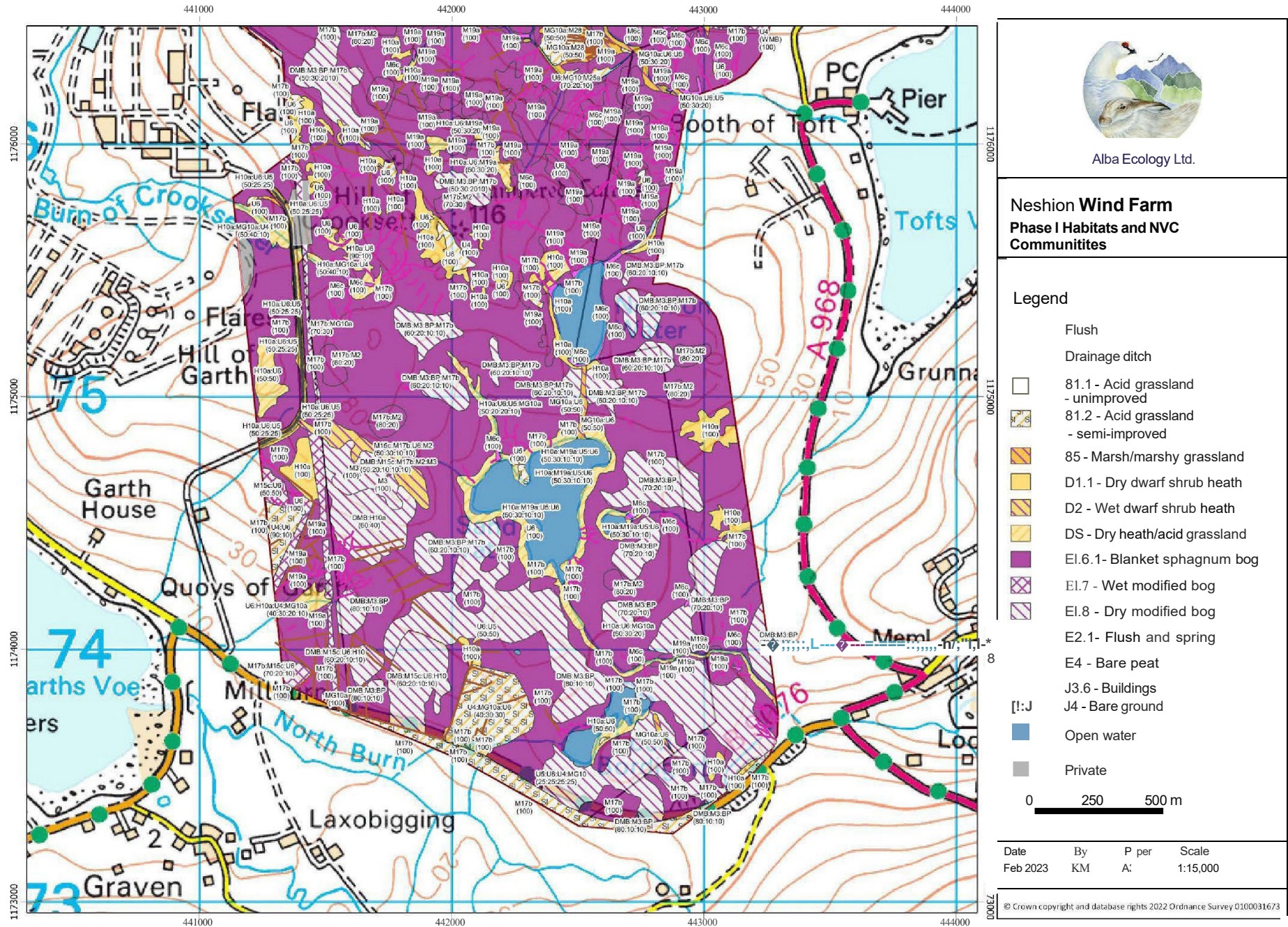


Figure 3b Phase 1 Habitats and NVC communities



Habitat and Community Descriptions

Bog

A total of 79 % of the Study Area was classed as a type of bog habitat. This included over 60 % of the Study Area classed as blanket bog, a further 17 % classed as dry modified bog and 2 % classed as wet modified bog.

In Phase 1 Habitat surveys bog consists of vegetation over areas of deep peat (>0.5 m). The areas defined as bog in the Study Area appeared to be on peat which was considered likely deeper than 0.5 m.

In Phase 1 Habitat surveys bog is classified as modified if it appears '*significantly damaged*' and there is '*little to no sphagnum*' present (JNCC, 2010; JNCC, 2012). To determine whether bog is unmodified or modified depends primarily on the amount of bog-mosses present. Whether the vegetation is wet modified or dry modified bog is dependent on whether the vegetation resembles wet dwarf shrub heath (or grassland) or dry dwarf shrub heath.

All the bog within the Study Area had clearly been subject to some degree of modification through current and historic management practices, particularly grazing by sheep, peat cutting, and from drainage ditches as well as more global influences such as climate change and nitrogen deposition.

Where there was evidence of extensive modification or the bog appeared highly degraded, resulting in it no longer being bog vegetation with wide areas of bare peat or it was devoid of bog-moss, it has been included in the wet or dry modified bog category. However, much of the bog vegetation included some bog-moss species. Therefore, much of the bog has been classified as blanket bog, rather than modified bog. Although the bog-mosses were not usually a full, complete carpet, but often patchy.

Blanket bog

The blanket bog within the Study Area was characterised by damp to wet vegetation usually with frequent to abundant bog-mosses and occasional bog pools.

There was a total of three blanket bog NVC communities and 50 unclassified communities identified within the Study Area, including bog pool communities. The most extensive community across the Study Area was the M17b blanket bog community.

M2 *Sphagnum cuspidatum/fallax* bog pool community



Photo 1: An example of an M2 bog pool in the Study Area.

The M2 bog pool community was recorded occasionally in hollows within the blanket bog. The M2 pools usually had feather bog-moss and/or flat-topped bog-moss present. Common cottongrass was usually found growing sparsely through the bog-mosses. Some pools were M2 pools, but others 'pools' consisted bare peat, sometimes with water on, with little to no vegetation present.

These M2 bog pools were small, usually less than c. 2 m × 5 m in size. These small bog pool communities were too small to map but some examples have been target noted and they were mapped as part of a mosaic with M17b in several locations.

M17b *Trichophorum germanicum* – *Eriophorum vaginatum* blanket mire community, *Cladonia* spp. sub-community



Photo 2: An example of M17b within the Study Area.

The majority of the Study Area was mapped as the blanket bog community M17b. It formed over much of the landscape on hillslopes and on convex and concave surfaces.

There was usually no true dominance within the M17b vegetation with heather and common cottongrass usually the most common species, but with abundant cross-leaved heath, bog asphodel and hare's-tail cottongrass. Crowberry could be frequent and deergrass was variable in its abundance.

There was a variety of forbs occasionally present such as round-leaved sundew and bog asphodel. Less frequent but present included tormentil, common butterwort and heath spotted orchid.

The ground layer included bog-moss particularly red bog-moss but also a variety of other species including papillose bog-moss. The bog-mosses were generally patchily distributed but could become abundant especially around pools. Lichens and woolly fringe-moss were common. The M17b in the south of the Study Area seems to have more woolly fringe moss than the north. The lichens formed as an open layer over the vegetation. The liverwort, purple spoonwort was also frequently seen in this community.

There was often evidence of sheep use in the blanket bog with hoof marks and tracks common.

M19a *Calluna vulgaris* – *Eriophorum vaginatum* blanket mire community, *Erica tetralix* sub-community



Photo 3: An example of M19a within the Study Area

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Much of the M19a blanket bog vegetation was recorded towards the centre of the Study Area, with a notable large area with M2 bog pools in the west. M19a vegetation was also found near watercourses and lochans and as small patches within the wider M17b blanket bog landscape.

The M19a vegetation was dominated by heather and hare's-tail cottongrass which were often in a tussocky growth form. Crowberry was abundant and cross-leaved heath was constant but with a low abundance. There was also common cottongrass, heath woodrush and round-leaved sundew present near some bog pools. The ground flora was dominated by red bog-moss, with abundant glittering wood-moss and occasional lichens.

Dry Modified Bog

The dry modified bog within the Study Area had very little to no bog-mosses present and was characterised by vegetation which showed clear affinity to dry dwarf shrub vegetation, but on deep peat.

The dry modified bog was generally found on the hillslopes with bare peat. There were numerous erosion features. It was considered likely that historically these areas were filled with bog pools and bog-mosses which have been lost through draining of the bog habitat and erosion. Historically these areas were likely to be similar to the areas mapped as blanket bog with bog pools (M17b:M2) but the pools have been lost leaving bare eroding peat. Sometimes these two stages were very close together or a transition was apparent.

There was often evidence of sheep use in the dry modified bog with hoof marks and wool on the erosion features.

There were very rarely any bog-mosses present. Where they were present it was usually a very small, isolated patch of red bog-moss. The bog-mosses, where they did occur, were confined to the hollows and were often drying out.

Dry Modified Bog (DMB) (No- NVC community)



Photo 4: An example of DMB within the Study Area. Confidential

The dry modified bog was not given an NVC community, but it was clearly derived from M17b blanket bog vegetation and was transitioning to a dry heath vegetation. It was largely dominated by heather with woolly fringe moss often an important and conspicuous part of the vegetation. There was a mix of dwarf shrubs including bell heather, cross-leaved heath and occasionally crowberry. Common cottongrass was frequently present with deergrass. There was a distinct absence of hare's-tail cottongrass. There was occasional round-leaved sundew in isolated wetter areas. Lichens were abundant over the vegetation.

There were occasional patches of red bog-moss in damp areas.

M3 *Eriophorum angustifolium* bog pool community



Photo 5: An example of a M3 bog pool which was largely bare peat with a little common cottongrass in dry modified bog.

The M3 community formed on redistributed, eroded peat and as part of erosion features within the dry modified bog habitat. It was often as dry bare peat and speckled with common cottongrass. Sometimes these areas had small lawns of red bog-moss around the edge.

Wet Modified Bog

The wet modified bog within the Study Area had very little to no bog-mosses present and was characterised by vegetation which showed affinity to either grassland communities or wet heath.

Most of the communities described as part of the wet modified bog are also described elsewhere but were over what appeared to be deep peat and had clearly experienced modifying influences which separated them from the blanket bog category. This included:

- U6 acid grassland in an area of likely historic peat cuttings.
- U4 grassland in a sheep grazed field.
- M15c wet heath in an area where peat has been drained and there was evidence of historic farm activities.
- A form of M19a which was very dry with little hare's-tail cottongrass and abundant crowberry.
- M17b over a clear line of redistributed peat, perhaps an old road or underground pipe.

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There was a single NVC community which was only recorded as part of the wet modified bog.

M25 *Molina caerulea* – *Potentilla erecta* mire community

There were two small patches of M25 recorded near the top of a watercourse. Common cottongrass and hare's-tail cottongrass were abundant with tussocky purple moor-grass. There was a high abundance of common sedge, mat grass and carnation sedge with more

occasional cross-leaved heath and heather. Forbs included bog asphodel, tormentil autumn hawkbit and marsh willowherb. This area of M25a appeared to be on deep peat.

Wet dwarf shrub heath

The wet dwarf shrub heath was on shallow soils to the very north of the Study Area and in the west between Hill of Garth and Sand Water where it appeared peat had been removed through peat cuttings.

M15c *Trichophorum germanicum* – *Erica tetralix* wet dwarf shrub heath community *Cladonia* species sub-community



Photo 6: An example of M15c within the Study Area.

The M15c community was on shallow soils to the very north of the Study Area and in the west between Hill of Garth and Sand Water where it appeared peat had been removed through peat cuttings. It was characterised by the typical mix of species including heather, deergrass, common cottongrass, tormentil and cross-leaved heath. The wet heath in the north of the Study Area had a high prominence of heath rush and mat grass with crowberry also present. Lichens and woolly fringe moss typically formed the ground layer with patches of red bog-moss. Rocks were often showing through and there were patches of bare peat.

Dry heath

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H10a *Calluna vulgaris* – *Erica cinerea* heath Typical sub-community

The dry heath was recorded in a large area in the west of the Study Area around Toft, in small patches across the Study Area and as mosaics with grassland and along the steep banks of watercourses. It was dominated by heather, with few other dwarf shrubs present, although crowberry was occasional. Graminoids could be quite abundant including heath rush, purple moor-grass, heath woodrush, sweet vernal grass, Yorkshire fog, mat grass, wavy hairgrass and green ribbed sedge. There was a little tormentil and common mouse-ear. Ragwort was present in the dry heath community when it was close to tracks/roads. The ground layer was usually dominated by glittering wood-moss, with little shaggy-moss frequently present.



Photo 7: An example of dry heath within the Study Area.

Flush

There were many flush habitats within the Study Area, most were thin seepage lines of vegetation. It is possible some were natural, although many/all were likely to be infilled historic drainage ditches.

M6b *Carex echinata* – *Sphagnum fallax* mire, *Carex nigra* – *Nardus stricta* sub-community

In this soligenous acid flush sub-community common sedge was generally the most abundant sedge species. It was found as small lines of vegetation with water flowing into larger watercourses.

These flush habitats usually had a thick moss layer of feathery bog-moss and flat-topped bog-moss sometimes with common-haircap. There was a mixture of other species present including creeping bent, bulbous rush, heath rush, bog asphodel, common cottongrass and tormentil.

M6c *Carex echinata* – *Sphagnum fallax* mire, *Juncus effusus* sub-community



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Photo 8: An example of M6b and M6c within the Study Area.

The M6c sub-community is a soligenous acid flush which was occasionally recorded as small lines of vegetation where water flowed down the hillside or as part of larger watercourses. It was dominated by soft rush with sedges much less frequent than the M6b sub-community. Flat-topped bog-moss and common haircap typically formed the thick ground flora. There was also creeping bent, tormentil, Yorkshire fog, and papillose bog-moss.

M29 *Hypericum elodes* – *Potamogeton polygonifolius* soakaway community

The M29 community was mapped in one location towards the northwest of the Study Area. The community was dominated by bog pondweed with lesser spearwort. The M29 community was associated with an area of very sluggish water movement flowing in diffuse channels and may have groundwater association.

Marshy grassland

MG10a *Holcus Lanatus* – *Juncus effusus* rush-pasture, typical community

There were areas along the watercourse channels, beside watercourses and in wet ground that were dominated by soft rush with Yorkshire fog. The wettest areas were usually overwhelmingly dominated by soft rush, but in slightly drier areas sweet vernal grass and Yorkshire fog became more common. There was also occasional to frequent crested dog's-tail, marsh willowherb, common sorrel, water forget-me-not, bittercress, tormentil and marsh thistle. Common haircap was the main moss species present in these areas.

M28 *Iris pseudacorous* – *Filipendula almaria* mire, community



Photo 9: An example of M28 within the Study Area.

There were several stands of the yellow iris dominant mire M28 forming the wet channels of marshy grassland around the croft towards the centre of the Study Area. This was within small drainage channels within the grassland communities. Yellow iris dominated often almost entirely, but there was also some Yorkshire fog, common sorrel, marshy thistle, marsh willowherb and sweet vernal grass.

Coastal Grassland

MC10a *Festuca rubra* - *Plantago* spp. maritime grassland, *Armeria maritima* sub-community



Photo 10: An example of MC10a within the Study Area.

Coastal grassland MC10a was mapped as a small line along the coast at the very north of the Study Area. The coastal grassland was dominated by red fescue and thrift. Buck's-horn plantain and sea plantain were abundant and constant in the sward. Other graminoids included creeping bent, sweet vernal grass, heath rush and mat grass. There was commonly autumn hawkbit and eyebright.

Sheep grazing was particularly noticeable and influential in the coastal grassland habitat. It was short cropped (ca. 3-8 cm), tightly entwined, with cushions of thrift and mats of plantains. The vegetation was wind swept and had dung and fleece evident from the sheep.

Improved grassland

MG6 *Lolium perenne* – *Cynosurus cristatus* community

There some MG6 improved grassland in the northeast of the Study Area around Toft. The MG6 was dominated by perennial rye grass with Timothy, Yorkshire fog and common bent grass. There was a mixture of daisy, white clover, creeping buttercup, chickweed, common mouse ear and sheep's sorrel. There were occasional patches of dock. The large field with MG6 improved grassland was likely used for silage or hay.

Acid Grassland

Over 5 % of the Study was characterised by acid grassland. This was generally a mix of the following three NVC communities.

U4 *Festuca ovina* – *Agrostis capillaris* – *Galium saxatile* grassland community

The U4 grassland was generally recorded in sheep grazed fields around the edge of the Study Area. It was characterised by an uneven sward of Yorkshire fog, sweet vernal grass, common bent, sheep's fescue and mat grass with heath woodrush. There was a mix of forbs including tormentil, selfheal, common mouse ear and lesser stitchwort.

U5 *Nardus stricta* – *Galium Saxatile* grassland community

The U5 grassland was dominated by mat grass, with a varying but quite high abundance of heath rush. There was a mixture of other grasses including viviparous sheep's fescue, Yorkshire fog, common bent and sweet vernal grass. Heath woodrush was commonly present. Forbs included tormentil, heath bedstraw, dog violet. There were occasionally patches with heather and marsh thistle. The moss layer was dominated by glittering wood-moss and common haircap in wetter places.



Photo 11: An example of U5 acid grassland within the Study Area.

U6 *Juncus squarrosus* – *Festuca ovina* grassland community

There were small patches of the U6 heath rush dominated grassland across the Study Area. Heath rush was dominant although mat grass could be very abundant in some stands, making it difficult to distinguish between U5 mat grass grassland and U6 heath rush grassland in some locations. However, where heath rush was considered to be dominant, and mat grass subordinate, it was assigned the U6 grassland community.

The U6 grassland community included heath bedstraw, tormentil and a little heather. There were a variety of other graminoids present including wavy hairgrass, sweet vernal grass and heath wood-rush. The moss layer was made up of forked-moss, glittering wood-moss and occasional patches of bog-mosses.



Photo 12: An example of U6 acid grassland within the Study Area.

Tall ruderal

OV24a *Urtica dioica* – *Galium aparine*, typical sub-community

There was a dense stand of nettles in an area heavily managed for sheep.

Open water

There were several lochs, lochans and pools within the Study Area, including Neshion Water, Sand Water and Loch of Bordigarth. These lochans usually had little to no emergent vegetation within them. The water was generally a peat-stained brown with a stoney and gravel/coarse sand base.



Photo 13: An example of open water within the Study Area (Sand Water).

Running water

There were several watercourses within the Study Area including the Burn of Crooksetter in the west, and a series of unnamed burns. These watercourses were generally small, less than 1 m wide with a rocky or peaty base.



Photo 14: An example of running water within the Study Area.

Sand

There was a small area of sand mapped along the edge of Sand Water (Photo 13).

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Peatlands and Peatland Condition

Table 4 provides an overview of the PCA within the Study Area. The PCA is shown in **Figure 4a: PCA**, but it should be noted there is some degree of subjectivity in the PCA, and so the map should be considered indicative. **Table 5** gives the lengths of potentially drainage features and the drained area.

Table 4: The total area and percentage of each PCA found in the Study Area.

PCA Category	Area (Ha)	% of Study Area
Near-Natural	27.8	3
Modified – Near-Natural features retained	9.1	1
Modified	589.6	64
Modified to Actively Eroding	1.8	<1
Actively Eroding	119.3	13
Other habitat types	175.1	19
Total	922.6	100

Table 5: The length of potential drainage features mapped in the Study Area and the surrounding area using a 10m buffer and 30m buffer. 10m and 30m buffers around features were merged for each feature type. The total areas are from all feature types merged together (so no overlap).

Feature	Length (km)	Area (ha) using a 10m buffer	Area (ha) using a 30m buffer
Drainage ditches	34.8	66.7	172.0
Erosion features	77.6	145.7	318.7
Flushes (potentially old drainage ditches)	68.5	135.4	326.9
Peat cuttings	1.3	2.4	7.9
Total	182.2	330.0	654.6

The blanket bog habitat and its condition was notably variable across the Study Area, and was on a continuum from very wet, high quality blanket bog to Modified through grazing pressure, Drained through a series of drainage ditches to areas that were considered degraded and Actively Eroding.

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Figure 4a: PCA

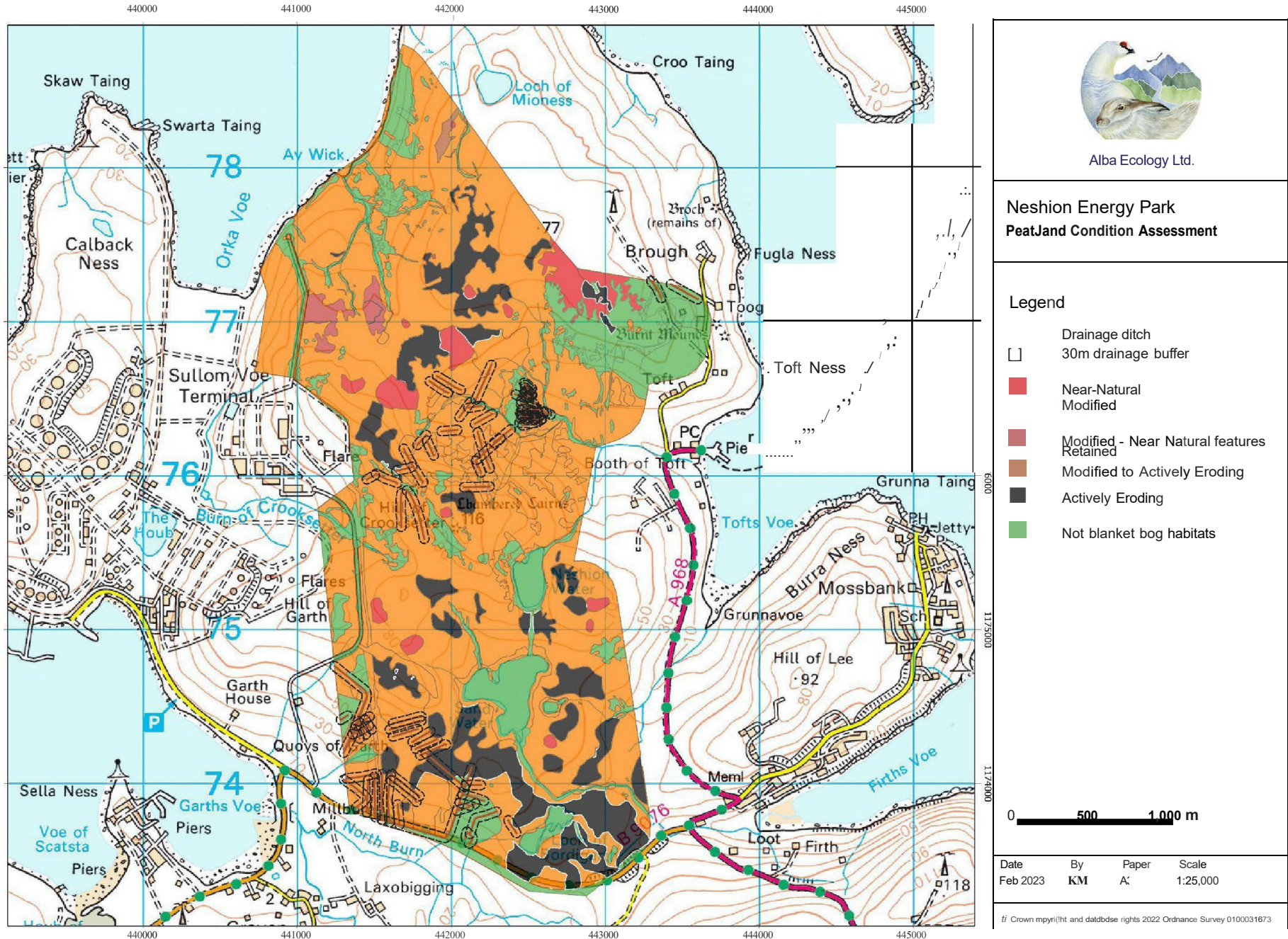
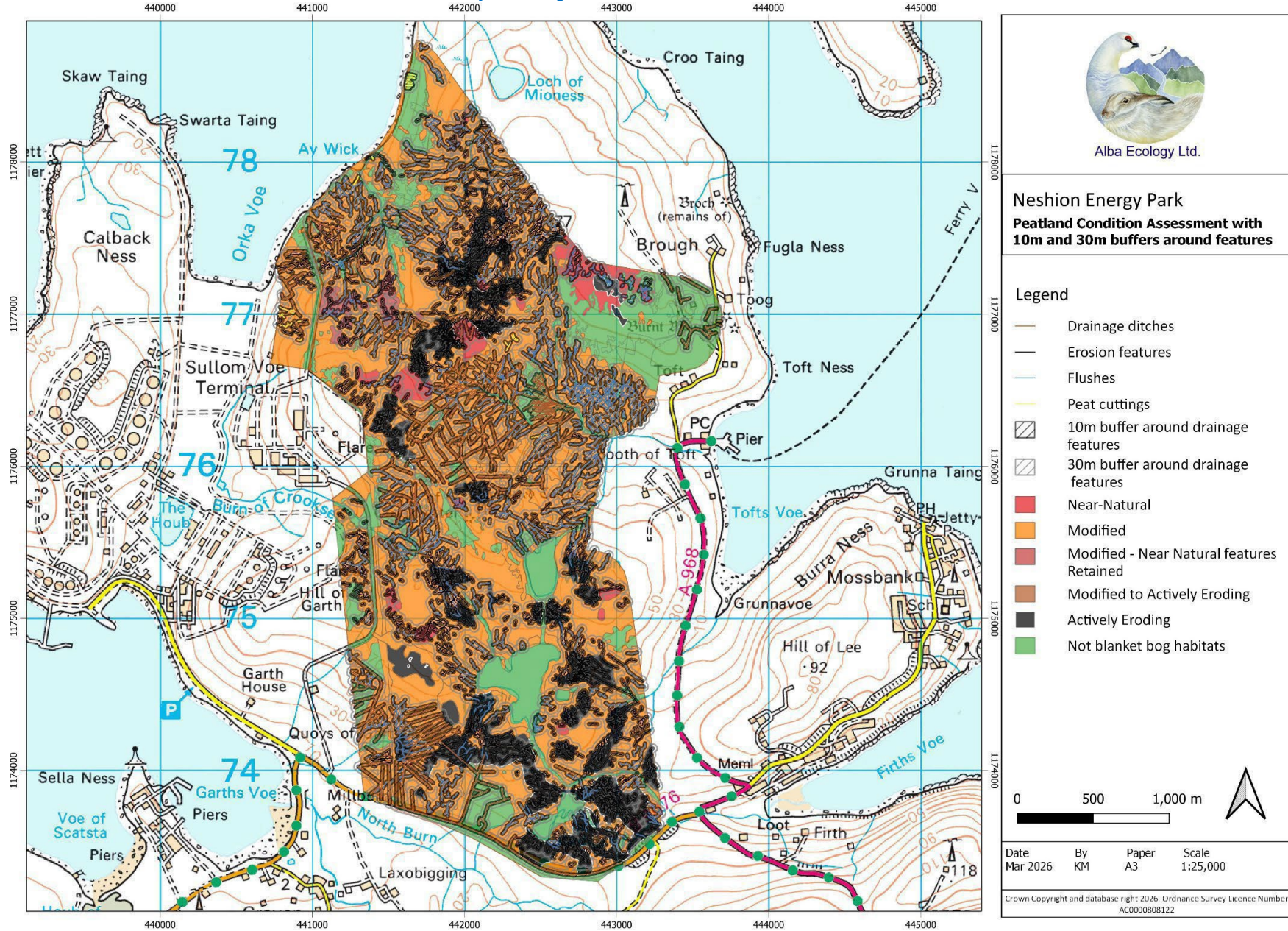


Figure 4b: PCA with 10m and 30m Buffer Around All Potentially Draining Features.



Near-Natural Condition



Photo 15: An example of blanket bog in Near-Natural condition within the Study Area.

The blanket bog which was considered to be in or approaching a 'Near-Natural' condition contained complexes of bog pools, bog-moss hummocks with a relatively intact bog-moss layer. There was limited sign of drainage. Some grazing impacts were evident.

Modified Condition



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Photo 16: An example of blanket bog in a Modified condition within the Study Area.

Most of the blanket bog within the Study Area was considered to be Modified through current and historic management practices, particularly grazing, but possibly also historic burning. The modification was generally quite light with bog-mosses present in the vegetation, but not a complete carpet. Heather and cottongrasses were the dominant species. Bog pools were occasionally present. Some areas had been further modified through historic peat cuttings, and farm/building activities.

Modified – Near-Natural features retained

There were some areas to the west of the Site, which were in a Modified condition but c. 10 % of the area was mapped as bog pools including M2, although many pools were simply bare peat with or without water. These were identified as having some Near-Natural features present (the hollows/pools), but lacked the overall character of Near-Natural bog, such as the high proportion of bog mosses.

Drained Condition

Drainage ditches were a feature in some parts of the Study Area. Most of the drainage ditches appeared quite old and had vegetation infilling them, but it is likely that there remains some drainage influence. There was ca. 34.8km of drainage ditches mapped within the Study Area. There were also numerous flushes across the Study Area (c. 68.5km)). Many/all of these were likely historic drains that had fully infilled with bog-mosses and sedges. There was also some evidence of historic peat cutting, which was also likely to have a drainage effect on the surrounding blanket bog habitat. In **Figure 4b: PCA with 10m and 30m Buffer Around All Potentially Draining Features**, a 10m and 30m buffer has been shown around all the drainage ditches, flushes and peat cuttings demonstrating the area of vegetation which has the potential to be drained by these features.



Photo 17: An example of blanket bog in a Drained condition within the Study Area.

Actively Eroding Condition



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Photo 18: An example of blanket bog in Actively Eroding condition within the Study Area.

A total of 13% of the Study Area was classified as Actively Eroding according to the PCA. These were the areas of Dry Modified Bog from the Phase 1 Habitat survey, in which there was extensive areas of bare peat, blocks of peat broken off and some bare peat pans. Many of these areas appeared to have once been locations where pools were common, but had dried or drained out resulting in bare peat being exposed. The areas termed Actively Eroding should also be considered to be Drained and Modified. A total of 77.6km of erosion features were estimated through mapping across the Study Area, many, but not all were within the Actively Eroding peatland. The erosion features were also considered likely to be actively erosion and drainage the surrounding blanket bog. In **Figure 4b: PCA with 10m and 30m Buffer Around All Potentially Draining Features**, a 10m and 30m buffer has been shown around all the erosion features demonstrating the area of vegetation which has the potential to be drained due to these features.

There was one area of blanket bog which was considered Modified to Actively Eroding. This area had some pools remaining, but was draining with areas where pools had been lost resulting in bare peat patches. This area appeared to be on a trajectory from once Near-Natural condition towards the Actively Eroding condition.

Potential for Peat Forming Activity

Using the 'PCA support tool' the blanket bog in Near-Natural condition in the Study Area, where there were multiple surface water pools, hummocks and a degree of natural surface pattern was considered likely to be actively forming peat.

The blanket bog and wet modified bog in a Modified and/or Drained condition was where taller plants, such as cottongrasses and heather dominated, and there was little surface water present were considered likely to have stopped being active.

Areas that were considered to be in an Actively Eroding condition with extensive bare peat and deep gullies was considered likely to be inactive and a carbon source, rather than a carbon sink.

However, this is a broad-brush, subjective tool, and does not take into account subtleties and variation within the blanket bog. Given the location of the Study Area and the reasonable quality of at least some of the blanket bog which was of Modified condition there is a degree of uncertainty to the peat forming activity level. These areas may have patches around pools that were active or partially active in some conditions.

GWDTE Assessment

Potential GWDTE are shown in **Figure 5: Potential GWDTE**. GWDTE are protected under the Water Framework Directive. BGS hydrogeological mapping identifies that the geology underlying the Study Area was considered to be a low productivity aquifer with groundwater only present in near surface weathered zone and secondary fractures (BGS, 2023). Therefore, there is limited potential for the presence of actual GWDTE within the Study Area.

SEPA's Guidance Note (2017a) recommends that the listed NVC communities should be treated as GWDTE unless information can be provided to demonstrate they are not dependent on groundwater. SEPA (2017a) does recognise that some of these communities are common across Scotland and that these communities may be considered GWDTEs only in certain hydrogeological settings or may have limited dependency on groundwater in certain hydrogeological settings.

NVC communities recorded in the Study Area that are considered in the guidance (SEPA, 2017a; SEPA, 2017b) to be potentially groundwater dependent include:

- M6 *Carex echinata* – *Sphagnum fallax* mire;
- M15 *Trichophorum germaincum* – *Erica tetralix* wet dwarf-shrub heath;
- M25 *Molinia caerulea* – *Potentilla erecta* mire;
- M28 *Iris pseudacorus* – *Filipendula almaria* mire, community
- M29 *Hypericum elodes* – *Potamogeton polygonifolius* soakaway community;
- MG10 *Holcus lanatus* – *Juncus effusus* rush-pasture; and
- U6 *Juncus squarrosus* – *Festuca ovina* grassland.

Of these, M6 and M29 are considered to be potentially highly groundwater dependent, depending on the hydrological setting (SEPA, 2017a). All the other communities are considered potentially moderately groundwater dependent, depending on the hydrological setting (SEPA, 2017a). All mosaics of habitat were allocated their GWDTE category according to the NVC community with the highest potential GWDTE.

The flush communities M6 and M29 are considered to be potentially highly groundwater dependent as they are indicators of groundwater influence, although many/all of the M6 flushes could have formed in historic drainage ditches, and may not be due to groundwater dependency.

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Much of the potential GWDTE communities occurred as part of the ombrotrophic peatland bog system, e.g. the wet heath M15c and wet modified bog M15c and M25. Their presence is considered to generally be related to the presence of waterlogged conditions sustained the surrounding peatland bog system. As such, these communities were considered likely to be reliant on direct rainfall and limited drainage within the peatbog system, rather than groundwater, for their maintenance.

Table 5 displays the relationship between NVC communities, and the likelihood of groundwater dependency, with comments on the hydrological setting in the Study Area

(Botanæco, 2019b). Hydrological surveys/analysis by a qualified hydrologist was required to confirm whether or not these potential GWDTE were actual GWDTE.

Further assessment was undertaken in **Chapter 8: Hydrology, Hydrogeology, Geology and Soils (EIAR Volume 2)**. **Chapter 8: Hydrology, Hydrogeology, Geology and Soils (EIAR Volume 2)** reported that all potential GWDTE were found to not be groundwater dependent due to low productivity bedrock aquifers, ombrotrophic bog habitats present, with no features identifying groundwater emergence noted during site walkover. Analysis in **Chapter 8: Hydrology, Hydrogeology, Geology and Soils (EIAR Volume 2)** found that the surface water flow pathways further indicated that areas of potential GWDTEs were likely ombrogenous, and not groundwater fed but as 'flush-like' habitats within existing cut drains and eroded peat. There was no evidence of groundwater emergence at the site (**Chapter 8: Hydrology, Hydrogeology, Geology and Soils (EIAR Volume 2)**).

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Figure 5 Potential GWDTE

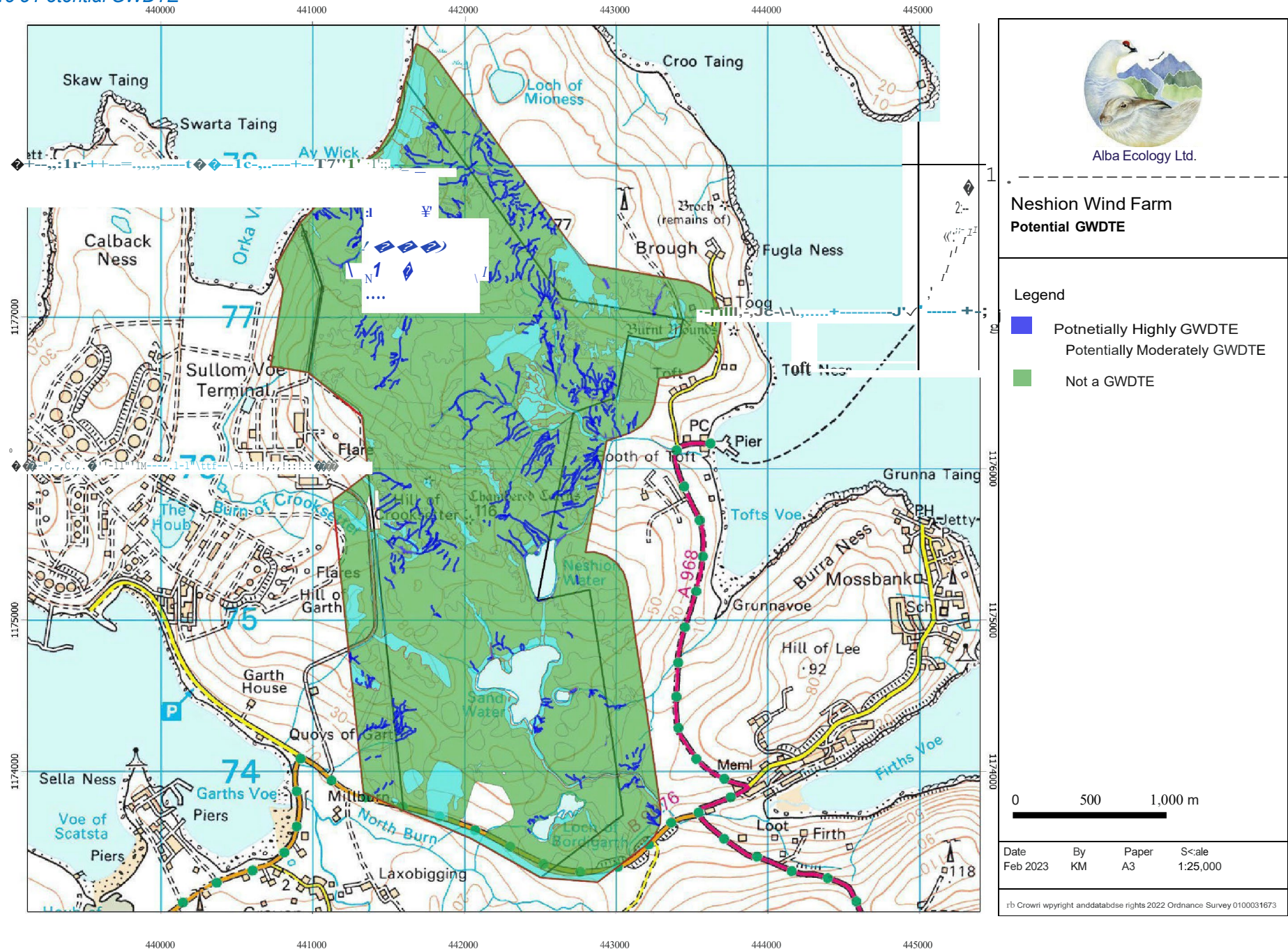


Table 5: The relationship between NVC communities and potential GWDTE.

Habitat	NVC Community	Guidance potential GWDTE	Setting	Comment on Setting	Comment on GWDTE
Acid grassland	U4, U5	Not included			Not a GWDTE
Acid grassland	U6	Potentially Moderately GWDTE	Hillslopes with other acid grasslands	Set on peaty soils with the bedrock classed as a low productive aquifer	Potentially moderately GWDTE, but likely that most influence is from the heavy rainfall in the region.
Bare peat	M3	Not a GWDTE	Peat bog	Ombrotrophic	Not a GWDTE
Blanket bog and bog pools	M2, M17b, M19	Not included	Peat bog	Ombrotrophic.	Not a GWDTE
Coastal grassland	MC10	Not a GWDTE			Not a GWDTE
Dry dwarf shrub heath	H10	Not a GWDTE			Not a GWDTE
Dry modified bog	DMB	Not included	Peat bog	Ombrotrophic.	Not a GWDTE.
Flush	M6	Highly	Streamside and along potentially along drainage ditch lines	The M6 community was in small lines along watercourse channels and potentially historic drainage ditch lines.	Potentially highly GWDTE, but likely also influenced by the ombrotrophic bog and surface water.
Flush	M29	Highly	Hillslope	There was a single M29 flush at the head of a watercourse.	Potentially highly GWDTE.
Improved grassland	MG6	Not a GWDTE			Not a GWDTE
Marshy grassland	MG10a, M28	Moderate	Streamside	The MG10a and M28 communities were associated with surface water movement.	Potentially moderately GWDTE but likely influenced by the surface water.

Habitat	NVC Community	Guidance potential GWDTE	Setting	Comment on Setting	Comment on GWDTE
Tall ruderal	OV24	Not a GWDTE			Not a GWDTE
Wet modified bog	M15c, M25a	Moderate	Associated with impacts on the peatland habitat.	The wet modified bog M25 and M15c communities were found as part of the peatland habitat influenced by current and historic management activities and were considered to be ombrotrophic.	Likely most influenced from the ombrotrophic bog.

Species of Note

The SBL is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland. None of the plant species recorded in the Study Area are on the SBL.

No non-native invasive species of plant were identified within the extent of the Study Area. However, this does not preclude them from being present in the future or their presence in an un-vegetative/unidentifiable state during surveys.

Habitats of Note

Habitats within the Study Area that are considered to be consistent with, or similar to, SBL habitat descriptions and Annex 1 habitats listed in the EU Habitats Directive are shown in **Table 6**.

Table 6: SBL and Annex 1 habitats recorded in the Study Area.

NVC community	Annex 1 Habitat (*priority)	SBL Habitat
H10	✓	✓
M15	✓	✓
M17	✓*(when active)	✓
M19	✓*(when active)	✓
M2	✓	✓
M25	✓	✓
M28	✓	✓
M29	✓	✓
M3		✓
M6		✓
U5		✓
U6		✓

Discussion

The Study Area was mapped and described according to the Phase 1 Habitats descriptions and the NVC. The Study Area was characterised by blanket bog and dry modified bog with the most common community mapped across the Site being M17. Confession frequently recorded habitats including dry heath, wet heath, acid grassland, coastal grassland and marshy grassland. There were many flushes across the Study Area. These habitats and communities are all typical for Shetland.

Peatland habitats, such as the blanket bog that made up much of the Study Area, are important for a number of reasons, including their potential for storing and capturing carbon. Peatlands are recognised as globally important providers of ecosystem services, including for provision of food and fibre, water supply, climate regulation, biodiversity, recreation and cultural heritage. As such, priority peatland habitats are referred to in Scottish Planning Policy (SPP, 2014) and more recently in the Scottish Biodiversity Strategy (2022), the Onshore Wind Policy

Statement (2022) and the National Planning Framework 4, which was adopted by Scottish parliament in February 2023 (NPF4, 2023).

In relation to wind farm development and peatland habitats Policy 5 of NPF4 gives “*significant protection*” to carbon rich soils, deep peat and priority peatland habitats. It states that “*assessment should inform careful project design and ensure, in accordance with relevant guidance and the mitigation hierarchy, that adverse impacts are first avoided and then minimised through best practice... alongside other appropriate plans required for restoring and/or enhancing the site into a functioning peatland system capable of achieving carbon sequestration*”.

Therefore, it is important to carefully consider priority peatland habitats within the Study Area with regard to the Proposed Development. All the blanket bog, dry modified bog and wet modified bog within the Study Area would be considered a priority peatland habitat as per NPF4. Best practice guidance e.g. CIEEM (2018; 2019) and NPF4 identifies a hierarchy of mitigation for potential impacts that seeks to:

- avoid adverse ecological impacts, especially those that could be significant to important receptors;
- minimise adverse impacts that could not be avoided; and
- compensate for any remaining significant residual impacts.

CIEEM (2018; 2019) states that “*Avoiding and/or minimising negative impacts is best achieved through consideration of potential impacts of a project from the earliest stages of scheme design and throughout its development*”. This approach, to avoiding potential adverse impacts within a design layout, is sometimes described as embedded mitigation or mitigation by design. “*Mitigation by design is particularly beneficial as there is greater certainty that it will be delivered*” (CIEEM, 2018; 2019).

Avoidance of the habitats identified within with higher ecological value, including blanket bog particularly blanket bog in Near-Natural condition and any potentially high GWDEs is recommended wherever possible. Minimisation of impacts and compensation of any significant impacts on semi-natural habitat would be required where avoidance is not possible as per the mitigation hierarchy.

There is a great deal of potential for peatland restoration within the ^{Confidential} Study Area, particularly in the form of drainage ditch blocking and restoration of areas that were in an Actively Eroding condition. Blocking the drainage ditches and blocking and reprofiling erosion features would help to re-wet the peatland habitat and help to establish a more natural drainage pattern. This would benefit not only the vegetation but the numerous species that depend upon it such as invertebrates and wading birds.

Peatland restoration has been identified and included within the **Technical Appendix 6.5: Outline Biodiversity Enhancement and Habitat Management Plan (EIAR Volume 4)**.

It was recommended in the 2023 version of this report that “*when assessing the potential impact of the Proposed Development, the presence and importance of key species and*

habitats should be considered. Furthermore, this should be informed by the likely design layout, as features of particular importance e.g. blanket bog in Near-Natural condition and highly GWDTE may be able to be completely avoided at the design stage". This advice was considered and adhered to through the design process and subsequent assessment. For details see **Chapter 3: Design Evolution and Alternatives (EIAR Volume 2)** and **Chapter 6: Ecology (EIAR Volume 2)**.

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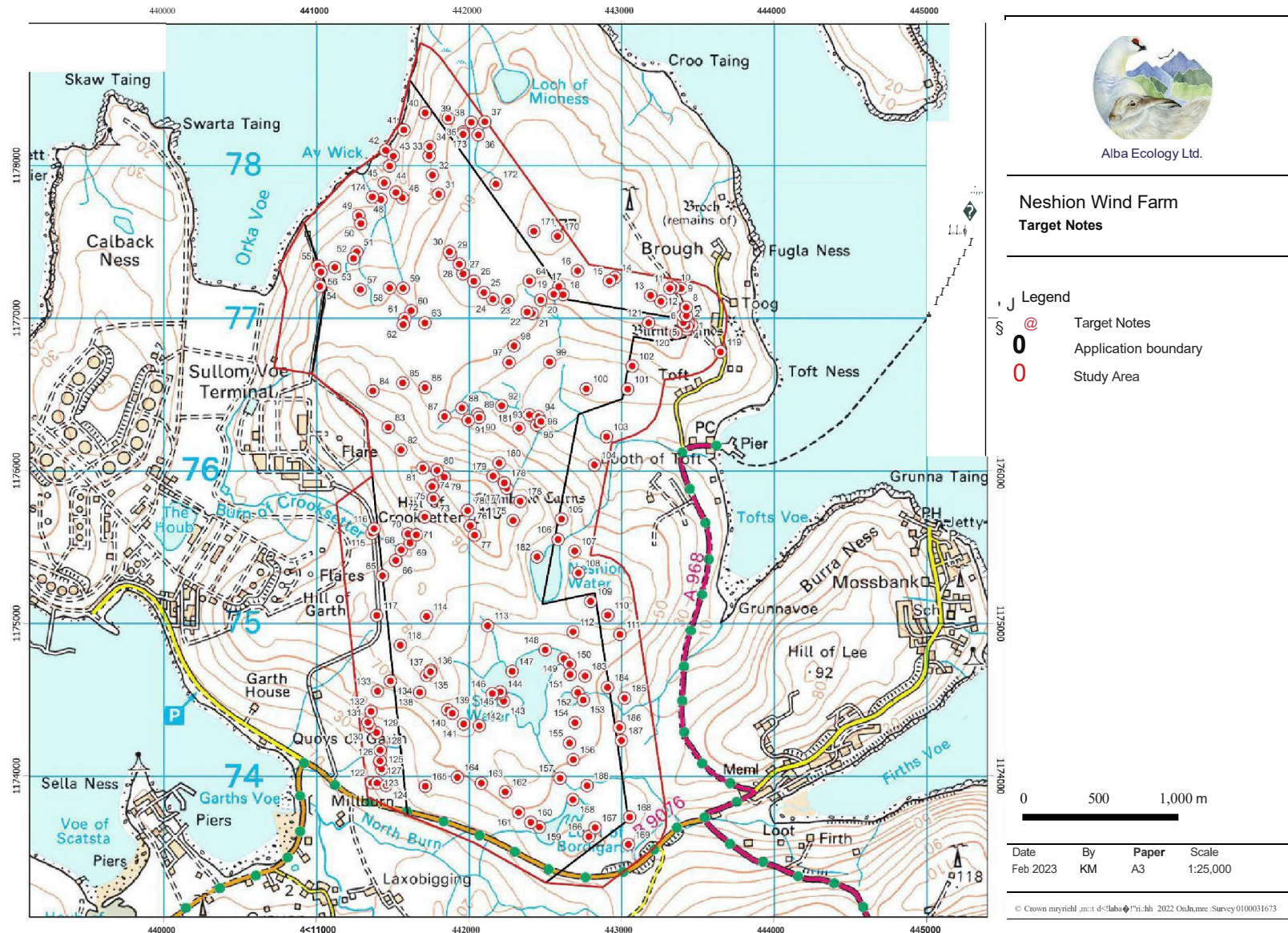
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Annex A: Target Notes

Figure 6 Target Notes



Appendix 1 Target Notes for Neshion Habitat Survey

TG	Grid	Comment	Photo
1	HU 43461 76952	MG6 improved grassland for silage or hay. Vegetation was ca. 30 cm tall. Mix of rye grass, Timothy, Yorkshire fog, bent grasses and forbs including white clover, creeping buttercup and common chickweed.	
2	HU 43438 76967	Typical MG10a. Soft rush with Yorkshire fog.	
3	HU 43425 76927	Mix of dominance between heath rush and mat grass. The wetter areas were dominated by heath rush (U6) drier areas dominated by mat grass (U5).	
4	HU 43430 76947	Thick patch of nettles (OV24) showing enrichment. Raised area. Likely dump of silage or similar. Area is sheep grazed.	
5	HU 43406 76972	Hillside of H10a with abundant heath rush.	

TG	Grid	Comment	Photo
6	HU 43401 77016	Some patches on the dry heath hill slope were dominated by heath rush (U6).	
7	HU 43426 77016	Track edge was a mix of MG10a, U6 and U4. There was a ditch (ca. 2 m wide) with bulbous rush and creeping bent grass.	
8	HU 43425 77071	Field with U5 in the centre, and U4 around the outside with some clear transition. The U5 was relatively tall.	
9	HU 43391 77195	U4 dominated area around edges of fields and sometimes beside tracks.	
10	HU 43344 77202	Drainage ditch was ca. 1 m wide and ca. 20 m of it appeared recently re-cut. There was bulbous rush, heath rush and feathery bog-moss in the ditch.	

TG	Grid	Comment	Photo
11	HU 43317 77195	Flush/Spring M6b. 100% cover of feathery bog-moss with bulbous rush and some common haircap and flat-leaved bog-moss. There was also common cottongrass throughout the flush. This flush appeared to be on deep peat with a line of flowing water through it.	
12	HU 43259 77110	At the head of the spring the vegetation was a complex of M6:U6 (50:50).	
13	HU 43191 77149	M19a:M2:M6b (50:30:20). Complex of pools and wet areas surrounded by M19a blanket bog. Some soft rush present. Clearly grazed but retained some pools. There were occasional hummocks of red bog-moss. Area appears to have resisted grazing damage as so wet. Near-Natural.	
14	HU 42958 77266	M19a:M2. Area has large and small pools. Wet and feathery bog-moss rich. It was clearly sheep grazed, but much less modified than surrounding bog as retained wetness (likely topology related). Near-Natural.	
15	HU 42921 77244	M6b dominated by common sedge. In with M2 pools, feeding into lochan.	

TG	Grid	Comment	Photo
16	HU 42713 77310	Complex of blanket bog, pools, dry heath and acid grassland. Very wet in places with pools. Topography/land-use has resulted in dry heath on higher ground and M2 pools in lower ground. The Pools varied in size from ca. 1 m x 1 m to 10 m x 10 m. There was M19a throughout, but also drier patches of U6. Variable peat depth. Near-Natural to Modified condition.	
17	HU 42590 77208	Series of M6b flushes going to watercourses. Flushes were 1 m to 2 m wide. Flushes were dominated by feathery bog-moss, flat-leaved bog-moss with common sedge creeping bent-grass and bulbous rush.	
18	HU 42617 77154	Carpet of bog-mosses and common haircap with tussocks of common sedge and heath rush with tormentil. At the transition between dry heath and blanket bog.	
19	HU 42556 77157	M17b vegetation. Bog-mosses present but not a full carpet – patchy. Relatively forb rich. Few bare peat patches. Clearly grazing pressure from sheep. Likely deep peat. No bog-moss hummocks. No pools. Modified.	 

TG	Grid	Comment	Photo
20	HU 42471 77119	Watercourse with ca. 1.5 m erosion features to either side.	
21	HU 42415 77031	Likely old peat cutting. Fully revegetated with H10a but has distinctive shape.	
22	HU 42382 77040	Several M2 pools in M17b. Series of pools. There were hummocks of woolly fringe moss. Damp underfoot. Not really bog-moss carpet, except near pools. In low lying areas. Near-Natural.	
23	HU 42256 77113	Dry modified bog. Actively Eroding. Bare peat with areas of common cottongrass. Clearly historical area had bog pools, which had dried out and lost. Erosion features were ca. 0.3-0.5 m deep. M17b:M3:Bare peat 60:20:20.	 

TG	Grid	Comment	Photo
24	HU 42157 77124	Erosion feature was ca. 1.5 m to 2 m deep. Water flowing at base, likely meets with watercourse. Blocks of peat broken off. Hoof prints and dung from sheep visible. Actively Eroding.	
25	HU 42099 77168	Near-Natural blanket bog area with series of pools. M17b:M2 70:30. Potential for these pools to be lost in the manner of surrounding dry modified bog. Currently in Near-Natural condition - Likely actively forming peat, although not full bog-moss carpet. Areas very wet and deep peat. Quaking.	
26	HU 42034 77242	These erosion features may once have been pools and lochans lost through erosion and drying out. Would likely have been pools and lochans. Potential for HMP work. DMB: M3:bare peat - Actively Eroding.	
27	HU 41962 77290	M6b flush going through erosion features. Bog-moss carpet, with common cottongrass and common sedge.	
28	HU 41938 77354	Mountain hare seen running across Study Area.	

TG	Grid	Comment	Photo
29	HU 41882 77418	Series of pools with M17b bog around it. In danger of being lost through erosion. Large M6b flush beside it. Not full carpet, but hollows and pools (micro-topology). M17b:M2 70:30 – Near-Natural.	
30	HU 41873 77435	Evidence of active erosion which appears to have resulted in lost pools, blocks of peat broken away. DMB: M3:bare peat - Actively Eroding.	
31	HU 41802 77812	Area of U6 were dominated by heath rush appears to be largely on deep peat. Therefore, it was wet modified bog. Low lying dry heath in a bowl. Perhaps an old peat cutting?	
32	HU 41761 77937	Series of M6b flush lines that were often only ca. 1 m to 2 m wide. Appeared green with bog-mosses and occasional pools.	

TG	Grid	Comment	Photo
33	HU 41740 78063	Blanket bog was clearly grazed by sheep. There were hoof prints and dung commonly seen.	
34	HU 41743 78124	U6 on deep peat. Wet modified bog.	
35	HU 41962 78219	This area was dry modified bog, but there were some pools remaining (not all lost). There was also some U6. Appeared to be in the process of being lost and Actively Eroding. Area was Modified with areas Actively Eroding.	
36	HU 42062 78201	Watercourse had a mix of M6b and M6c flush. Stream valley was ca. 5 m wide.	
37	HU 42105 78287	The stream valley was made up of H10a:U6:M6b:M6c. There was a line of dead bog-moss after high rains. H10a:U6:M6b:M6c at a ratio of 30:30:20:20.	

TG	Grid	Comment	Photo
38	HU 42016 78283	Many pools and often wet underfoot. M17b:M2 70:30 – Near-Natural.	
39	HU 41865 78310	Landform looks like old peat cuttings, or slips. Fully vegetated.	
40	HU 41714 78345	Wet heath on shallow soils. Abundant heath rush and mat grass though the M15c community.	
41	HU 41574 78233	Small patch of M17b on deep peat flowing down hillside to sea. Area along coast was largely mix of U5 and U6. Many sheep present.	
42	HU 41455 78100	Highly cropped coastal grassland MC10a. Heavily sheep grazed. Adjacent to rocky foreshore. Lots of rubbish along foreshore.	

TG	Grid	Comment	Photo
43	HU 41505 78062	Variable peat depth, in old river valley. M15c:DMB:U6 50:30:20. These communities transition in and out of each other.	
44	HU 41481 77997	MG10a in streambed which was dry.	
45	HU 41445 77886	Dead sheep, plastic bottles and sheep prints in bog pools. Evidence of Modification in M17b.	
46	HU 41565 77788	Example of M6c flush.	
47	HU 41522 77823	Example of M6b flush.	

TG	Grid	Comment	Photo
48	HU 41424 77777	MG10a with water flowing. U6 on sides. Sometime H10a on steep sections. MG10a:U6:H10a at a ratio of 50:40:10.	
49	HU 41279 77672	Old fence line bailed up. In M17b (Modified). Sheep grazed. Deep peat, occasional M6b flush or M2 pool.	
50	HU 41292 77620	Example of M17b relatively lightly Modified blanket bog. Heather and common cottongrass dominated with abundant cross-leaved heath and frequent crowberry, red bog-moss lichens, round-leaved sundew, hare's-tail cottongrass and deergrass. It was often damp underfoot. Sheep present. Few bare peat patches. Occasional bog pools. Bog-mosses were patchy. Woolly fringe moss varied in abundance.	 
51	HU 41266 77434	Erosion feature. Ca. 1 m deep and ca. 50 m long. Line of DMB:M3 Bare peat. Actively Eroding.	

TG	Grid	Comment	Photo
52	HU 41244 77391	Flush as part of watercourse. Mix M6b and M6c 50:50.	
53	HU 41122 77333	Old, largely revegetated, erosion feature with stream flowing through. Modified and Drained around feature.	
54	HU 41024 77209	View of area beyond boundary fence-line (did not enter) which included a mix of H10a and M17b.	
55	HU 41012 77342	Roadside was U4 and H10a.	
56	HU 41031 77302	1.5 m wide concrete line. Likely a pipeline to pumping house. It was ca. 2 m from road.	

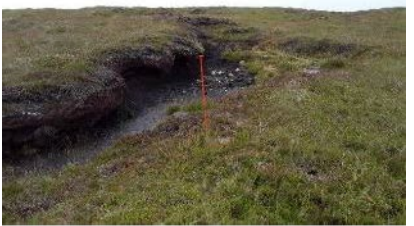
TG	Grid	Comment	Photo
57	HU 41289 77187	M17b had pools which were drying out. Modified. Pools were poached by sheep. Very patchy bog-moss layer. Most pools had little bog-moss within them.	
58	HU 41481 77197	Old erosion features well vegetated but with likely water flow and dewatering.	
59	HU 41569 77196	H10a with MG10a and U6. Ratio 60 20 20. at base.	
60	HU 41622 77049	M29 characterised by bog pondweed and lesser spearwort. Water trickling through.	
61	HU 41580 76997	At the start of the watercourse there was an M6b flush for ca. 5 m then M29 seepage line for ca. 30 m.	

TG	Grid	Comment	Photo
62	HU 41570 76958	M25a beside start of watercourse.	
63	HU 41712 76969	Near-Natural blanket bog with bog pools and wet underfoot.	
64	HU 42397 77244	Example of M17b relatively lightly Modified. It was generally wet with an intact surface (few erosion features/drains).	
65	HU 41434 75312	Clear line on map. Perhaps fill from old road. Not a different community, but some soft rush in places and M17b was a bit graminoid rich, thicker and taller than usual M17b. Wet modified bog.	
66	HU 41521 75410	Abundant bog asphodel in M6b flush.	

TG	Grid	Comment	Photo
67	HU 41521 75413	Large area of M17b with occasional pools and old erosion features. The occasional old erosion features were partially or wholly revegetated. Modified.	
68	HU 41557 75482	Example M6c flush.	
69	HU 41615 75526	H10a with a little acid grassland and occasional flushes going though. H10a:U6 at a ratio of 90:10.	
70	HU 41601 75586	Patch of M19a. Very tussocky heather and hare's-tail cottongrass on deep peat at transition of dry heath to the wider M17b blanket bog. Only small area ca. 10 m x 20 m (not mappable).	
71	HU 41656 75580	On this hill slope there were occasional small (e.g. 5mx5m) patches of M19a mixed in with the M17b. Less than 10 % of area.	

TG	Grid	Comment	Photo
72	HU 41711 75698	Old drainage ditch was generally well vegetated. Ca. 0.3 m depth visible, but ditch extents to ca. 1 m depth below the vegetation. Likely still draining surrounding habitat.	
73	HU 41767 75818	Another well vegetated drainage ditch, with only a change in vegetation to mark it out. However, easily pushed pole in. Some drainage likely.	
74	HU 41765 75904	View from cairn looking north. Shows extensive blanket bog across Study Area, with mix of conditions including pools, erosion features and drainage ditches.	
75	HU 41759 75897	View from cairn looking south. View of pools and erosion features in blanket bog vegetation. Area around cairn was of U6 with many rocks.	
76	HU 42010 75640	Archaeological feature- Chambered cairn?	

TG	Grid	Comment	Photo
77	HU 42038 75578	Monument has U4 grassland enriched from sheep. Largely U6 over outcrops of rocks.	
78	HU 41992 75740	Several bog pools in this area with wet bog-moss carpets around pools. Near-Natural M17b:M2 blanket bog.	
79	HU 41839 75958	Slope of M19a with tussocky of hare's-tail cottongrass, crowberry and heather. Bog-moss present but not abundant. Modified.	
80	HU 41792 76003	Drainage ditch. Ca. 0.5 m deep and 0.7 m wide. Fully vegetated.	
81	HU 41698 76018	Drainage ditch. Ca. 0.5 m deep and 0.7 m wide.	

TG	Grid	Comment	Photo
82	HU 41555 76137	Area with a dry modified bog. Clear affinity to M17b and dry heath vegetation. Abundant bell heather and woolly fringe moss. Exposed peat edges were ca. 1 m deep. There was usually ca. 1 m wide exposed bare peat at base of features. DMB: M3:BP:M17b at a ratio of 50:30:10:10.	
83	HU 41472 76285	Several erosion features running down slope which could be blocked and reprofiled. They were ca. 1 m deep and ca. 20 m long.	
84	HU 41371 76523	Example line of M6b.	
85	HU 41567 76576	Erosion features bring water downhill and feed wetter area at base of hill slope.	
86	HU 41713 76545	Basin with Near-Natural blanket bog. There were several M2 bog pools and the bog was wet underfoot.	

TG	Grid	Comment	Photo
87	HU 41841 76356	M6c forms much of watercourse at this location. H10a dry heath and U6 acid grassland above and to side.	
88	HU 41955 76411	Water filled drainage ditch with feathery bog-moss. No pools, but wet M17b blanket bog. Ineffectual drainage ditch.	
89	HU 42058 76370	Sluggish watercourse/flush of M6b still at this location included several sedge species including common sedge and star sedge. Biofilm present. Likely the flushes here were once drainage ditches.	
90	HU 42067 76349	Drainage ditch with some M6b.	
91	HU 41997 76330	Small patch (ca. 10 m x 10 m) M25a wet modified bog. Included autumn hawkbit, hare's-tail cottongrass, common sedge, common bent, bog asphodel, tormentil, and Yorkshire fog.	

TG	Grid	Comment	Photo
92	HU 42215 76426	Tussocky M19a on edge of watercourse. M6c in stream with H10a and U6 sides.	
93	HU 42396 76367	Area around old croft buildings was a mix of acid grasslands. U4 showed signs of enrichment around the buildings. There was U6 in wetter areas and U5 in drier areas. U6:U5:U4 at a ratio of 50:30:20.	
94	HU 42456 76354	Area dominated by yellow iris. M28.	
95	HU 42445 76300	View of heavily drained area below old croft. Mix of M28 iris and MG10a (50:50).	
96	HU 42472 76323	Water-logged ground dominated by soft rush and abundant Yorkshire fog. MG10a.	

TG	Grid	Comment	Photo
97	HU 42264 76710	M6b with some very small patches of M19a. The wider landscape was M17b.	
98	HU 42296 76818	This area may have been old peat cuttings from the croft. Generally lost sharp edges of peat cuttings, but there were upper and lower areas with a mix of M17b, M19, U6 and H10a depending on slopes/position (60:20:10:10).	
99	HU 42529 76713	Small triangle of acid grassland: marshy grassland (U5:MG10a at a ratio of 50:50) which went into a M6b flush.	
100	HU 42770 76537	Flush of M6c and M6b surrounded by M17b. There were many M6 flushes in this area similar to this one. Perhaps old drainage ditches?	
101	HU 43041 76535	A form of U4 grassland on deep peat. Heavily grazed, Yorkshire fog dominated. Wet modified bog.	

TG	Grid	Comment	Photo
102	HU 43071 76686	View of croft, can see clear lines from peat cutting and drains from crofting practices.	
103	HU 42903 76223	Watercourse widens. Mix of MG10a:U6:U5 at a ratio of 50 30 20. Marsh marigold was in the water.	
104	HU 42823 76038	U5 likely demarking an historic feature.	
105	HU 42607 75684	Example of M17b.	
106	HU 42585 75550	M6c around edge of Neshion Water.	

TG	Grid	Comment	Photo
107	HU 42694 75474	Erosion feature was ca. 1.3 m deep and ca. 1.5 m wide. Actively Eroding sides. Vegetated base. Dry modified bog at top of feature.	
108	HU 42719 75331	Dry modified bog with M3 and Bare peat and some wetter M17b at the bases. There was clearly active erosion, but also some signs of recovery in places with occasional pools. Features range from ca. 0.3 m to 1.5 m in depth.	
109	HU 42798 75144	Large erosion features ca. 2 m to 3 m deep. Base was wet from recent rains. Likely bare peat in drier conditions.	
110	HU 42911 75054	Many M2 pools in this area of M17b. There were also lawns of bog-moss and occasional small bog-moss hummocks. Retained high water table. Near-Natural.	
111	HU 42990 74928	Short heather on shallow soils with common cottongrass frequent and occasional crowberry. H10a.	

TG	Grid	Comment	Photo
112	HU 42683 74945	Mountain hare in M17b.	
113	HU 42123 74985	H10a with patches of U5, U6 and MG10a along watercourse edge. Ratio 50:20:20:10.	
114	HU 41723 75045	Large (ca. 5 m x 15 m) M3 pool. Bare peat with water over top. Rarely any common cottongrass.	
115	HU 41365 75591	Did not enter beyond fence. Viewed watercourse valley. H10a with MG10a and U4. Ratio 50:40:10.	
116	HU 41379 75620	Along the track there was a mix of dry heath and acid grassland (H10a:U5:U4 at a ratio of 50:25:25). Beside a compound area with a 'keep out' sign (did not enter). Ragwort and perennial sow-thistle in this area.	

TG	Grid	Comment	Photo
117	HU 41396 75052	View of M17b in fenced area occasional pools. Did not enter.	
118	HU 41551 74857	M15c formed over an area where peat had been removed (cut). High abundance of heath rush. Damp underfoot on shallow soils. There were patches of M17b where deep peat remained. Modified. M15c:M17b:M2:U6 ratio 50:30:10:10.	
119	HU 43649 76779	Improved grassland MG6 for hay or silage field.	
120	HU 43358 76902	Nettles (OV24) on silage bags and dumped peat.	

TG	Grid	Comment	Photo
121	HU 43178 76970	Heath rush was frequent in this area of M17b.	
122	HU 41363 73956	Ca. 1 m deep peat cutting. U6 at base. Large area of peat removed. M17b and M15c in recovered areas depending on peat depth. Largely M15c.	
123	HU 41398 73954	Drainage ditch. Well vegetated. Not cut recently. Ca. 0.2 m dip in ground surface, but no clear effect on surrounding habitat.	
124	HU 41458 73938	Drainage ditch. Well vegetated. Ca. 20 cm dip in ground surface. No clear effect on surrounding vegetation but could push walking pole down very easily compared with surrounding ground.	

TG	Grid	Comment	Photo
125	HU 41429 74046	Water flowing along drainage line. Ca. 1 m high edge. Perhaps old cutting?	
126	HU 41415 74094	Recent active peat cuttings. Ca. 1 m deep. Ca. 10 m long. Turf left at base.	
127	HU 41418 74099	Many drainage features. M6b flush vegetation along this line. Flush and drainage lines may be from historic drainage ditch or peat cutting.	
128	HU 41419 74169	Well drained heath and acid grassland on shallow soils. Nutrient enrichment from sheep giving U4. U6:H10a:U4:MG10a at a ratio of 40:30:20:10.	
129	HU 41395 74284	Two large bags (ca. 2 m x 1 m) of polystyrene foam in watercourse. Watercourse largely M6b with H10a sides.	

TG	Grid	Comment	Photo
130	HU 41350 74322	Large (ca. 5 m wide) drain around field with M19a and spoil heaped at side with a little of U6.	
131	HU 41339 74352	Very dry M19a with little hare's-tail cottongrass and abundant crowberry. Similar to dry heath. Wet modified bog.	
132	HU 41359 74423	Sheep grazed field of U4 with many tussocks of soft rush. Occasional areas of U6.	
133	HU 41402 74556	Highly modified area where peat has been drained and there was evidence of historic crofting activities. M15c with U6 and occasional M6b flushes. Wet modified bog.	
134	HU 41486 74622	M17b vegetation over what appeared to be deep peat, with common cottongrass and hare's-tail cottongrass but also wavy hairgrass. Old road. Wet modified bog.	

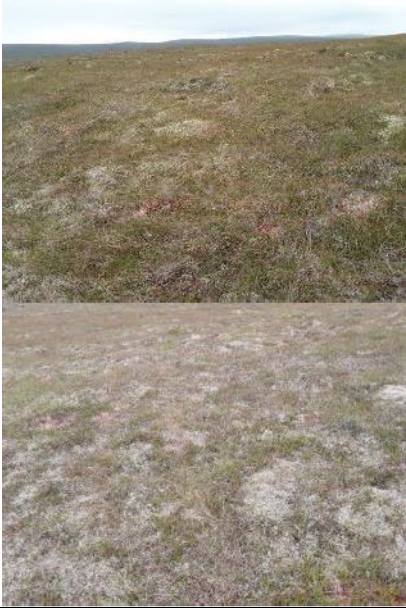
TG	Grid	Comment	Photo
135	HU 41723 74659	Area with erosion features and pools at bases. Dry modified bog. There were also areas with M15c where deep peat appeared to have been historically lost and wet heath vegetation formed over the top. Some areas had eroded down to bedrock. Although, some edges of erosion features were recovering and pools forming. Sheep signs common including dung, wools, and hoof marks. DMB:M15c:M17b:M2:M3 at a ratio of 50:20:10:10:10.	
136	HU 41751 74693	Actively Eroding erosion feature ca. 1 m high island remaining with bare peat around. Bare peat pan was ca. 5 m x 30 m with common cottongrass (M3) in areas going to U6 or M15c.	
137	HU 41748 74683	View of Actively Eroding peat pan.	

TG	Grid	Comment	Photo
138	HU 41678 74548	Area of old erosion features or cutting which were almost fully vegetated. H10a on edges depicting the cuttings/features. Modified, but not Actively Eroding. Perhaps drained still. Modified and Drained M17b:H10a at a ratio of 60:40.	
139	HU 41862 74433	Series of pools, but also old drains and cuttings which clearly feed water and sustain the pools. Modified.	
140	HU 41892 74411	Hoofprints. Evident of sheep impact on bog vegetation.	
141	HU 41966 74341	View of expanse of dry modified bog by Sand Water.	

TG	Grid	Comment	Photo
142	HU 42069 74329	Large expanse of dry modified bog. Water draining through to Sand water. Woolly fringe moss dominated. Lots of exposed and Actively Eroding peat.	
143	HU 42228 74490	M17b. This area has the water from the dry modified bog draining into it. There were occasional pools, but also clear damage from sheep and bare peat patches around them. Modified.	
144	HU 42210 74540	Edge of Sand Water was H10a transitioning into a form of M19a, U5 and U6. The M19a had hare's-tail cottongrass, tussocks of heather, and common cottongrass which was sometime more abundant than hare's-tail cottongrass. There was crowberry, papillose bog-moss and red bog-moss in patches with glittering wood-moss.	
145	HU 42206 74552	Water was peat stained with a stoney and gravel base. Lesser spearwort was around the edge of the water.	

TG	Grid	Comment	Photo
146	HU 42154 74540	Drain and pipe going into Sand Water.	 
147	HU 42284 74686	Peninsula of U4 and U6. Lots of evidence of sheep and geese. Cabbage circle. Edge of water has patches M6c and occasional MG10a.	
148	HU 42501 74826	High flows coming out of pipe into Sand Water. Likely draining bog. Brown stained. In MG10a.	
149	HU 42623 74768	Sand ca. 2 m wide at the edge of Sand Water.	

TG	Grid	Comment	Photo
150	HU 42661 74733	Series of erosion features going down slope. Ca. 1 m deep.	
151	HU 42664 74665	Series of pools kept wet from surrounding erosion features. Evident of sheep impacts and not full carpet of bog-mosses. Modified (with elements of Near-Natural).	
152	HU 42714 74547	Large area of M6c with pool by small unnamed lochan.	 

TG	Grid	Comment	Photo
153	HU 42750 74498	The M17b in the south of the Study Area seems to have more woolly fringe moss and more evidence of sheep than the north side.	
154	HU 42696 74349	There were ca. 1 m deep erosion features in the dry modified bog with M3 and bare peat (70:20:10).	
155	Hu 42660 74216	Example of Near-Natural blanket bog M17b:M2.	
156	Hu 42684 74107	Dry modified bog with ca. 30 cm to 1 m high erosion features. Bare peat and M3 evident. Some pools present. Actively Eroding.	

TG	Grid	Comment	Photo
157	Hu 42598 73986	Watercourse with M19a for ca. 5-10 m leading up to the watercourse. Banks of watercourse H10a:U6:MG10a (50:30:20) with occasional yellow iris.	
158	Hu 42682 73845	Blanket bog habitat to edge of Bordigarth Water.	
159	Hu 42463 73665	M17b to edge to edge of Bordigarth Water, although small line of U6 (ca. 2 m wide) at some locations.	
160	Hu 42406 73697	Likely old drainage ditch ca. 1.2 m deep and 1 m wide. Eroded and natural looking, but straight. Flowing at time of survey.	
161	Hu 42326 73762	Fence ca. 1 m off ground with erosion features around it. Field is U4 with soft rush in tussocks.	

TG	Grid	Comment	Photo
162	Hu 42239 73896	U4:MG10a:U6 at a ratio of 40:30:30.	
163	Hu 42082 73953	Dry heath with a thin line of U5 going through it. Likely from a drain or underground cable.	
164	Hu 41925 73992	Large area of historic peat cuttings. Largely revegetated. M17b:M15c:U6:H10a at a ratio of 60:20:10:10. Drier areas were H10a with U6 at some bases, M15c on shallow soils and M17b where deep peat remained.	
165	Hu 41715 73933	Cuttings more visible at this location. Similar to previous target note with a little enrichment from sheep.	
166	Hu 42787 73603	Dry modified bog with water filling bases of erosion features. M3 and bare peat present.	

TG	Grid	Comment	Photo
167	Hu 42828 73662	Marshy grassland with MG10a and U6 (50:50). An old structure visible.	
168	Hu 43054 73730	Fence in dry modified bog with pools and erosion features beside it.	
169	Hu 43046 73552	Dry heath beside a small M6b watercourse. Erosion along sides was ca. 0.5 m to 1 m deep.	
170	Hu 42581 77536	Example erosion feature in dry modified bog. Ca. 1 m deep some M3 and bare peat.	
171	Hu 42426 77569	Small patches of M19a on at this location. Too small to map.	

TG	Grid	Comment	Photo
172	Hu 42178 77878	Small watercourse with U5:U6:M6b at a ratio of 40:30:30.	
173	HU 41962 78205	Mixture of DMB:M6:M3:M2. Some bog-moss filled pools others Actively Eroding. Transition between Near-Natural and Actively Eroding.	
174	HU 41368 77794	Deep stream valley (ca. 5 m deep sides) U6:U5 at a ratio of 80:20.	
175	HU 42290 75674	M6b flushes and bog pools at head of stream. Surrounded by relatively lightly Modified M17b. Bog asphodel abundant.	
176	HU 42337 75800	Possible old peat cutting. Ca 10 m x 20 m. Mix of H10a and M17b at base.	

TG	Grid	Comment	Photo
177	HU 42249 75886	Hummocks of hare's-tail cottongrass with heather, wavy hairgrass, common cottongrass, sweet vernal grass, heath rush, crowberry, tormentil, papillose bog-moss, woolly fringe moss, red bog-moss and glittering wood-moss in M19a vegetation. Thick moss layer.	
178	HU 42233 75921	Drainage ditch. Ca. 0.3 m wide and 0.2-0.3 m deep. Fully revegetated.	
179	HU 42159 75965	Heavily grazed area of low dry heath with many graminoids. Mosaic of H10a:U6:M19a 50:30:20.	
180	HU 42199 76051	Drainage ditch. Ca. 0.3 m wide, and 0.2 m deep. Revegetated.	
181	HU 42329 76279	Large area of historic peat cuttings. Ca. 0.5 m deep. Vegetation at base and top but bare peat exposed and Actively Eroding in places.	
182	HU 42447 75436	Neshion Water. MG10a:M6c beside lochan. Bog-moss carpet was ca. 50 % cover.	No photo.

TG	Grid	Comment	Photo
183	HU 42762 74655	Heavily eroded dry modified bog. Erosion features ca. 1 m deep. Bare peat was ca. 30-40 % cover at this location.	
184	HU 42909 74581	Deep erosion feature with watercourse. Banks of H10a. Ca. 2-3 m deep.	
185	HU 43021 74510	Extensive area of dry heath H10a.	
186	HU 42987 74318	Example of dry modified bog.	
187	HU 43000 74233	M6c Flush/pool at edge of dry modified bog.	

TG	Grid	Comment	Photo
188	HU 42775 73937	Watercourse with MG10a, U6, and H10a. There were occasional areas of M28 with U5 at base.	