

# TECHNICAL APPENDIX 8.1: VEGETATION SURVEY AND HABITAT MAPPING REPORT

**Balmeanach Wind Farm**  
Prepared for: **Balmeanach Wind Farm Limited**

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## 1.0 Introduction

### 1.1 Overview

Balmeanach Wind Farm Limited (the Applicant) is applying to The Highland Council (THC) for planning permission to develop a wind farm on land approximately 3km to the south of the settlement of Edinbane, approximately 8km to the east of Dunvegan and approximately 7km to the north of Struan on the Isle of Skye. The Applicant has appointed SLR Consulting Limited (SLR) to undertake a range of environmental studies on the site to inform an Environmental Impact Assessment (EIA) for the Proposed Development. This report provides the results of surveys for baseline vegetation surveys, including UK Habitat Classification (UKHab) and National Vegetation Classification (NVC) surveys, protected mammals, carried out in September 2020 and August 2022.

### 1.2 Site Location

The site, which measures approximately 476ha, centred on NGR 133900, 846750 is located on moorland approximately 3km to the south of the settlement of Edinbane, approximately 8km to the east of Dunvegan and approximately 7km to the north of Struan on the north west of the Isle of Skye (**Figure 1.1**). The proposed turbines would be located across two landownerships – primarily on the Bracadale Estate, on ground which forms part of the Balmeanach and Caroy Common Grazings, and partly on the Coishletter Estate. Access to the site would be via the existing Ben Aketil Wind Farm access track from the A850, and then south east via the consented Ben Sca Wind Farm site access track onto the hillside.

For the main development area of the site, topography slopes to the south east from 283m AOD at the summit of Ben Sca down to the lower slopes at approximately 160m AOD adjacent to the Allt Ruairidh burn, which is part of the River Ose Catchment which flows south west discharging into Loch Bracadale. The other main watercourses which drain the site are: the Abhann Coishleader to the north east of the site generally flowing northwards towards Coishletter before discharging into Loch Greshornish; the Abhainn Bhaile Mheadhonaich which drains to the south and the Aketil Burn to the south west which drains into the Caroy River catchment.

This report focuses on the main development area as the 'site' and does not refer to the wider application site boundary which includes the access route to the site.

### 1.3 Scope of Study

The scope of the study was to provide mapping and descriptions of the habitats present within the site using both UKHab and NVC survey protocols. During the survey, all semi-natural habitats were mapped to NVC level.

In accordance with guidance from NatureScot<sup>1</sup>, the communities identified during the surveys have also been used to identify those communities/ habitats listed on Annex 1 of the EC Habitats directive. In addition to this, each community has been assessed against Scottish Environment Protection Agency (SEPA) guidelines for identifying potential Groundwater Dependent Terrestrial Ecosystems (GWDTE)<sup>2</sup>.

The aims of the surveys were to provide baseline data to inform the wind farm design process, the development of any habitat restoration and management proposals and the subsequent EIA. The assessment of impacts resulting from the Proposed Development and the development of mitigation measures, if required, are beyond the scope of this report.

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<sup>1</sup> SNH (2018). *SNH general pre-application/ scoping advice to developers of onshore wind farms*.

<sup>2</sup> SEPA (2017). *Guidance on Assessing the Impacts of Development Proposals on Groundwater Dependent Terrestrial Ecosystems*. Land Use Planning System SEPA Guidance Note 31 (LUPS – GU31). Version 3 Issued 11 September 2017.

## 2.0 Methods

### 2.1 Survey Area

The vegetation and habitat survey area included all land within the proposed site boundary (**Figure 8.1.1**). This includes:

- an area in the north of the site that was previously surveyed in 2018 for the initial ecology surveys for the consented Ben Sca Wind Farm;
- surveys undertaken in September 2020 over the main development area;
- surveys undertaken between 23 and 25 August 2022<sup>3</sup> of any un-surveyed areas of the application site boundary and refresh of any areas surveyed in 2020.

### 2.2 UKHab Survey

The UKHab survey was undertaken concurrently with the NVC survey, following methods as described in the UK Habitat Classification User Manual<sup>4</sup>. The survey identified habitats of conservation concern, protected or notable plant species and invasive/non-native species. Target notes were taken to describe any particularly notable features such as flushes, bog pools and areas with habitat disturbance. As required by the UKHab mapping system, the metadata table is shown below in **Table 2-1**.

**Table 2-1: UKHab Metadata**

Item	Data
Scope and purpose of survey	Baseline habitat survey to inform wind farm layout
Area surveyed	Area surveyed shown on <b>Figure 8.1.1</b>
UKHab edition used	Edition 1 (2020) and UK Habitat Classification - Professional Edition
Minimum level of mapping unit (MMU)	400m <sup>2</sup> , smaller areas of interest have been target noted, locations shown in <b>Figure 8.1.2</b> and <b>Figure 8.1.3</b>
Level of UKHab hierarchy used	Up to Level 5 where possible.
List of secondary codes used	13 – Scattered dwarf shrubs 14 – Scattered rushes 15 – Rushes dominant 58 – Grazed 120 - Wet 127 – Peat 189 – Scattered grass
Additional attributes recorded	NVC survey undertaken, species lists in <b>Table A2 (Annex 8.1A)</b> .

<sup>3</sup> Note this survey included areas to the south which were in the Scoping site boundary but are not in the application site boundary.

<sup>4</sup> Butcher B., Carey P., Edmonds R., Norton L and Treweek J. (2020) The UK Habitat Classification User Manual Version 1.1.

Item	Data
Map projection and units	OSGB84
Year of survey	2018, 2020 and 2022
Organisation and individual undertaking survey	SLR Consulting Ltd, Nicola Faulks – Technical Director, Ecology; Kirstie Hazelwood – Senior Ecologist
References for existing data sets that have been used	None

## 2.3 NVC Survey

The survey was undertaken using the NVC system (Rodwell, 1991 *et seq.*<sup>5</sup>, 5 volumes) and in accordance with NVC survey guidelines (Rodwell, 2006<sup>6</sup>). The NVC scheme provides a standardised system for classifying and mapping semi-natural habitats, with the aim that surveys are carried out to a consistent level of detail and accuracy at a minimum mappable unit (MMU) of 10m x 10m.

NVC communities were attributed to polygons that were mapped in the field according to visible boundaries around habitat types. Stands were classified and mapped at sub-community level where sub-communities were readily identifiable. **Figure 8.1.3** shows areas mapped for NVC.

Due to the topography of the land in some parts of the survey area, some polygons represent complex mosaics of the NVC communities attributed to that respective polygon. Mosaics are shown on the map with the more dominant community as the base colour and the less dominant community cross hatched.

Initial sampling of each vegetation type was carried out as recommended in the NVC users' handbook, by sampling at random in stands of vegetation 'judged by eye to be floristically and structurally homogeneous'. At least one quadrat sample was taken in each community type, in order to quantify species composition. Where it was difficult to establish the vegetation type, more than one sample was taken to achieve a larger data set. Where quadrat sampling was used, the following methodology was adopted:

The size of quadrat used was 2m x 2m. Within each quadrat, all vascular plants and bryophytes of frequent occurrence were identified and an estimate of cover value of each made, using the DOMIN scale of cover (**\*Table A4**).

Communities identified during the surveys have been assessed against Scottish Environment Protection Agency (SEPA) guidelines for identifying potential Groundwater Dependent Terrestrial Ecosystems (GWDTE)<sup>2</sup>.

## 2.4 Reporting

This report has been compiled with UKHab categories and NVC communities, with NVC community types grouped together under the UKHab that they most closely represent. **Table A3 (Annex 8.1A)** contains a sample of the NVC quadrat locations and survey data.

Current SEPA guidance<sup>2</sup> provides details of NVC communities that are highly or moderately likely to be ground water dependent, depending on the hydrological setting. Evaluations of likely ground water dependency, based on SEPA guidance, have been discussed with the hydrological team for further investigation, and are not discussed further in this report.

<sup>5</sup> Rodwell J.S (Editor) (1991 *et seq.*) *British Plant Communities*. Cambridge University Press.

<sup>6</sup> Rodwell, J.S, (2006), *NVC Users' Handbook*, 68 pages, ISBN 978 1 86107 574 1

## 2.5 Survey Personnel

Nicola Faulks MCIEEM undertook the vegetation surveys in September 2020. Nicola has over 18 years of experience in the environmental sector as an ecological consultant. She holds a BSc in plant biology and is an extremely experienced habitat surveyor.

Kirstie Hazelwood ACIEEM undertook the vegetation surveys. Kirstie Hazelwood is an experienced ecologist with seven years experience in ecology, and she has worked on over 20 upland sites in Scotland including numerous large wind farm developments. She has trained in the recently developed UKHab methods and has carried out extensive NVC work on these sites.

## 2.6 Nomenclature

Botanical nomenclature in this report follows Stace (2010)<sup>7</sup> for vascular plants and Atherton *et al.* (2010)<sup>8</sup> for bryophytes. Due to the use of multiple English names for some plant species, only scientific names have been used within the main body of the report for clarity. English names are provided in **Table A2 (Annex 8.1A)**, for reference.

## 3.0 Results

Habitats identified under the UKHab classification are shown on **Figure 8.1.2** and NVC communities shown on **Figure 8.1.3**. A description of each habitat and community type identified is provided below.

The site comprised mostly wet heath on the steeper ground and blanket bog on the flatter ground. Some dry heath, grassland and rush pasture were found in patches across the site. Following a fire in 2018 some of the areas surveyed in 2020 were severely fire damaged these areas were found to be still recovering in 2022, with some areas showing signs of good dwarf shrub heath recovery. Some of the areas on steep slopes or high ground on thin soil still showed signs of damage after a slow recovery from the fire in 2018, with much exposed bare ground and slow recovery of heath, wet heath or grassland habitats. All habitats recorded on site are summarised in **Table 3-1** and target notes are listed in **Table A1, Annex 8.1A**.

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<sup>7</sup> Stace C. (2010) *Field Flora of the British Isles*. Cambridge University Press

<sup>8</sup> Atherton I. D. M., *et al.* (2010) *Mosses and Liverworts of Britain and Ireland: A Field Guide*. British Bryological Society



**Table 3-1: UKHab and NVC Habitats listed at the Site**

Habitat Type	UKHab Code	UKHab Definition	Associated NVC Codes	NVC Definition (for sub-communities see text)	Mosaic NVC
Bog	<b>f1a5</b>	<b>Blanket bog (H7130)</b>	<b>M1</b>	<i>Sphagnum auriculatum</i> bog pool community	
			<b>M3</b>	<i>Eriophorum angustifolium</i> bog pool community	
			<b>M17</b>	<i>Scirpus cespitosus-Eriophorum vaginatum</i> blanket mire	M1
			<b>M19</b>	<i>Calluna vulgaris-Eriophorum vaginatum</i> blanket mire	M1, M15
	f1a6	Degraded blanket bog	M15	<i>Scirpus cespitosus-Erica tetralix</i> wet heath	M1
Fen, Marsh and Swamp	f2b	Purple moor grass and rush pastures	M23	<i>Juncus effusus/acetiflorus-Galium palustre</i> rush-pasture	
			M25	<i>Molinia caerulea-Potentilla erecta</i> mire	
	f2c	Upland flushes, fens and swamps	M6	<i>Carex echinata-Sphagnum recurvum/auriculatum</i> mire	
	<b>f2c8</b>	<b>Transition mires and quaking bogs; upland (H7140)</b>	<b>M4</b>	<i>Carex rostrata-Sphagnum recurvum</i> mire	
Dwarf Shrub Heath	<b>h1b5</b>	<b>Dry heaths; upland (H4030)</b>	<b>H12</b>	<i>Calluna vulgaris-Vaccinium myrtillus</i> heath	U5
			<b>H14</b>	<i>Calluna vulgaris-Racomitrium lanuginosum</i> heath	U5/M15
	<b>h1b6</b>	<b>Wet heathland with cross-leaved heath; upland (H4010)</b>	<b>M15</b>	<i>Scirpus cespitosus-Erica tetralix</i> wet heath	U4, U5
Acid Grassland	g1b6	Upland dry acid grassland	U4	<i>Festuca ovina-Agrostis capillaris-Galium saxatile</i> grassland	M25
			U5	<i>Nardus stricta-Galium saxatile</i> grassland	M15
			U6	<i>Juncus squarrosus-Festuca ovina</i> grassland	
Bracken	g1c	Bracken	U20	<i>Pteridium aquilinum-Galium saxatile</i> community	
Standing Open Water	r1	Standing open water	N/A	N/A	
<b>Protected Habitats are in bold</b>					

### 3.1 Blanket Bog (UKHab f1a)

Under this category blanket bogs are characterised by the presence of a peat deposit greater than 50cm deep, supporting *Sphagnum* and other peat forming species, which is draped across large expanses of the landscape like a blanket. All but the steepest slopes are permanently waterlogged. Blanket bogs are rain fed – ombrotrophic – and broadly convex, meaning that the surface flow lines diverge down slope from the crown of the bog unit. This description easily describes the bog habitats within the survey area in general terms. The NVC categories below describe the bog habitats in more detail, however they all fall under the UKHab level 5 category f1a5 – Blanket bog (equivalent to Annex 1 Habitat H7130). This category applies to blanket bog where peat forming species are still dominant or abundant, notably *Sphagnum papillosum*, *S. tenellum* and *S. capillifolium* and *Eriophorum vaginatum* and ericoid species less abundant than in f1a. The burn in 2018 removed a large portion of the ericoid species, that were beginning to regenerate in the survey in 2020. Recovery of ericoid species could be seen in the surveys in 2022, though ground cover is still sparse in some of the areas. Most habitats remain in the blanket bog category, however one heavily hagged area has been defined as degraded blanket bog (UKHab level 5 category f1a6) due to the lack of peat forming species that have recovered in this area, leaving bare peat exposed.

#### 3.1.1 M1 *Sphagnum denticulatum* and M3 *Eriophorum angustifolium* Bog Pool Communities

Bog pools supporting this community were present within the more hagged areas of M19 and in the flatter M17 area to the west. The bog pool communities were found in shallow peaty pools between the peat hags (Photograph 3-1), or on some of the peaty plateaus. *Sphagnum denticulatum* was noted in M1 communities, but so too was a similar amount of *S. cuspidatum*. Some herbs such as *Narthecium ossifragum* and the sedge *Eriophorum angustifolium*, which is dominant in M3 bog pools.

Due to the close association of this community with M19 and M17, the bog pool communities have been classified under UKHab as f1a5 (the same as M19 and M17). This is because the bog pools contain sufficient amounts of *Sphagnum spp.* that they are also an active peat forming community.



Photograph 3-1: M1 bog pools within hagged area

#### 3.1.2 M17 *Scirpus cespitosus* – *Eriophorum vaginatum* Blanket Mire

This mire community is the most common type of peatland community found within the site (Photograph 3-2). As would be expected, it blankets the flatter, deeper peat areas, and the lower gradient slopes. As noted above,

the fire in 2018 removed the cover of ericoid species over this community type, which was recovering in the surveys carried out in 2020. The community now has a good mixed sward with *Eriophorum vaginatum*, *Calluna vulgaris*, *Molinia caerulea*, *Erica tetralix* and a variety of *Sphagnum* species, including the bulky *Sphagnum papillosum*. Good recovery has been made since the fire in 2018.

### 3.1.3 M19 *Calluna vulgaris* – *Eriophorum vaginatum* blanket mire

This community is generally distinguished because of its dense sward of tussocky *Calluna vulgaris* and *Eriophorum vaginatum* (Photograph 3-3). Surveys carried out in 2020 noted to the loss of much of the ericoid species due to the fire in 2018, with some signs of recovery. Surveys in 2022 show good recovery of this habitat, with good cover of *C. vulgaris* and *Erica tetralix*. The peat forming *Sphagnum* layer is present at ground level, still patchy in places but showing signs of recovery from the fire. These communities are not as common as M17, but are scattered throughout the site on higher ground.



Photograph 3-2: M17 blanket bog, common across the site



Photograph 3-3: M19 blanket bog with frequent to dominant *Calluna vulgaris*

## 3.2 Fen, Marsh and Swamp (UKhab f2)

### 3.2.1 M4 *Carex rostrata* – *Sphagnum recurvum* mire

This community was noted in a small area by the loch in the west of the site, in an area not previously surveyed. The community is dominated by the sedge *Carex rostrata*, with a carpet of *Sphagnum fallax* and very few other plants. The area is constantly waterlogged from the nearby loch, acting as a transition zone between the damp loch and the bog habitat.

This habitat is classified as f2a8, transition mire. These habitats occur in areas where surface water accumulates, for example where two burns meet, or in this case where a small lochan drains into a burn.

### 3.2.2 M6 *Carex echinata* – *Sphagnum fallax/ denticulatum* mire

This community was noted in areas where the slope on the deeper M17 mire changed, either becoming more, or less steep, resulting in a seepage line forming, which was often dominated by *Sphagnum* species such as *Sphagnum fallax* or *S. palustre* growing in amongst the stems of the rush species *Juncus effusus* or, more often, *Juncus acutiflorus*. In some areas the prickly seeds of *Carex echinata* were seen in abundance too. A number of herb species were also noted in the M6 community, including *Ranunculus acris*, *Myosotis spp.* and *Cardamine pratensis*. It is therefore considered that in these areas the community is best described as M6d where *Juncus acutiflorus* was dominant.

Under the UKHab system, the M6 community is defined as f2c Upland flushes, fens and swamps. This category covers a wide range of vegetation types, all of which are inundated or waterlogged upland habitats that are supplied by groundwater or slow-moving rainwater which flows through them. They are not considered to be peat forming.

### 3.2.3 M23 *Juncus effusus/ acutiflorus* – *Galium palustre* rush-pasture

This community was found to be generally limited to less acid soils adjacent to watercourses, often occurring downstream of the M6 mire community. Dominated by both *Juncus effusus* and *J. acutiflorus*, this community lacks the *Sphagnum* species found in M6. Some areas appeared to be relatively species-rich with *Ranunculus acris*, *Cardamine pratensis*, *Myosotis palustris* and *Lotus pedunculatus* being noted, though not recorded as part of a quadrat survey. Signs of grazing were noted in this community, especially where grasses such as *Anthoxanthum odoratum* and *Holcus lanatus* are present. In addition to grazing signs, several lie-ups were noted too, presumably red deer (which were also seen on site during the survey). Other areas were relatively species poor, with large amounts of *Ranunculus repens* threading between the *Juncus* stems.

Under the UKHab classification system this community translates to the f2b Purple Moor Grass and Rush Pasture habitat type. This is because the vegetation is generally dominated by *Molinia caerulea*, *Juncus acutiflorus* or *Juncus effusus*. Although this habitat category is often used to define agriculturally unimproved pastures, which the bank sides of the stream on site are not, they do have many of the same characteristic species, and are unimproved (no manure or fertilizer input).

### 3.2.4 M25 *Molinia caerulea* – *Potentilla erecta* mire

This community is limited to a small area adjacent to a watercourse in the newly surveyed north west of the site. The area is waterlogged and dominated by *Molinia caerulea*, with scattered *Erica tetralix* and *Succisa pratensis*, with a good cover of *Sphagnum* species in the ground layer.

Under the UKHab classification system this community translates to the f2b Purple Moor Grass and Rush Pasture habitat type. This is because the vegetation is generally dominated by *Molinia caerulea*, *Juncus acutiflorus* or *Juncus effusus*. Although this habitat category is often used to define agriculturally unimproved pastures, which the bank sides of the stream on site are not, they do have many of the same characteristic species, and are unimproved (no manure or fertilizer input).

### 3.2.5 M32 *Philonotis fontana* – *Saxifraga stellaris* spring

This type of spring community was noted in a few locations across the site in the surveys in 2020. These areas were not noted again in 2022, however they are usually small features, and it is likely they are still present but were not recorded in 2022. These are bryophyte dominated communities, with *Philonotis fontana* being the most abundant. *Sphagnum* was also present in some areas, with mats of *Sphagnum denticulatum* noted. A spring with *Montia fontana* dominant with signs of emerging leaves of *Potamogeton* was noted in previous surveys.

Under the UKHab classification system, M32 can be classified as f2f Other Swamps. That is, a swamp habitat other than reedbeds. This is a “catch all” habitat type, which appears to include mainly grassy swamp habitats.

## 3.3 Upland Heathland (h1b)

### 3.3.1 H12 *Calluna vulgaris* – *Vaccinium myrtillus* heath and H14 *Calluna vulgaris* – *Racomitrium lanuginosum* heath

Although recorded as present within the site, this community type was limited in extent and only occurred in small areas, where steep, shallow, free-draining soils were present. These heath communities were found in mosaic with acid grassland U5 community and with wet heath M15 community. Fire damage made it difficult to categorise these communities, with some patches dominated by a short *Calluna vulgaris* sward, mixed with

damp patches of M15 plants and grassy patches of *Nardus stricta* (U5). Continued grazing in these areas has slowed *Calluna vulgaris* growth after the fire damage, and left patches of bare ground. The H14 replaced H12 in mosaic with U5 to the north on the higher ground (Photograph 3-4) had frequent *Racomitrium lanuginosum* in the sward, which was missing from the H12 areas on the lower, sloping ground.

Under the UKHab classification this upland heathland keys out as h1b Upland Heathland, occurring on mineral soils and thin peats less than 0.5m deep. This habitat type has not been classified as an Annex 1 habitat due to the small scale and fragmented nature of this habitat type within the site.

### 3.3.2 M15 *Scirpus cespitosus* – *Erica tetralix* Wet Heath

This community replaces the M17 mire on the slightly steeper slopes of the site, where peat depths are shallower (Photograph 3-5). Since the 2018 burn, the M15 has become dominated by *Molinia caerulea*, which at the time of the 2020 and the 2022 surveys gave a very grassy appearance to this community type. On close inspection however, all of the elements of wet heath were found to be present here including: *Calluna vulgaris*, *Erica tetralix*, *Eriophorum vaginatum*, *Trichophorum cespitosum*, *Potentilla erecta* and in some areas, quite dense stands of *Narthecium ossifragum*.

As is often the case, this type of community is not continuous, small areas of M6 flush community are present where water flushes up through the peat; U5 grass communities are present where the peat thins and breaks over steeper or stonier ground; and M23 rush pasture communities are present adjacent to stream banks or where less acidic flush lines are present.

M15 here has been classified as h1b Upland Heathland, vegetation occurring on mineral soils and peats less than 0.5m depth. The definition also states that dwarf shrubs should have a cover of at least 25%; however, it is noted that while the *Calluna vulgaris*, *Vaccinium myrtillus* and *Erica tetralix* are recovering (post burn), they may not always exceed the 25% threshold in all areas.



Photograph 3-4: H14/U5 area with *Calluna vulgaris* and *Nardus stricta* in patches, with much bare earth



Photograph 3-5: M15 area dominated by *Molinia caerulea*

## 3.4 Upland Acid Grassland (UKHab g1b6)

### 3.4.1 U4 *Festuca ovina* – *Agrostis capillaris* – *Galium saxatile* grassland

Where present, this community was found on sloping ground with thin, dry soil, and on the lower ground to the south of the site grazed by livestock. This community was found to comprise three dominant grass species: *Agrostis capillaris*, *Anthoxanthum odoratum* and *Festuca ovina* and *Galium saxatile*.

The UKHab category which covers this community type is g1b6, Other Upland Acid Grasslands, defined as acid grassland in the uplands which does not include montane species. This definition is broad, so likely includes all three NVC communities U4, U5 and grassier examples of U6.

### 3.4.2 U5 *Nardus stricta* – *Galium saxatile* grassland

This community was found in mosaic with wet and dry heath communities on the higher ground. The community is defined by the dominance of *Nardus stricta*, other species present in this community included *Festuca ovina*, *Rhytidiadelphus loreus*, *Hylocomium splendens* and in areas less fire-damaged, sprigs of species such as *Vaccinium myrtillus*. This community was generally only found where thinner soils persist over steeper more freely draining slopes (Photograph 3-6).

The UKHab category which covers this community type is g1b6 Other Upland Acid Grasslands.

### 3.4.3 U6 *Juncus squarrosus* – *Festuca ovina* grassland

This community was again limited in extent but formed part of the continuum between the M15 wet heath/ M17 mire and the grassier and heathy communities which form on the thinner soils of the steeper slopes. M15 for example would grade into U6, with its wet heath elements, before grading into a grassier U4 or U5 (Photograph 3-6). The most obvious characteristic species of this habitat type are the dense rosettes of *Juncus squarrosus*, but also the presence of mosses such as *Pleurozium scherberi*, *Rhytidiadelphus squarrosus* (where fire damage was limited) and in the wetter areas, *Sphagnum capillifolium*.

The UKHab category which covers this community type is g1b6 Other Upland Acid Grasslands.



Photograph 3-6: U5/U6 grassland area with *Juncus squarrosus* and *Nardus stricta* in patches

### 3.4.4 U20 *Pteridium aquilinum* – *Galium saxatile* community

Areas dominated by *Pteridium aquilinum* (bracken), were found in grazed areas in the south of site, near the public road. These patches primarily comprised a *Pteridium aquilinum* canopy with acid grassland species in the understory.

## 4.0 Discussion and Conclusions

### 4.1 Habitats and Vegetation Communities

The results show that the survey area mainly comprises blanket bog and wet heath habitats (**Figure 8.1.2 and 8.1.3**), typical for this area of Skye. Prior to the fire of March 2018, it is considered likely that the bog habitats were all in moderate condition as the survey area showed limited signs of man-made drainage and cutting, though there is evidence of livestock grazing on the site. Since the fire, signs of recovery were noted for all but the pleurocarp mosses. While the peatland habitats could be described as being in a poor condition due to the fire, it is considered likely that they will recover to a more favourable status in the next five to ten years if grazing is kept to a low intensity on the site.

### 4.2 Groundwater Dependent Terrestrial Ecosystems (GWDTE)

Potential groundwater dependence of each community, based on current SEPA guidance, were marked during habitat surveys and discussed further with hydrologists. Areas of potential groundwater dependency are shown on **Figure 10.8** which support **Chapter 10: Hydrology, Hydrogeology and Soils**. The hydrological assessment discusses and determine the actual likelihood of GWDTE's on site. These are mostly small target note areas such as flushes and springs.

The outcome of the GWDTE assessment presented in **Chapter 10** is that the habitats are not sustained by groundwater, but by rainfall and surface water flow paths. Surface water flow paths to these habitats will need to be safeguarded to ensure these habitats are sustained.

## ANNEX 8.1A

**Table A1 Target Notes**

TN	Location	Note
1	NG 33643 47517	Rocky patch with <i>Thymus polytrichus</i> growing through indicating patch of upland calcareous habitat
2	NG 32562 43829	Patch of M6 Je by stream
3	NG 32260 43767	M15a flush
4	NG 32755 44559	M9 patch

**Table A2 Plant species recorded during 2022 UKHab and NVC surveys**

Group	Scientific Name	Common Name
Herb	<i>Calluna vulgaris</i>	Heather
Herb	<i>Cardamine pratensis</i>	Cuckooflower
Herb	<i>Drosera anglica</i>	English sundew
Herb	<i>Drosera rotundifolia</i>	Round-leaved sundew
Herb	<i>Empetrum nigrum</i>	Crowberry
Herb	<i>Erica cinerea</i>	Bell Heather
Herb	<i>Erica tetralix</i>	Cross-leaved Heather
Herb	<i>Galium palustre</i>	Marsh Bedstraw
Herb	<i>Galium saxatile</i>	Heath Bedstraw
Herb	<i>Lotus pedunculatus</i>	Greater bird's-foot trefoil
Herb	<i>Montia fontana</i>	Blinks
Herb	<i>Myosotis palustris</i>	Water Forget-me-not
Herb	<i>Narthecium ossifragum</i>	Bog Asphodel
Herb	<i>Polygala serpyllifolia</i>	Heath Milkwort
Herb	<i>Potamogeton sp.</i>	Pondweed
Herb	<i>Potentilla erecta</i>	Tormentil
Herb	<i>Ranunculus acris</i>	Meadow Buttercup
Herb	<i>Ranunculus repens</i>	Creeping Buttercup
Herb	<i>Rumex acetosella</i>	Sheep's Sorrel
Herb	<i>Succisa pratensis</i>	Devil's-bit Scabious
Herb	<i>Thymus polytrichus</i>	Wild Thyme



Group	Scientific Name	Common Name
Herb	<i>Vaccinium myrtillus</i>	Bilberry
Grass	<i>Agrostis capillaris</i>	Common Bent
Grass	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
Grass	<i>Deschampsia flexuosa</i>	Wavy Hair-grass
Grass	<i>Festuca ovina</i>	Sheep's Fescue
Grass	<i>Festuca vivipara</i>	Viviparous sheep's-fescue
Grass	<i>Holcus lanatus</i>	Yorkshire Fog
Grass	<i>Molinia caerulea</i>	Purple Moor-grass
Grass	<i>Nardus stricta</i>	Mat-grass
Sedge	<i>Carex echinata</i>	Star Sedge
Sedge	<i>Carex panicea</i>	Carnation Sedge
Sedge	<i>Carex rostrata</i>	Bottle Sedge
Sedge	<i>Eriophorum angustifolium</i>	Common Cottongrass
Sedge	<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass
Sedge	<i>Scirpus cespitosus</i>	Deergrass
Sedge	<i>Trichophorum cespitosum</i>	Deergrass
Rush	<i>Juncus acutiflorus</i>	Sharp-flowered Rush
Rush	<i>Juncus effusus</i>	Soft Rush
Rush	<i>Juncus squarrosus</i>	Heath Rush
Rush	<i>Luzula multiflora</i>	Heath Woodrush
Fern	<i>Pteridium aquilinum</i>	Bracken
Moss	<i>Hylocomium splendens</i>	Glittering Woodmoss
Moss	<i>Hypnum jutlandicum</i>	Heath Plait-moss
Moss	<i>Philonotis fontana</i>	Fountain Apple-moss
Moss	<i>Pleurozium schreberi</i>	Red-stemmed Feathermoss
Moss	<i>Polytrichum commune</i>	Common haircap
Moss	<i>Pseudoscleropodium purum</i>	Neat Feather-moss
Moss	<i>Racomitrium lanuginosum</i>	Woolly Fringe-moss
Moss	<i>Rhytidiadelphus loreus</i>	Little shaggy moss
Moss	<i>Rhytidiadelphus squarrosus</i>	Springy Turf-moss
Moss	<i>Sphagnum auriculatum</i>	Cow-horn Bog-moss
Moss	<i>Sphagnum capillifolium</i>	Red bog-moss
Moss	<i>Sphagnum cuspidatum</i>	Feathery Bog-moss
Moss	<i>Sphagnum denticulatum</i>	Cow-horn Bog-moss
Moss	<i>Sphagnum fallax</i>	Flat-topped Bog-moss

Group	Scientific Name	Common Name
Moss	<i>Sphagnum magellanicum</i>	Magellanic Bog-moss
Moss	<i>Sphagnum palustre</i>	Blunt-leaved Bog-moss
Moss	<i>Sphagnum papillosum</i>	Papillose Bog-moss
Moss	<i>Sphagnum papillosum</i>	Papillose Bog-moss
Moss	<i>Sphagnum recurvum</i>	Flat-topped Bog-moss
Moss	<i>Sphagnum sp.</i>	Sphagnum species
Moss	<i>Sphagnum tenellum</i>	Soft Bog-moss

**Table A3 NVC Quadrats 2022**  
 \*See Table A4 for DOMIN Scores

Quadrat No.	Location	UKHab code	NVC Code	Species	DOMIN Score
1	132598, 845104	h1b6	M15	Molinia caerulea	8
				Calluna vulgaris	4
				Narthecium ossifragum	4
				Eriophorum angustifolium	4
				Sphagnum capillifolium	4
				Erica tetralix	3
				Carex echinata	3
				Agrostia capillaris	3
				Sphagnum palustre	3
				Sphagnum tenellum	3
Potentilla erecta	2				
2	132474, 844686	f1a5	M19	Eriophorum vaginatum	8
				Sphagnum capillifolium	7
				Calluna vulgaris	5
				Empetrum nigrum	5
				Molinia caerulea	4
				Erica tetralix	4
				Pseudoscleropodium purum	4
				Hypnum jutlandicum	4
				Sphagnum fallax	4
				Sphagnum tenellum	4
				Rhytidiadelphus loreus	4
				Potentilla erecta	3
Vaccinium myrtillus	2				

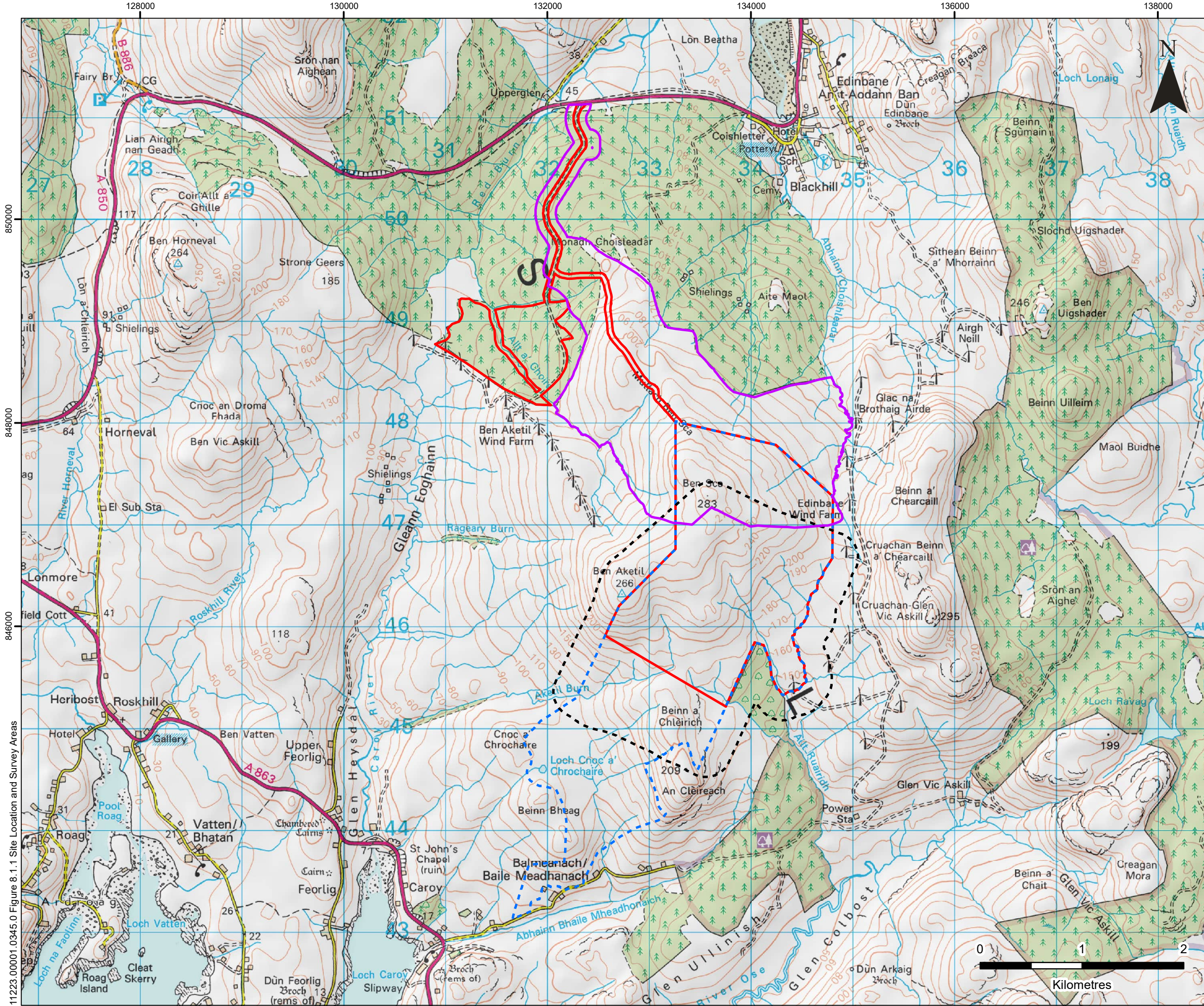
Quadrat No.	Location	UKHab code	NVC Code	Species	DOMIN Score
3	132270, 844602	f1a5	M1/M17	Sphagnum capillifolium	7
				Trichophorum cespitosum	6
				Eriophorum vaginatum	5
				Molinia caerulea	5
				Sphagnum papillosum	5
				Calluna vulgaris	4
				Erica tetralix	4
				Narthecium ossifragum	4
				Sphagnum tenellum	4
				Eriophorum angustifolium	4
				Drosera rotundifolia	3
4	131969, 844527	f2a8	M4	Sphagnum papillosum	8
				Carex rostrata	7
				Eriophorum angustifolium	6
				Sphagnum fallax	5
				Molinia caerulea	4
5	131875, 844702	h1b6	M15	Molinia caerulea	5
				Trichophorum cespitosum	5
				Carex panicea	5
				Sphagnum capillifolium	5
				Erica tetralix	4
				Calluna vulgaris	4
				Potentilla erecta	4
				Narthecium ossifragum	4
				Fluffy moss	4
				Agrostia capillaris	4
				Racomitrium lanuginosum	4
				black moss	4
				Succisa pratensis	3
				Erica cinerea	2
				Polygala	2
orchid sp.	1				
6	132007, 844909	f1a5	M17	Sphagnum capillifolium	7
				Trichophorum cespitosum	6

Quadrat No.	Location	UKHab code	NVC Code	Species	DOMIN Score
				Sphagnum papillosum	6
				Eriophorum vaginatum	5
				Erica tetralix	4
				Calluna vulgaris	4
				Narthecium ossifragum	4
				Eriophorum angustifolium	4
				Molinia caerulea	4
				purpurea	4
				Racomitrium lanuginosum	4
				Drosera rotundifolia	3
				Potentilla erecta	2
				Drosera long	2
7	132102, 844964	f2b	M25	Molinia caerulea	8
				Sphagnum papillosum	6
				Eriophorum angustifolium	5
				Sphagnum tenellum	4
				Sphagnum fallax	4
				Sphagnum magellanicum	4
				Succisa pratensis	3
				Erica tetralix	3
				Potentilla erecta	3
8	132581, 843773	h1b6	M15	Hylocomium splendens	9
				Molinia caerulea	8
				Erica tetralix	4
				Calluna vulgaris	4
				Rhytidiadelphus loreus	4
				Juncus squarrosus	4
				Anthoxanthum odoratum	4
				Deschampsia flexuosa	4
				Potentilla erecta	3
				Erica cinerea	3
				Empetrum nigrum	3
				Polytrichum commune	3
				Vaccinium myrtillus	2

Quadrat No.	Location	UKHab code	NVC Code	Species	DOMIN Score
				Succisa pratensis	2
				Luzula multiflora	2
9	132213, 843960	h1b6	M15/U4	Rhytiadelphus squarrosus	8
				Agrostia capillaris	5
				Festuca vivipera	5
				Nardus stricta	5
				Galium saxatile	5
				Anthoxanthum odoratum	5
				Hylocomium splendens	5
				Juncus squarrosus	5
				Luzula multiflora	4
				Potentilla erecta	4
Rumex acetosella	3				

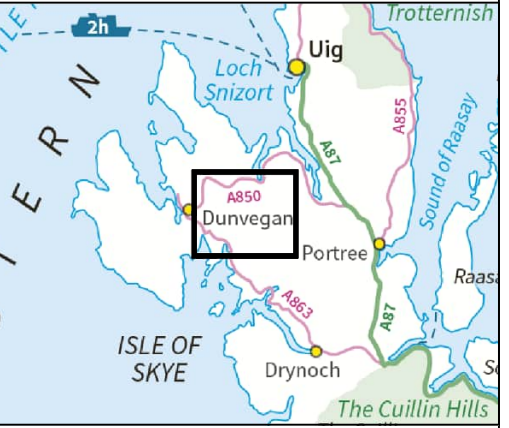
**\*Table A4 DOMIN Scores**

Cover	DOMIN Score
Few individuals	1
Several individuals	2
Many individuals	3
4-10%	4
11-25%	5
26-33%	6
34-50%	7
51-75%	8
76-90%	9
91-100%	10



**LEGEND**

- Application Site Boundary
- August 2022 Survey Area
- September 2020 Survey Area
- 2018 Ben Sca Survey Area



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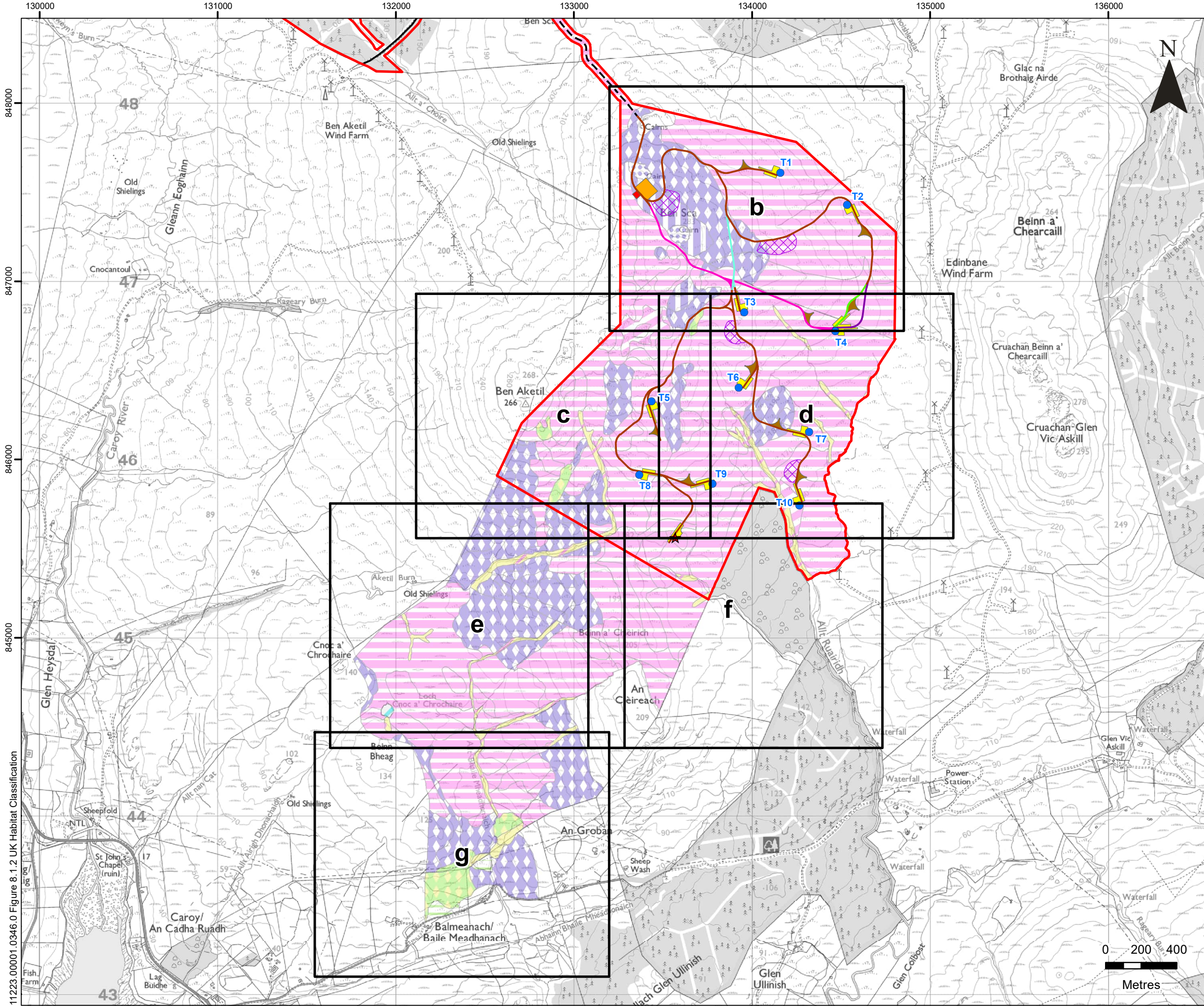
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 SITE LOCATION AND SURVEY AREAS

**FIGURE 8.1.1**

Scale: 1:35,000 @ A3      Date: JULY 2023

11223.00001.0345.0 Figure 8.1.1 Site Location and Survey Areas



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Construction Compound
- Proposed Substation
- Proposed Turning Head
- Potential Borrow Pit
- Existing Access Track
- Consented Access Track

**Proposed Track Alignment**

- Proposed
- Proposed Option A
- Proposed Option A1
- Proposed Option A2
- Proposed Option B

**UK Habitat Classification**

- f1a5 - Blanket Bog (H7130)
- f1a6 - Degraded Raised Bog (H7120)
- f2b - Purple Moor Grass and Rush Pastures
- f2c - Upland Flushes, Fens and Swamps
- f2c8 - Transition Mires and Quaking Bogs; Upland (H7140)
- g1b6 - Other Upland Acid Grassland
- g1c - Bracken
- h1b - Upland Heathland
- h1b5 - Dry Heaths, Upland (H4030)
- h1b6 - Wet Heathland with Cross-Leaved Heath, Upland (H4010)
- r1 - Standing Open Water and Canals

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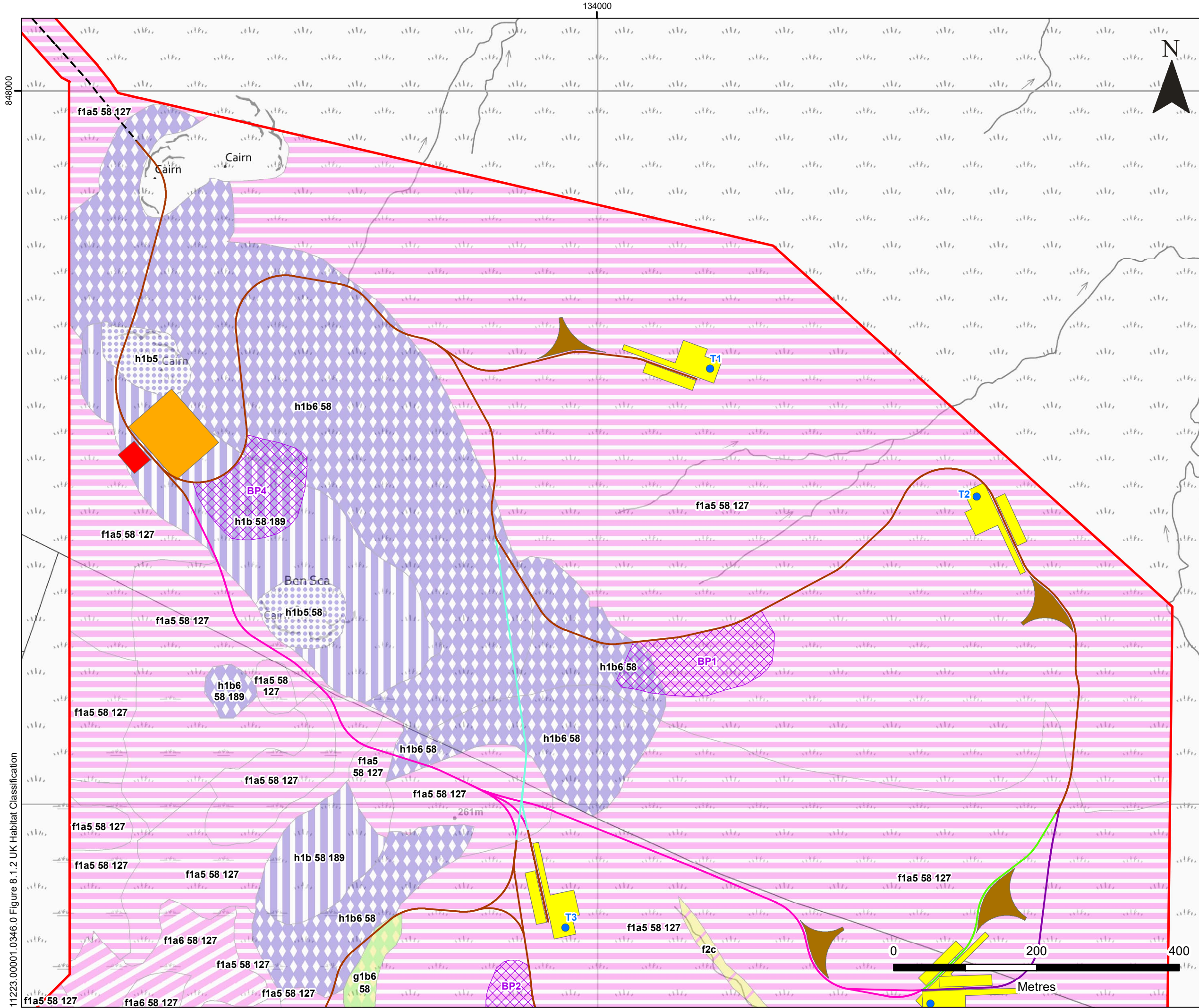
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UK HABITAT CLASSIFICATION

**FIGURE 8.1.2a**

Scale: 1:20,000 @ A3      Date: JULY 2023

11223.00001.0346.0 Figure 8.1.2 UK Habitat Classification



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- Proposed Crane Hardstanding
- Proposed Construction Compound
- Proposed Substation
- Proposed Turning Head
- Potential Borrow Pit
- Consented Access Track

**Proposed Track Alignment**

- Proposed
- Proposed Option A
- Proposed Option A1
- Proposed Option A2
- Proposed Option B

**UK Habitat Classification**

- f1a5 - Blanket Bog (H7130)
- f1a6 - Degraded Raised Bog (H7120)
- f2c - Upland Flushes, Fens and Swamps
- g1b6 - Other Upland Acid Grassland
- h1b - Upland Heathland
- h1b5 - Dry Heaths, Upland (H4030)
- h1b6 - Wet Heathland with Cross-Leaved Heath, Upland (H4010)

**Secondary Habitats**

- 13** - Scattered Dwarf Shrubs
- 14** - Scattered Rushes
- 15** - Rushes Dominant
- 19** - Ponds (Priority Habitat)
- 58** - Grazed
- 120** - Wet
- 127** - Peat
- 189** - Scattered Grass

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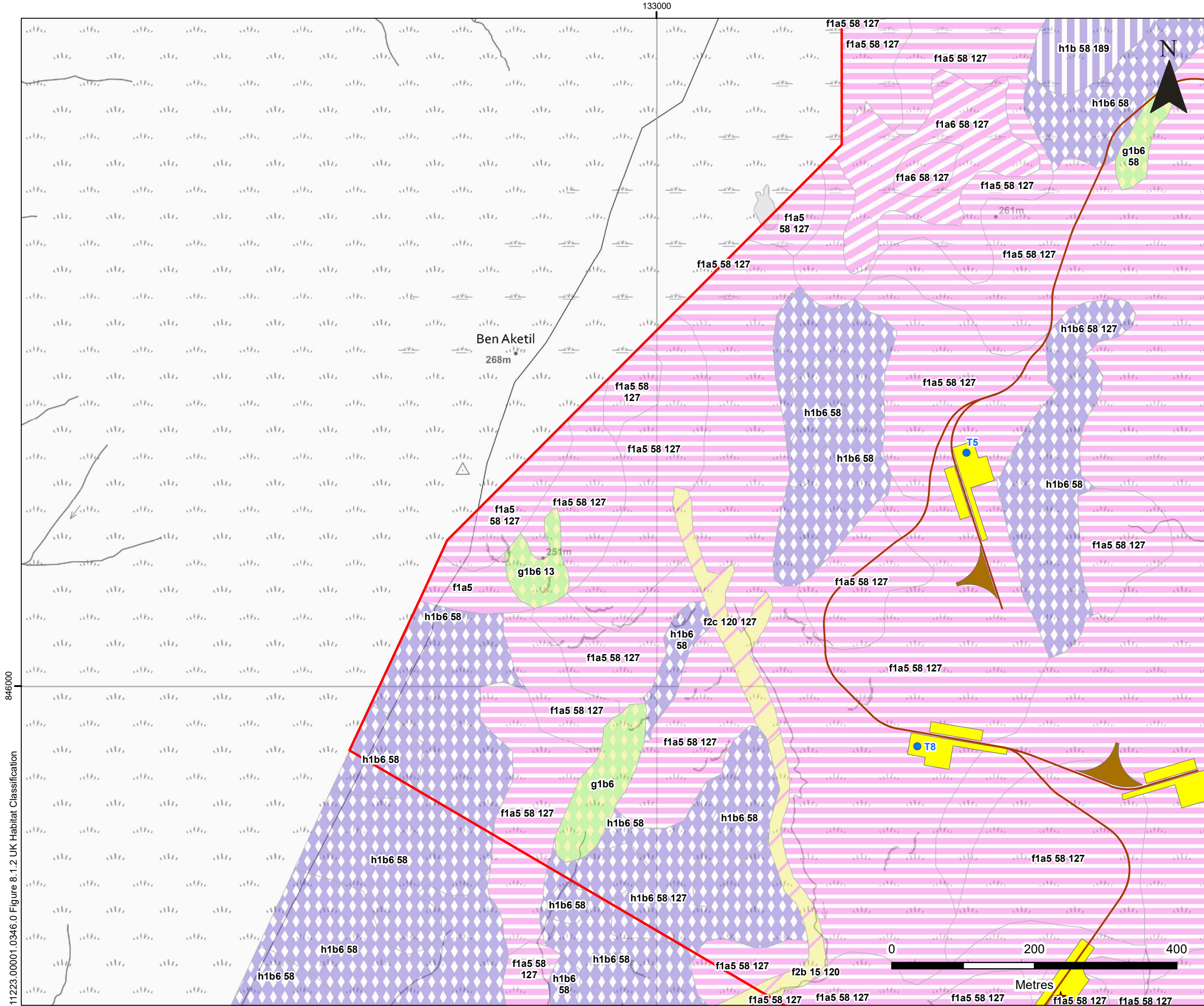
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**FIGURE 8.1.2b**

Scale 1:5,000 @ A3      Date JULY 2023

11223.00001.0346.0 Figure 8.1.2 UK Habitat Classification





**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Turning Head

**Proposed Track Alignment**

- Proposed

**UK Habitat Classification**

- f1a5 - Blanket Bog (H7130)
- f1a6 - Degraded Raised Bog (H7120)
- f2b - Purple Moor Grass and Rush Pastures
- f2c - Upland Flushes, Fens and Swamps
- g1b6 - Other Upland Acid
- h1b - Upland Heathland
- h1b6 - Wet Heathland with Cross-Leaved Heath, Upland (H4010)

**Secondary Habitats**

- 13 - Scattered Dwarf Shrubs
- 14 - Scattered Rushes
- 15 - Rushes Dominant
- 19 - Ponds (Priority Habitat)
- 58 - Grazed
- 120 - Wet
- 127 - Peat
- 189 - Scattered Grass

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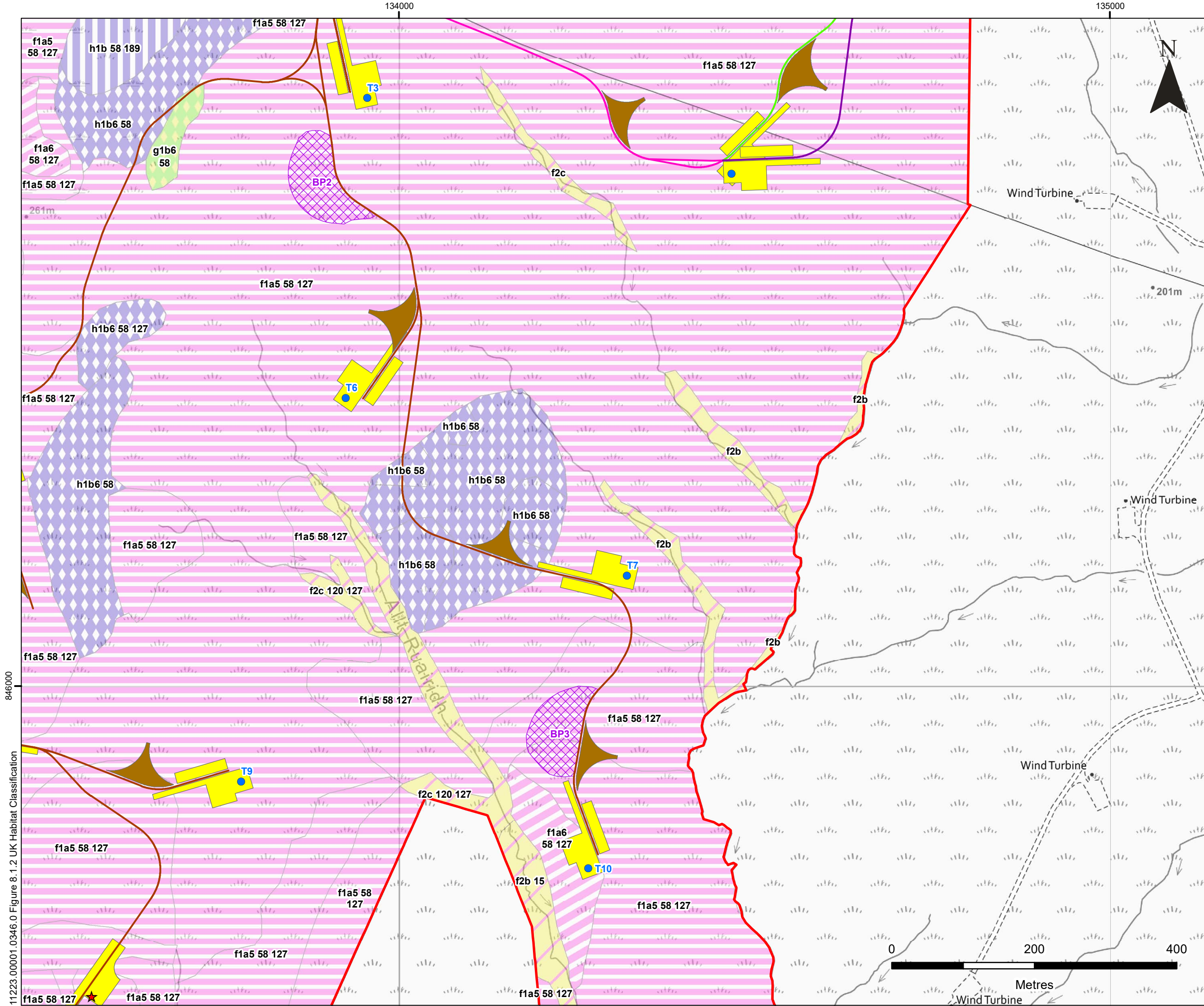
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UK HABITAT CLASSIFICATION  
**FIGURE 8.1.2c**

Scale 1:5,000 @ A3      Date JULY 2023

11223.00001.0346.0 Figure 8.1.2 UK Habitat Classification



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Turning Head
- Potential Borrow Pit

**Proposed Track Alignment**

- Proposed
- Proposed Option A1
- Proposed Option A2
- Proposed Option B

**UK Habitat Classification**

- f1a5 - Blanket Bog (H7130)
- f1a6 - Degraded Raised Bog (H7120)
- f2b - Purple Moor Grass and Rush Pastures
- f2c - Upland Flashes, Fens and Swamps
- g1b6 - Other Upland Acid
- h1b - Upland Heathland
- h1b6 - Wet Heathland with Cross-Leaved Heath, Upland (H4010)

**Secondary Habitats**

- 13** - Scattered Dwarf Shrubs
- 14** - Scattered Rushes
- 15** - Rushes Dominant
- 19** - Ponds (Priority Habitat)
- 58** - Grazed
- 120** - Wet
- 127** - Peat
- 189** - Scattered Grass

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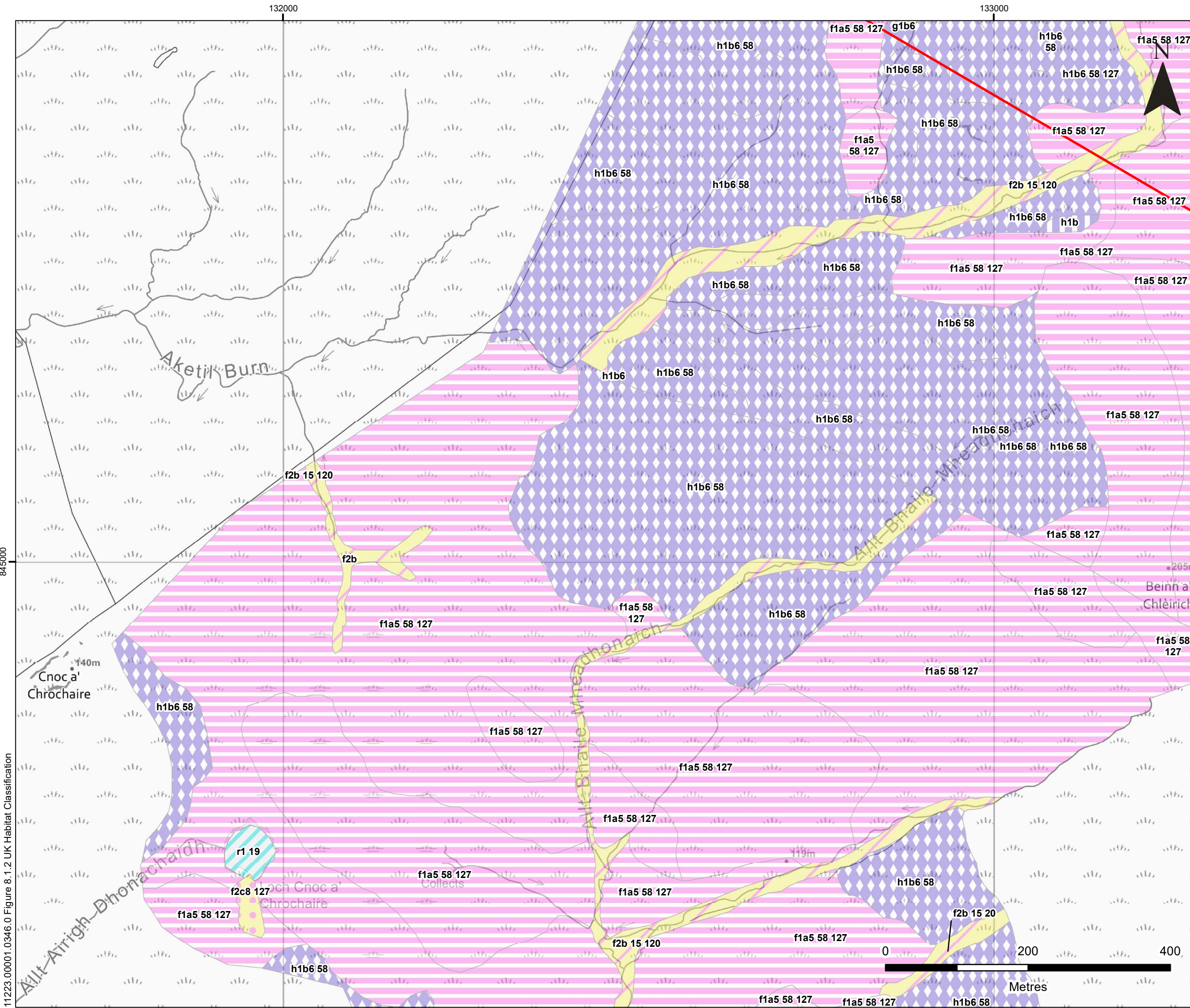
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**UK HABITAT CLASSIFICATION**

**FIGURE 8.1.2d**

Scale: 1:5,000 @ A3      Date: JULY 2023

11223.00001.0346.0 Figure 8.1.2 UK Habitat Classification



**LEGEND**

**Application Site Boundary**

**UK Habitat Classification**

- f1a5 - Blanket Bog (H7130)
- f2b - Purple Moor Grass and Rush Pastures
- f2c8 - Transition Mires and Quaking Bogs; Upland (H7140)
- g1b6 - Other Upland Acid Grassland
- h1b - Upland Heathland
- h1b6 - Wet Heathland with Cross-Leaved Heath, Upland (H4010)
- r1 - Standing Open Water and Canals

**Secondary Habitats**

- 13 - Scattered Dwarf Shrubs
- 14 - Scattered Rushes
- 15 - Rushes Dominant
- 19 - Ponds (Priority Habitat)
- 58 - Grazed
- 120 - Wet
- 127 - Peat
- 189 - Scattered Grass

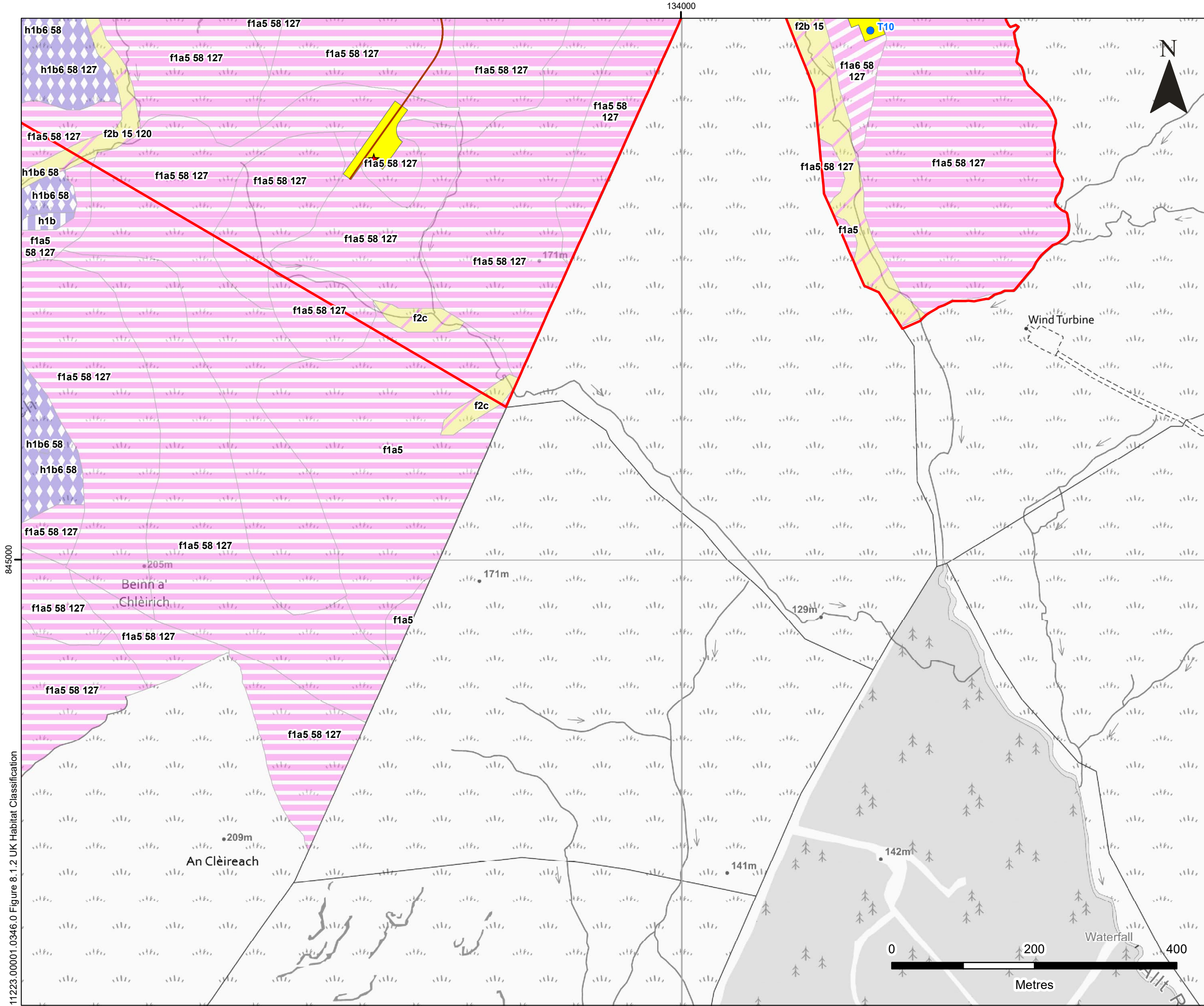
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**UK HABITAT CLASSIFICATION**  
**FIGURE 8.1.2e**

Scale 1:5,000 @ A3 Date JULY 2023

11223.00001.0346.0 Figure 8.1.2 UK Habitat Classification



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Track Alignment**
- Proposed
- UK Habitat Classification**
- f1a5 - Blanket Bog (H7130)
- f1a6 - Degraded Raised Bog (H7120)
- f2b - Purple Moor Grass and Rush Pastures
- f2c - Upland Flushes, Fens and Swamps
- h1b - Upland Heathland
- h1b6 - Wet Heathland with Cross-Leaved Heath, Upland (H4010)

- Secondary Habitats**
- 13 - Scattered Dwarf Shrubs
  - 14 - Scattered Rushes
  - 15 - Rushes Dominant
  - 19 - Ponds (Priority Habitat)
  - 58 - Grazed
  - 120 - Wet
  - 127 - Peat
  - 189 - Scattered Grass

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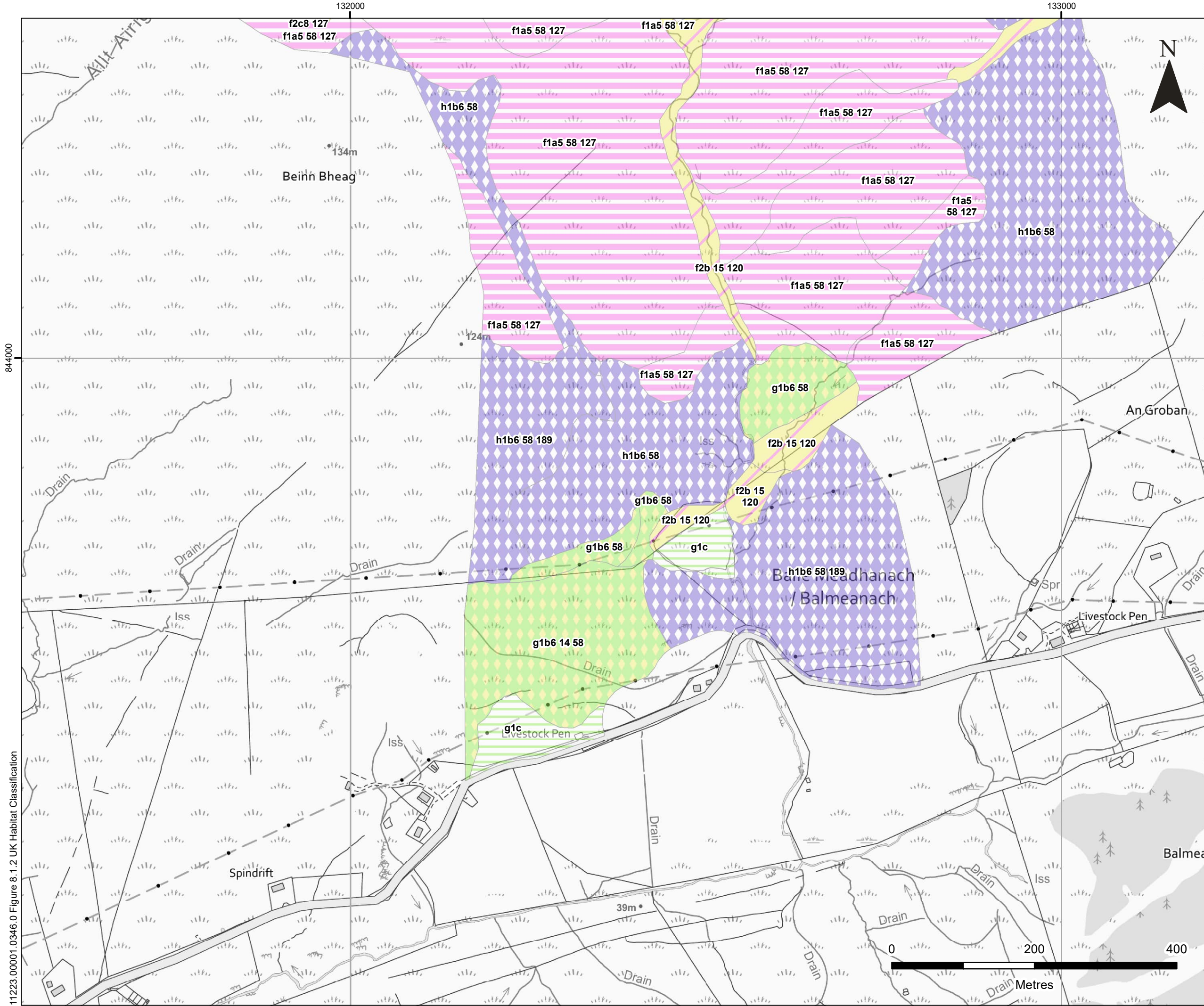
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**UK HABITAT CLASSIFICATION**

**FIGURE 8.1.2f**

Scale 1:5,000 @ A3	Date JULY 2023
-----------------------	-------------------

11223.00001.0346.0 Figure 8.1.2 UK Habitat Classification



**LEGEND**

**UK Habitat Classification**

- f1a5 - Blanket Bog (H7130)
- f2b - Purple Moor Grass and Rush Pastures
- f2c8 - Transition Mires and Quaking Bogs; Upland (H7140)
- g1b6 - Other Upland Acid
- g1c - Bracken
- h1b6 - Wet Heathland with Cross-Leaved Heath, Upland (H4010)

**Secondary Habitats**

- 13 - Scattered Dwarf Shrubs
- 14 - Scattered Rushes
- 15 - Rushes Dominant
- 19 - Ponds (Priority Habitat)
- 58 - Grazed
- 120 - Wet
- 127 - Peat
- 189 - Scattered Grass

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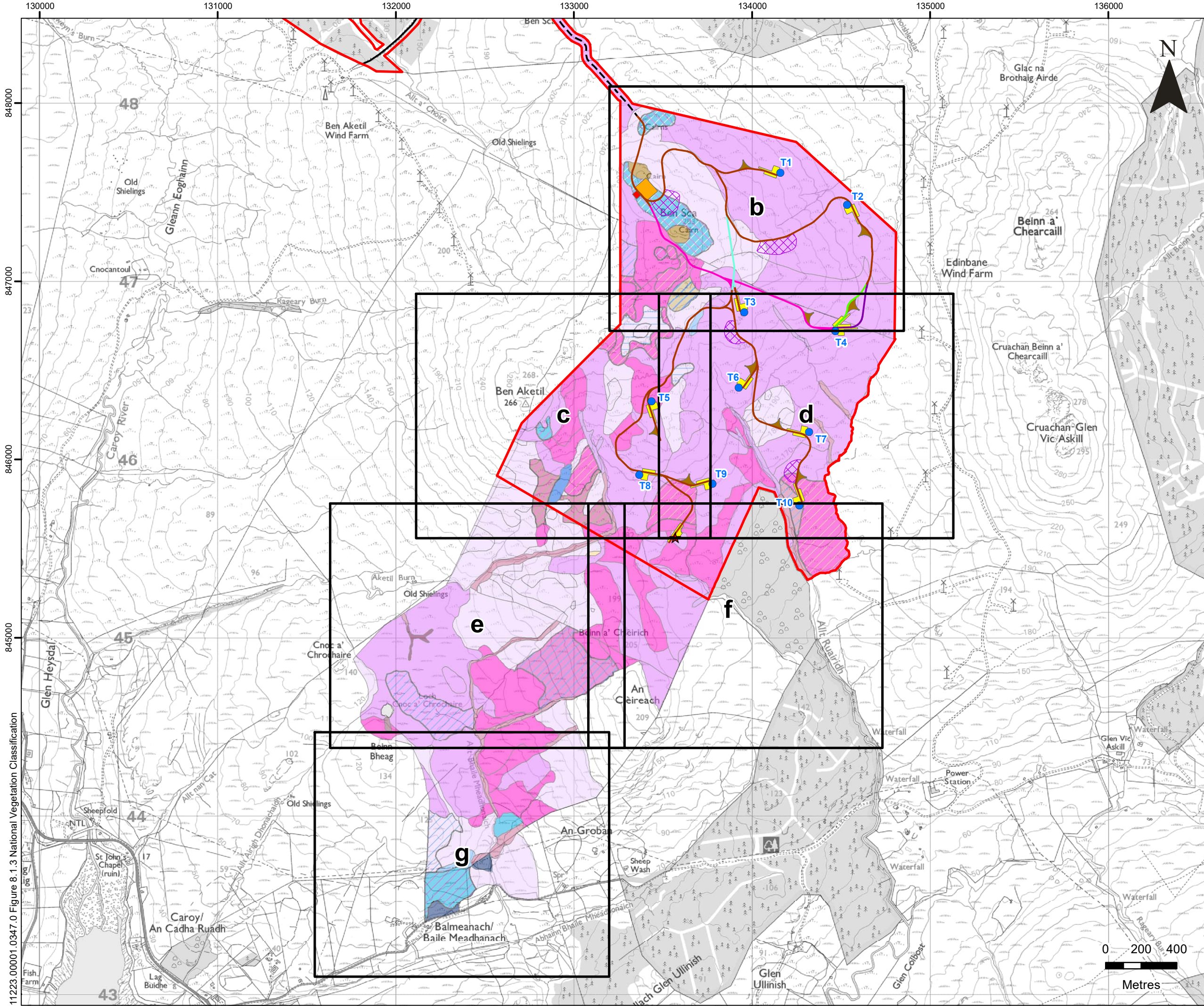
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**UK HABITAT CLASSIFICATION**  
**FIGURE 8.1.2g**

Scale 1:5,000 @ A3      Date JULY 2023

11223.00001.0346.0 Figure 8.1.2 UK Habitat Classification



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Construction Compound
- Proposed Substation
- Proposed Turning Head
- Potential Borrow Pit
- Existing Access Track
- Consented Access Track

**Proposed Track Alignment**

- Proposed
- Proposed Option A
- Proposed Option A1
- Proposed Option A2
- Proposed Option B

**National Vegetation Classification**

<span style="background-color: #f0e68c; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> H12	<span style="background-color: #ff69b4; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19/U5
<span style="background-color: #d2b48c; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> H12/U5	<span style="background-color: #d8bfd8; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M23
<span style="background-color: #c08060; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> H14	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M25
<span style="background-color: #f0e68c; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15	<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M4
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15-M17	<span style="background-color: #800080; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M6
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15-M19	<span style="background-color: #00bfff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U4
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15/M1	<span style="background-color: #00bfff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U4/M25b
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15/M19	<span style="background-color: #00bfff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U4b
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15/U4	<span style="background-color: #00bfff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U5/M15
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M17	<span style="background-color: #00bfff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U5/U6/H14
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M17/M1	<span style="background-color: #0000ff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U6
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19	<span style="background-color: #0000ff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U20
<span style="background-color: #800000; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19/M1	

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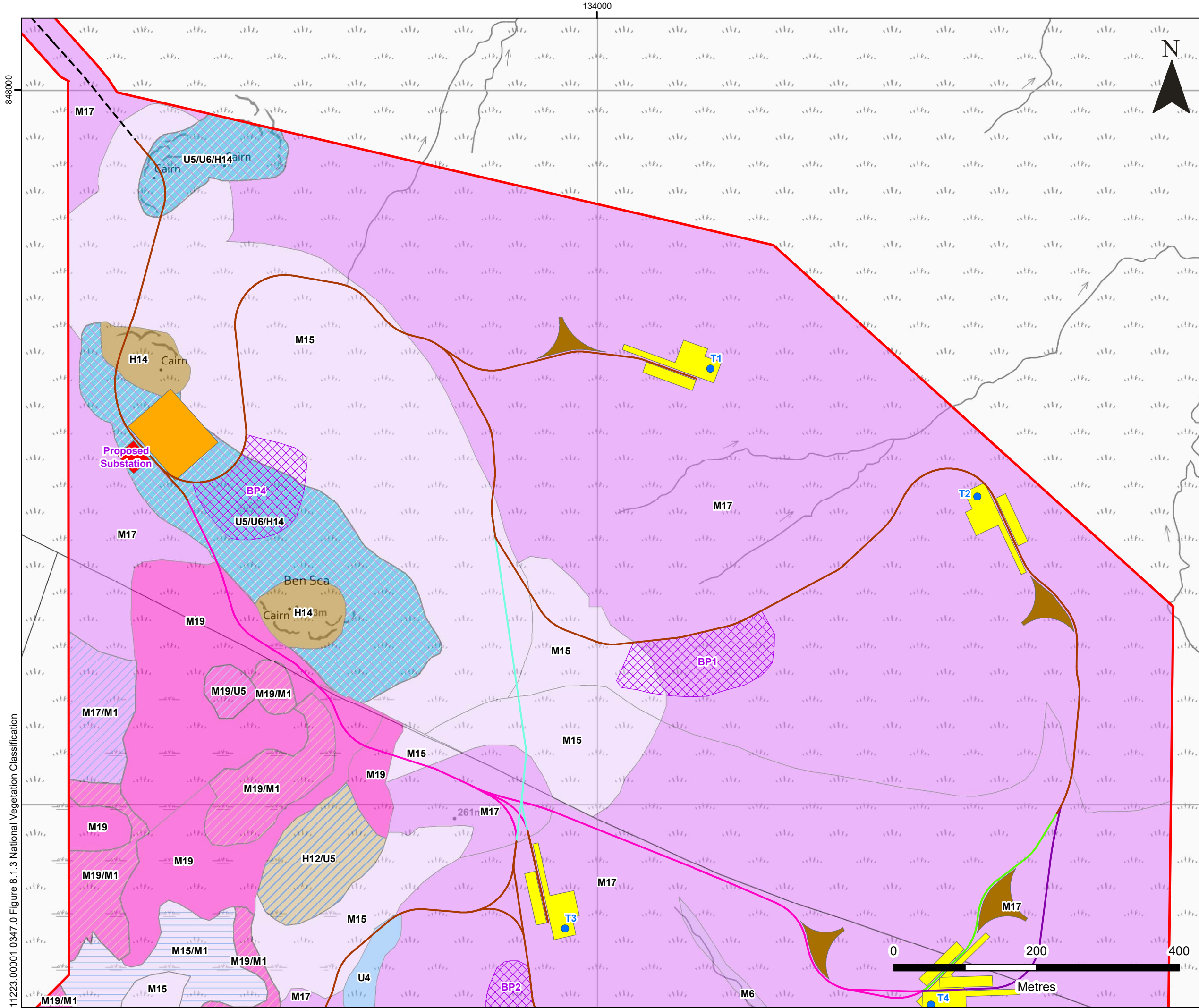
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**NATIONAL VEGETATION  
CLASSIFICATION**

**FIGURE 8.1.3a**

Scale: 1:20,000 @ A3      Date: JULY 2023

11223\_00001\_0347\_0 Figure 8.1.3 National Vegetation Classification



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- Proposed Crane Hardstanding
- Proposed Construction Compound
- Proposed Substation
- Proposed Turning Head
- Potential Borrow Pit
- Consented Access Track

**Proposed Track Alignment**

- Proposed
- Proposed Option A
- Proposed Option A1
- Proposed Option A2
- Proposed Option B

**National Vegetation Classification**

<span style="background: repeating-linear-gradient(-45deg, transparent, transparent 2px, blue 2px, blue 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> H12/U5	<span style="background-color: pink; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19
<span style="background-color: brown; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> H14	<span style="background: repeating-linear-gradient(-45deg, transparent, transparent 2px, pink 2px, pink 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19/M1
<span style="background-color: lightblue; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15	<span style="background: repeating-linear-gradient(-45deg, transparent, transparent 2px, purple 2px, purple 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19/U5
<span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, blue 2px, blue 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15/M1	<span style="background-color: lightpurple; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M6
<span style="background-color: lightpurple; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M17	<span style="background-color: lightblue; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U4
<span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, purple 2px, purple 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M17/M1	<span style="background: repeating-linear-gradient(45deg, transparent, transparent 2px, cyan 2px, cyan 4px); border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U5/U6/H14

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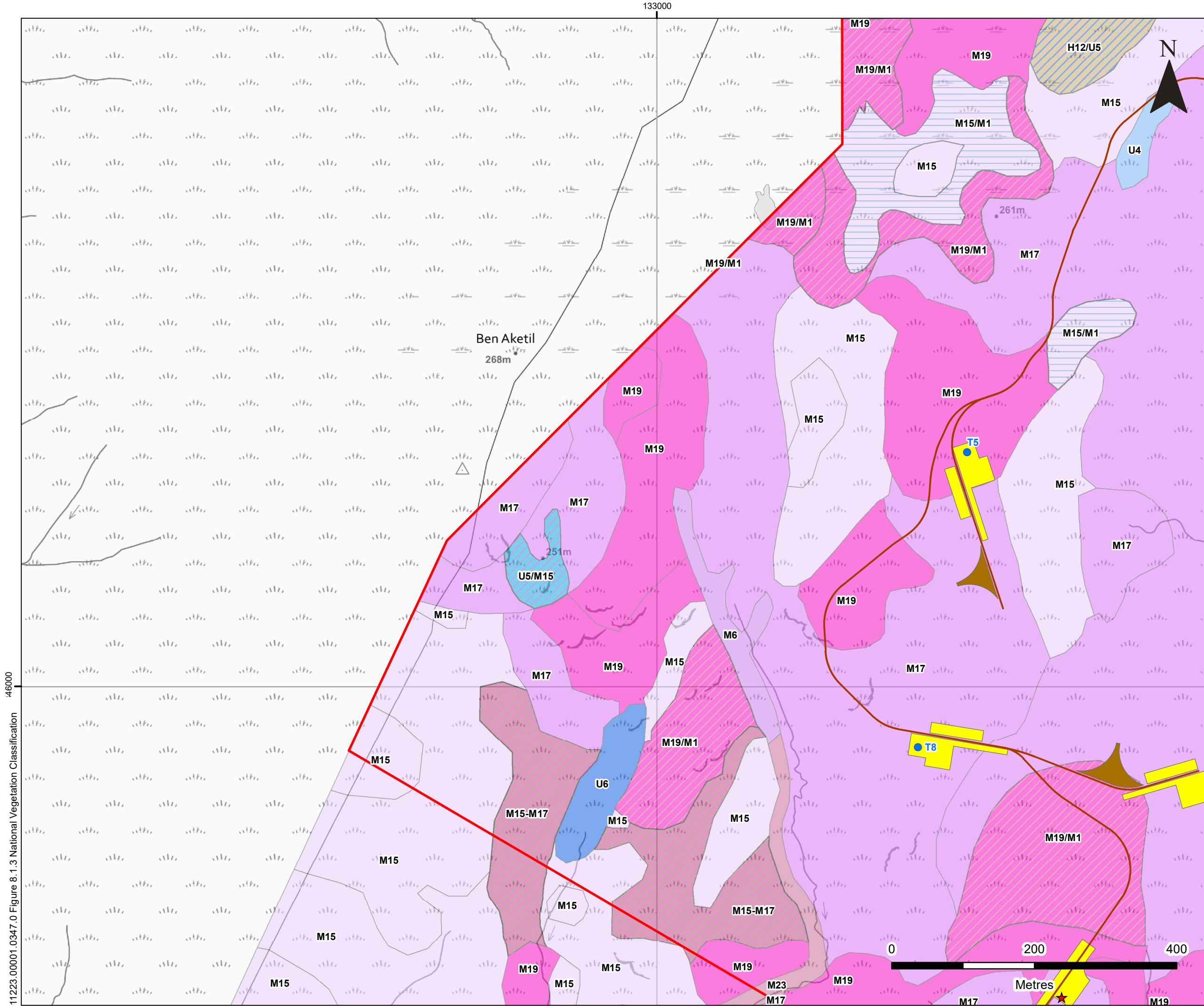
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**NATIONAL VEGETATION  
CLASSIFICATION**

**FIGURE 8.1.3b**

Scale 1:5,000 @ A3	Date JULY 2023
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11223.00001.0347.0 Figure 8.1.3 National Vegetation Classification



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Turning Head
- Proposed Track Alignment**
- Proposed

**National Vegetation Classification**

<span style="background-color: #d9ead3; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> H12/U5	<span style="background-color: #f4cccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19/M1
<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15	<span style="background-color: #f4cccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M23
<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15-M17	<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M6
<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15/M1	<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U4
<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M17	<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U5/M15
<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19	<span style="background-color: #fce4d6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U6

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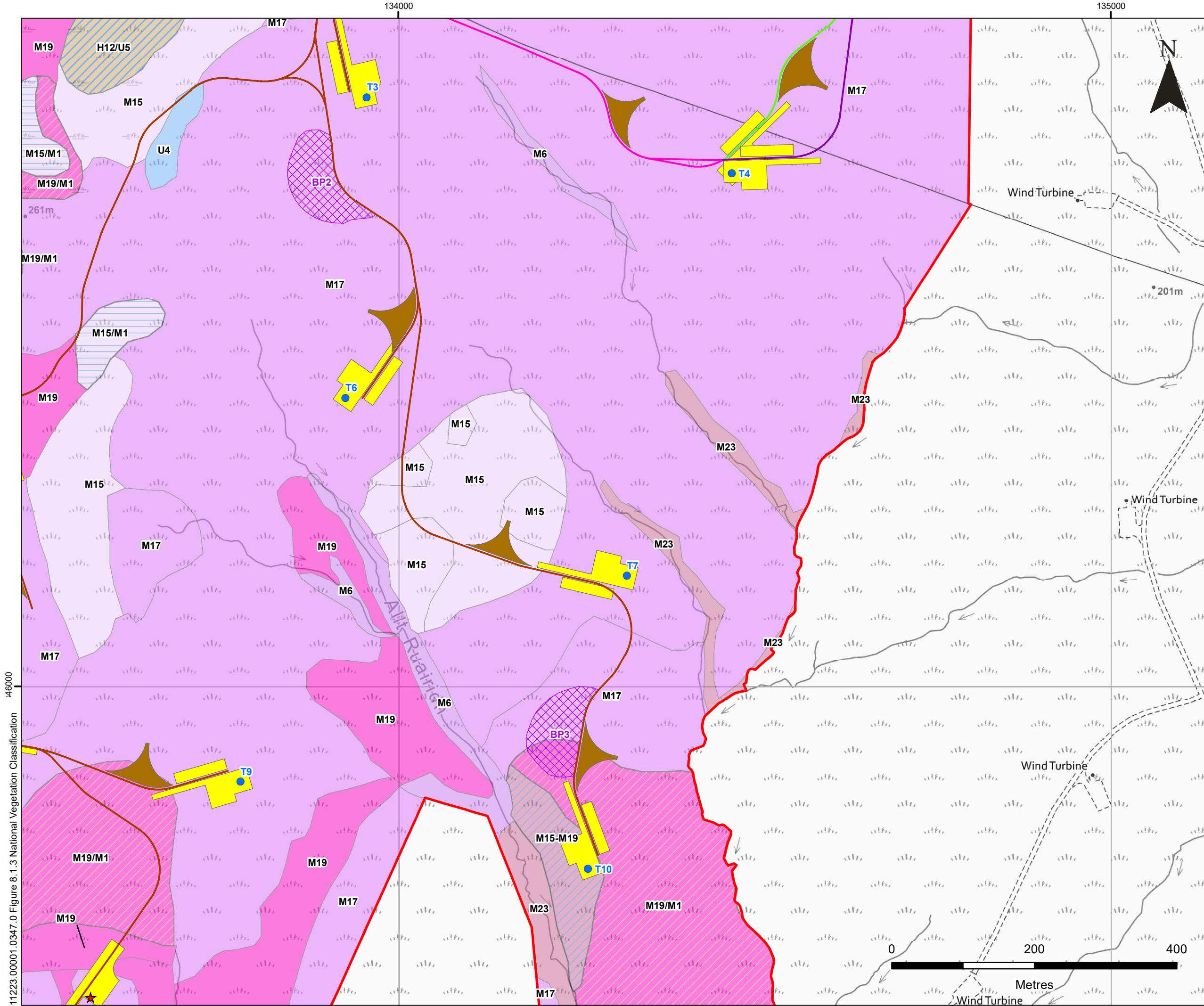
**NATIONAL VEGETATION  
CLASSIFICATION**

**FIGURE 8.1.3c**

Scale 1:5,000 @ A3      Date JULY 2023

11223.00001.0347.0 Figure 8.1.3 National Vegetation Classification





**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Turning Head
- Potential Borrow Pit
- Proposed Track Alignment**
- Proposed
- Proposed Option A1
- Proposed Option A2
- Proposed Option B

**National Vegetation Classification**

<span style="background-color: #d3d3d3; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> H12/U5	<span style="background-color: #ff69b4; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19
<span style="background-color: #e6e6fa; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15	<span style="background-color: #ffb6c1; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M19/M1
<span style="background-color: #f0f0f0; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15-M19	<span style="background-color: #d8bfd8; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M23
<span style="background-color: #e0e0ff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M15/M1	<span style="background-color: #b0c4de; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M6
<span style="background-color: #e6e6ff; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> M17	<span style="background-color: #add8e6; border: 1px solid black; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> U4

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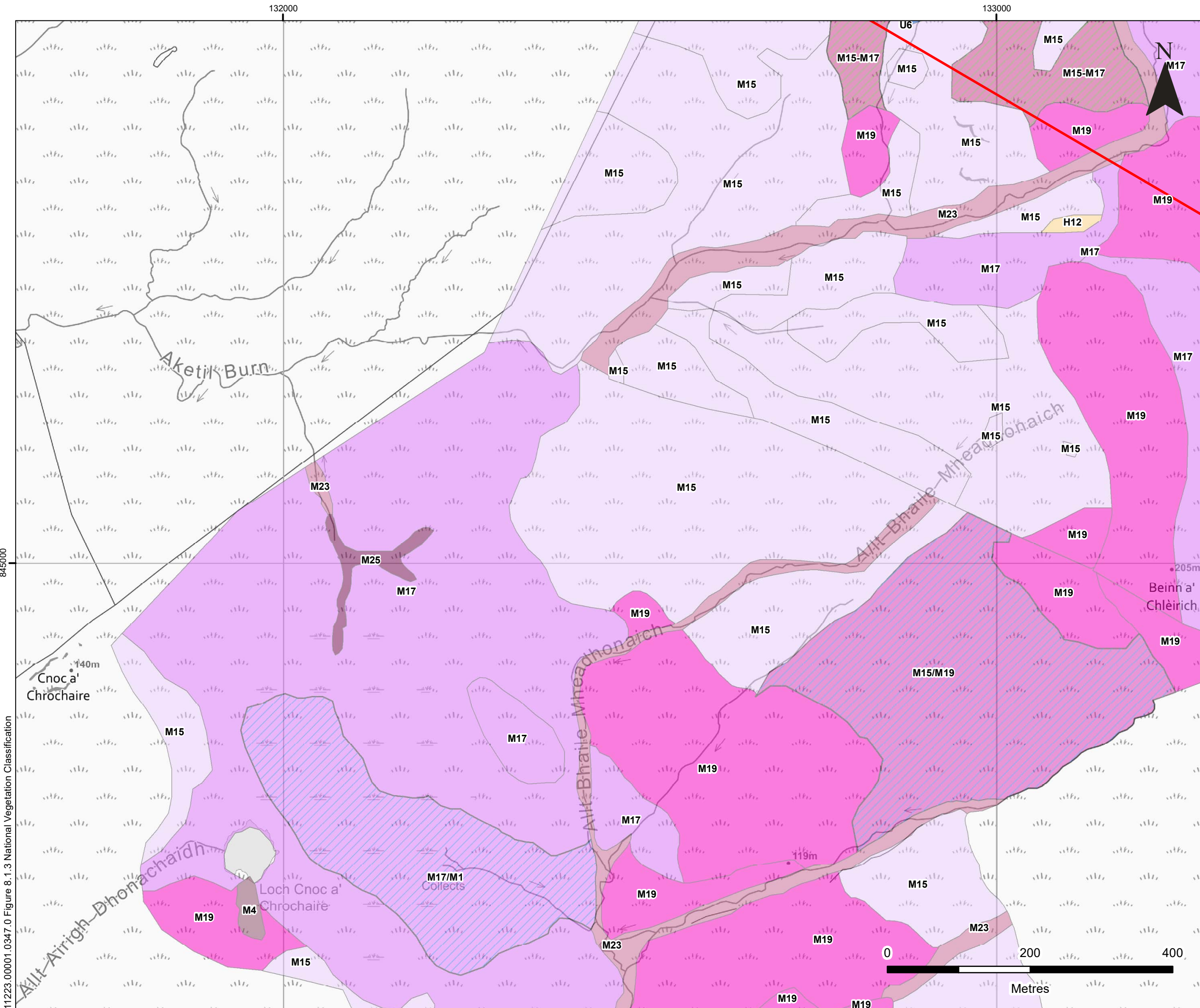
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**NATIONAL VEGETATION CLASSIFICATION**

**FIGURE 8.1.3d**

Scale 1:5,000 @ A3	Date JULY 2023
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11223.00001.0347.0 Figure 8.1.3 National Vegetation Classification



**LEGEND**

Application Site Boundary

**National Vegetation Classification**

H12	M19
M15	M23
M15-M17	M25
M15/M19	M4
M17	U6
M17/M1	

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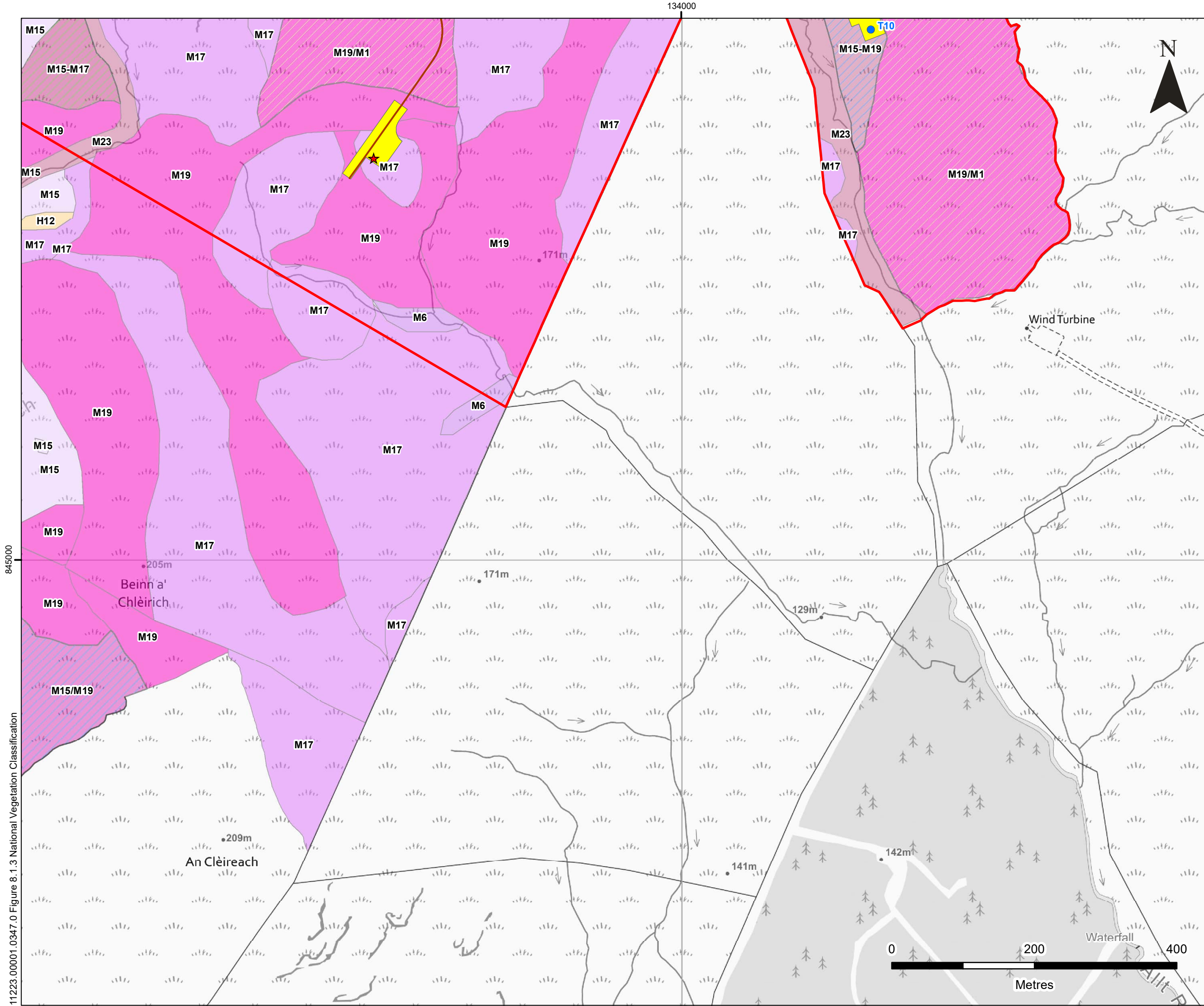
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TA 8.1 - NVC & HABITAT SURVEYS

**NATIONAL VEGETATION CLASSIFICATION**

**FIGURE 8.1.3e**

Scale 1:5,000 @ A3 Date JULY 2023

11223.00001.0347.0 Figure 8.1.3 National Vegetation Classification



**LEGEND**

- Application Site Boundary
- Proposed Turbine Location
- ★ Proposed Permanent Met Mast
- Proposed Crane Hardstanding
- Proposed Track Alignment**
- Proposed

**National Vegetation Classification**

	H12		M17
	M15		M19
	M15-M17		M19/M1
	M15-M19		M23
	M15/M19		M6

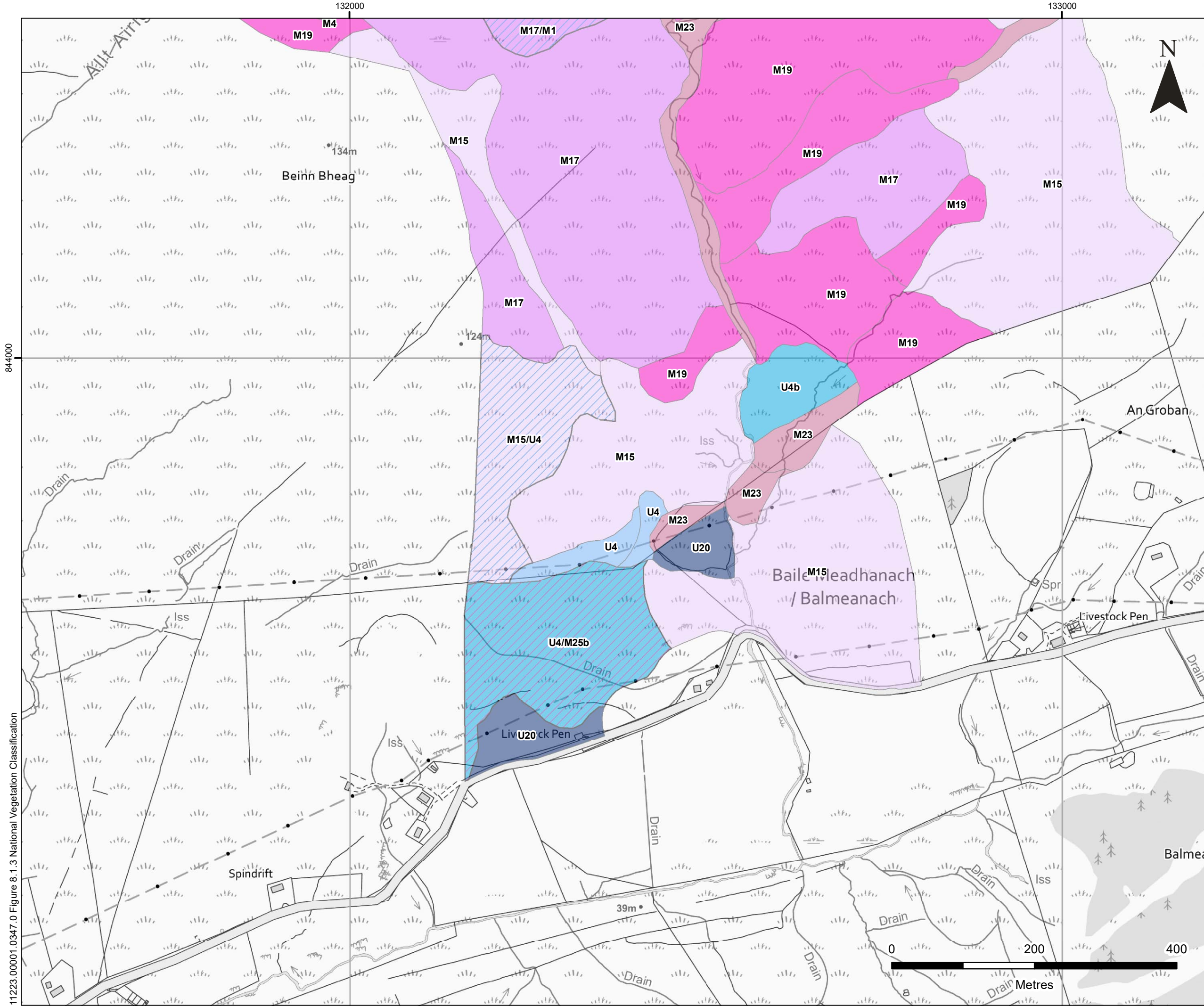
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**NATIONAL VEGETATION  
 CLASSIFICATION**  
**FIGURE 8.1.3f**

Scale 1:5,000 @ A3      Date JULY 2023

11223.00001.0347.0 Figure 8.1.3 National Vegetation Classification



**LEGEND**

**National Vegetation Classification**

M15	M4
M15/U4	U4
M17	U4/M25b
M17/M1	U4b
M19	U20
M23	

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**NATIONAL VEGETATION  
CLASSIFICATION**  
**FIGURE 8.1.3g**

Scale 1:5,000 @ A3      Date JULY 2023

11223.00001.0347.0 Figure 8.1.3 National Vegetation Classification

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