

Technical Appendix 7.6

Clune Wind Farm

Biodiversity Net Gain Calculations

RES Group



December 2024



Contents

1	Introduction	1
1.1	Terms of Reference	1
1.2	Site Location and Description	1
1.3	Objectives	2
2	Planning Policy and Guidance	3
2.1	National Planning Frameworks	3
2.2	The Highland Council Draft Biodiversity Planning Guidance	3
2.3	Local Habitat Initiatives	3
3	Methodology	4
3.1	Reasoning for Approach	4
3.1.1	Statutory (DEFRA) Metric	4
3.1.2	Biodiversity Gain Hierarchy	4
3.1.3	Irreplaceable Habitats	4
3.1.4	Site Survey and Habitat Condition Assessment	5
3.1.5	Proposed Development Layout	5
3.1.6	Biodiversity Net Gain Calculations	5
4	Results	6
4.1	Habitat Baseline	6
4.1.1	On-Site	6
4.1.2	Area-based Habitats	6
4.1.3	Irreplaceable Habitats and Habitat Distinctiveness	10
4.2	Biodiversity Calculations	10
4.2.1	Trading Standards	13
4.2.2	Assumptions	13
4.3	Off-Site Habitats	14
5	Conclusions	15
	Appendices	17
	Appendix A. Metric Results	17
	Appendix B. Figures	18

Contents

Tables

Table 1:	Habitat Baseline	6
Table 2:	Summary of Biodiversity Net Gain (BNG) Calculations	10
Table 3:	Off-site Biodiversity Net Gain (BNG) Calculations	14

Document Prepared For

Evan Hogg

Development Project Manager
RES Group
Beaufort Court
Egg Farm Lane
Kings Langley
Hertfordshire
WD4 8LR

Document Prepared By

Katie Ward

Ecological Consultant
katie.ward@atmosconsulting.com

Document Approved By

James Wilson

Principal Ecologist
james.wilson@atmosconsulting.com

Emilie Michael

Senior Ecologist
emilie.michael@atmosconsulting.com

Version	Date	Reason
1.1	25/09/2024	Draft for client comment
1.2	10/12/2024	Client Issue

Copyright © 2025 Atmos Consulting Ltd

The copyright in this work is vested in Atmos Consulting Ltd, and the information contained herein is confidential. This work, either in whole or in part, may not be reproduced or disclosed to others or used for any purposes, other than for internal RES Group evaluation, without Atmos Consulting's prior written approval.

CBC House,
24 Canning
Street,
Edinburgh,
EH3 8EG

Unit 6/7 Bridgend
Business Park,
Bridgend Road,
Dingwall,
IV15 9SL

Linden House,
Mold Business
Park,
Wrexham Road,
Mold,
CH7 1XP

1 Introduction

1.1 Terms of Reference

In September 2020, Atmos Consulting Ltd. (Atmos) was commissioned by Clune and Corryborough Estate, and then latterly RES Group, to undertake ecology surveys in relation to a proposed wind farm development on land south of the village of Tomatin, Highland.

Subsequently, in late 2022, the survey area was extended to the south of the original area, encompassing land of similar terrain and stretching towards the River Dulnain. These will be referred to hereafter as the 'Original Site' and 'Additional Area' within this document as necessary, with the 'Site' being used to refer to the project area as a whole.

1.2 Site Location and Description

The Original Site is located approximately 20km south-east of Inverness, and approximately 3km south-west of the village of Tomatin. It consists predominately of managed upland grouse moorland with agricultural fields and mixed woodland in lower altitude areas. Clune Burn and Allt Lathach traverse the area along with other smaller tributaries running into the River Findhorn that lies to the north-west, outwith the Site boundary.

The Original Site inclines generally in a north-east to south-west direction, reaching the highest point of the Site, 750m, at Carn Dubh 'Ic an Deoir. The northern edge is bounded by the River Findhorn and the eastern boundary by the A9. The area can be approximately divided by four main watercourses that flow north into the River Findhorn: Allt Phris, Clune Burn, Allt Lathach, and Wester Strathnoon Burn.

The Additional Area is located approximately 25km south-east of Inverness, and approximately 4km south-east of the village of Tomatin. The Site is predominately managed upland grouse moorland. Watercourses within the site are the easterly-flowing burns of An Leth-allt, and Allt Coire Chaillich, both contained in steep sided valleys and which feed into the River Dulnain to the south.

The Additional Area is part of the Monadhliath Mountains greater area, which extends south and west towards the Great Glen, and it contains four small peaks over 500m. To the East is the Cairngorms National Park and Kinveachy Forest SAC.

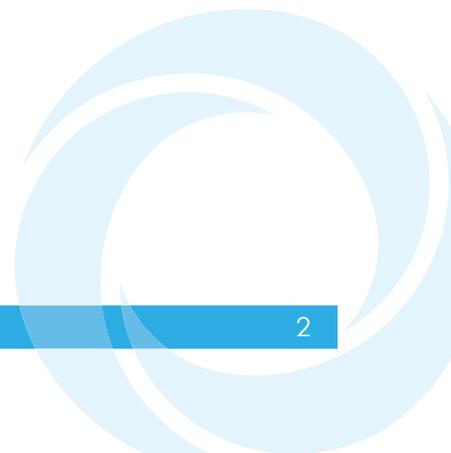
The Site is mainly used as a grouse moor, managed by grazing livestock such as sheep, and regular burning of mature heather to provide new growth. The Site also consists of small patches of grassland along the northern boundary used by grazing livestock, a block of conifer plantation in the north-east, and an area of ancient deciduous woodland on the banks of the Allt Phris. There is some evidence of grazing pressure from deer. The survey area contains a variety of plant communities including blanket bog, wet heath, acid grassland, scrub and deciduous woodland.

The proposed access track will be situated on the north-eastern boundary of the Site, connecting to the A9 just north of Slochd summit, using an existing minor junction. The plant communities within the access track boundary are a mix of heath, blanket bog, scrub, and birch *Betula* sp. woodland.

1.3 Objectives

The objectives of this report are:

- To summarise the legislative requirements for biodiversity net gain;
- To summarise the habitat baseline and condition of the Site;
- To demonstrate the process followed in line with the biodiversity net gain hierarchy;
- To quantify the baseline biodiversity value of the Site and the measures required to achieve a potential minimum of 10% biodiversity net gain; and
- To indicate the potential need for longer term monitoring over 30-years based on the habitats to be enhanced or created.



2 Planning Policy and Guidance

2.1 National Planning Framework 4

The National Planning Framework 4 (NPF4) sets out Scotland's national spatial strategy, spatial principles, regional priorities, national development policy and national planning policy. Policy 3 of the NPF4 specifies that development proposals will contribute to the enhancement of biodiversity and where relevant, restore degraded habitats. Developments are required to provide significant biodiversity enhancement, in addition to proposed mitigation measures to conserve, restore and enhance biodiversity. There is no specific requirement by the NPF4 to utilise a particular biodiversity metric to establish net gain within a site, however it can be a useful and standardised tool to estimate this.

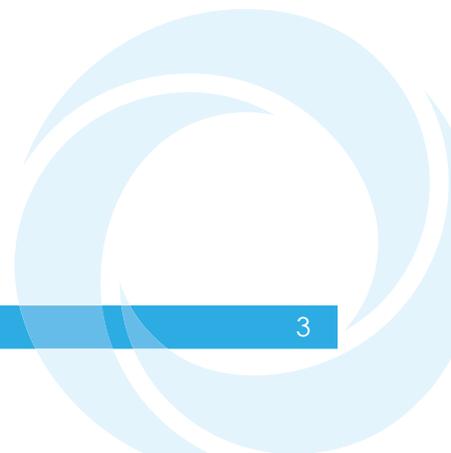
2.2 The Highland Council Draft Biodiversity Planning Guidance

Based on NPF4 Policy 3, The Highland Council has issued a Draft Biodiversity Planning Guidance document (November 2023).

- A minimum 10% biodiversity enhancement is required for developments. Whilst developers are not required to use a Biodiversity Net Gain Metric (as above) to demonstrate 10% enhancement, the use of such is strongly recommended to help justify the type and extent of biodiversity enhancements measures proposed.
- A Scottish biodiversity metric is currently being developed by NatureScot, as commissioned by the Scottish Government. However, until this is available the most up-to-date version of the DEFRA Biodiversity Net Gain Metric will be used.

2.3 Local Habitat Initiatives

To determine the 'strategic significance' of the habitats as part of the BNG assessment any habitats referenced within the Highland Nature: Biodiversity Action Plan 2021-2026 and the Scottish Biodiversity List have been classified as 'Formally identified in local strategy'. Habitats that have not been specifically listed within the local habitat initiatives but have been deemed as important habitats within the local area have been classified as 'Location ecologically desirable but not in local strategy' and all other habitats have been classified as 'Area/compensation not in local strategy/no local strategy'.



3 Methodology

3.1 Reasoning for Approach

3.1.1 Statutory (DEFRA) Metric

The Statutory Biodiversity Metric was developed by the Department for Environment, Food and Rural Affairs (DEFRA) for habitats in England and Wales primarily, with input from Natural England, Environment Agency and the Forestry Commission. The Statutory Metric (DEFRA 2024) has been used to calculate biodiversity net gain and loss for this Site due to its status as the only peer reviewed biodiversity net gain metric currently available.

3.1.2 Biodiversity Gain Hierarchy

This process will also demonstrate how the proposed development meets the biodiversity gain hierarchy, as follows:

- Enhancing existing habitats on-site most preferable, followed by on-site habitat creation;
- If this doesn't deliver 10% gain, off-site habitats could be created / enhanced;
- Or as a last resort, purchase of statutory biodiversity credits e.g. offsetting;
- Or a combination of all three, in that order.

3.1.3 Irreplaceable Habitats

Irreplaceable habitats, if present on a development site, should be avoided in the first instance. The definition and list of irreplaceable habitats for BNG are set out in the Biodiversity Net Gain Requirements (Irreplaceable Habitat) Regulations 2024. The list includes:

- Ancient woodland;
- Ancient and veteran trees;
- Blanket bog;
- Limestone pavements;
- Coastal sand dunes;
- Spartina saltmarsh swards;
- Mediterranean saltmarsh scrub; and
- Lowland fens.

The presence of irreplaceable habitats on site should be recorded in the statutory biodiversity metric. However, the 10% BNG requirement does not apply when irreplaceable habitats are lost. Instead, bespoke compensation would be required, and planning permission for development resulting in the loss or deterioration of irreplaceable habitat will only be granted in wholly exceptional circumstances and where a suitable compensation strategy exists.

It is worth noting that the above regulations apply only to England and Wales and not to Scotland. However, as the DEFRA Metric was developed for England and Wales and

it is the DEFRA Metric which is being used in this instance, the abovementioned list of irreplaceable habitats has been adhered to and included.

3.1.4 Site Survey and Habitat Condition Assessment

A UK Hab habitat survey of the Proposed Development Site was undertaken from the 29th July to the 2nd August 2024. The condition of the habitats present was assessed using the information collected during this survey to input into the statutory biodiversity calculator.

3.1.5 Proposed Development Layout

The proposed layout was provided by RES Group illustrating the layout of the proposed development (please see EIAR Chapter 3: Proposed Project Description).

3.1.6 Biodiversity Net Gain Calculations

In order to calculate the baseline biodiversity unit value (BU) of the Site, the effects of the proposed development and to quantify the proposed mitigation, enhancement and habitat creation measures, a biodiversity metric was populated. This utilised the DEFRA Statutory Biodiversity Metric to calculate the overall net gain (or loss) achieved by the development. It followed three steps.

1. First of all, the existing baseline habitat data, in UKHAB format, was input into the metric via selecting the most appropriate habitat type from the drop-down menu. This included area-based habitats (such as fields and ponds) and linear habitats (hedgerows). This determines the baseline biodiversity unit (BU) value of the Site;
2. Second, the projected habitat enhancements were input. These were based on the strategic significance of certain habitats, along with areas of retained habitats which were capable of being enhanced to improve biodiversity; and
3. Finally, the proposed habitat creation were input into the metric. These, when compared to the baseline, minus the habitat loss, indicate the overall biodiversity net gain (or loss).

Further details are provided in Section 4 and Appendix A including the assumptions and metric results.

4 Results

4.1 Habitat Baseline

4.1.1 On-Site

The habitats present within the Vegetation Assessment Area and their condition are summarised below in Table 1 and shown on Figure 7.6.1 (Appendix B refers).

4.1.2 Area-based Habitats

Table 1: Habitat Baseline

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	Baseline Biodiversity (BU)
Bracken	0.59	Condition Assessment N/A	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	1.2
Hazel scrub	0.19	Moderate	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	1.55
Peat lakes	0.17	Moderate	Formally identified in local strategy	Formally identified in local strategy	2.39
Upland birchwoods	2.10	Poor	Formally identified in local strategy	Formally identified in local strategy	14.54
Blanket bog	0.86	Moderate	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	3.82	Poor	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	230.46	Good	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	95.23	Moderate	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	45.89	Moderate	Formally	Formally identified in	0

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	Baseline Biodiversity (BU)
			identified in local strategy	local strategy	
Blanket bog	7.11	Good	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	13.27	Good	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	72.70	Good	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	68.21	Good	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	0.057	Moderate	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	0.29	Moderate	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	2.12	Moderate	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	1.0006	Moderate	Formally identified in local strategy	Formally identified in local strategy	0
Blanket bog	44.52	Moderate	Formally identified in local strategy	Formally identified in local strategy	0
Fens (upland and lowland)	0.078	Good	Formally identified in local strategy	Formally identified in local strategy	2.17
Fens (upland and lowland)	0.932	Moderate	Formally identified in local strategy	Formally identified in local strategy	17.15
Juniper scrub (Dunes with sea buckthorn in metric)	3.440	Good	Formally identified in local strategy	Formally identified in local strategy	71.23

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	Baseline Biodiversity (BU)
Juniper scrub (Dunes with sea buckthorn in metric)	1.75	Moderate	Formally identified in local strategy	Formally identified in local strategy	24.18
Juniper scrub (Dunes with sea buckthorn in metric)	0.85	Good	Formally identified in local strategy	Formally identified in local strategy	17.73
Juniper scrub (Dunes with sea buckthorn in metric)	0.388	Good	Formally identified in local strategy	Formally identified in local strategy	8.05
Upland acid grassland	15.9	Good	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	191.72
Upland acid grassland	12.75	Moderate	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	102.06
Upland acid grassland	42.99	Moderate	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	343.94
Upland acid grassland	0.00126	Moderate	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	0.01
Upland acid grassland	0.62506	Moderate	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	5
Upland acid grassland	0.1787	Moderate	Area/compensation not in local strategy/ no local strategy	Area/compensation not in local strategy/ no local strategy	1.43
Upland heathland	57.531	Good	Formally identified in local strategy	Formally identified in local strategy	1190.90

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	Baseline Biodiversity (BU)
Upland heathland	3.633	Moderate	Formally identified in local strategy	Formally identified in local strategy	50.14
Upland heathland	15.1828	Moderate	Formally identified in local strategy	Formally identified in local strategy	209.52
Upland heathland	127.821	Moderate	Formally identified in local strategy	Formally identified in local strategy	1763.94
Upland heathland	0.36791	Moderate	Formally identified in local strategy	Formally identified in local strategy	5.08
Upland heathland	90.97	Poor	Formally identified in local strategy	Formally identified in local strategy	627.69
Upland heathland	49.88	Moderate	Formally identified in local strategy	Formally identified in local strategy	688.39
Upland heathland	13.968	Poor	Formally identified in local strategy	Formally identified in local strategy	96.38
Upland heathland	2.62	Moderate	Formally identified in local strategy	Formally identified in local strategy	36.16
Upland heathland	10.39	Moderate	Formally identified in local strategy	Formally identified in local strategy	143.39
Upland heathland	32.20	Moderate	Formally identified in local strategy	Formally identified in local strategy	444.40
Upland heathland	2.62	Poor	Formally identified in local strategy	Formally identified in local strategy	18.13
Upland heathland	12.746	Poor	Formally identified in local strategy	Formally identified in local strategy	87.95
Upland heathland	3.177	Poor	Formally identified in local	Formally identified in local strategy	21.92

Habitat Type	Area (ha)	Distinctiveness	Condition	Strategic Significance	Baseline Biodiversity (BU)
			strategy		
Total	1091.77		7010.55		

4.1.3 Irreplaceable Habitats and Habitat Distinctiveness

Blanket bog is the only habitat type located within the Vegetation Assessment Area that is classified as an irreplaceable habitat and therefore not included within the metric calculation. There is 585.59ha of blanket bog located within the Vegetation Assessment Area and of this 20.91ha is proposed to be lost. A bespoke compensation scheme will be required to account for this loss and agreed with the LPA, in consultation with NatureScot.

One 'very high' distinctiveness habitat, namely Fens (upland and lowland), with 1.01ha within the Vegetation Assessment Area, all proposed to be retained post-development.

4.2 Biodiversity Calculations

The proposed habitat creation and enhancement measures set out above were input into the statutory biodiversity metric. The results are included in Appendix A and summarised below in Table 2. Juniper scrub was present within the Vegetation Assessment Area which is an important habitat within Scotland however this habitat type is not listed within the DEFRA Statutory Metric. As such, a high distinctiveness scrub habitat has been used to represent this habitat in the metric, namely 'Dunes with sea buckthorn (H2160)'.

Table 2: Summary of Biodiversity Net Gain (BNG) Calculations

Habitat type	Baseline BU	Habitats lost (BU)	Condition	Habitats retained (BU)	Habitats created (BU)
Bracken	1.2	0.3	Condition Assessment N/A	0.9	0
Hazel scrub	1.55	0.8	Moderate	0.75	0
Peat lakes	2.39	0	Moderate	2.39	0
Upland birchwoods	14.54	0	Poor	14.54	0
Blanket bog	0	0	Moderate	Irreplaceable habitat - no units generated	0
Blanket bog	0	0	Poor	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Good	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Moderate	Irreplaceable habitat - no units	0

Habitat type	Baseline BU	Habitats lost (BU)	Condition	Habitats retained (BU)	Habitats created (BU)
		e)		generated	
Blanket bog	0	0 (any loss unacceptable)	Moderate	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Good	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Good	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Good	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Good	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Moderate	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Moderate	Irreplaceable habitat - no units generated	0
Blanket bog	0	0 (any loss unacceptable)	Moderate	Irreplaceable habitat - no units generated	0
Blanket bog	0	0	Moderate	Irreplaceable habitat - no units generated	0
Blanket bog	0	0	Moderate	Irreplaceable habitat - no units generated	0
Fens (upland and lowland)	2.17	0	Good	2.17	0
Fens (upland and lowland)	17.15	0	Moderate	17.15	0
Juniper scrub (Dunes with sea buckthorn in metric)	71.23	0	Good	71.23	0
Juniper scrub (Dunes with sea buckthorn)	24.18	0	Moderate	0	0

Habitat type	Baseline BU	Habitats lost (BU)	Condition	Habitats retained (BU)	Habitats created (BU)
in metric)					
Juniper scrub (Dunes with sea buckthorn in metric)	17.73	0	Good	17.73	0
Juniper scrub (Dunes with sea buckthorn in metric)	8.05	0.21	Good	7.84	0
Upland acid grassland	191.72	5.64	Good	186.08	0
Upland acid grassland	102.06	1.92	Moderate	100.14	0
Upland acid grassland	343.94	6.32	Moderate	337.62	0
Upland acid grassland	0.01	0	Moderate	0	0
Upland acid grassland	5	0	Moderate	0	0
Upland acid grassland	1.43	0	Moderate	0	0
Upland heathland	1190.90	242.81	Good	948.09	0
Upland heathland	50.14	0	Moderate	50.14	0
Upland heathland	209.52	7.18	Moderate	202.34	0
Upland heathland	1763.94	181.88	Moderate	1582.06	0
Upland heathland	5.08	0	Moderate	5.08	0
Upland heathland	627.69	72.33	Poor	533.44	0
Upland heathland	688.39	16.97	Moderate	671.42	0
Upland heathland	96.38	2.9	Poor	93.48	0
Upland heathland	36.16	0.14	Moderate	14.65	0
Upland heathland	143.39	0.79	Moderate	34.09	0
Upland heathland	444.40	12.87	Moderate	0	0
Upland heathland	18.13	0.43	Poor	0	0
Upland heathland	87.95	1.59	Poor	0	0
Upland heathland	21.92	0	Poor	0	0

Habitat type	Baseline BU	Habitats lost (BU)	Condition	Habitats retained (BU)	Habitats created (BU)
Urban (windfarm infrastructure)	0	0	N/A	0	0
Total BNG %			+25.05%		

4.2.1 Trading Standards

Taking into account the off-site enhancements, trading standards have been met across all habitat distinctions. All very high distinctiveness habitats require a bespoke compensation option.

Very High Distinctiveness Habitats

- Blanket bog has an overall project wide unit uplift of 86.61 BU.

High Distinctiveness Habitats

- Juniper scrub has an overall project wide unit change of 4.83 BU all of which has been accounted for by enhancing 1.75ha of moderate condition to good on Site.
- Upland heath has an overall on-Site unit change of -509.95 all of which has been accounted for through off site enhancement and delivers a project wide uplift of 1677.30 BU.

Medium Distinctiveness Habitats

- Upland acid grassland has an overall on-Site unit change of -11.62 all of which has been accounted for through higher distinctiveness surplus units minus medium distinctiveness broad habitat deficit, giving an overall uplift of 1756.32 BU.
- Hazel scrub had an overall on-Site loss of -0.8 all of which has been accounted for through higher distinctiveness surplus units minus medium distinctiveness broad habitat deficit, giving an overall uplift of 1756.32 BU.

Low Distinctiveness Habitats

- Bracken within the Vegetation Assessment Area has a on-site unit change of -0.30. This is more than compensated for through the surplus units detailed above.

4.2.2 Assumptions

The calculations above included both default assumptions (that are inbuilt into the metric) and criteria which were selected from a series of drop-down menus. The assumptions that were selected are listed below for transparency.

Baseline habitats

- Blanket bog in 'good' condition all passed essential criteria 1 and additional criteria 7b and all passing all other remaining criteria.
- Blanket bog in 'moderate' condition with all passing a minimum of 5 condition criteria when not passing essential criteria 1 and criteria 7b or passing essential criteria 1 passing a minimum of 6 condition criteria.
- Blanket bog in 'poor' passing no more than 3 condition criteria.
- Condition assessments are not required for bracken,
- Juniper scrub in 'good' condition with all areas passing all 5 condition criteria.

- Juniper scrub in 'moderate' condition with the areas passing a minimum of 3 condition criteria.
- Fens (upland and lowland) in 'good' condition with all passing essential criteria 1 and a minimum of 5 condition criteria.
- Fens (upland and lowland) in 'moderate' condition when passing essential criteria 1 passing a minimum of 3 condition criteria or when failing essential criteria 1 passing a minimum of 5 condition criteria.
- Hazel scrub in 'moderate' condition with the areas passing a minimum of 3 condition criteria.
- The peat lake was considered to be in 'good' condition as it scored highly on the naturalness assessment.
- Upland acid grassland in 'good' condition passed all 5 condition criteria.
- Upland acid grassland in 'moderate' condition passed a minimum of 3 condition criteria.
- Upland birch woods in 'poor' condition had a score of 26.
- Upland heathland in 'good' condition all passed essential criteria 1 and passed between 8 and all of the condition criteria.
- Upland heathland in 'moderate' condition either passed 6 condition criteria including all essential criteria (1-4) or when failing any condition essential criteria passing a minimum of 8 condition criteria.
- Upland heathland in 'poor' condition passed no more than 5 condition criteria.

Habitat Creation

- Condition Assessments are not required for urban habitats.

Habitat Enhancement

- Blanket bog in moderate condition will be enhanced to good condition.
- Blanket bog in poor condition will be enhanced to moderate condition.
- Juniper scrub in moderate condition will be enhanced to good condition.
- Upland acid grassland in moderate condition will be enhanced to good condition.
- Upland heathland in poor condition will be enhanced to moderate condition.
- Upland heathland in moderate condition will be enhanced to good condition.

4.3 Off-Site Habitats

The off-site habitat baseline, creation and enhancement is show in Table 3 below.

Table 3: Off-site Biodiversity Net Gain (BNG) Calculations

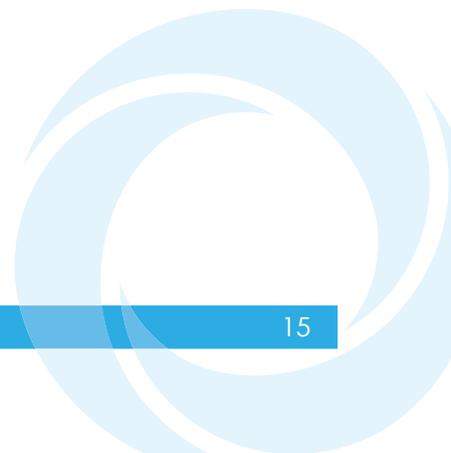
Habitat type	Off-site habitat reference	Off-site Habitats Baseline (BU)	Condition	Habitats retained and Enhanced (BU)
Upland heathland	1	772.52	Moderate	899.44
Upland heathland	2	1550.02	Moderate	1804.66
Upland heathland	3	10991.42	Moderate	12797.12

5 Conclusions

The biodiversity calculations for the proposed development within the Vegetation Assessment Area (VAA) plus the off-site enhancement areas have shown an increase in biodiversity units of 25.05% and the loss of 20.91 ha of irreplaceable habitats. The addition of off-site enhancements to habitats such as upland heathland mean the overall uplift comprises 1756.02 net BU change. It should be noted that this BNG metric does not include enhancement measures detailed in the TA 7.5 Habitat Management Plan, as they include for the natural revegetation of woodland within upland heathland, which the Statutory Metric does not allow for.

Regarding off-site habitat baseline, a full suite of habitat surveys was not undertaken throughout the off-site area and as such, assumptions have been made with regard to the nature of the habitat baseline off-site.

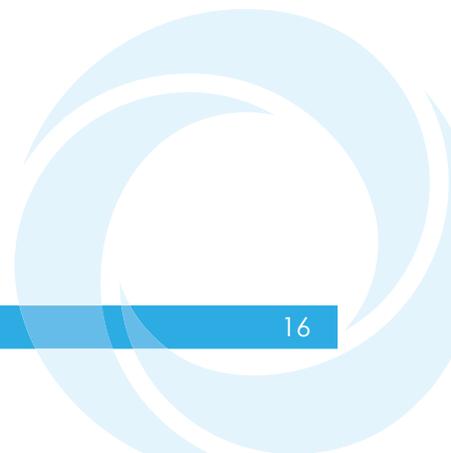
A bespoke compensation scheme will be required in agreement with NatureScot and The Highland Council for the loss of the irreplaceable habitat blanket bog.



6 References

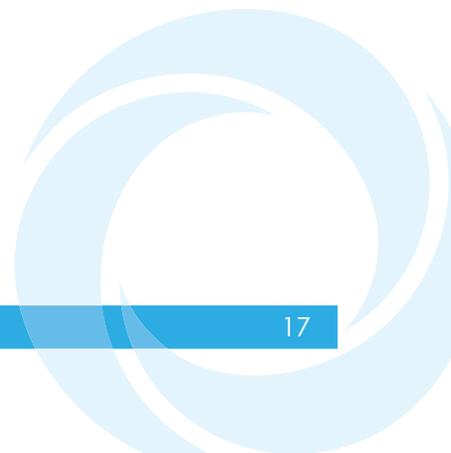
Department for Environment, Food and Rural Affairs (2024)

<https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>



Appendices

Appendix A. Metric Results



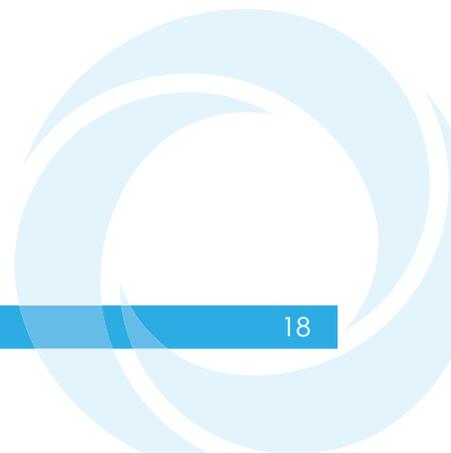
On-site baseline	<i>Habitat units</i>	7008.76	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	6577.53	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
On-site net change (units & percentage)	<i>Habitat units</i>	-431.23	-6.15%
	<i>Hedgerow units</i>	0.00	0.00%
	<i>Watercourse units</i>	0.00	0.00%
Off-site baseline	<i>Habitat units</i>	13313.96	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	<i>Habitat units</i>	15501.21	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
Off-site net change (units & percentage)	<i>Habitat units</i>	2187.25	16.43%
	<i>Hedgerow units</i>	0.00	0.00%
	<i>Watercourse units</i>	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	1756.02	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	
Spatial risk multiplier (SRM) deductions	<i>Habitat units</i>	0.00	
	<i>Hedgerow units</i>	0.00	
	<i>Watercourse units</i>	0.00	

FINAL RESULTS		
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	1756.02
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Habitat units</i>	25.05%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
<i>Habitat units</i>	10.00%	7008.76	7709.64	0.00	No additional area habitat units required to meet target ✓
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

Appendix B. Figures

Figure 7.6.1 - UKHab Survey Results



Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Overview

Key

- Site boundary
 - Vegetation Assessment Area
 - ▲ Proposed turbine
 - Proposed Infrastructure
- Habitat Polygon**
- f1a - Blanket bog
 - f1a5 - Blanket bog (H7130)
 - f1a6 - Degraded blanket bog
 - f2c - Upland Flushed, fens and swamps
 - g1b - Upland acid grassland
 - g1b6 - Other upland acid grassland
 - g1c - Bracken
 - h1b - Upland heathland
 - h1b5 - Dry heaths, upland (H4030)
 - h1b6 - Wet heathland with cross-leaved heath, upland (H4010)
 - h3k - Juniper scrub
 - r1c - Oligotrophic and dystrophic lakes
 - w1e - Upland birchwoods



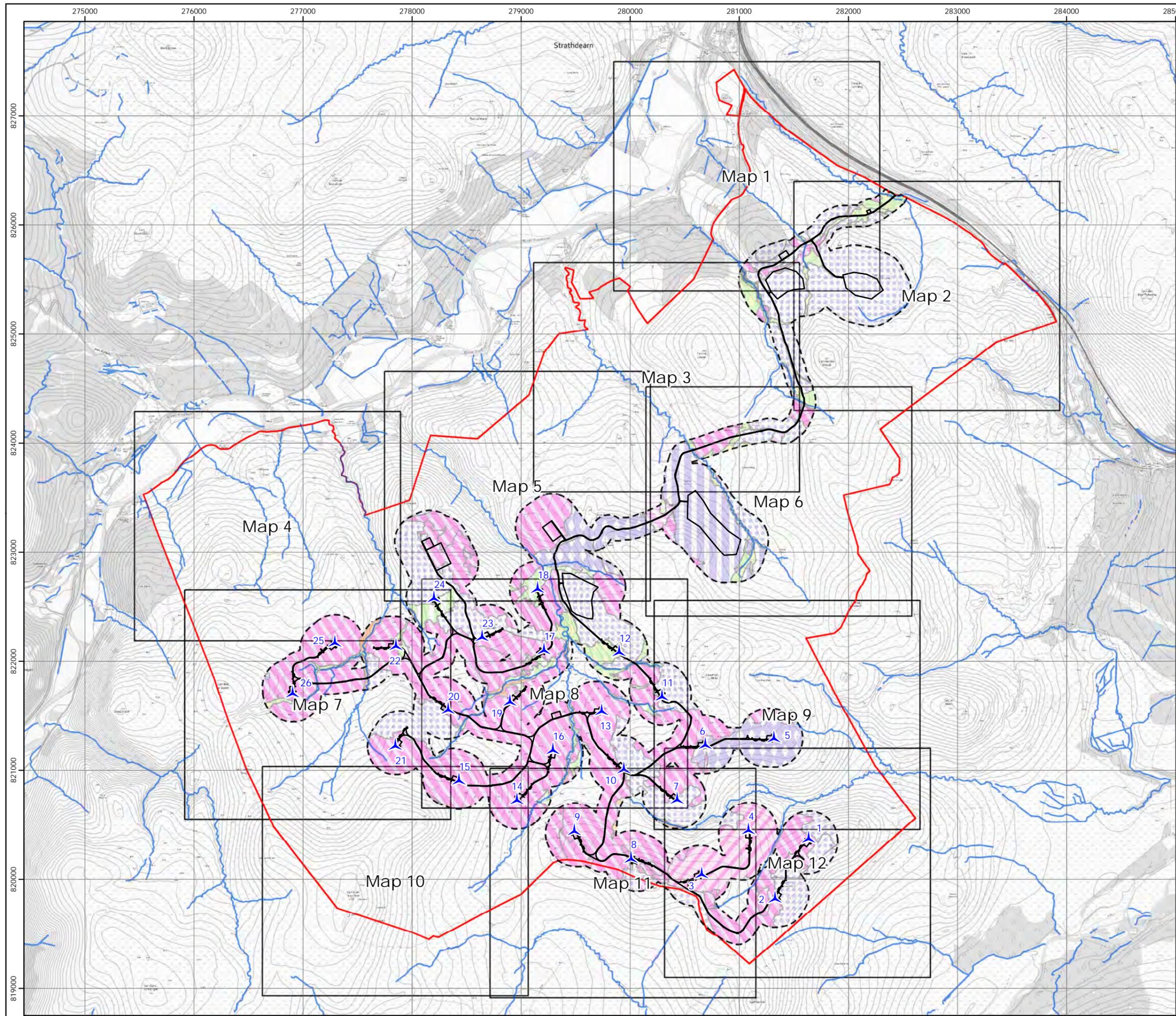
0 200 400
Metres

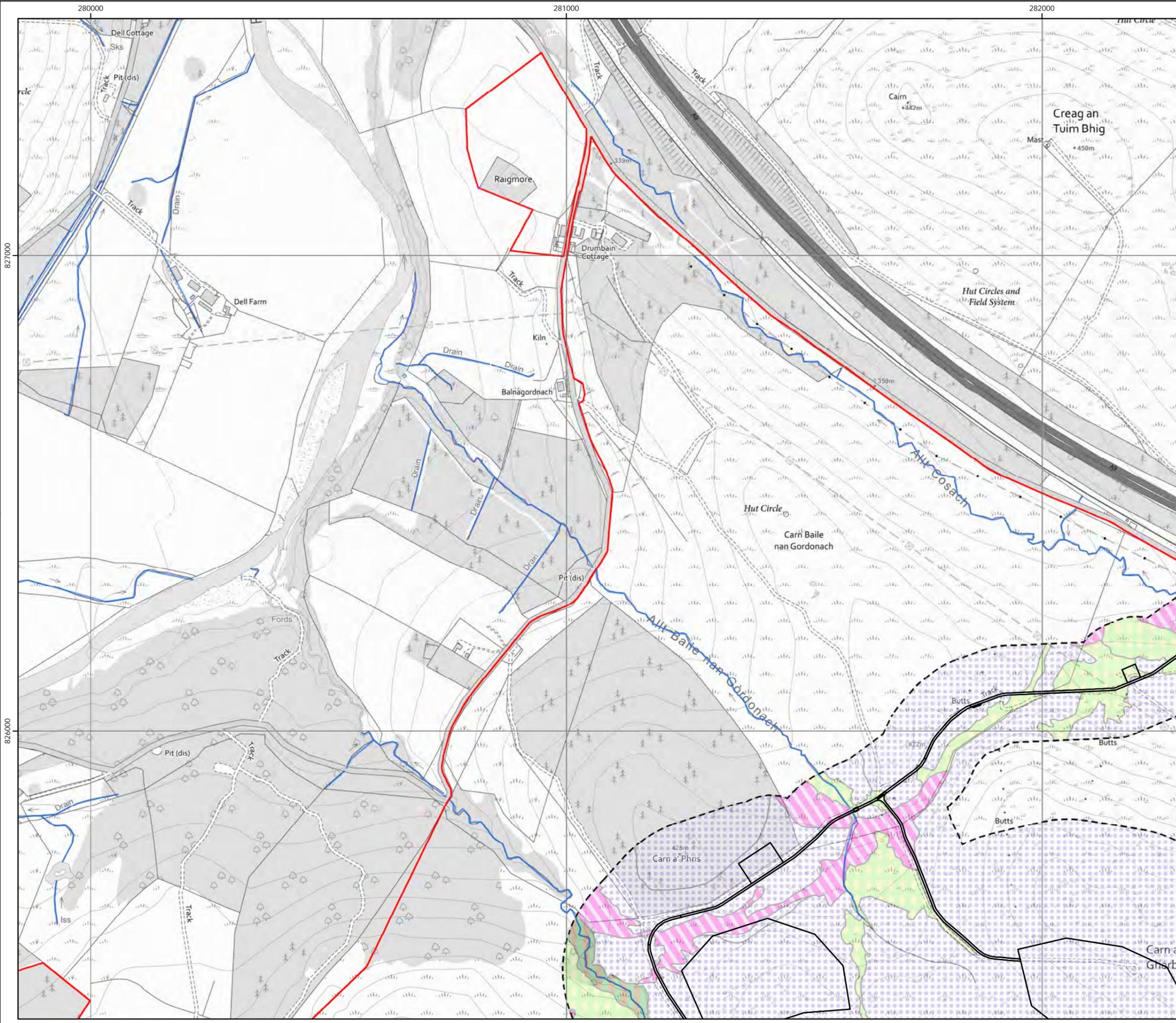


Scale @ A3:
1:32,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.





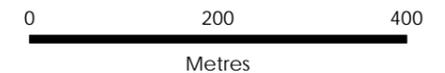
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 1

Key

- Site boundary
- Vegetation Assessment Area
- Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
- g1b6 - Other upland acid grassland
- h1b5 - Dry heaths, upland (H4030)
- w1e - Upland birchwoods



Scale @ A3:
1:7,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 2

Key

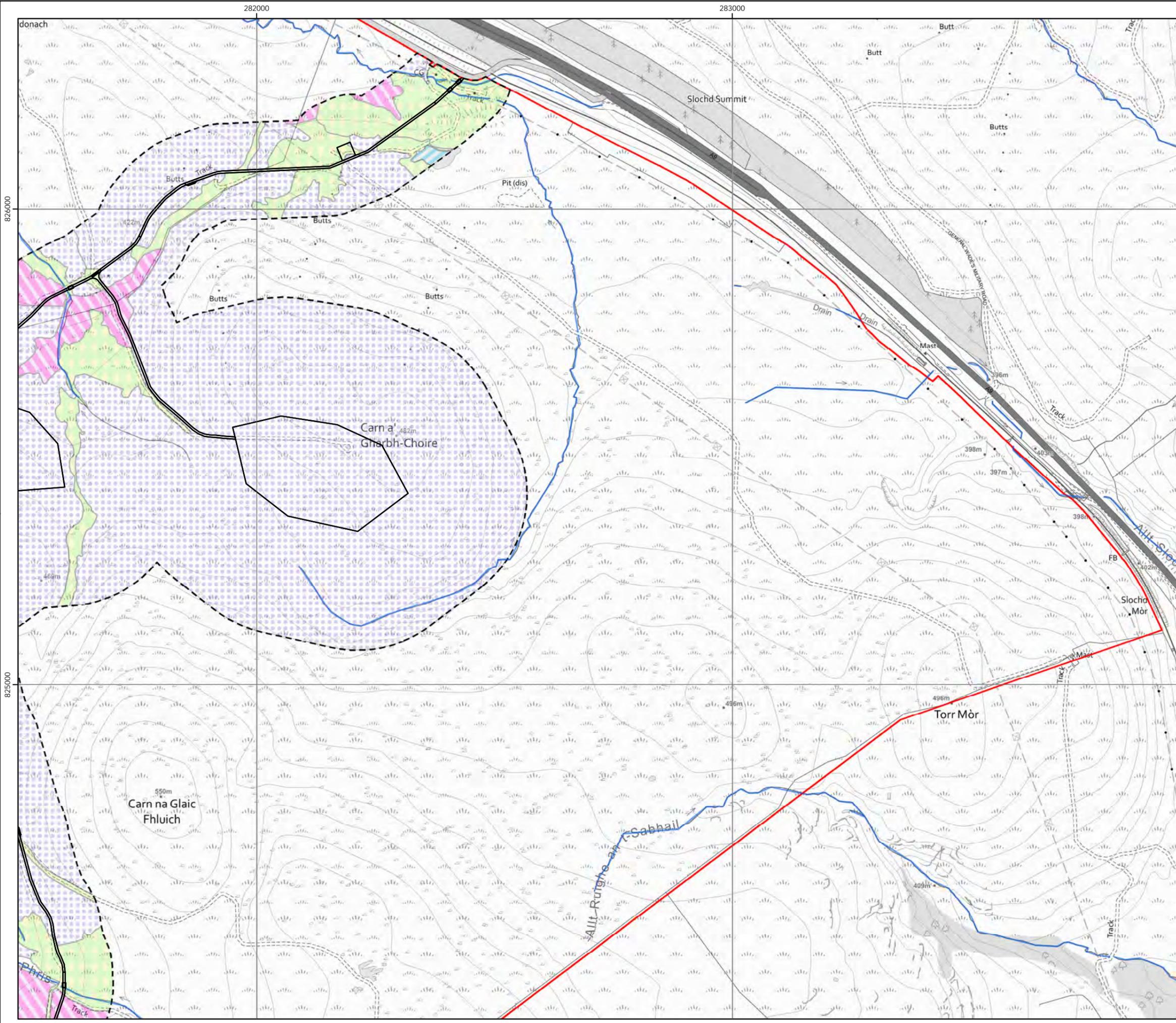
- Site boundary
- Vegetation Assessment Area
- Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
- g1b6 - Other upland acid grassland
- h1b5 - Dry heaths, upland (H4030)
- r1c - Oligotrophic and dystrophic lakes



0 200 400
Metres

N
Scale @ A3:
1:7,500

© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.



Clune Wind Farm



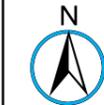
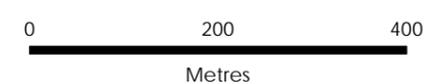
Figure 7.6.1
UKHAB Survey Results
Map 3

Key

- Site boundary
- Vegetation Assessment Area
- Proposed Infrastructure

Habitat Polygon

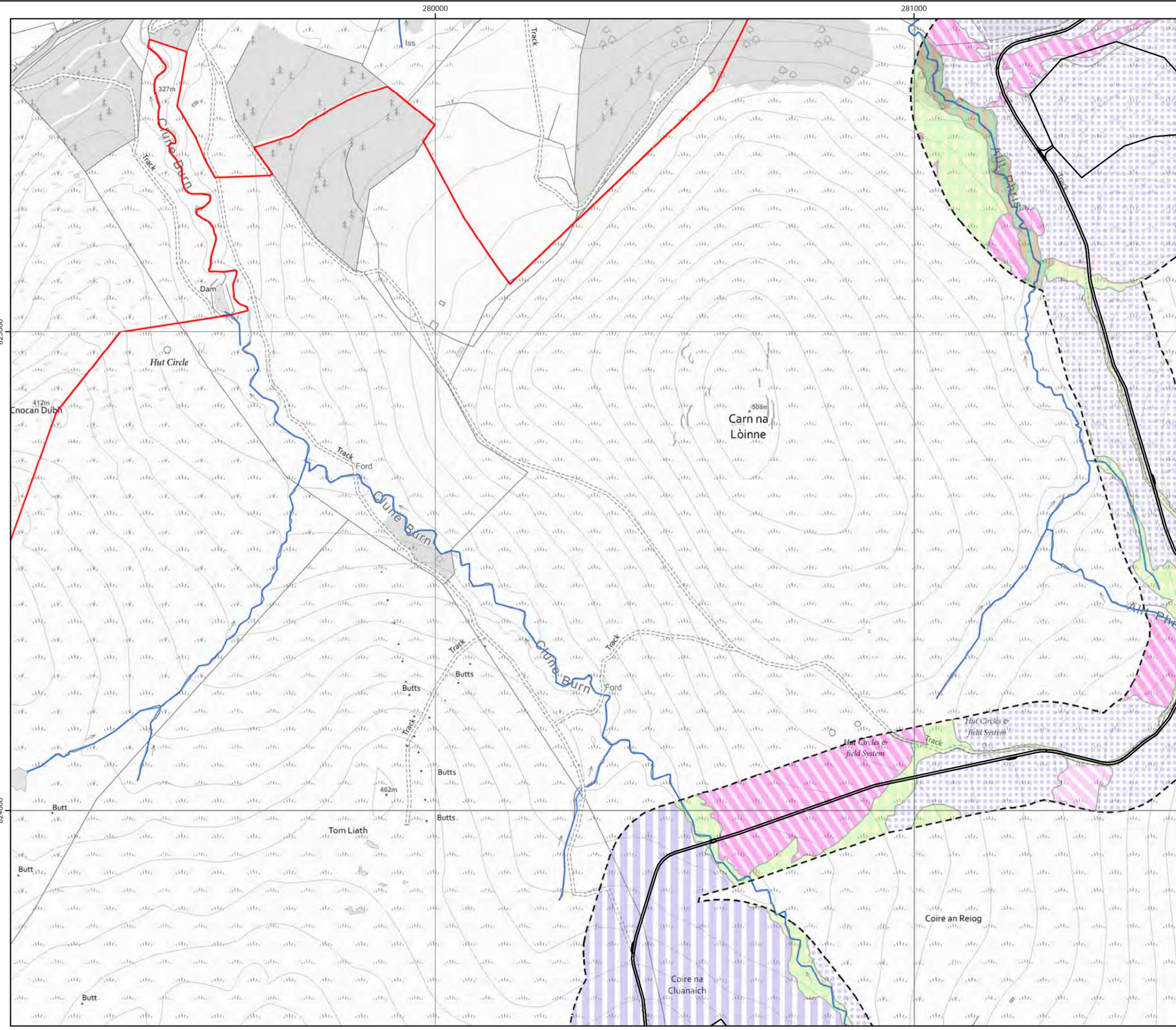
- f1a - Blanket bog
- f1a5 - Blanket bog (H7130)
- g1b - Upland acid grassland
- g1b6 - Other upland acid grassland
- h1b - Upland heathland
- h1b5 - Dry heaths, upland (H4030)
- h1b6 - Wet heathland with cross-leaved heath, upland (H4010)
- w1e - Upland birchwoods



Scale @ A3:
1:7,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.



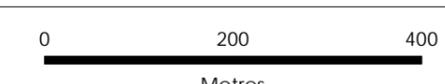
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 4

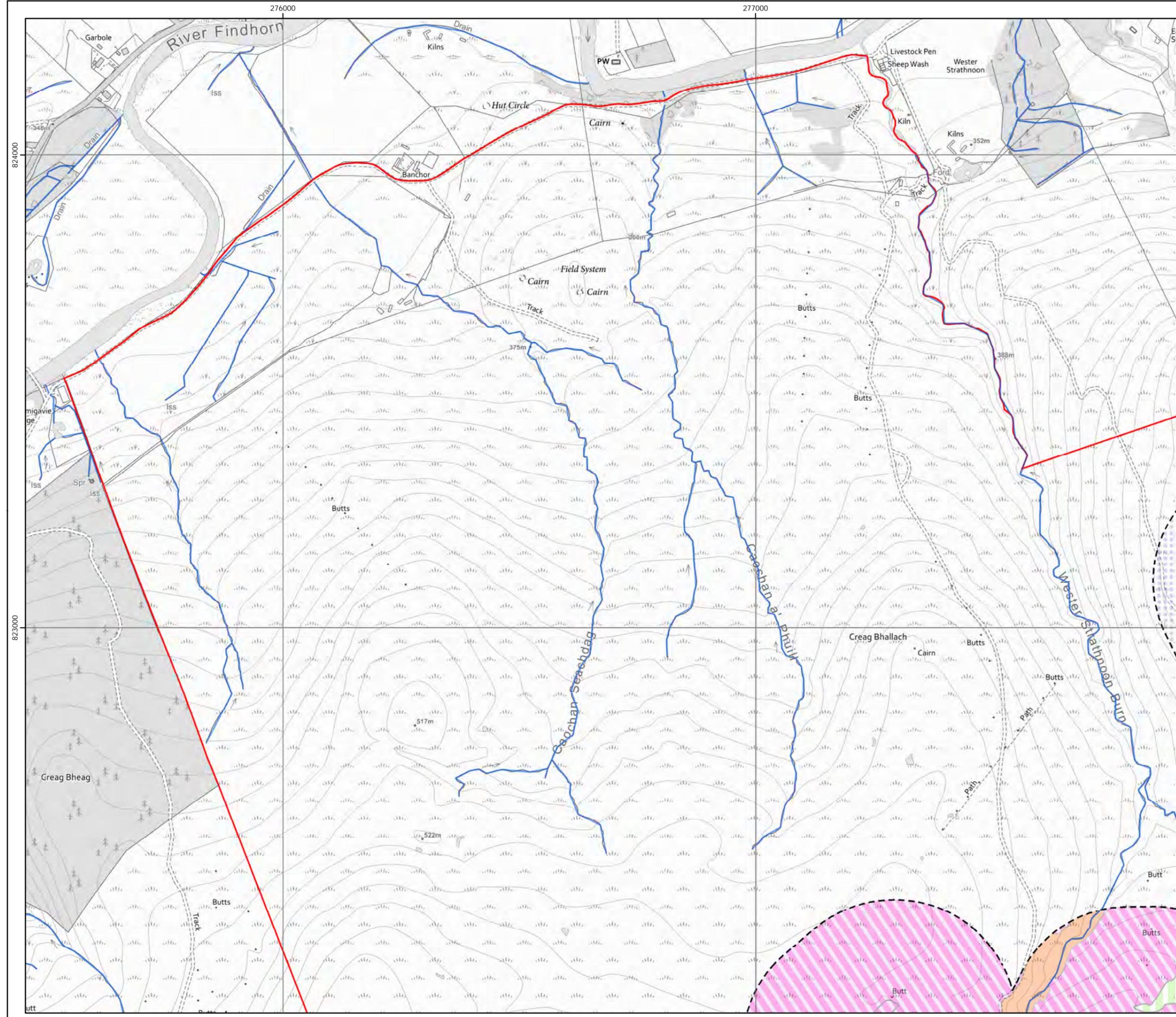
Key

- Site boundary
- Vegetation Assessment Area
- ▲ Proposed turbine
- Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
- g1b - Upland acid grassland
- h1b5 - Dry heaths, upland (H4030)
- h3k - Juniper scrub



N Scale @ A3:
1:7,500

© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.



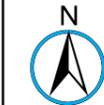
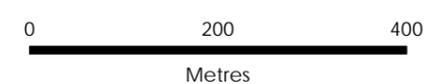
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 5

Key

- Site boundary
- Vegetation Assessment Area
- ▲ Proposed turbine
- Proposed Infrastructure
- Habitat Polygon**
- f1a - Blanket bog
- f1a5 - Blanket bog (H7130)
- g1b - Upland acid grassland
- g1b6 - Other upland acid grassland
- h1b - Upland heathland
- h1b5 - Dry heaths, upland (H4030)
- h1b6 - Wet heathland with cross-leaved heath, upland (H4010)
- h3k - Juniper scrub

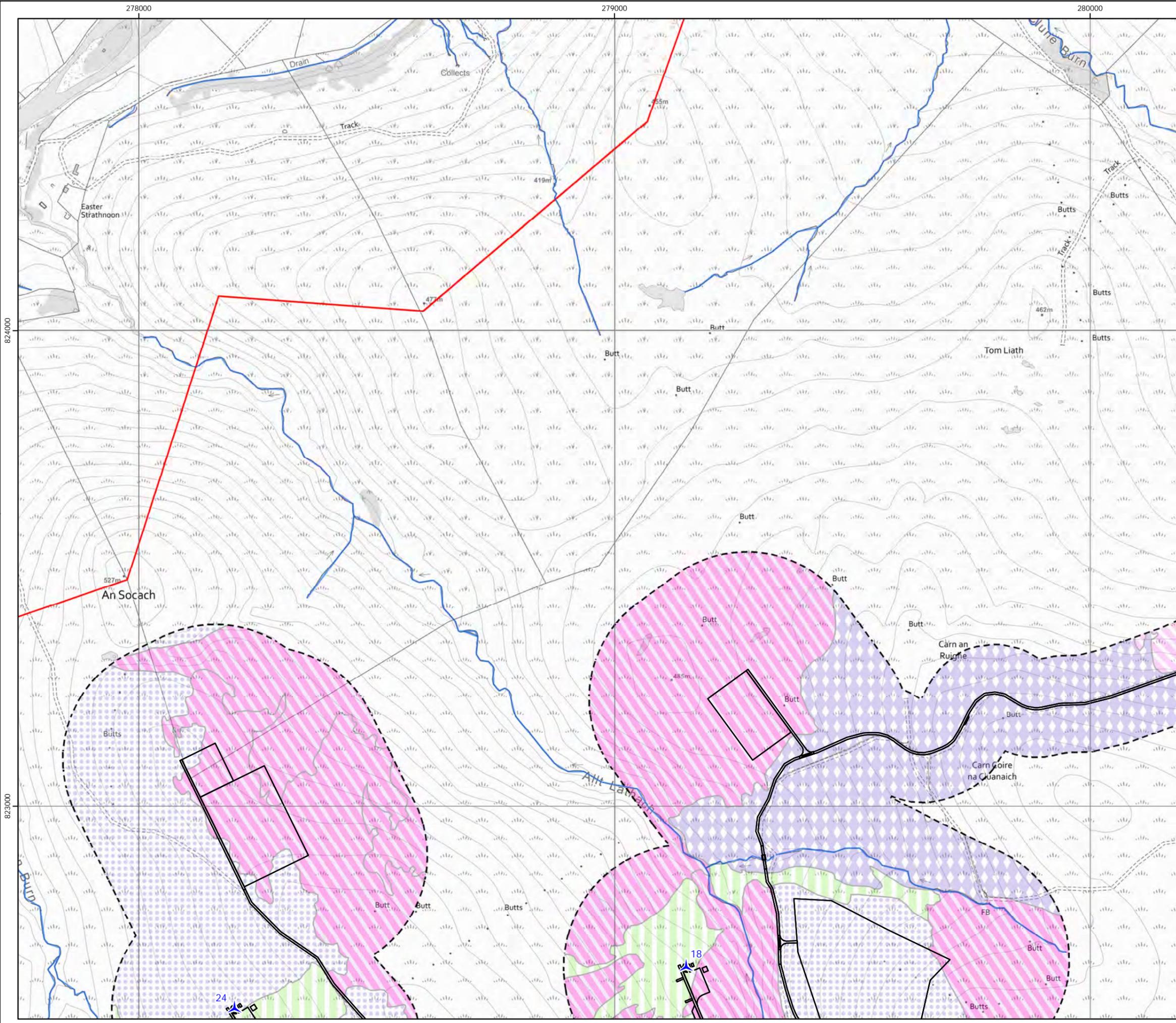


Scale @ A3:
1:7,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

25/10/2024 PSCOCLU041 64600/OR/161a
Drawn by: AF Checked by: TH Approved by: JW



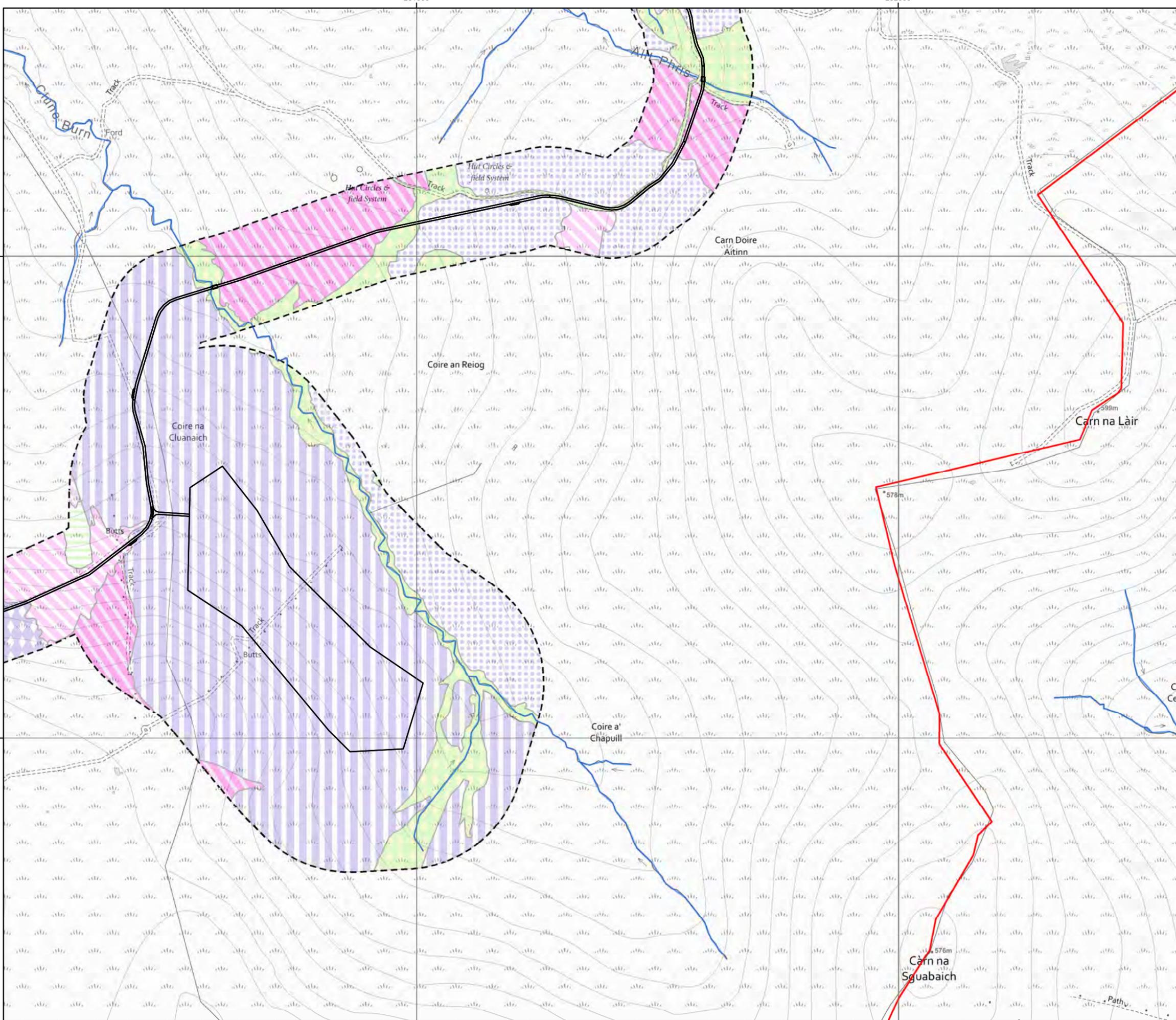
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 6

Key

- Site boundary
- Vegetation Assessment Area
- Proposed Infrastructure
- Habitat Polygon**
- f1a - Blanket bog
- f1a5 - Blanket bog (H7130)
- g1b - Upland acid grassland
- g1b6 - Other upland acid grassland
- g1c - Bracken
- h1b - Upland heathland
- h1b5 - Dry heaths, upland (H4030)
- h1b6 - Wet heathland with cross-leaved heath, upland (H4010)



0 200 400
Metres

N

Scale @ A3:
1:7,500

© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

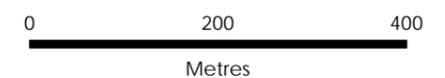
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 7

Key

- Site boundary
- Vegetation Assessment Area
- ▲ Proposed turbine
- Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
- g1b - Upland acid grassland
- g1b6 - Other upland acid grassland
- h1b5 - Dry heaths, upland (H4030)
- h3k - Juniper scrub

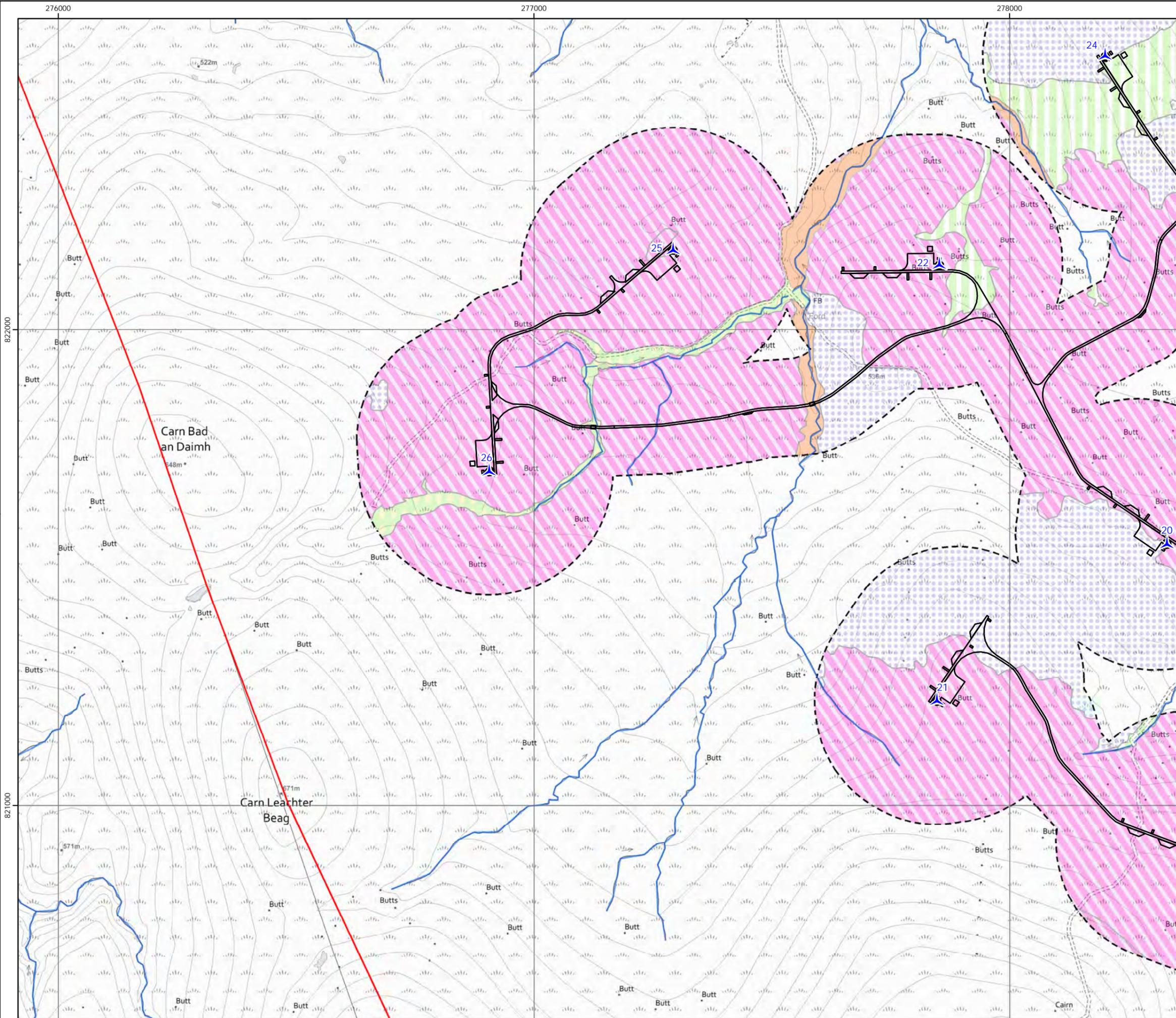


Scale @ A3:
1:7,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

25/10/2024 PSCOCLU041 64600/OR/161a
Drawn by: AF Checked by: TH Approved by: JW



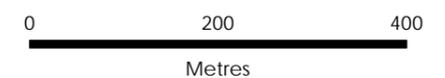
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 8

Key

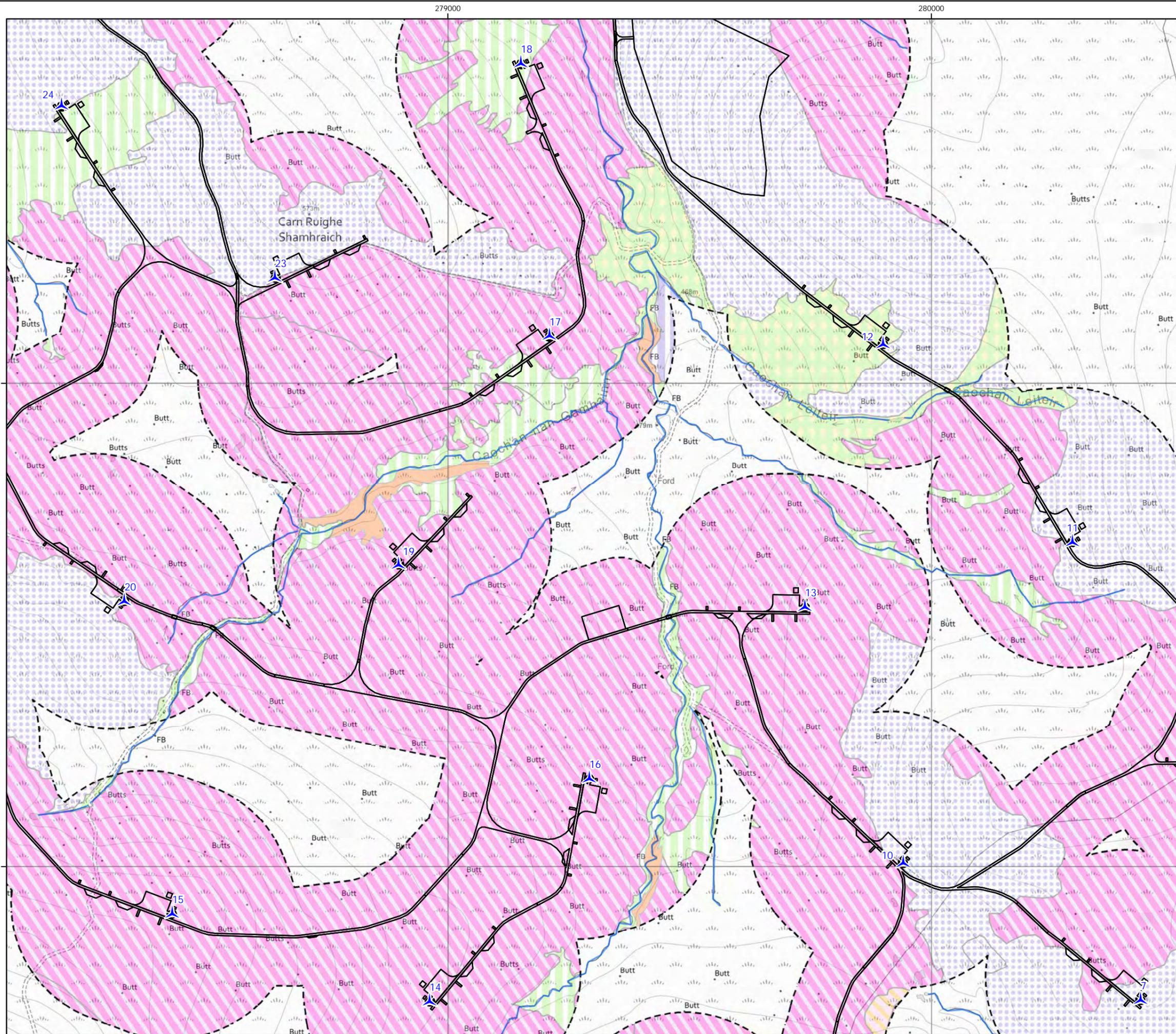
- Site boundary
 - Vegetation Assessment Area
 - ▲ Proposed turbine
 - Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
 - f2c - Upland Flushed, fens and swamps
 - g1b - Upland acid grassland
 - g1b6 - Other upland acid grassland
 - h1b - Upland heathland
 - h1b5 - Dry heaths, upland (H4030)
 - h3k - Juniper scrub



Scale @ A3:
1:7,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.



Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 9

Key

- Site boundary
- Vegetation Assessment Area
- ▲ Proposed turbine
- Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
- f1a6 - Degraded blanket bog
- g1b - Upland acid grassland
- g1b6 - Other upland acid grassland
- h1b5 - Dry heaths, upland (H4030)
- h1b6 - Wet heathland with cross-leaved heath, upland (H4010)
- h3k - Juniper scrub



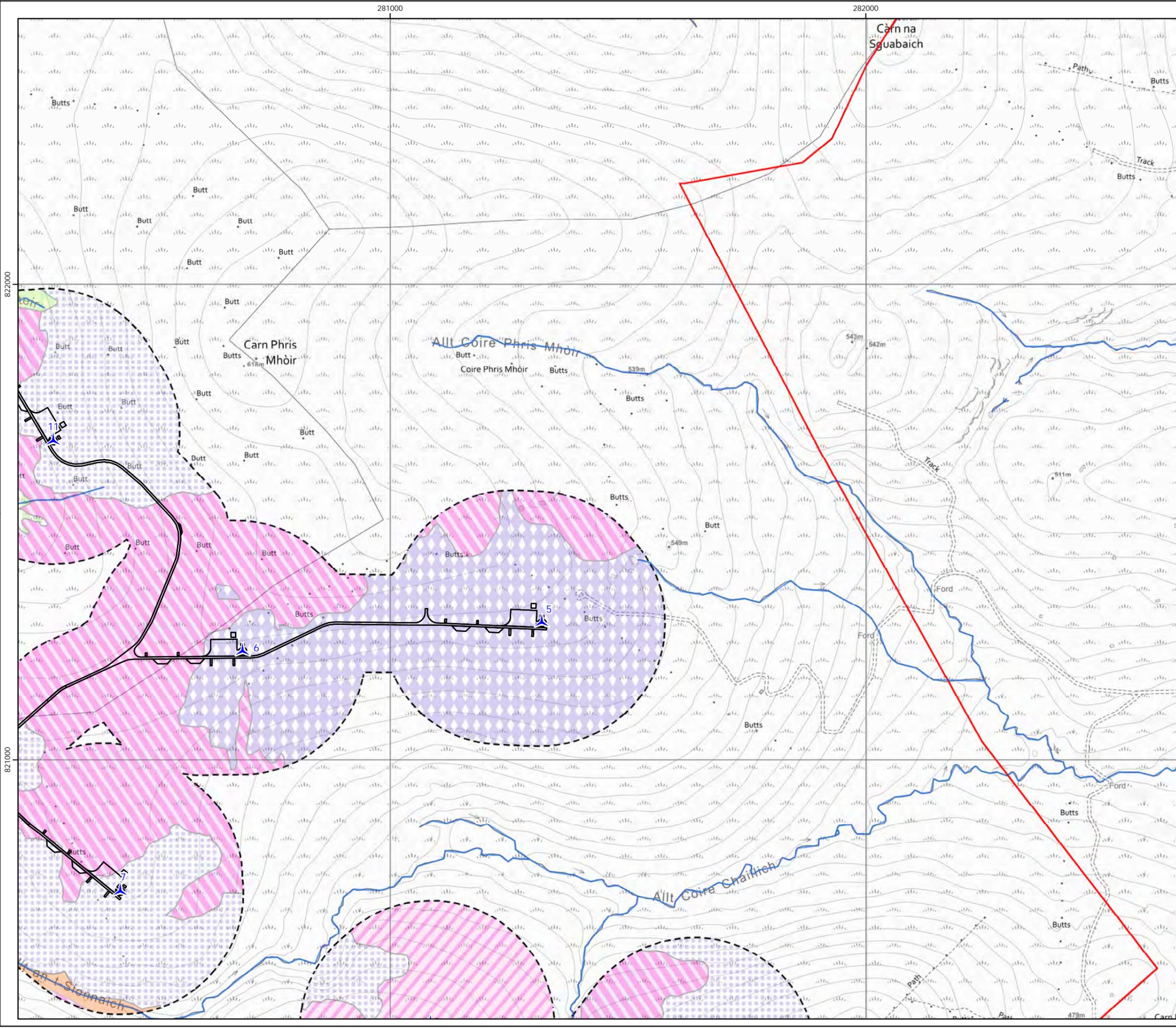
0 200 400
Metres

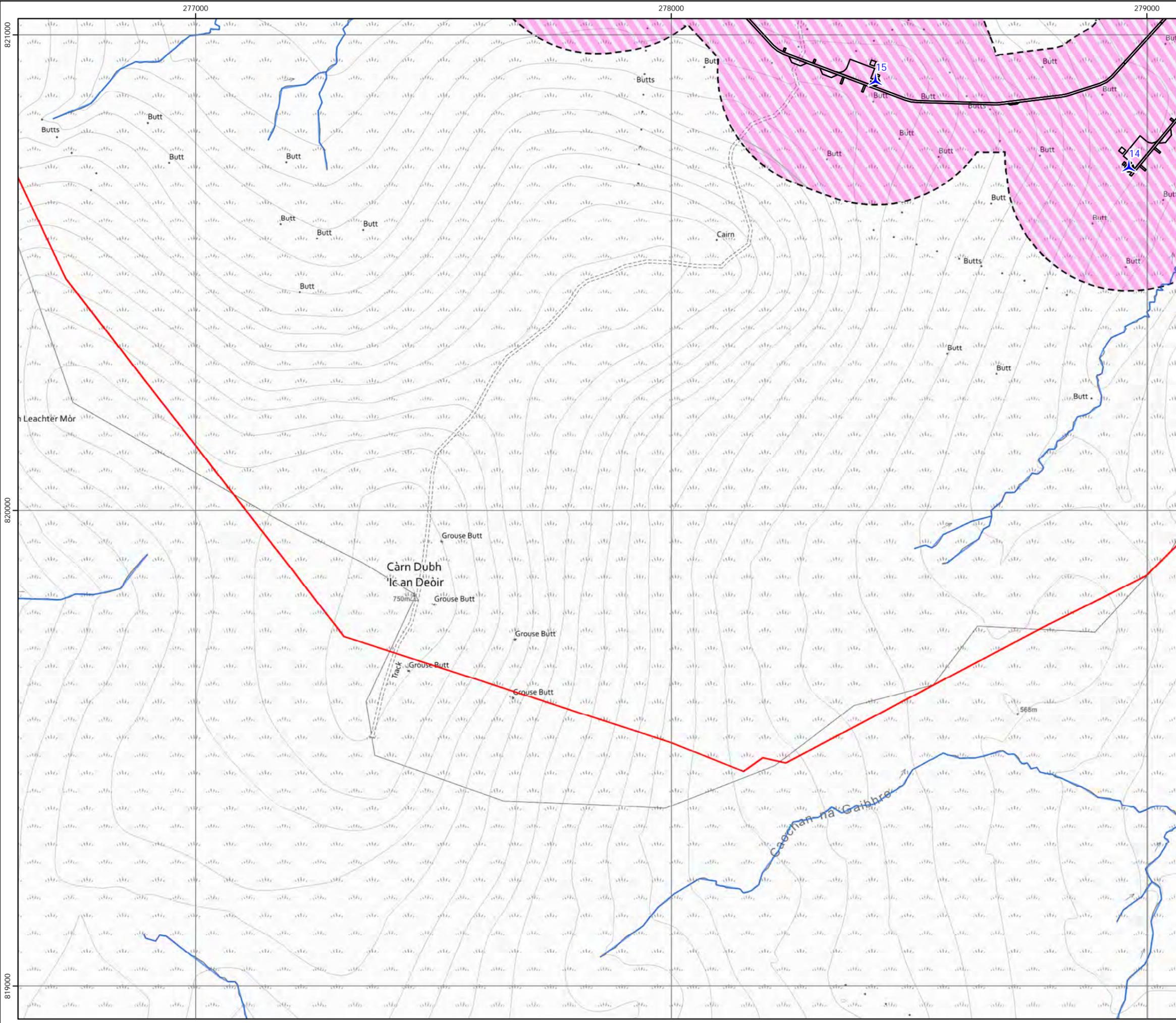
N

Scale @ A3:
1:7,500

© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

25/10/2024 PSCOCLU041 64600/OR/161a
Drawn by: AF Checked by: TH Approved by: JW





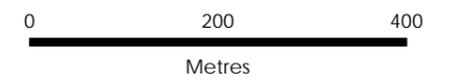
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 10

Key

- Site boundary
- Vegetation Assessment Area
- ▲ Proposed turbine
- Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)



Scale @ A3:
1:7,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 11

Key

- Site boundary
- Vegetation Assessment Area
- ▲ Proposed turbine
- Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
- f1a6 - Degraded blanket bog
- f2c - Upland Flushed, fens and swamps
- g1b - Upland acid grassland
- g1b6 - Other upland acid grassland
- h1b5 - Dry heaths, upland (H4030)
- h1b6 - Wet heathland with cross-leaved heath, upland (H4010)
- h3k - Juniper scrub



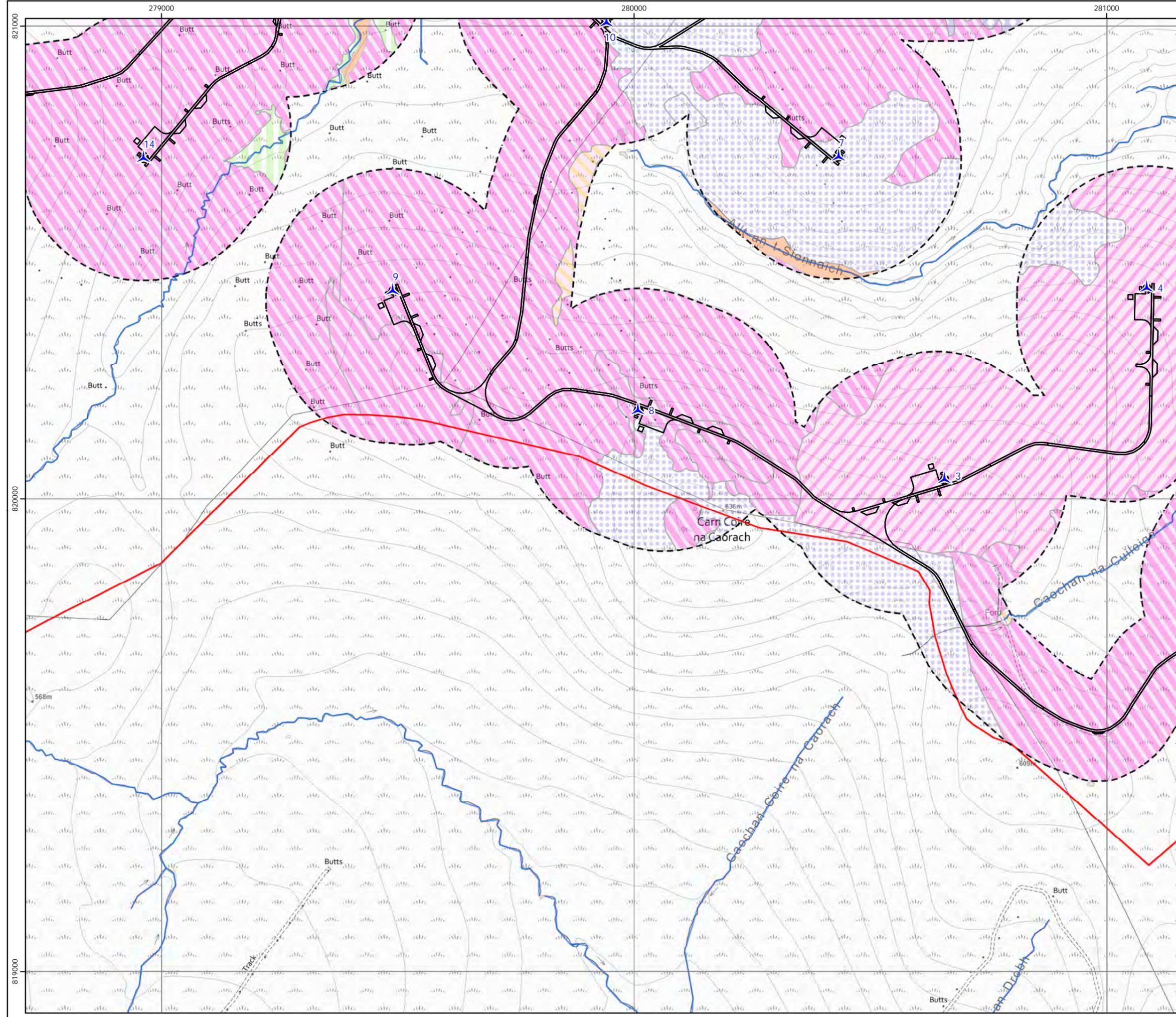
0 200 400
Metres

N

Scale @ A3:
1:7,500

© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

25/10/2024 PSCOCLU041 64600/OR/161a
Drawn by: AF Checked by: TH Approved by: JW



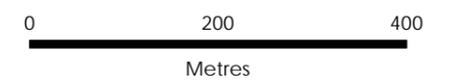
Clune Wind Farm



Figure 7.6.1
UKHAB Survey Results
Map 12

Key

- Site boundary
 - Vegetation Assessment Area
 - ▲ Proposed turbine
 - Proposed Infrastructure
- Habitat Polygon**
- f1a5 - Blanket bog (H7130)
 - f1a6 - Degraded blanket bog
 - f2c - Upland Flushed, fens and swamps
 - h1b5 - Dry heaths, upland (H4030)
 - h1b6 - Wet heathland with cross-leaved heath, upland (H4010)
 - h3k - Juniper scrub



Scale @ A3:
1:7,500



© Crown copyright 2024. All rights reserved.
Ordnance survey licence number 100031673.

