

Quantans Hill Wind Farm

Volume 2a - EIAR Figures except for LVIA

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PREFACE

An Environmental Impact Assessment Report (EIAR) has been prepared in support of an application submitted by Natural Power Consultants Limited (Natural Power) on behalf of the Applicant (Vattenfall Wind Power Ltd). The application seeks consent under Section 36 of the Electricity Act 1989 and the EIAR has been prepared in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2017. The application also seeks a direction under Section 57(2) of the Town and Country Planning (Scotland) Act 1997 as amended that planning permission for the development be deemed to be granted. This EIAR contains the information carried out for the Environmental Impact Assessment to develop a wind farm comprising of up to fourteen wind turbines and associated infrastructure (the Proposed Development). The Proposed Development is located in Dumfries & Galloway local authority areas.

The Electricity Works (Miscellaneous Temporary Modifications) (Coronavirus) (Scotland) Regulations 2020 (“the Temporary Regs”) came into effect on 24 April 2020. These Regulations are temporary and were due to expire on 30 September 2020. However, these safeguards will now continue to be in place for the duration of the extension period, with the expiry date of the Scottish Acts by this Bill, to 30 September 2022.

Copies of the EIAR may also be obtained from Vattenfall Wind Power Ltd at a charge of £1,400 per hard copy. Copies of Non-Technical Summary and USB format of entire application are available free of charge upon request.

- **This is Volume 2a** of the EIAR which presents the Technical Figures associated with the EIAR Chapters except for Chapter 5 (Landscape & Visual Impact Assessment)
- Volume 1 of the EIAR presents the 15 Chapters of the EIAR.
- Volume 2b of the EIAR presents the technical Figures associated with EIAR Chapter 5.
- Volume 2c of the EIAR presents the Visualisations produced for EIAR Chapters 5 and 9 (Landscape & Visual Impact Assessment and Cultural Heritage).
- Volume 3 presents the Technical Appendices associated with the EIAR Chapters.
- Volume 4 of the EIAR presents the Non-Technical Summary.

In addition to the EIAR, the application is also supplemented by accompanying documents including:

- Planning, Design & Access Statement,
- Pre-Application Consultation (PAC) Report.

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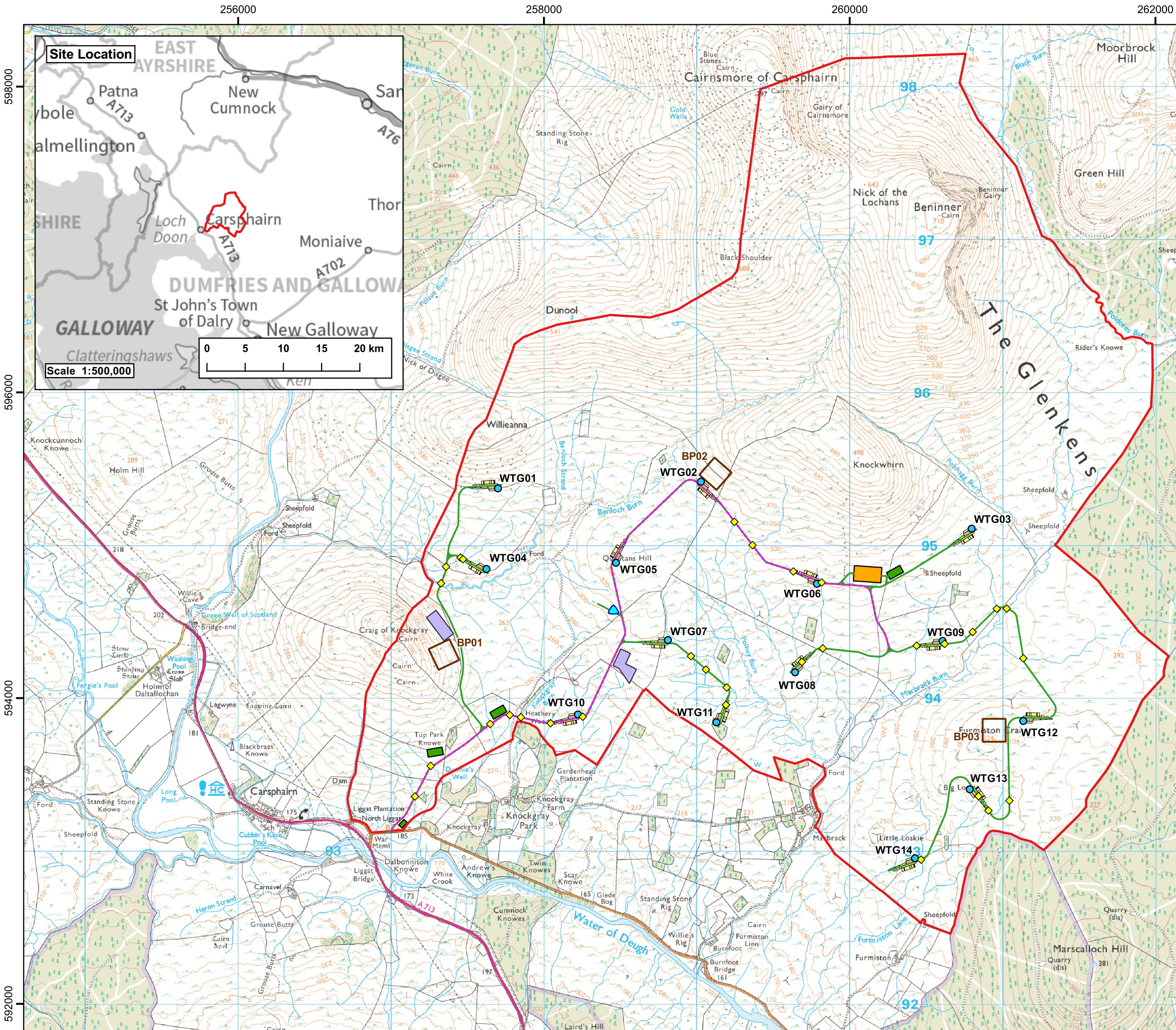
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18th April 2022 – 17th April 2023*

*Subject to meeting the requirements of registration





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 1.1: Site Layout and
Location**

- Key**
- Site boundary
 - Proposed turbine
 - Proposed anemometry mast
 - Proposed permanent cranepad and hardstanding
 - Proposed temporary cranepad and hardstanding
 - Proposed track
 - Proposed thoroughfare track
 - Proposed substation, operations centre and battery storage
 - Proposed temporary compound
 - Proposed temporary batching plant
 - Proposed borrow pit
 - Watercourse crossing

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Coordinate System: British National Grid

0 0.25 0.5 0.75 1 km

N

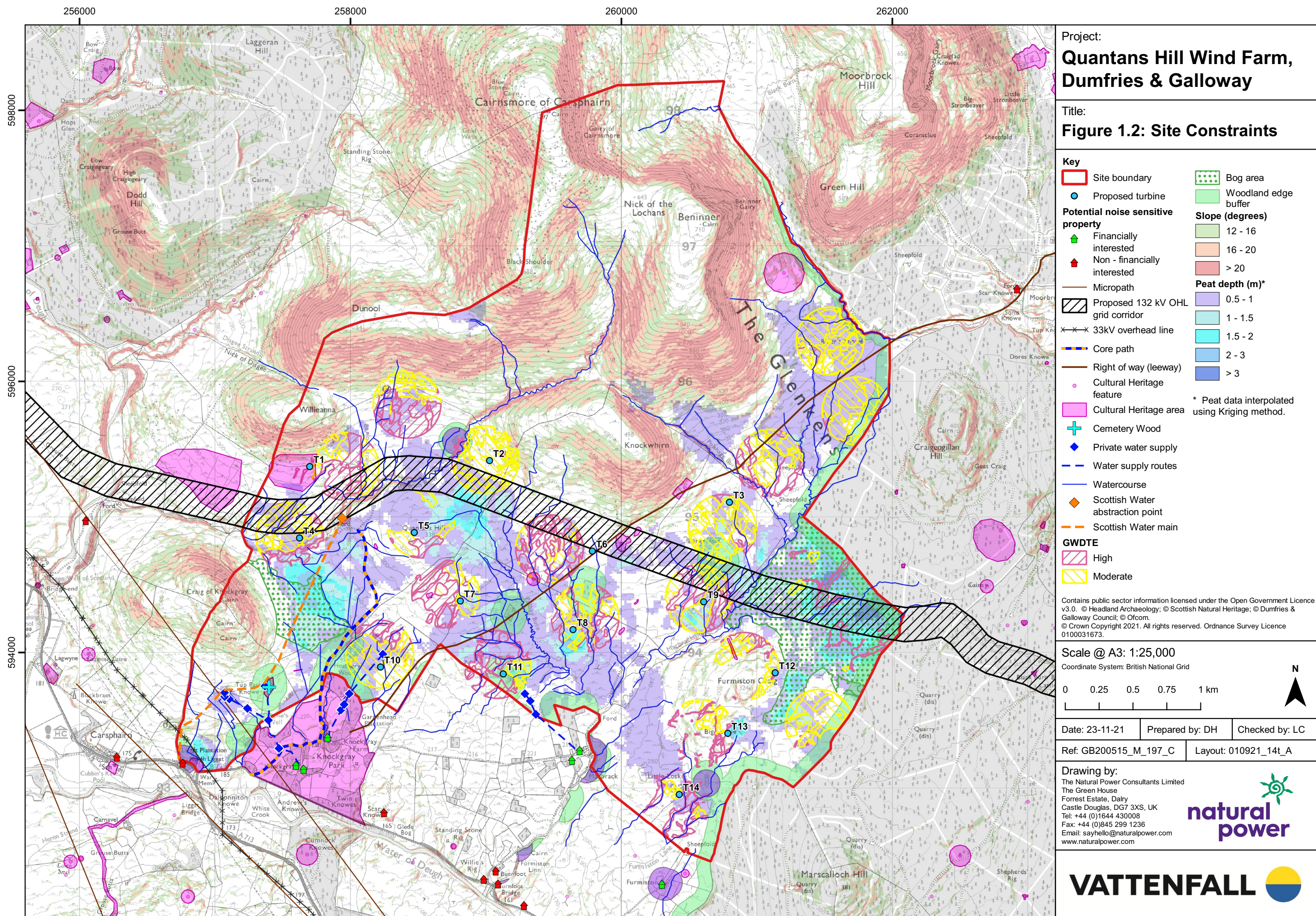
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
Figure 1.2: Site Constraints

Key

Site boundary	Bog area
Proposed turbine	Woodland edge buffer
Potential noise sensitive property	Slope (degrees)
Financially interested	12 - 16
Non - financially interested	16 - 20
Micropath	> 20
Proposed 132 kV OHL grid corridor	Peat depth (m)*
33kV overhead line	0.5 - 1
Core path	1 - 1.5
Right of way (leeway)	1.5 - 2
Cultural Heritage feature	2 - 3
Cultural Heritage area	> 3
Cemetery Wood	<p>* Peat data interpolated using Kriging method.</p>
Private water supply	
Water supply routes	
Watercourse	
Scottish Water abstraction point	
Scottish Water main	
GWDTE	
High	
Moderate	

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Coordinate System: British National Grid

0 0.25 0.5 0.75 1 km

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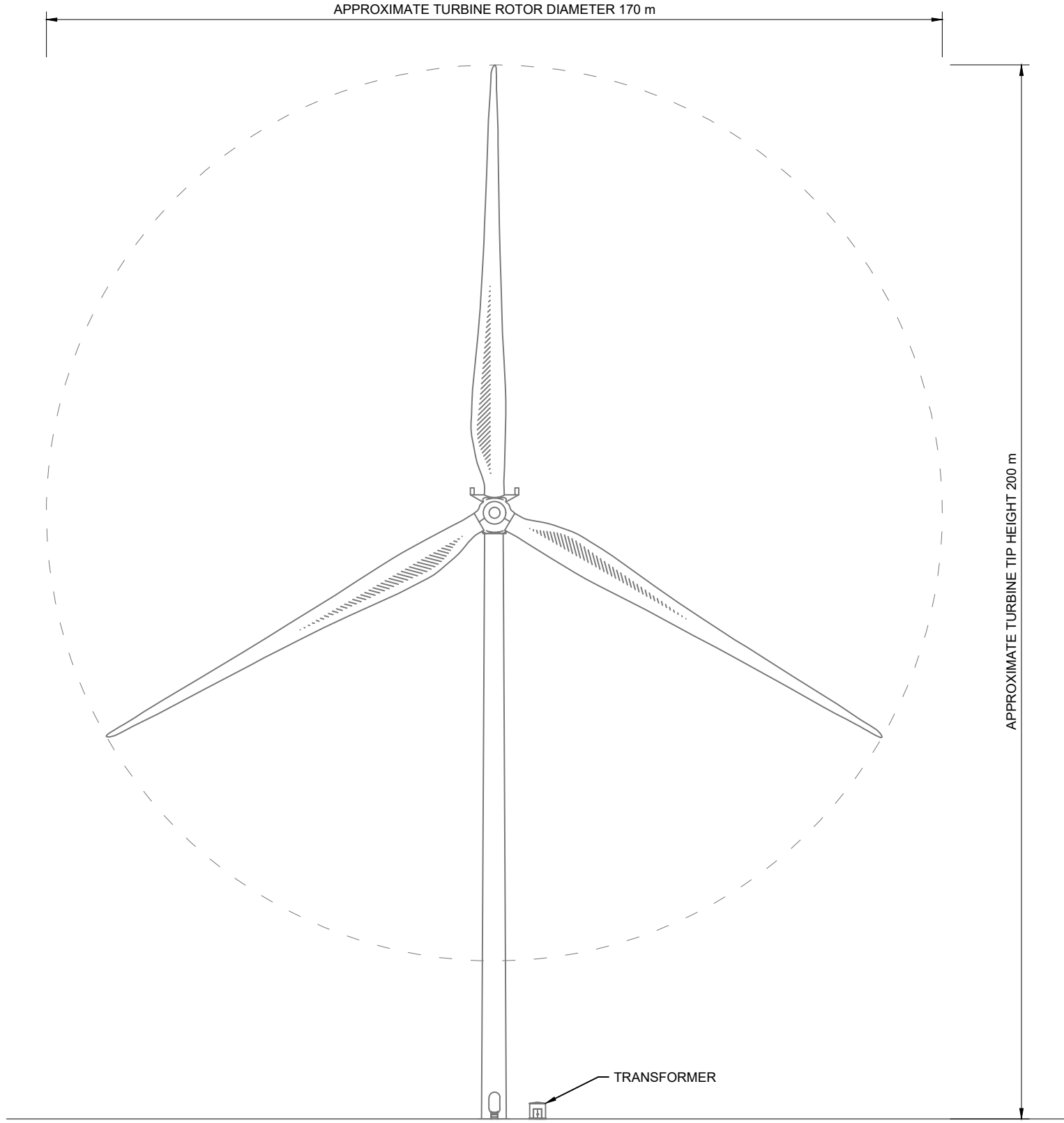
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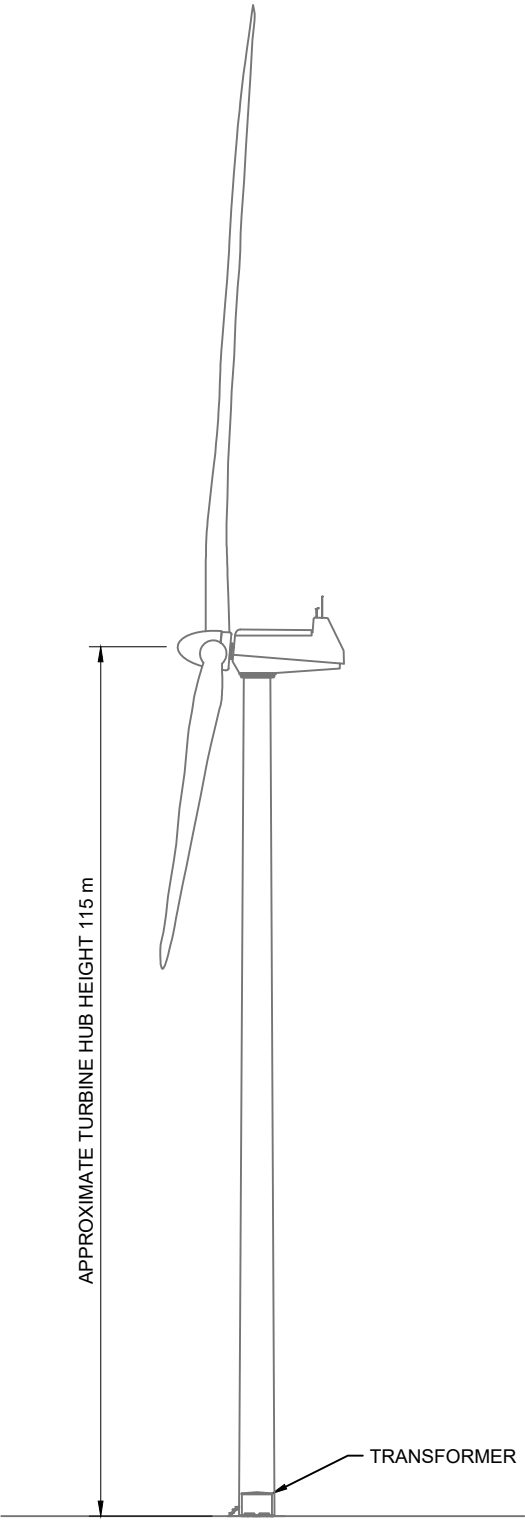
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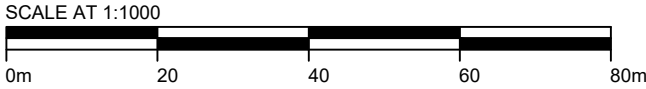
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SIDE ELEVATION VIEW
SCLAE 1:1000



FRONT VIEW
SCLAE 1:1000



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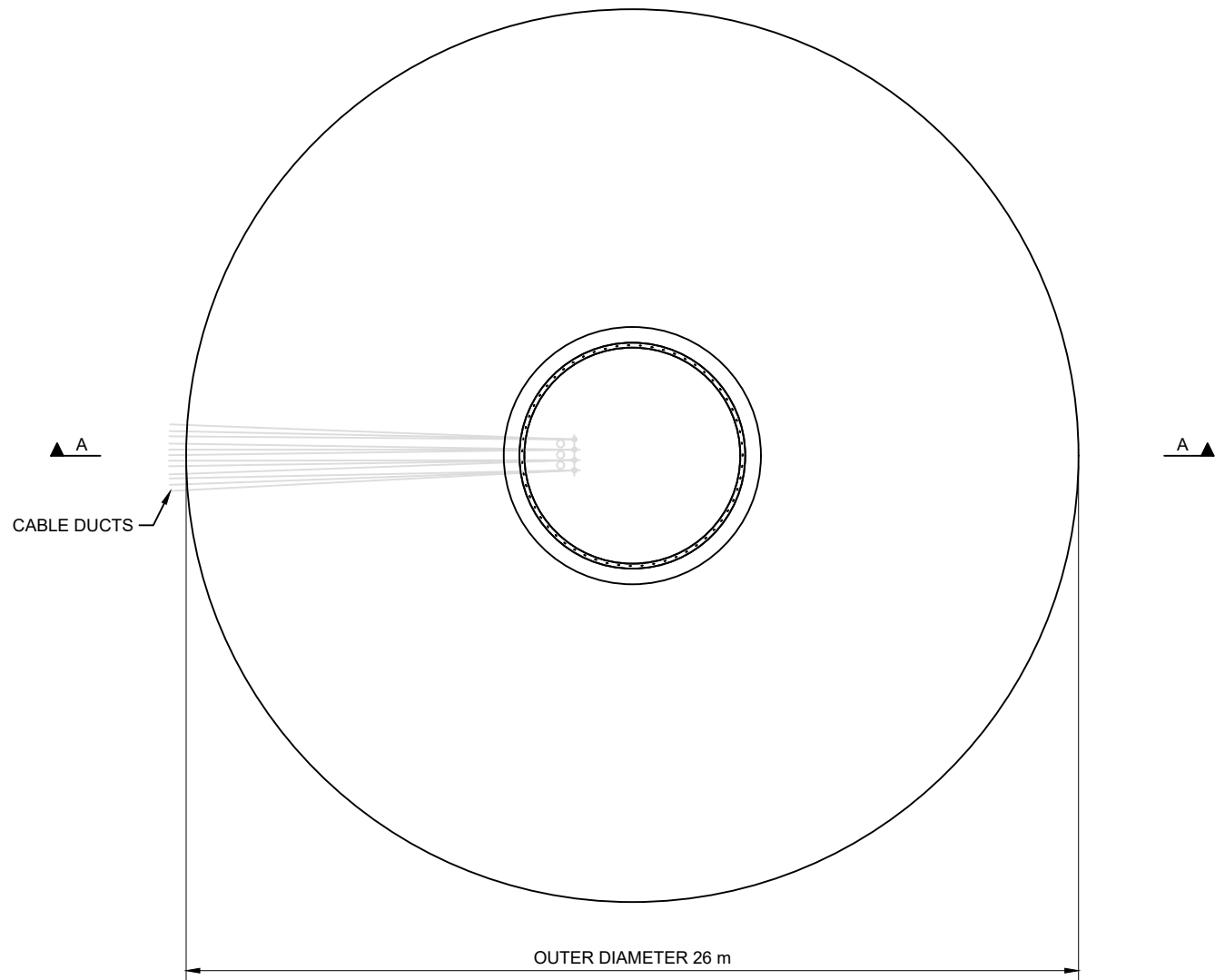
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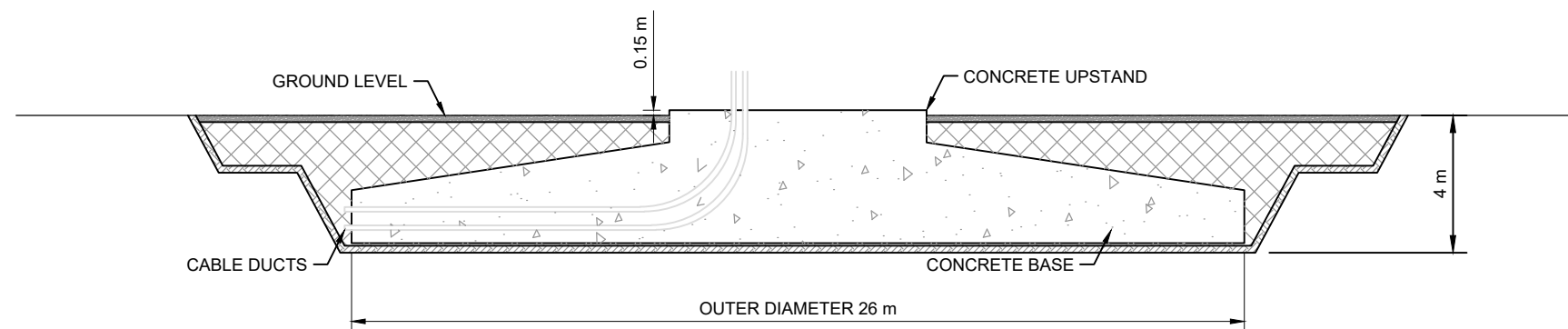
PROJECT: QUANTANS HILL WIND FARM

DRAWING TITLE: FIGURE 3.1
INDICATIVE TURBINE SPECIFICATION

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PLAN VIEW
SCALE 1:200



SECTION A-A
SCALE 1:200



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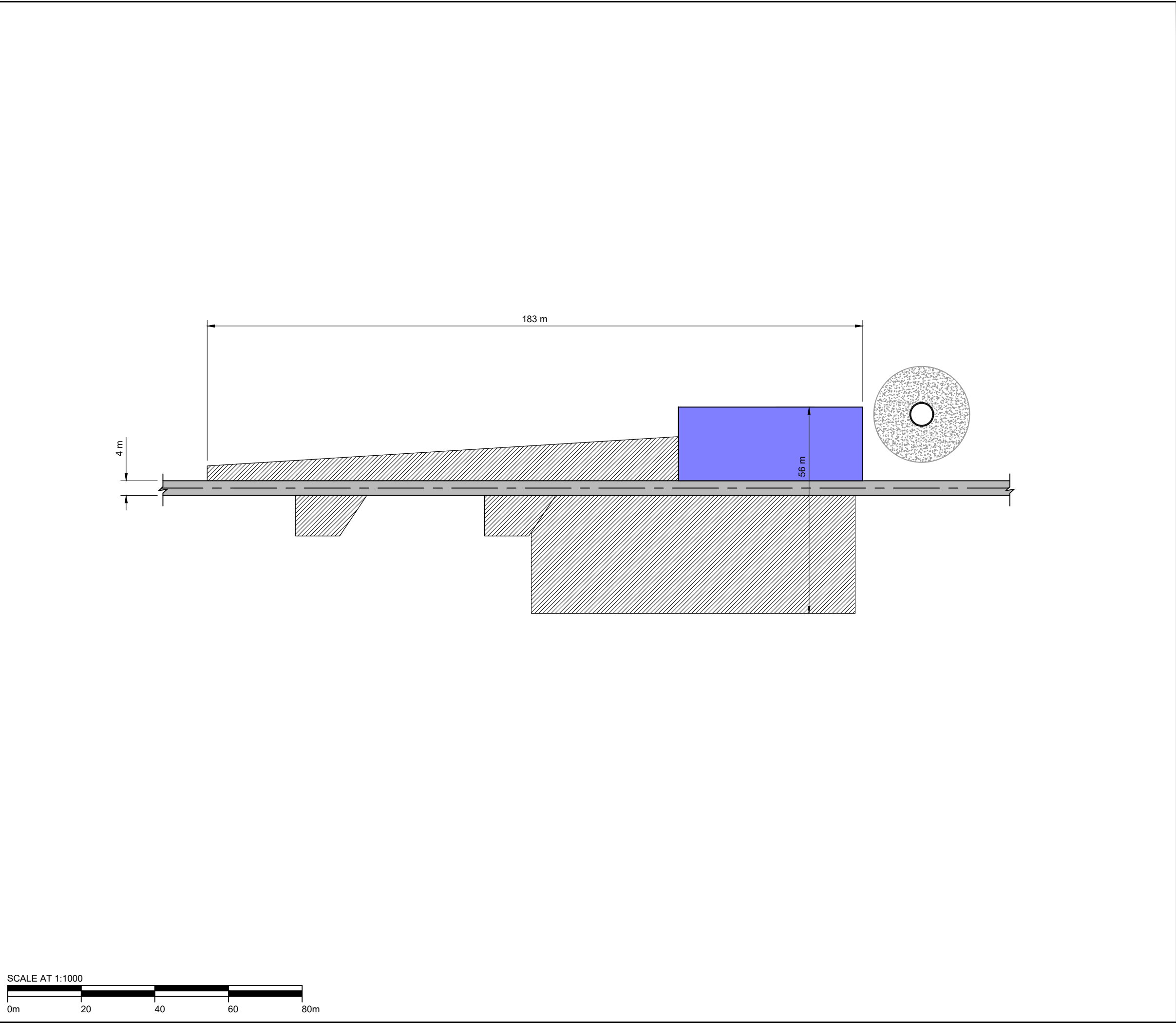
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DRAWING TITLE: FIGURE 3.2
INDICATIVE TURBINE FOUNDATION
SPECIFICATION

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- CONTRACTOR TO UNDERTAKE DETAILED DESIGN OF EACH HARDSTAND, INCLUDING ARRANGEMENT TO SUIT TURBINE SUPPLIER AND SPECIFIC SITE CONDITIONS AT EACH TURBINE LOCATION.

KEY:

○

WIND TURBINE

TRACK - NEW

HARDSTAND - PERMANENT

HARDSTAND - TEMPORARY AREA


CONCRETE

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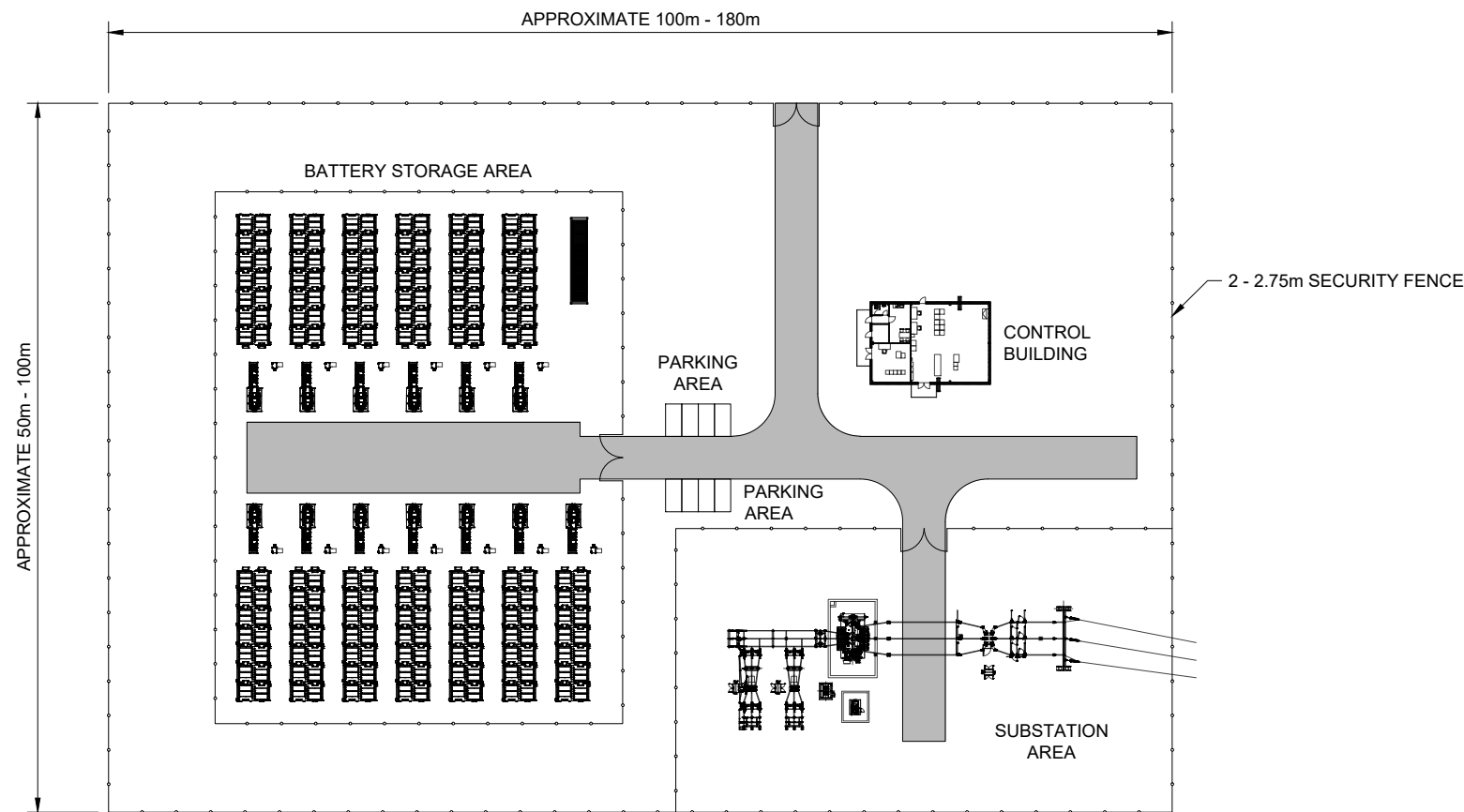
PROJECT:

QUANTANS HILL

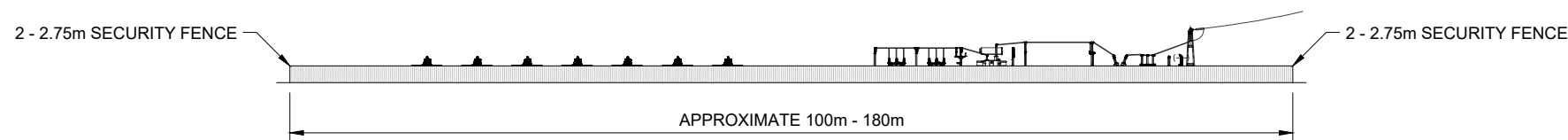
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FIGURE 3.3
INDICATIVE CRANE PAD

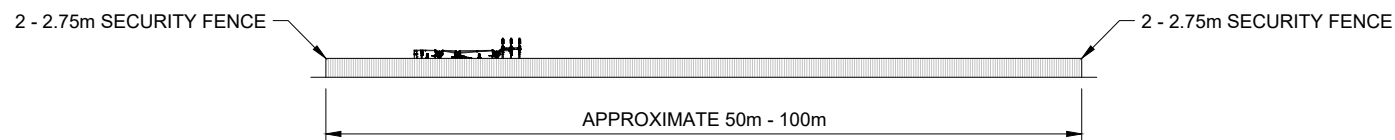
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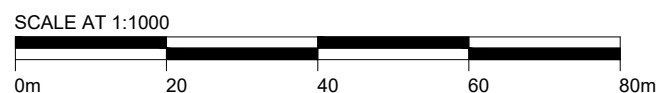
COMPOUND LAYOUT
SCALE 1:1000



FRONT ELEVATION
SCALE 1:1000



SIDE ELEVATION
SCALE 1:1000



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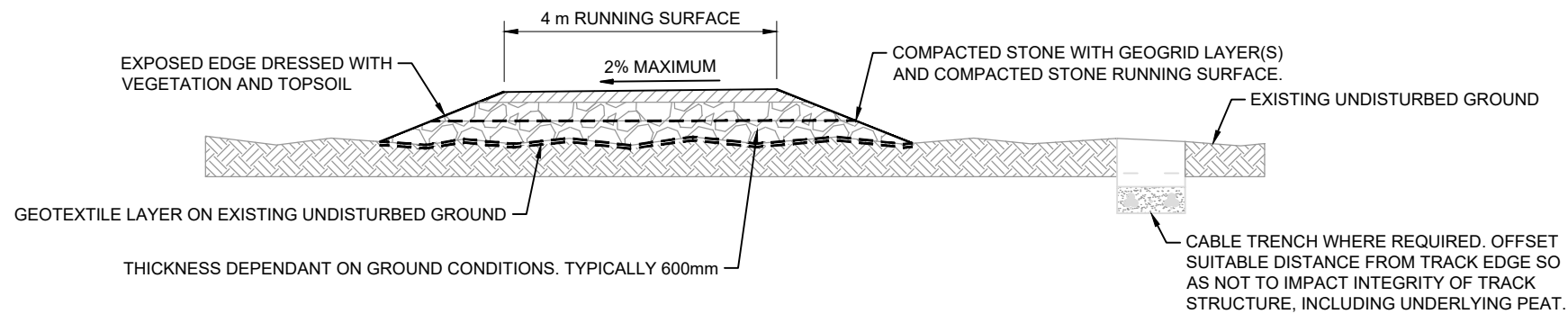
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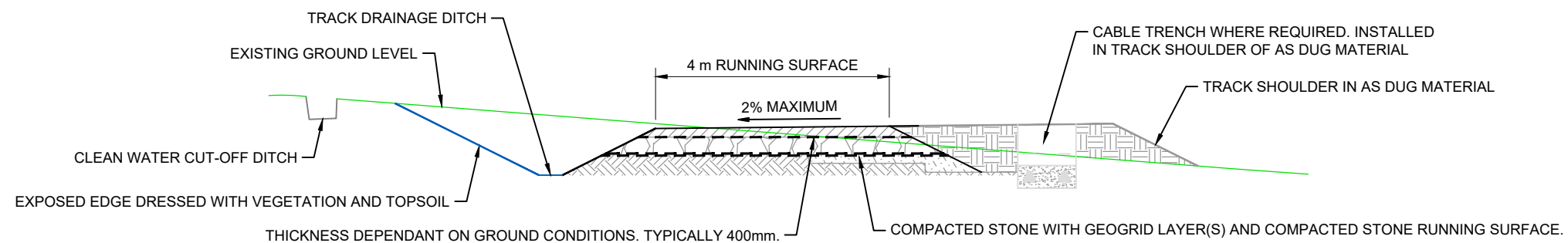
PROJECT: QUANTANS HILL WIND FARM

DRAWING TITLE: FIGURE 3.4
INDICATIVE SUBSTATION/CONTROL
BUILDING AND BESS COMPOUND

DRAWING NO.: 13736_DET_3003
REVISION **B**



TYPICAL FLOATING ACCESS TRACK SECTION
SCALE 1:100



TYPICAL ACCESS TRACK SECTION
SCALE 1:100



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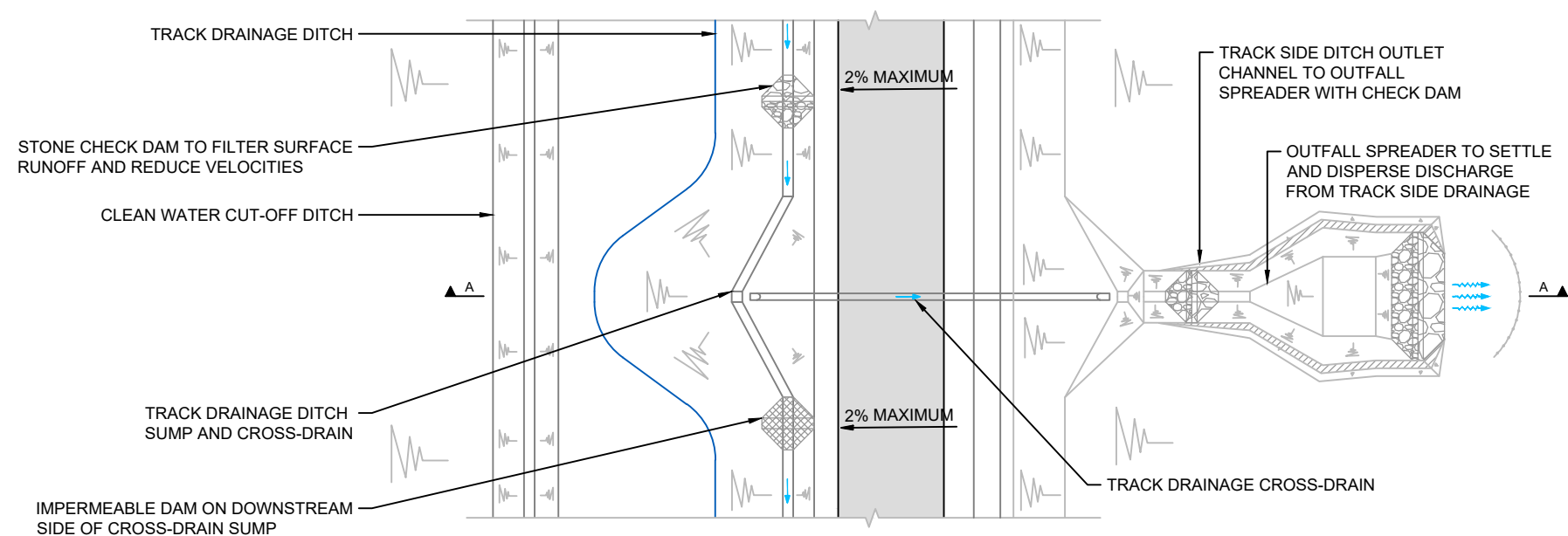
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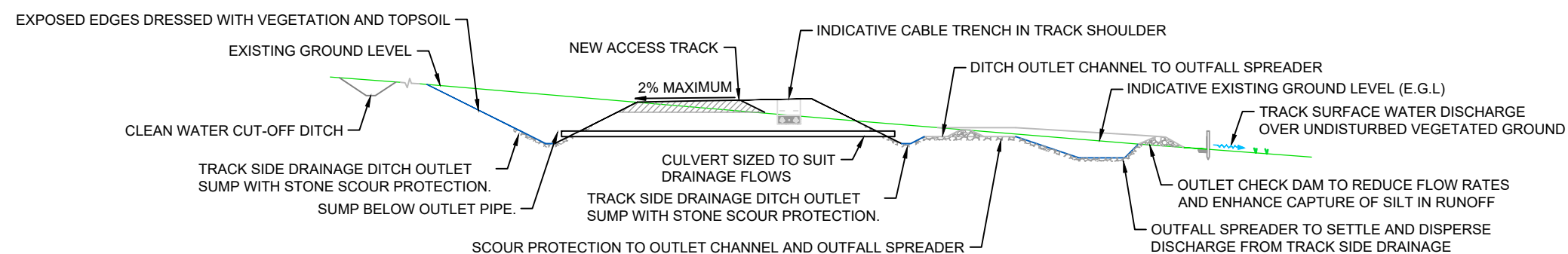
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INDICATIVE ACCESS TRACK

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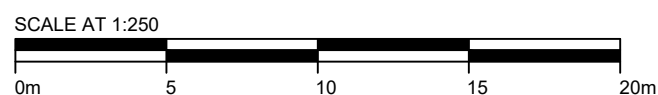
TYPICAL TRACK DRAINAGE PLAN

SCALE 1:250



SECTION A - A TYPICAL CROSS-SECTION OF CULVERTED CROSS DRAIN

SCALE 1:250



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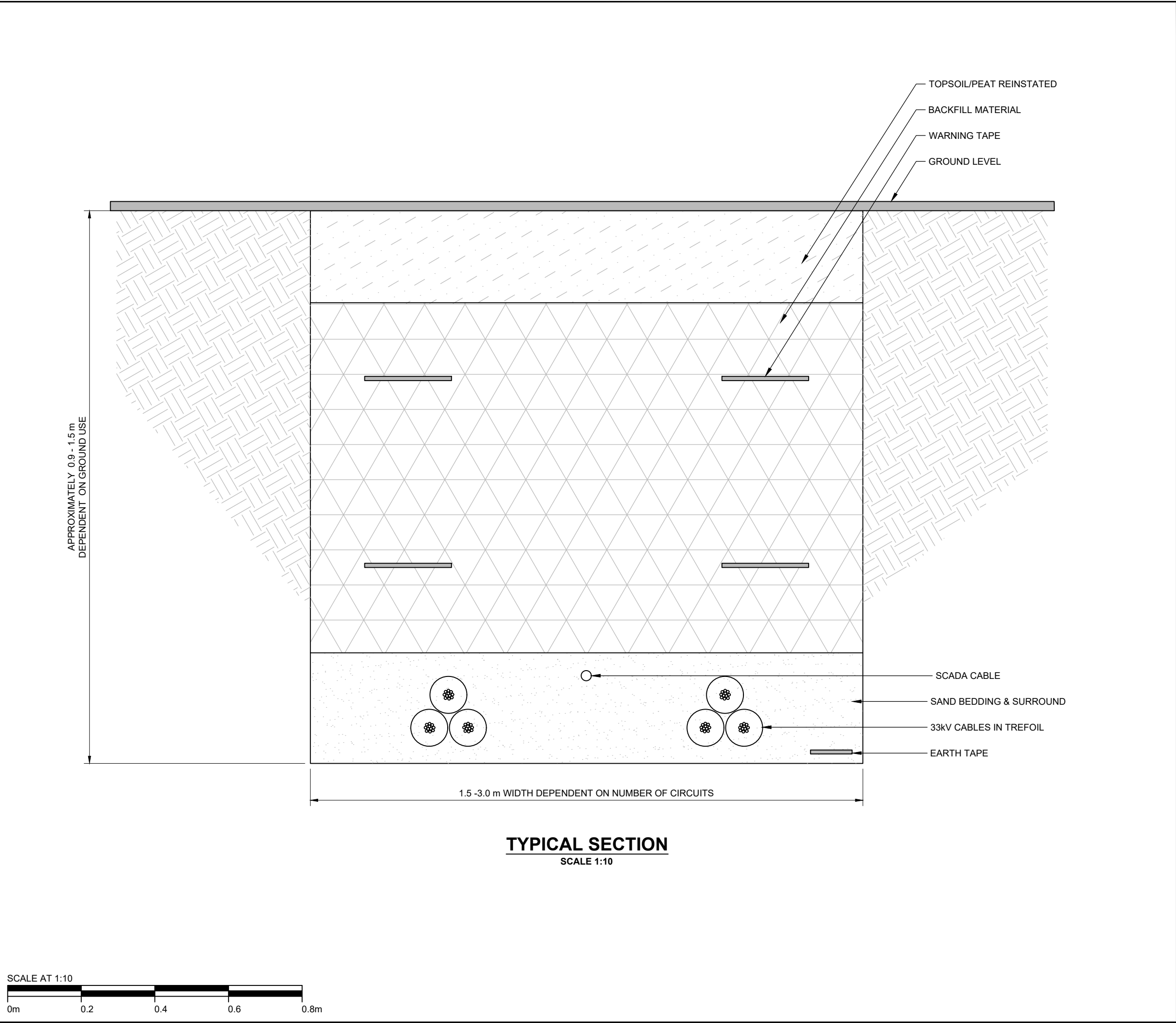
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SCALE: 1:250 @ A3	SHEET NO.: 2 OF 2

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DRAWING TITLE: FIGURE 3.5b
INDICATIVE ACCESS TRACK

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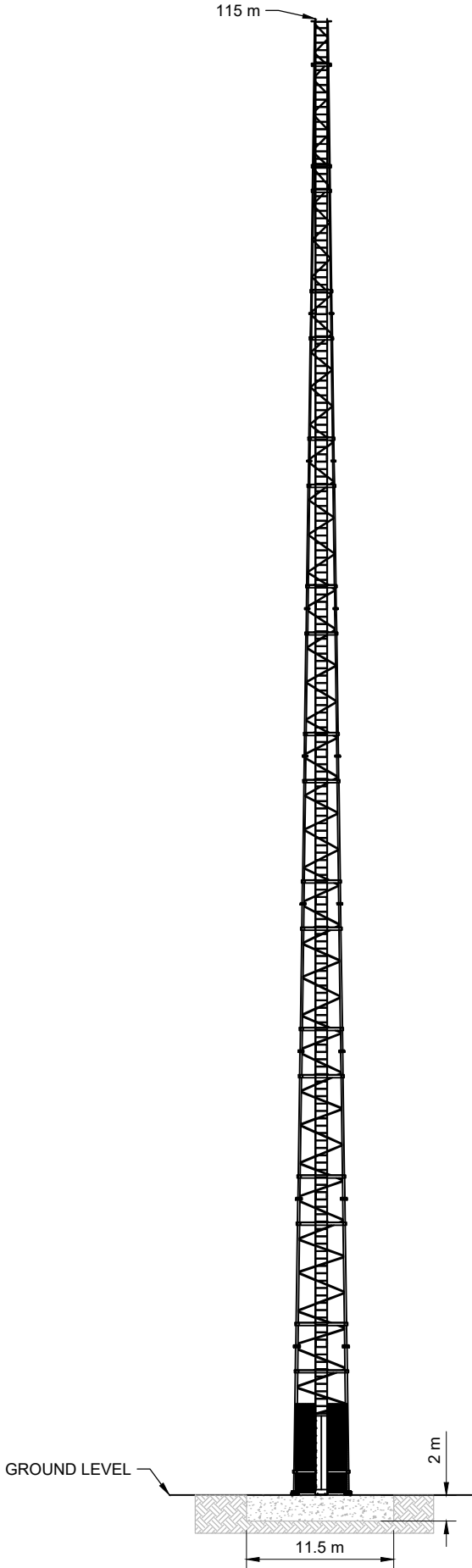
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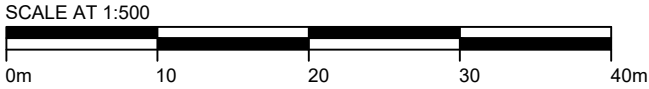
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DRAWING TITLE: FIGURE 3.6
INDICATIVE UNDERGROUND CABLING

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PLAN VIEW
SCALE 1:500



NB. EXACT DIMENSIONS AND HEIGHT OF INSTRUMENTS TO BE FITTED TO THE MAST WILL BE DETERMINED BY DETAILED DESIGN.

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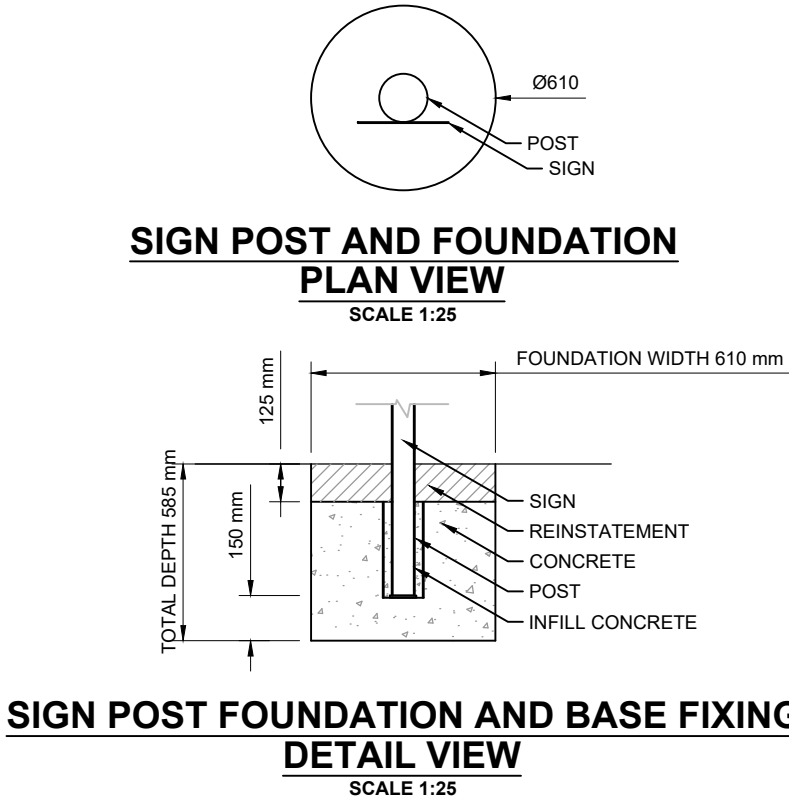
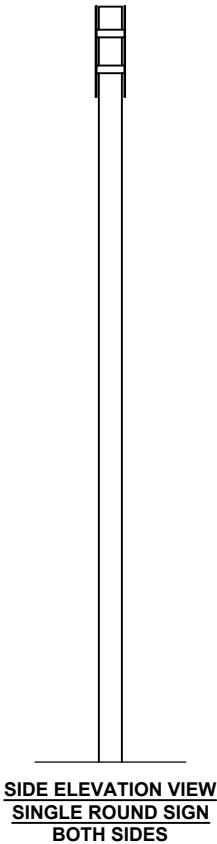
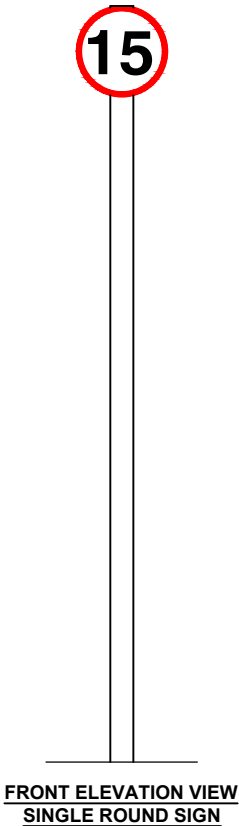
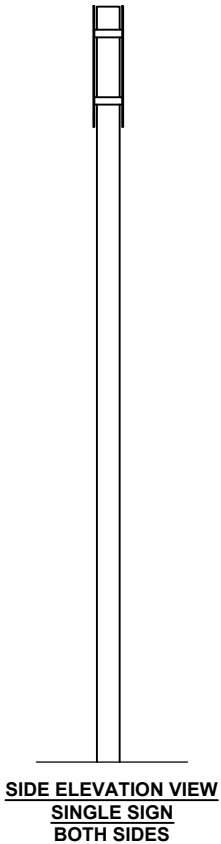
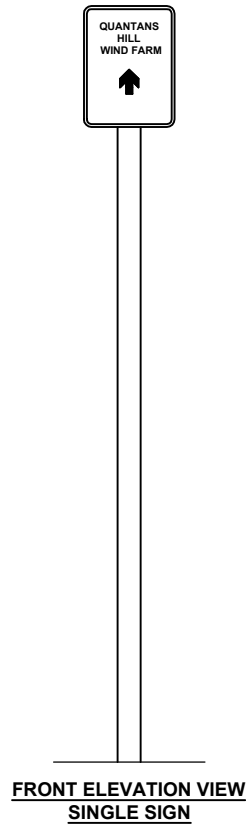
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PROJECT: QUANTANS HILL WIND FARM

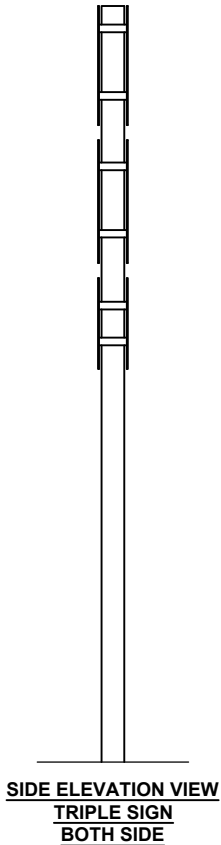
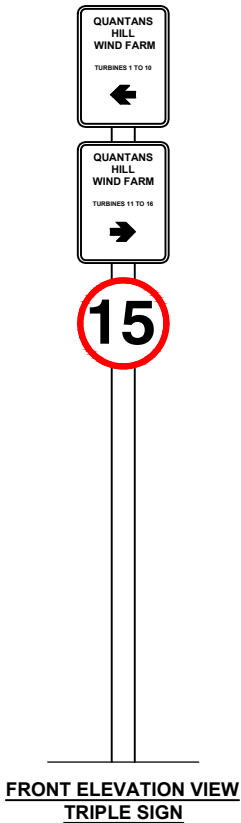
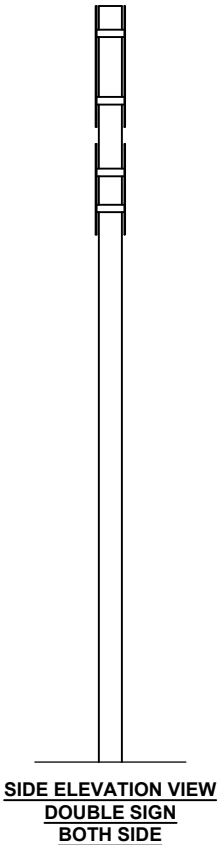
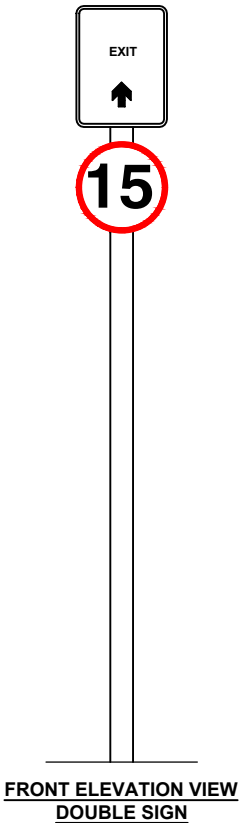
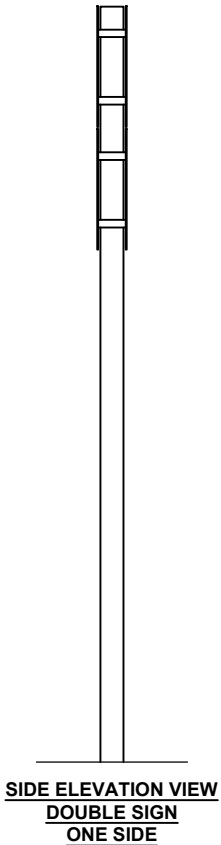
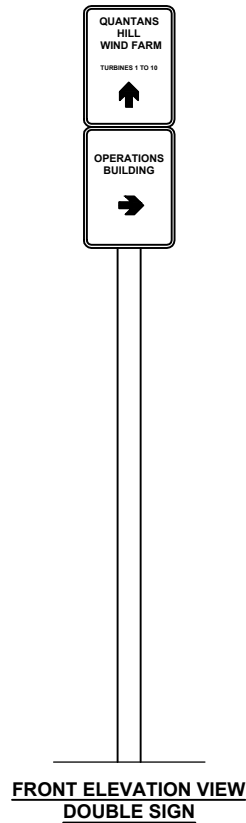
DRAWING TITLE: FIGURE 3.7
INDICATIVE ANEMOMETRY MAST

DRAWING NO.: 13736_DET_3006	REVISION B
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PROPOSED DISPLAY VARIATIONS
SCALE 1:25



B	NOTES UPDATED	MY	MB	CG	15/12/21
A	INITIAL DRAWING ISSUE	MY	MB	CG	24/09/21
REV	DESCRIPTION	BY	CH	APP	DATE

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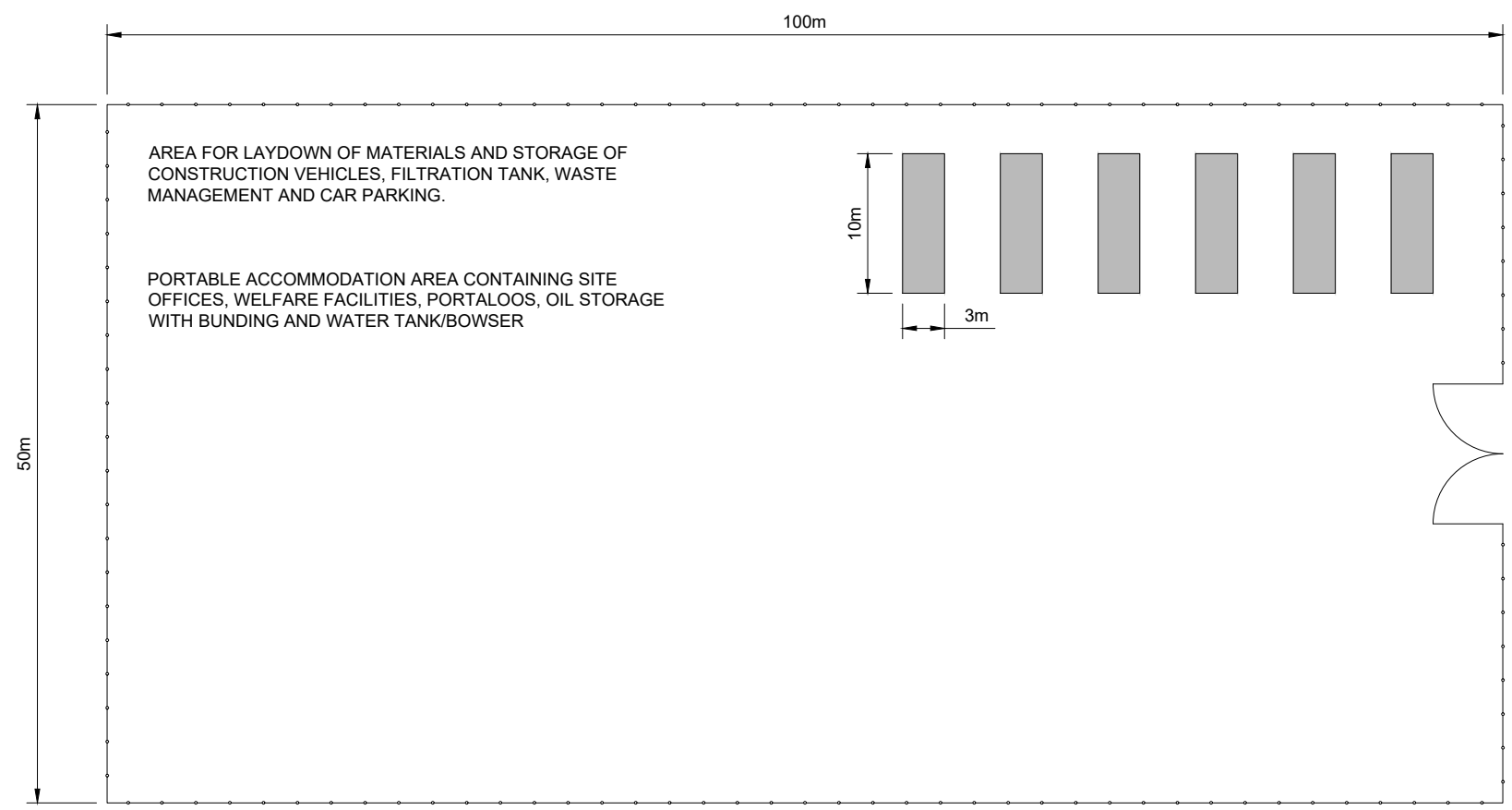
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STATUS: **FOR INFORMATION**

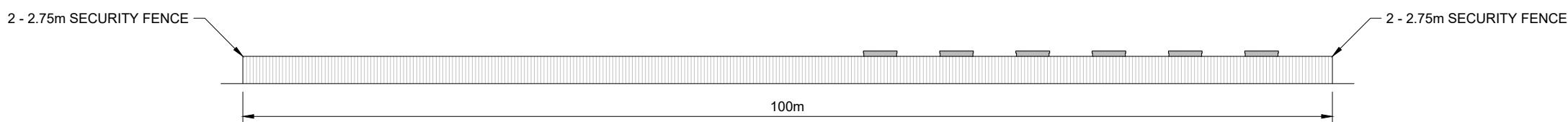
PROJECT: QUANTANS HILL WIND FARM

DRAWING TITLE: FIGURE 3.8
INDICATIVE DIRECTIONAL SIGNAGE

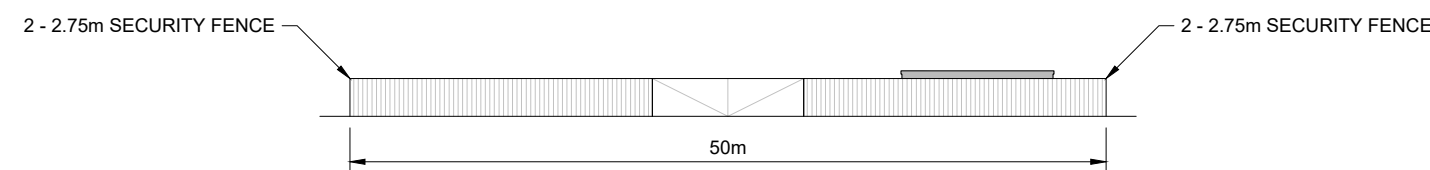
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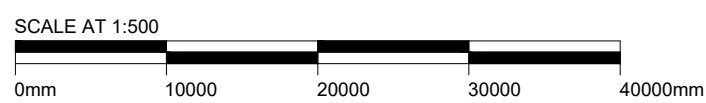
COMPOUND LAYOUT
SCALE 1:500



FRONT ELEVATION
SCALE 1:500



SIDE ELEVATION
SCALE 1:500



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REV	DESCRIPTION	BY	CH	APP	DATE

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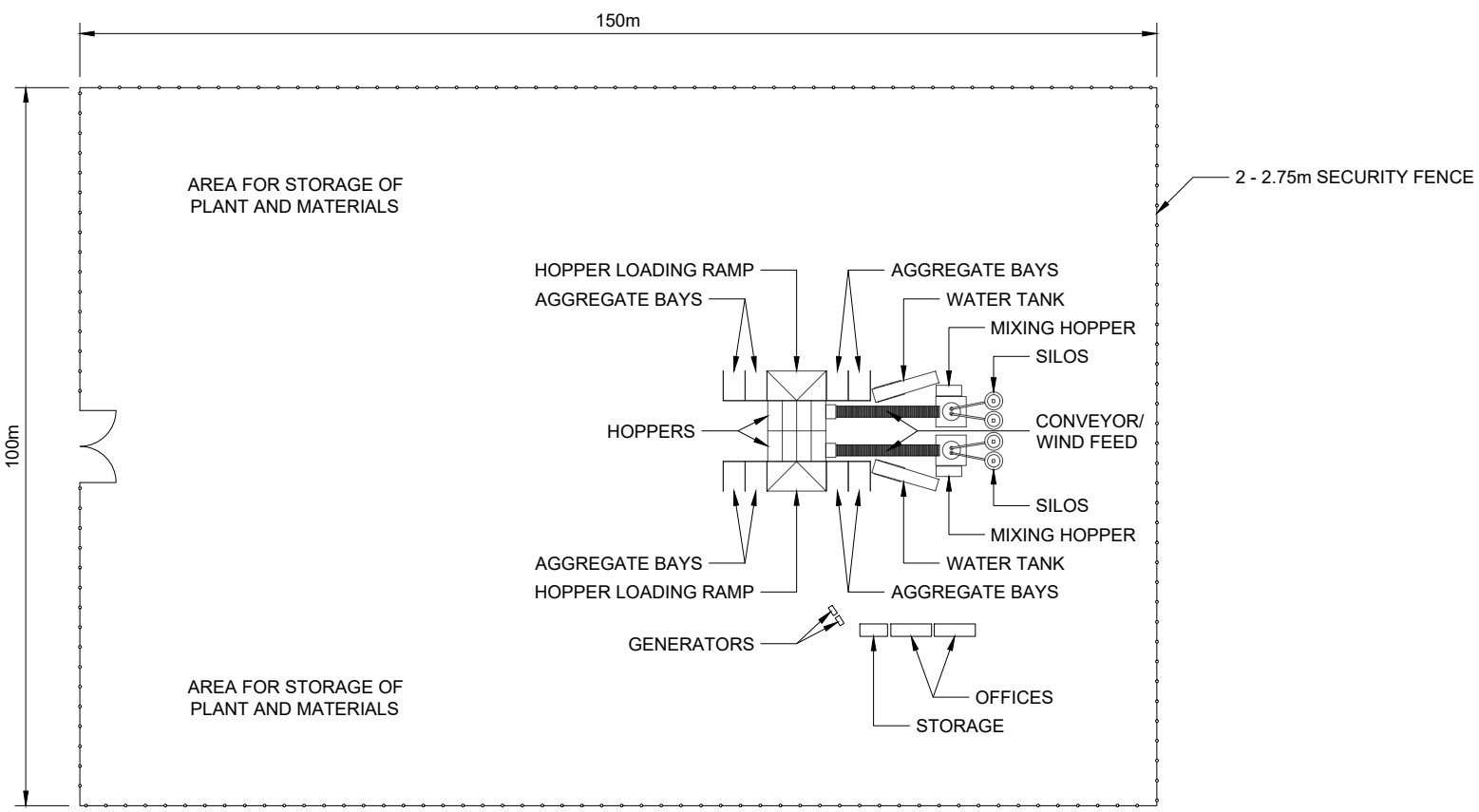
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STATUS: **FOR INFORMATION**

PROJECT: QUANTANS HILL WIND FARM

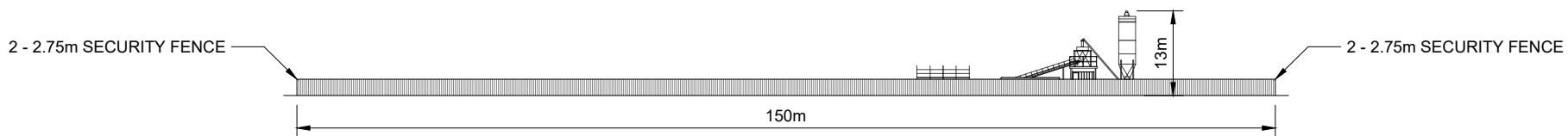
DRAWING TITLE: FIGURE 3.9
TYPICAL TEMPORARY CONSTRUCTION
COMPOUND

DRAWING NO.: 13736_DET_3008	REVISION B
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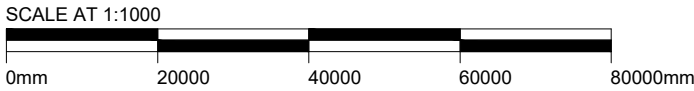
BATCHING PLANT LAYOUT

SCALE 1:1000



FRONT ELEVATION

SCALE 1:1000



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REV	DESCRIPTION	BY	CH	APP	DATE

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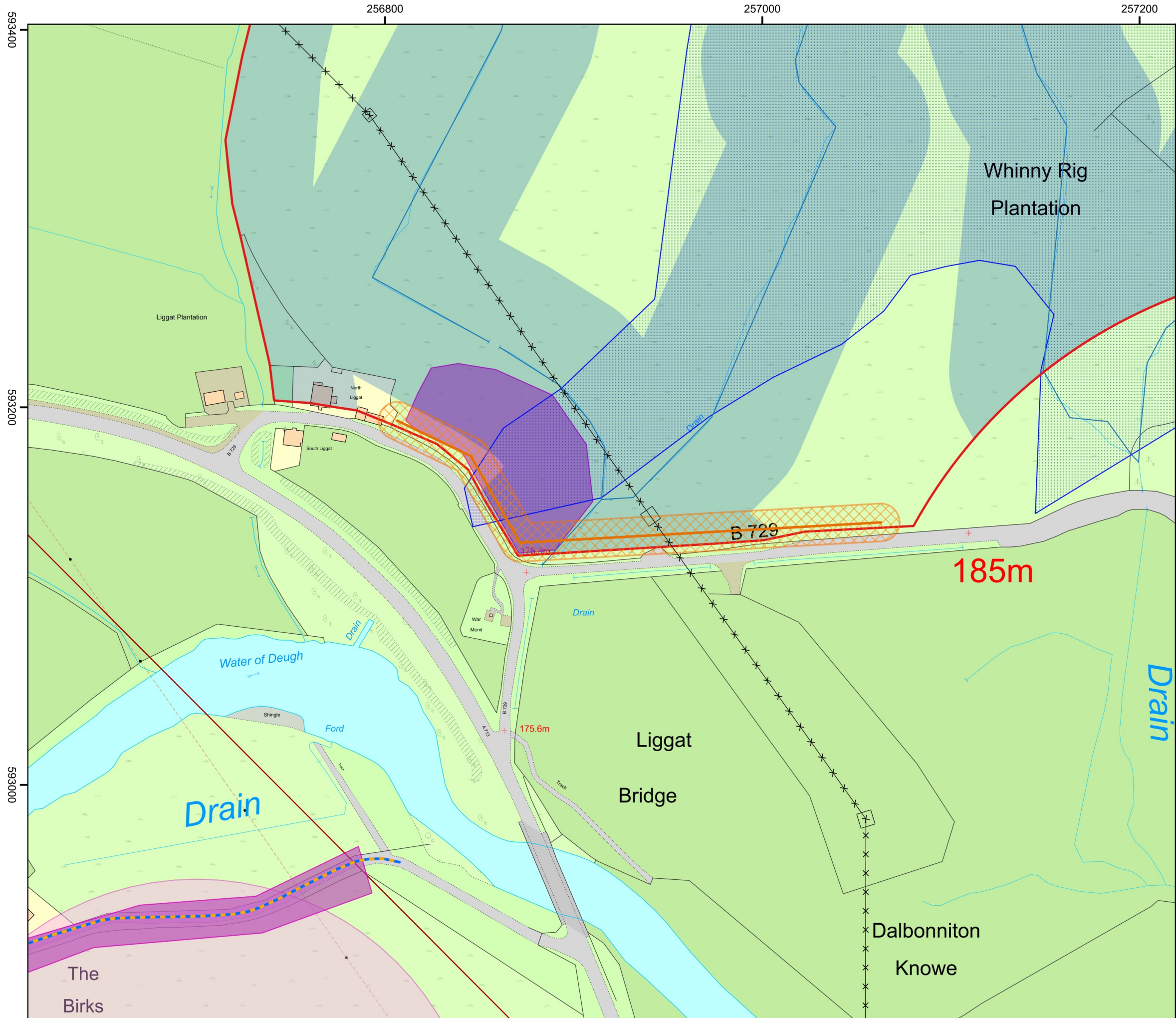
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STATUS: **FOR INFORMATION**

PROJECT: QUANTANS HILL WIND FARM

DRAWING TITLE: FIGURE 3.10
INDICATIVE BATCHING PLANT

DRAWING NO.: 13736_DET_3009	REVISION B
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 3.11: Proposed Footpath
at Site Entrance**

- Key**
- Site boundary
 - Core path
 - Indicative micropath
 - Electricity power line
 - Cultural heritage feature
 - Watercourse
 - 50 m buffer of watercourses and bodies
 - GWDTE area
 - Proposed footpath
 - Proposed footpath corridor (20 m)

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Scale @ A3: 1:2,000
Coordinate System: British National Grid

0 25 50 75 100 m

N

Date: 13-12-21 Prepared by: IW Checked by: LC

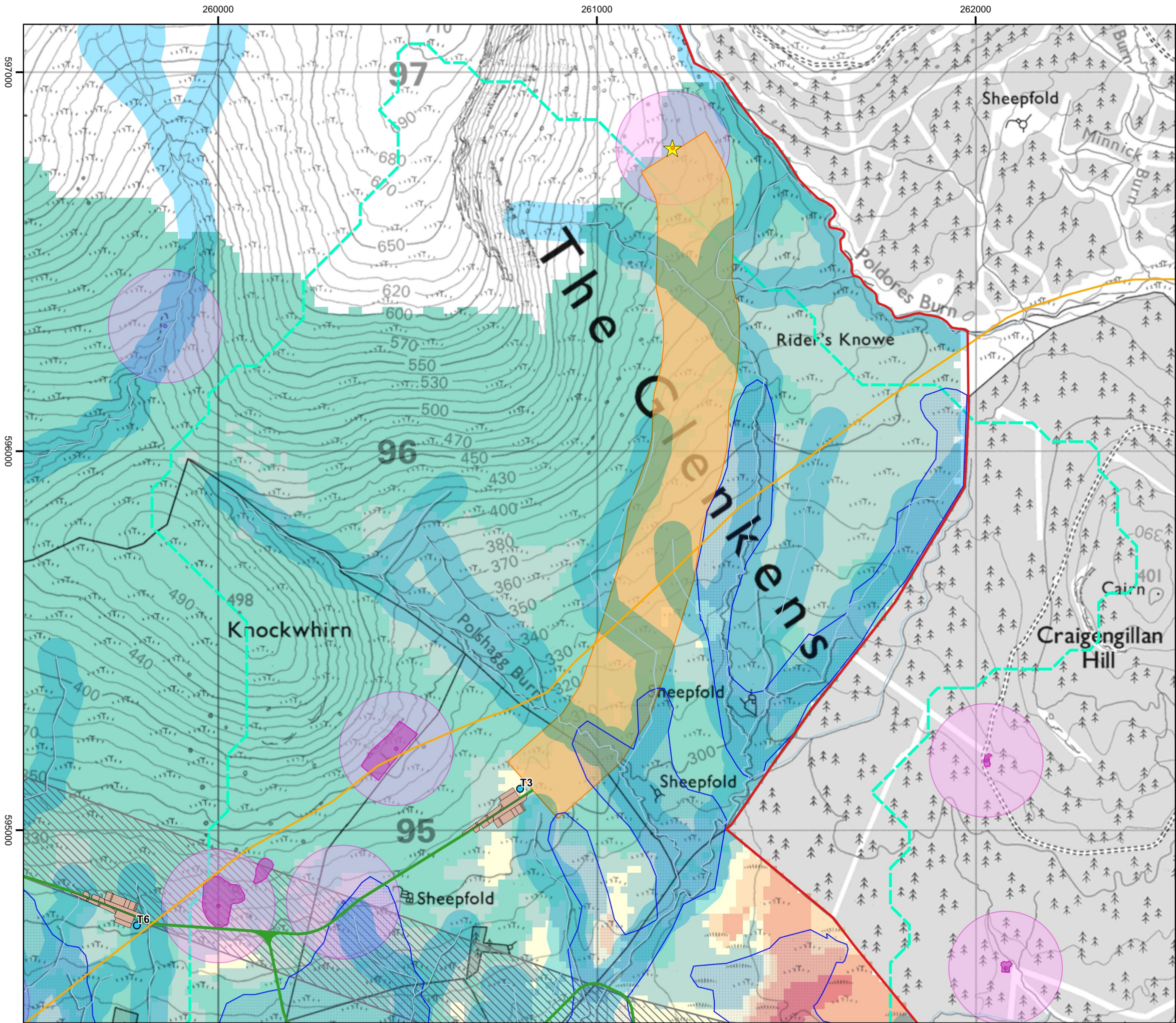
Ref: GB200515_M_198_B

Drawing by:
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 3.12: Proposed Track to
Bomber Crash Site**

Key

- Site boundary
- Proposed turbine
- Proposed crane pad
- Proposed new track
- Right of Way
- Proposed 132 kV overhead line grid corridor
- Cultural Heritage feature
- 150 m buffer from Cultural Heritage feature
- Bomber crash site
- Watercourse
- 50 m buffer of watercourses and bodies
- GWDTE area
- Hydrological catchment for Marbrack
- Potential track corridor to bomber site

Peat depth (m)

- <= 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 3
- > 3

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Scale @ A3: 1:10,000
Coordinate System: British National Grid

0 100 200 300 400 m

N

Date: 13-12-21 Prepared by: IW Checked by: LC

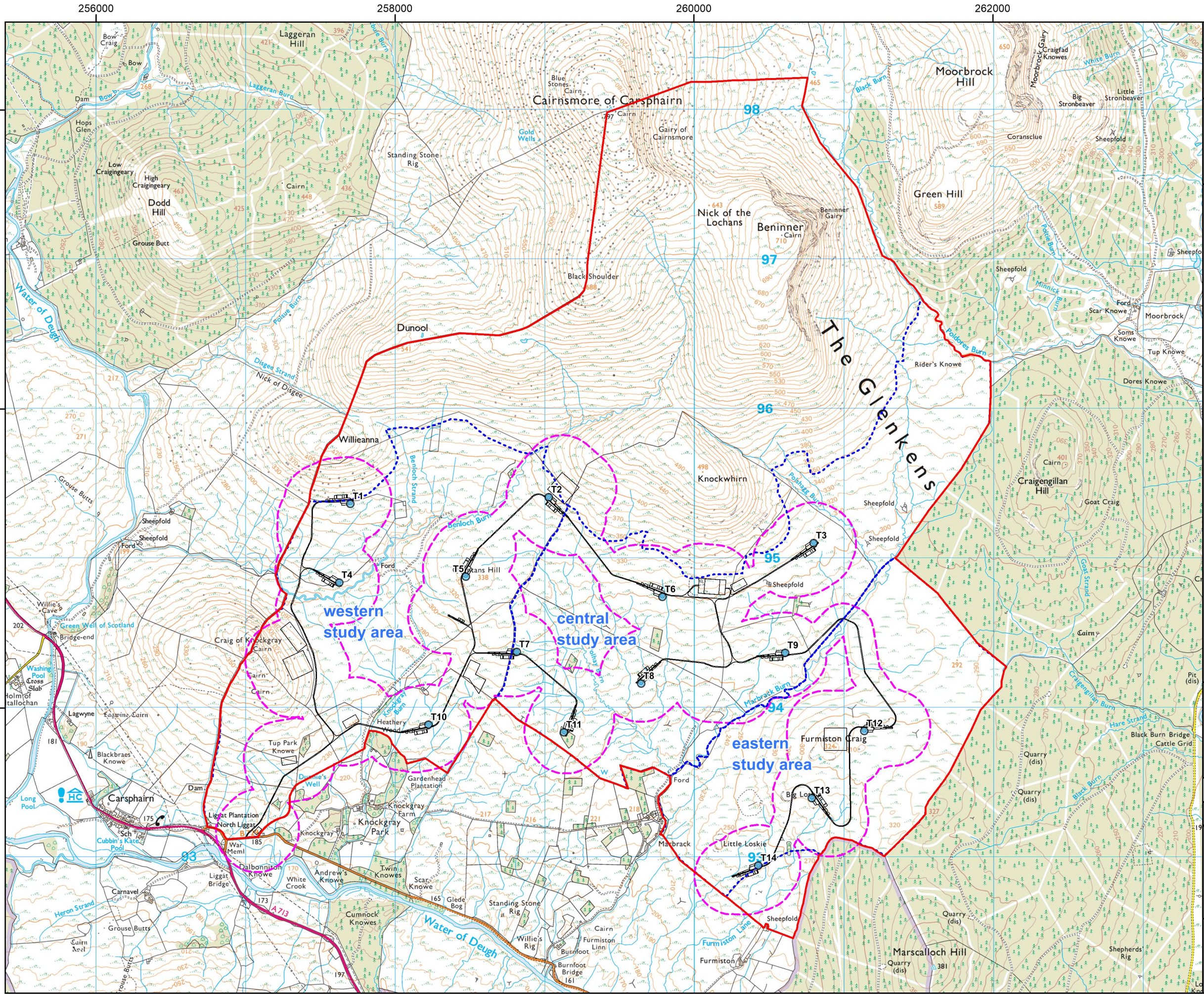
Ref: GB200515_M_194_C Layout: 010921_14t_A

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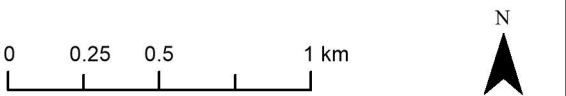
Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.1: Ecological
Study/Survey Areas**

- Key**
- Site boundary
 - Proposed turbine
 - Proposed development
 - 2020 habitat and protected species survey area
 - Focal area for 2021 habitat and protected species surveys

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Scale @ A3: 1:25,000
Coordinate System: British National Grid

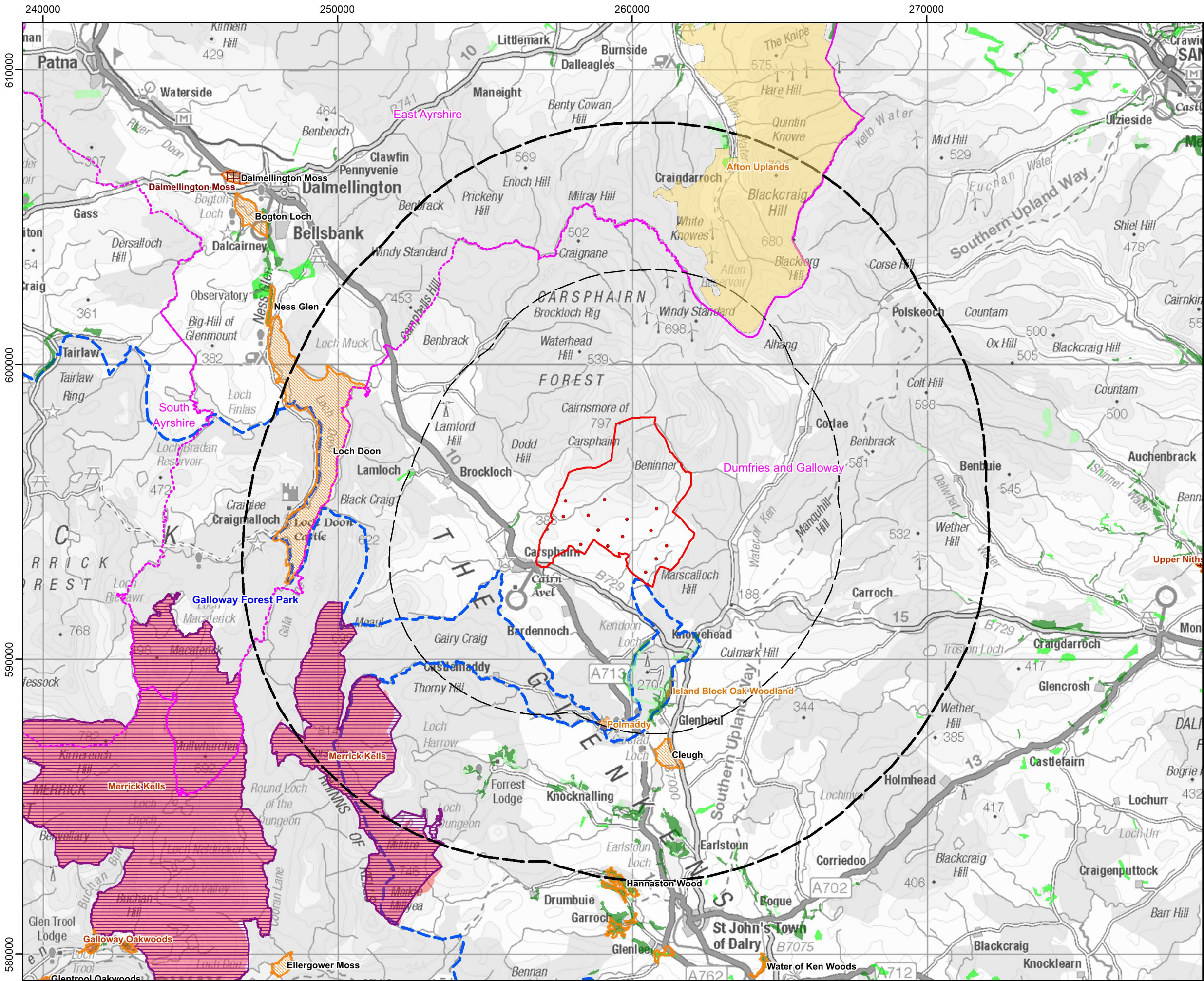


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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.2: Natural Heritage
Designated Sites**

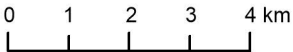
Key

- Site boundary
- Proposed turbine
- 10 km site boundary buffer
- 5 km site boundary buffer
- Administrative boundary
- Statutory Designations**
 - Special Area of Conservation (SAC)
 - Site of Special Scientific Interest (SSSI)
 - Biological
 - Mixed
- Non-statutory Designations**
 - RSPB Important Bird Areas (IBA)
 - Scottish Wildlife Trust (SWT) Reserve
 - Local Nature Conservation Site (LNCS) within 5 km of site boundary
 - Dumfries & Galloway Local Wildlife Site
 - East Ayrshire Provisional Wildlife Site
 - Ancient Woodland Inventory (AWI) Site
 - Ancient (of semi-natural origin)
 - Long-established (of plantation origin)
 - Other (on Roy map)

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Coordinate System: British National Grid

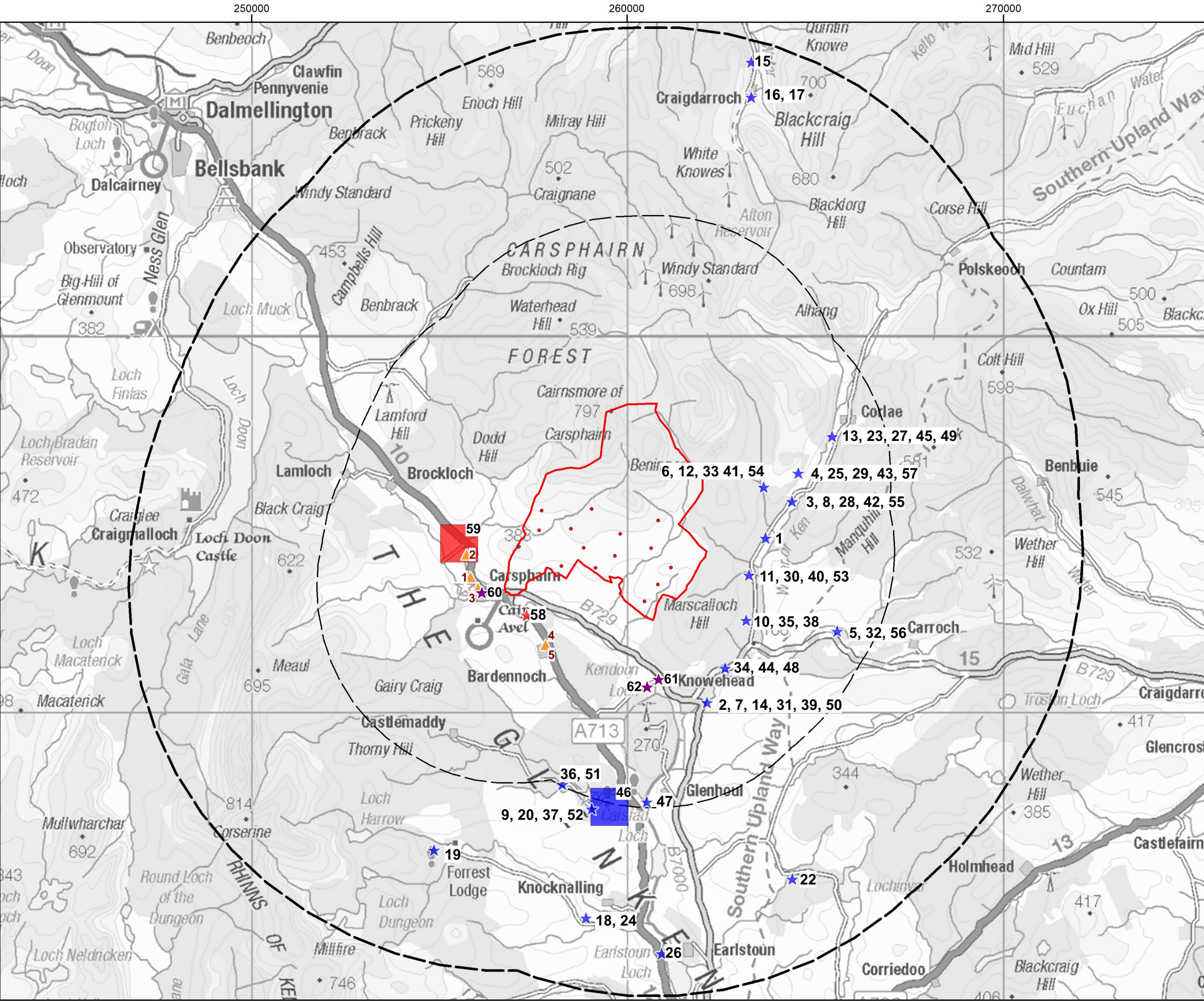


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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.3: Ecological Desk
Study Records**

Key

- Site boundary
- Proposed turbine
- 10 km site boundary buffer
- 5 km site boundary buffer

Notable SWSEIC records 2000-2020
(1 - 100 m resolution)

- Bat
- Badger
- Adder

Notable SWSEIC records 2000-2020
(1 km resolution)

- Bat
- Badger

Scottish Badgers records 2000-2020

- Badger - road casualty

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Scale @ A3: 1:100,000
Coordinate System: British National Grid

0 1 2 3 4 km

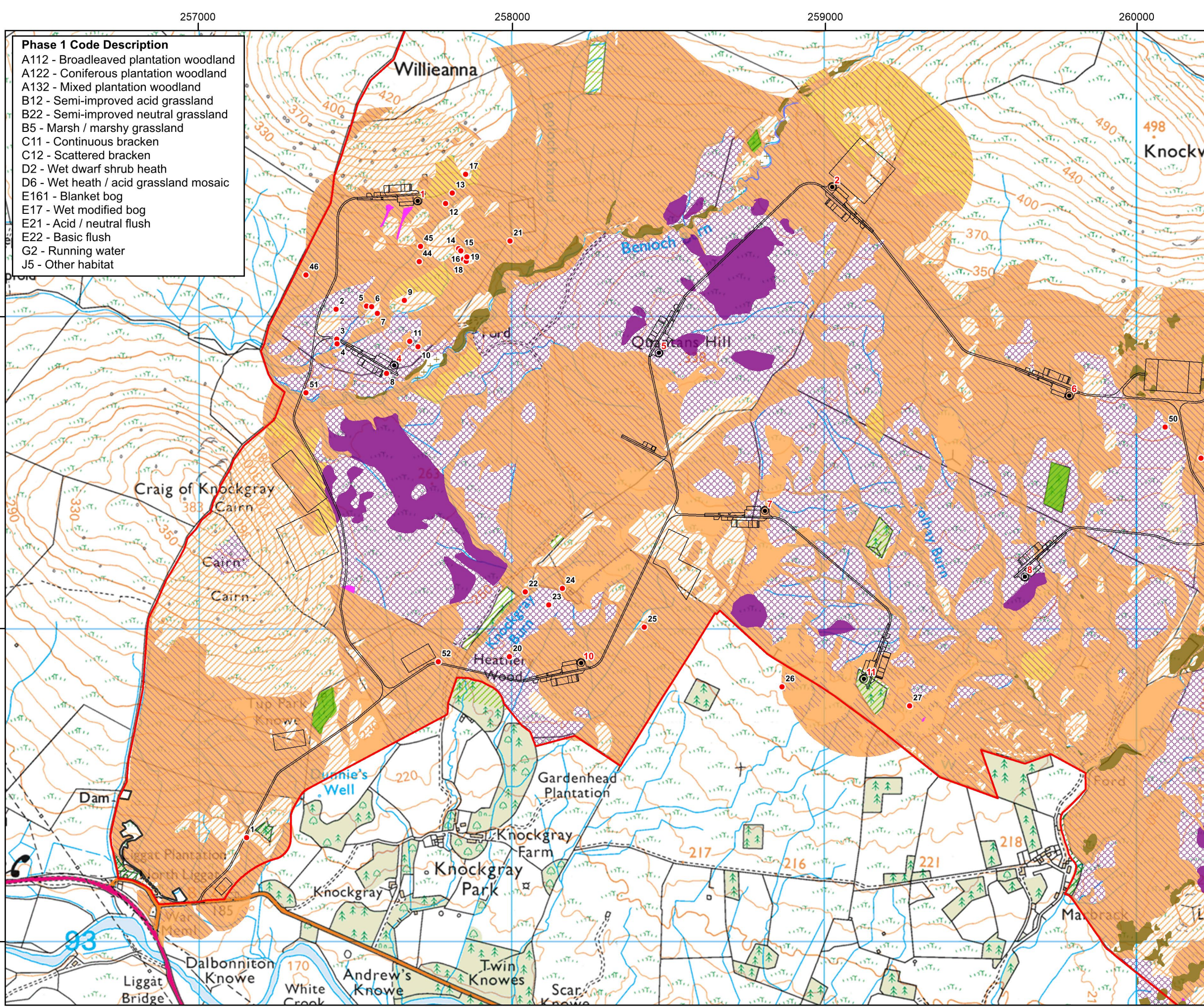
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- Phase 1 Code Description**
- A112 - Broadleaved plantation woodland
 - A122 - Coniferous plantation woodland
 - A132 - Mixed plantation woodland
 - B12 - Semi-improved acid grassland
 - B22 - Semi-improved neutral grassland
 - B5 - Marsh / marshy grassland
 - C11 - Continuous bracken
 - C12 - Scattered bracken
 - D2 - Wet dwarf shrub heath
 - D6 - Wet heath / acid grassland mosaic
 - E161 - Blanket bog
 - E17 - Wet modified bog
 - E21 - Acid / neutral flush
 - E22 - Basic flush
 - G2 - Running water
 - J5 - Other habitat

Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.4a: Phase 1
Habitats (West)**

Key

- Site boundary
- Proposed turbine
- Proposed development

Phase 1 habitat code

A112	D2
A122	D6
A132	E161
B12	E17
B22	E21
B5	E22
C11	G2
C12	J5

Target note

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Scale @ A3: 1:12,000
Coordinate System: British National Grid

0 200 400 600 m

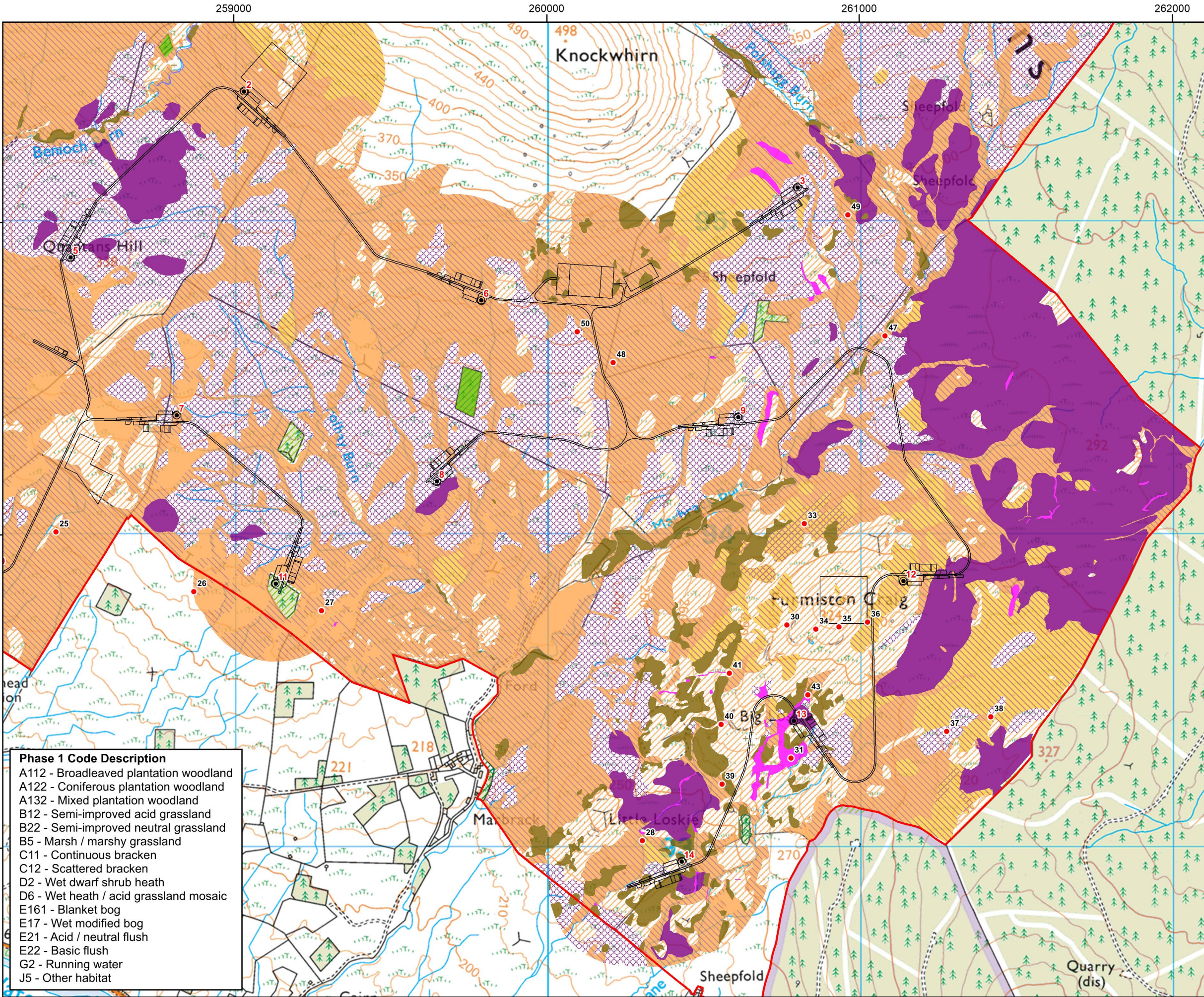
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.4b: Phase 1
Habitats (East)**

Key

Site boundary
Proposed turbine
Proposed development

Phase 1 habitat code

A112	D2
A122	D6
A132	E161
B12	E17
B22	E21
B5	E22
C11	G2
C12	J5

Target note

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Scale @ A3: 1:12,000
Coordinate System: British National Grid

0 200 400 600 m

N

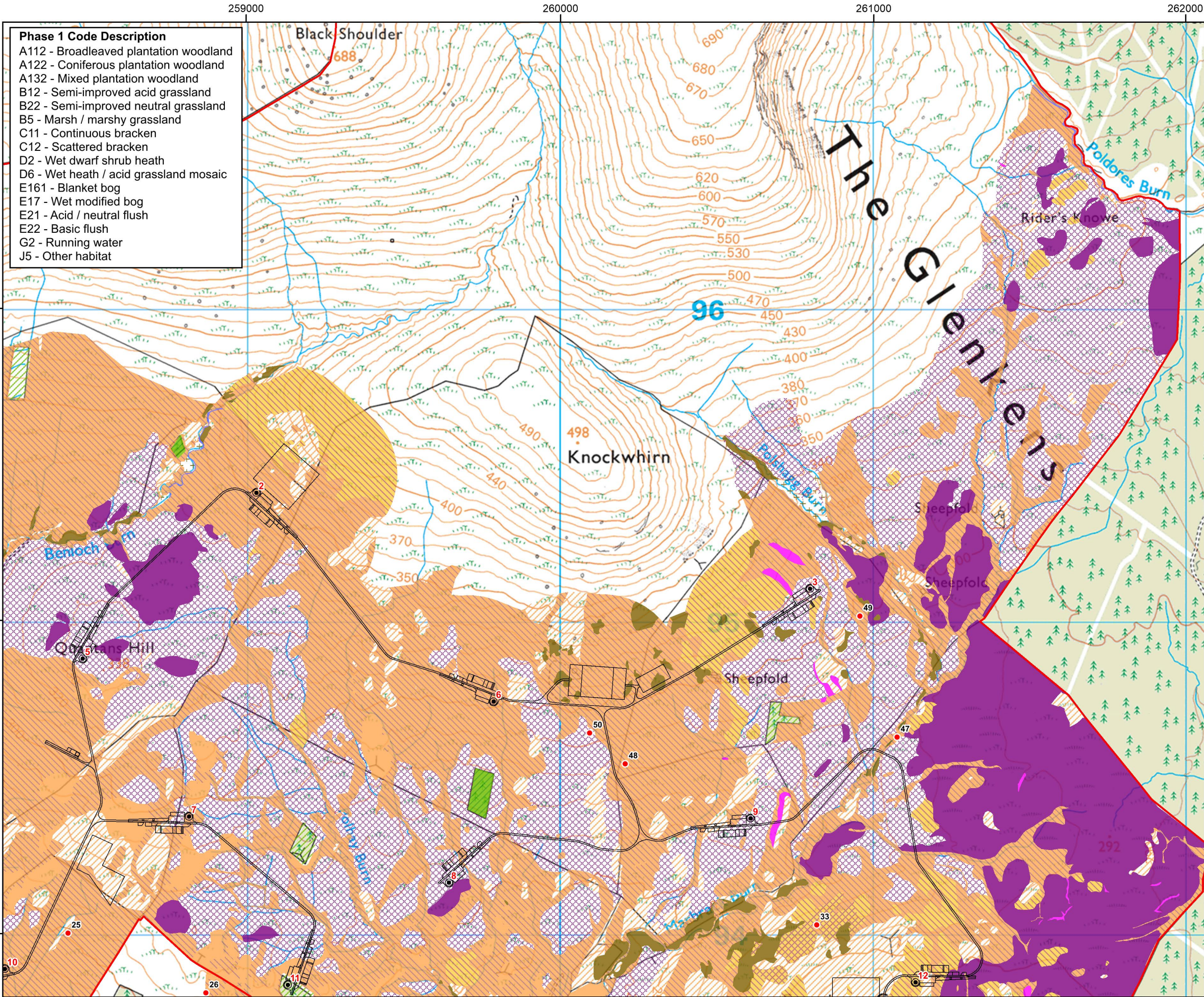
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Ref: Layout: 010921_14t_A

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- Phase 1 Code Description**
- A112 - Broadleaved plantation woodland
 - A122 - Coniferous plantation woodland
 - A132 - Mixed plantation woodland
 - B12 - Semi-improved acid grassland
 - B22 - Semi-improved neutral grassland
 - B5 - Marsh / marshy grassland
 - C11 - Continuous bracken
 - C12 - Scattered bracken
 - D2 - Wet dwarf shrub heath
 - D6 - Wet heath / acid grassland mosaic
 - E161 - Blanket bog
 - E17 - Wet modified bog
 - E21 - Acid / neutral flush
 - E22 - Basic flush
 - G2 - Running water
 - J5 - Other habitat



Phase 1 Code Description	
A112	- Broadleaved plantation woodland
A122	- Coniferous plantation woodland
A132	- Mixed plantation woodland
B12	- Semi-improved acid grassland
B22	- Semi-improved neutral grassland
B5	- Marsh / marshy grassland
C11	- Continuous bracken
C12	- Scattered bracken
D2	- Wet dwarf shrub heath
D6	- Wet heath / acid grassland mosaic
E161	- Blanket bog
E17	- Wet modified bog
E21	- Acid / neutral flush
E22	- Basic flush
G2	- Running water
J5	- Other habitat

Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.4c: Phase 1
Habitats (North)**

Key

Site boundary

Proposed turbine

Proposed development

Phase 1 habitat code

A112

A122

A132

B12

B22

B5

C11

C12

D2

D6

E161

E17

E21

E22

G2

J5

Target note

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Scale @ A3: 1:12,000

Coordinate System: British National Grid

0

200

400

600 m

N

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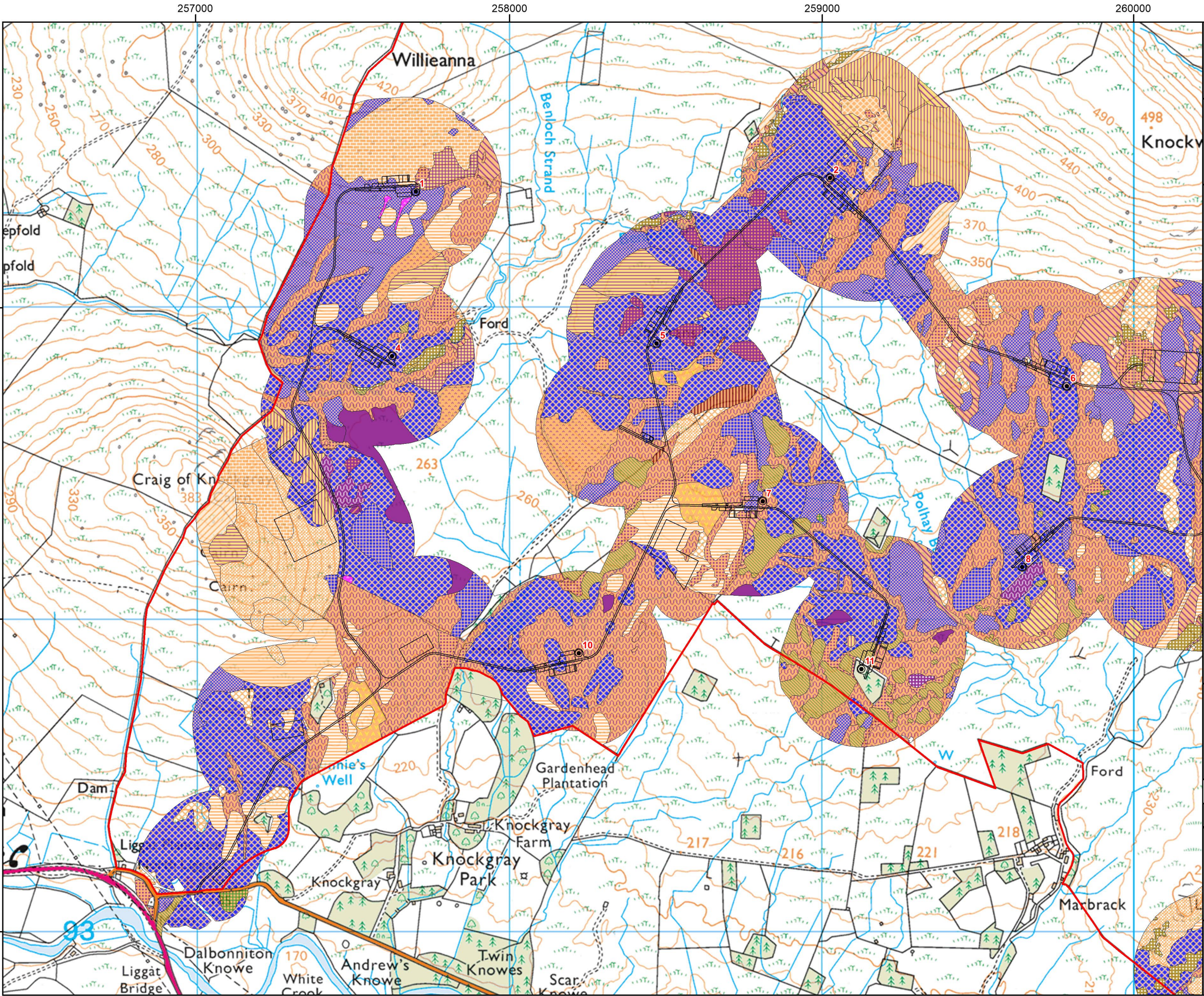
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.5a: National
Vegetation Classification
Communities (West)**

Key

- Site boundary
- Proposed turbine
- Proposed development

NVC Communities

M10	M23a/b	U20
M15	M23b	U20a
M15/U5	M25	U4
M15a	M25a	U4a
M15b	M25b	U4b
M15d	M29	U4e
M17	M6	U5
M17a	M6a	U5a
M17c	M6c	U5b
M19	M6d	U5d
M19a	MG10	U6
M20	MG10a	U6d
M23	MG6	
M23a	MG6b	

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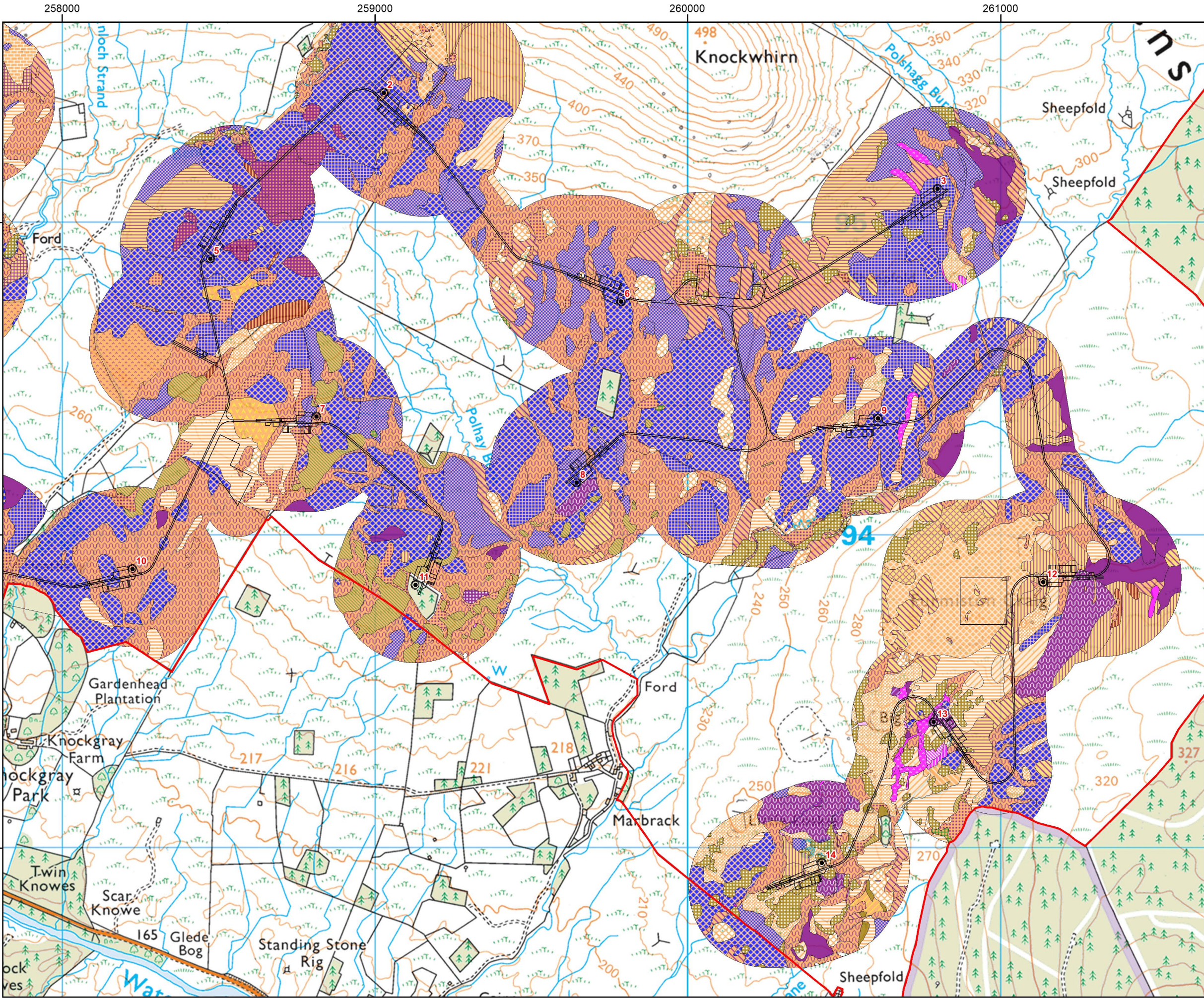
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.5b: National
Vegetation Classification
Communities (East)**

Key

- Site boundary
- Proposed turbine
- Proposed development

NVC Communities

M10	M23a/b	U20
M15	M23b	U20a
M15/U5	M25	U4
M15a	M25a	U4a
M15b	M25b	U4b
M15d	M29	U4e
M17	M6	U5
M17a	M6a	U5a
M17c	M6c	U5b
M19	M6d	U5d
M19a	MG10	U6
M20	MG10a	U6d
M23	MG6	
M23a	MG6b	

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Coordinate System: British National Grid

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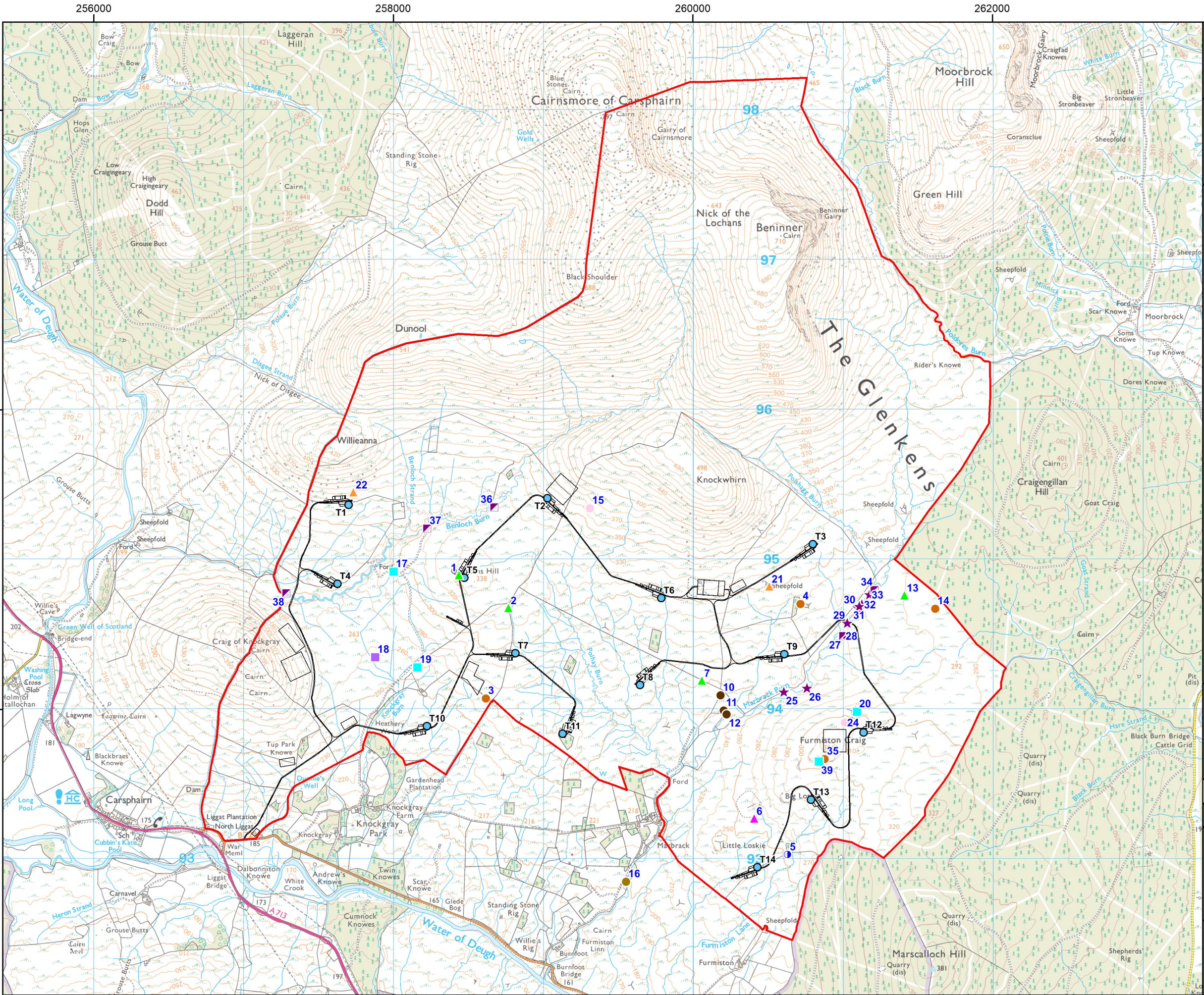
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Date: 30-05-22 Prepared by: CR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.6: Protected Species
Survey Results**

- Key**
- Site boundary
 - Proposed turbine
 - Proposed development
- Protected Species Records**
- Bat - potential roost (tree)
 - Otter - potential resting site
 - Otter - spraint
 - Great crested newt - suitable pond
 - Great crested newt - unsuitable pond
 - Reptile - adder
 - Reptile - common lizard
 - Reptile - potential refugia
 - Mammal - brown hare
 - Mammal - wild boar rooting
 - Mammal - fox
 - Mammal - hole(s)

Note: Confidential badger records are not shown on this figure.

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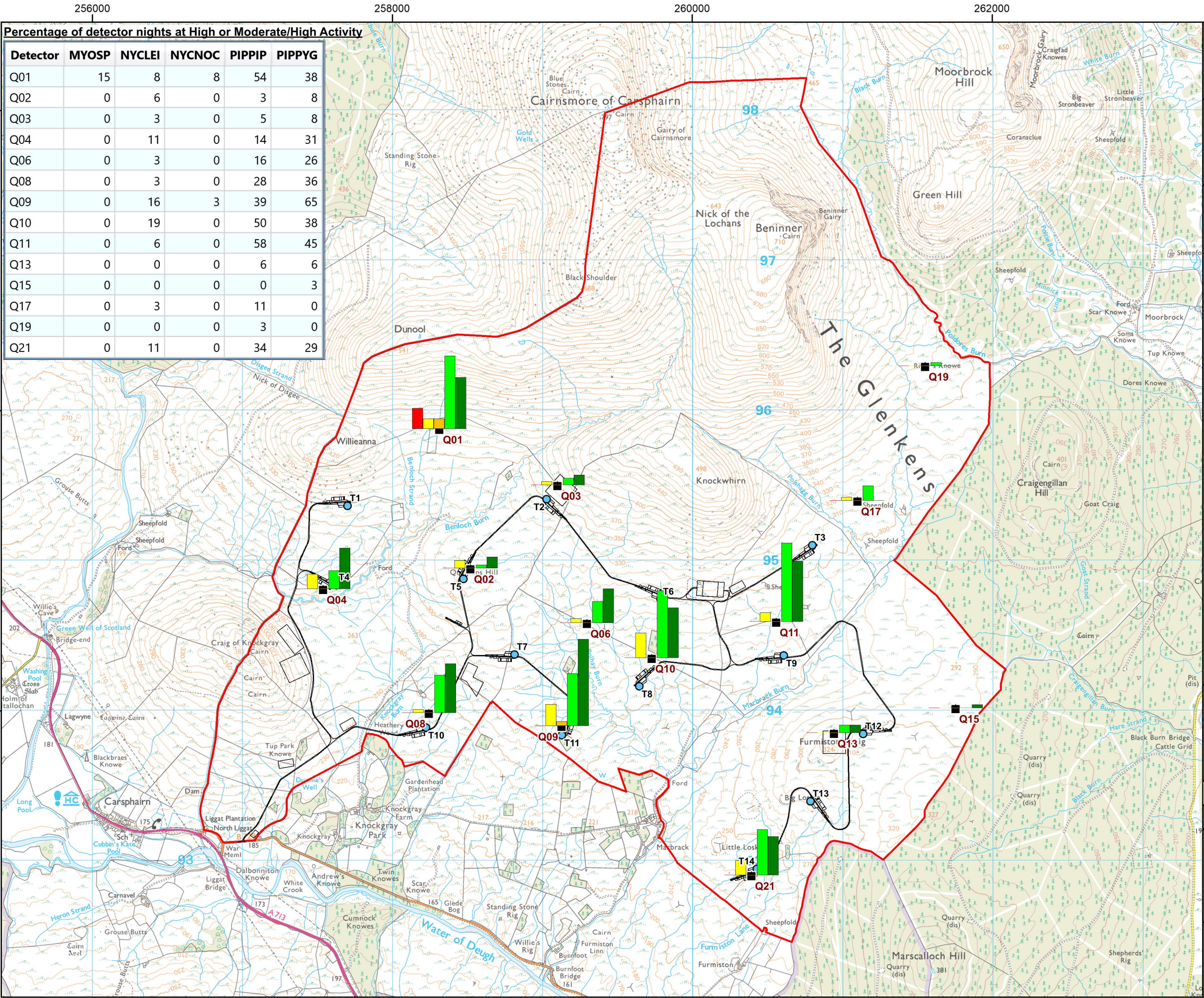
Scale @ A3: 1:25,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

N

Date: 31-05-22	Prepared by: CR	Checked by: PB
Ref:	Layout: 010921_14t_A	
Drawing by:		





Project:

Quantans Hill Wind Farm, Dumfries & Galloway

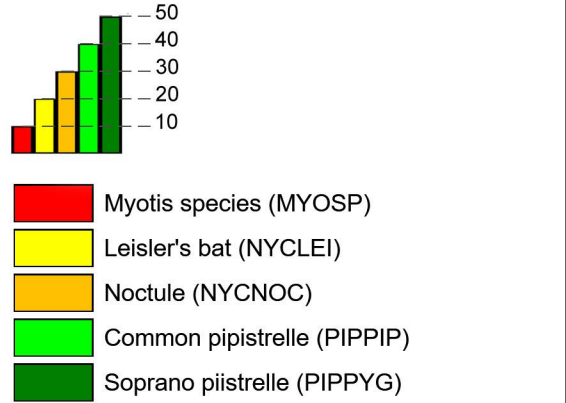
Title:

Figure 6.7: Bat Activity Survey Results 2020

Key

- Site boundary
- Proposed turbine
- Proposed development
- Automated bat detector location

Percentage of detector nights at High or Moderate/High Activity* (2020)

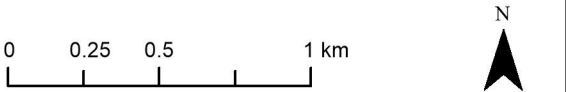


* Compared to ECOBAT reference data for the location and time of year.

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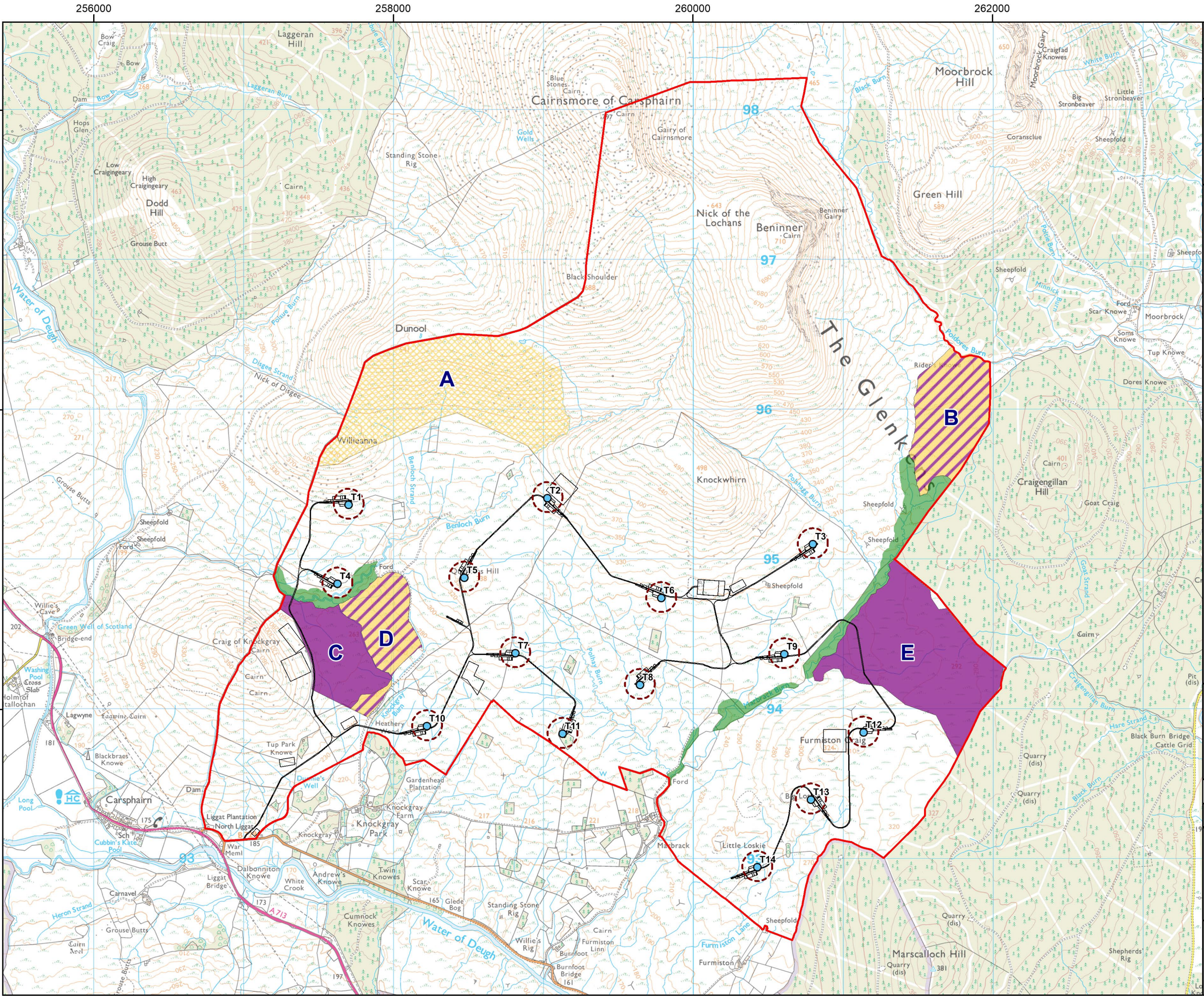


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Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 6.9: Indicative Habitat
Enhancement Areas**

Key

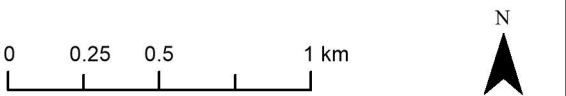
- Site boundary
- Proposed turbine
- Proposed development
- 100m turbine buffer

Indicative Habitat Enhancement Areas (A-E)

- Bog restoration
- Heath restoration
- Bog and wet heath restoration
- Native woodland establishment

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Scale @ A3: 1:25,000
Coordinate System: British National Grid

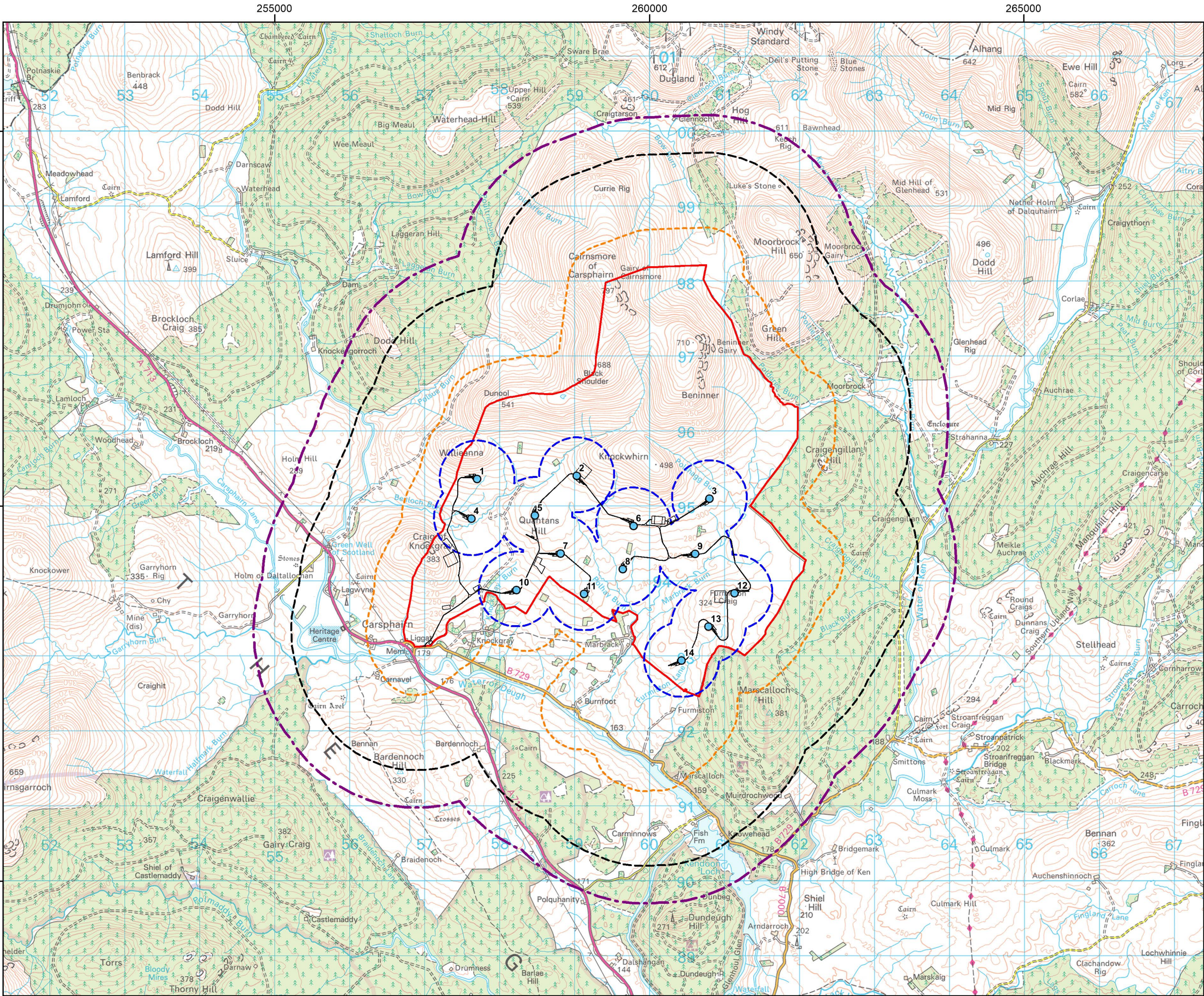


Date: 31-05-22 Prepared by: CR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.1: Ornithological
Study/Survey Areas**

- Key**
- Site boundary
 - Proposed turbine
 - Proposed development
 - 500m turbine buffer
 - Core survey area (500m site boundary buffer)
 - Maximum extent of black grouse survey area (1.5km site boundary buffer)
 - Maximum extent of raptor and owl survey area (2km site boundary buffer)

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Scale @ A3: 1:50,000
Coordinate System: British National Grid

0 0.5 1 2 km

N

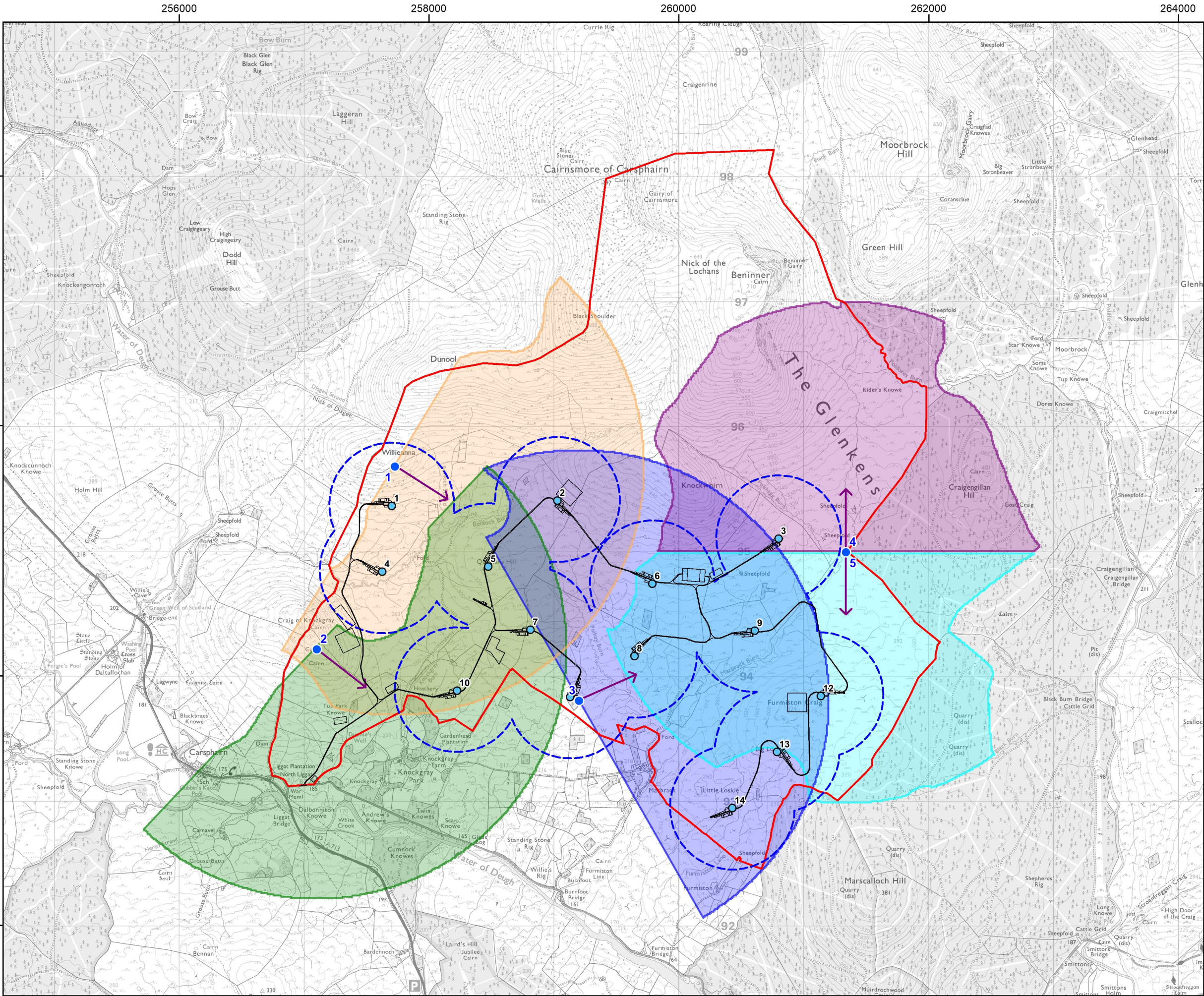
Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:

mbec environmental consulting

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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.3a: Vantage Point
Locations & Viewsheds
2018-19**

- Key**
- Site boundary
 - Proposed turbine
 - Proposed development
 - 500m turbine buffer
 - Vantage point (VP) location
 - Direction of view
- Indicative viewsheds**
- Visibility from VP1
 - Visibility from VP2
 - Visibility from VP3
 - Visibility from VP4
 - Visibility from VP5

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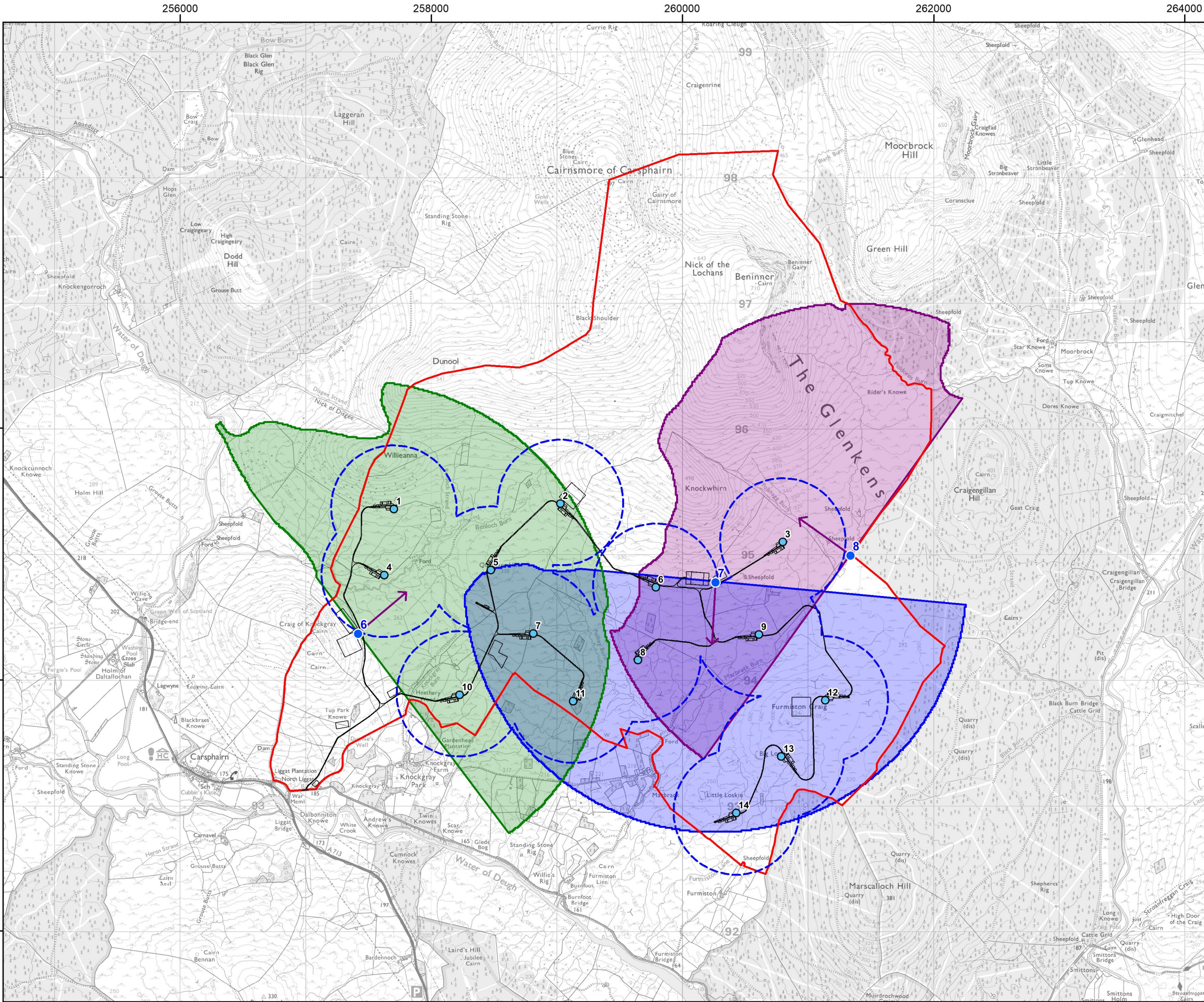
Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

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Ref:	Layout: 010921_14t_A	
Drawing by:		





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.3b: Vantage Point
Locations & Viewsheds
2020-21**

- Key**
- Site boundary
 - Proposed turbine
 - Proposed development
 - 500m turbine buffer
 - Vantage point (VP) location
 - Direction of view
- Indicative viewsheds**
- Visibility from VP6
 - Visibility from VP7
 - Visibility from VP8

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Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

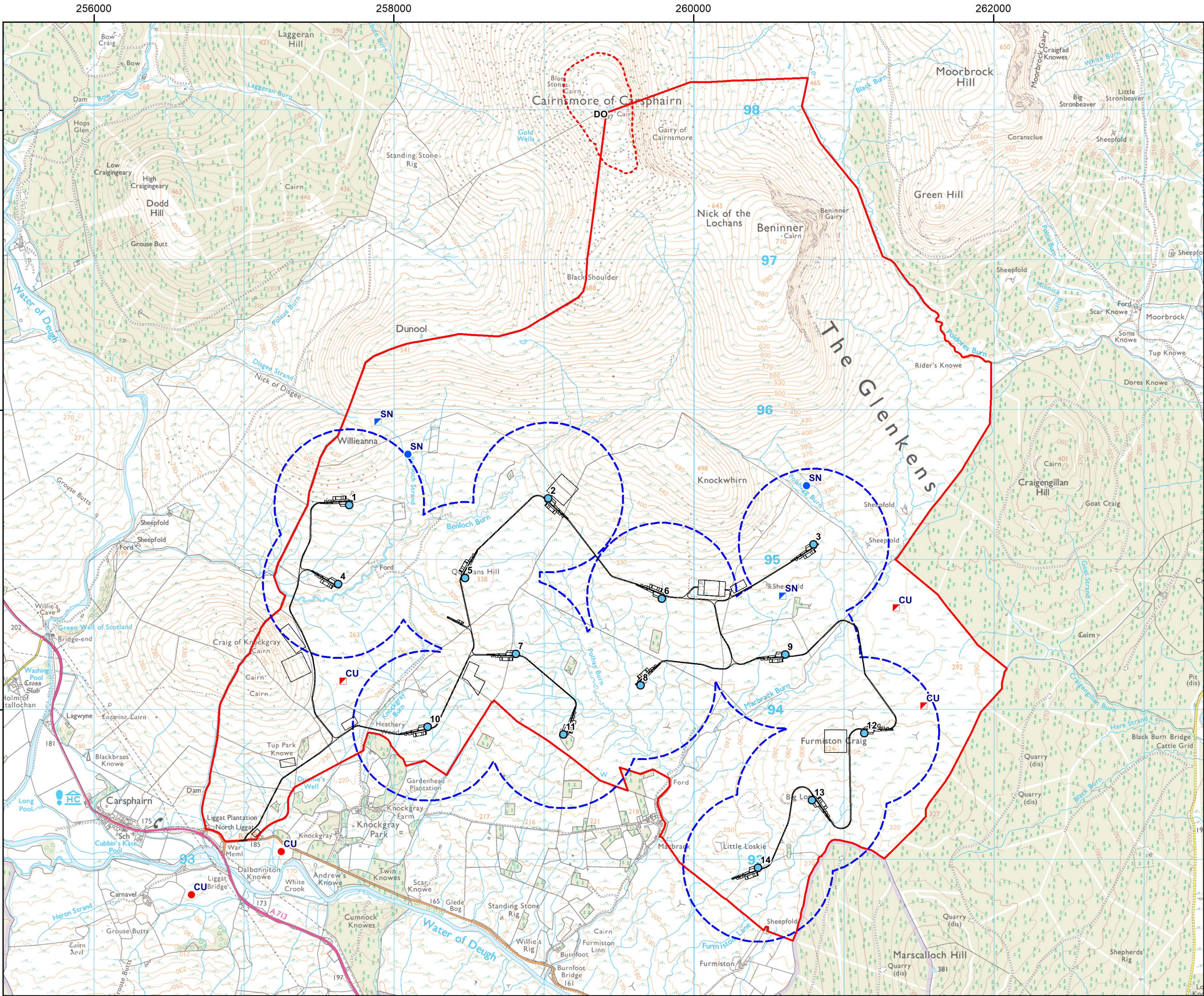
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Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.4a: Non-Confidential
Breeding Bird Survey Results
- Waders 2018-19**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Indicative breeding territory centroid (incl. number of territories recorded):

2018

- (CU) Curlew (2)
- (SN) Common snipe (2)

2019

- (CU) Curlew (3)
- (SN) Common snipe (2)

(DO) Dotterel area used during migration

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Scale @ A3: 1:25,000

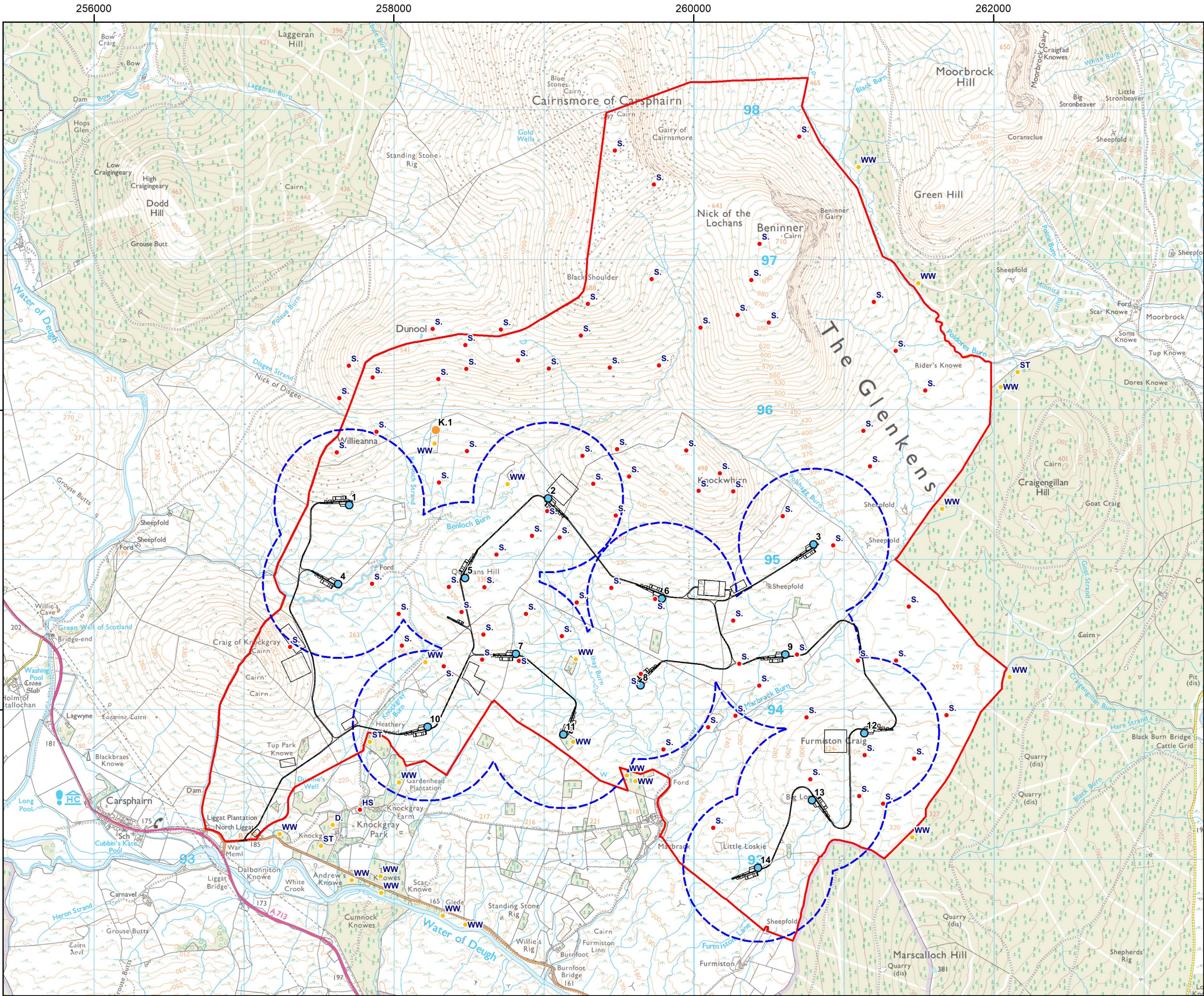
Coordinate System: British National Grid

0 0.25 0.5 1 km

N

Date: 31-05-22	Prepared by: SR	Checked by: PB
Ref:	Layout: 010921_14t_A	
Drawing by:		





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.4b: Non-Confidential
Breeding Bird Survey Results
- Other BoCC 2018**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Indicative breeding territory centroid (incl. number of territories recorded):

- Red
- Amber

Red

- S. Skylark (82)
- HS House sparrow (1)

Amber

- WW Willow warbler (20)
- ST Song thrush (3)
- D. Dunnock (1)

Breeding territory centroid / nest site (incl. identification no. and breeding status)

Common kestrel (K.)

- Confirmed (1)

Note: Widespread common species (incl. meadow pipit and Green List species have not been mapped.

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Scale @ A3: 1:25,000

Coordinate System: British National Grid

0 0.25 0.5 1 km

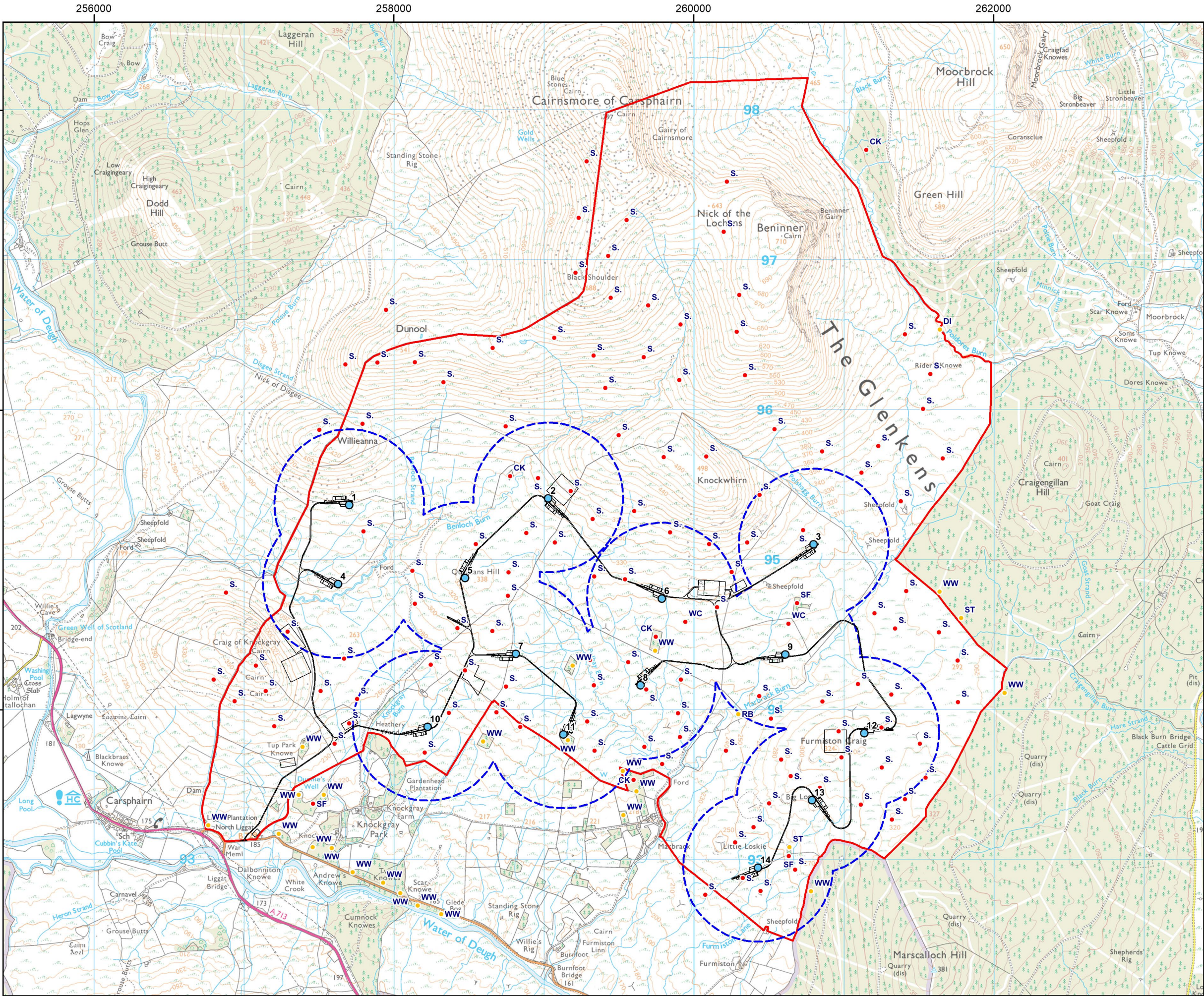
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Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.4c: Non-Confidential
Breeding Bird Survey Results
- Other BoCC 2019**

- Key**
- Site boundary
 - Proposed turbine
 - Proposed development
 - 500m turbine buffer

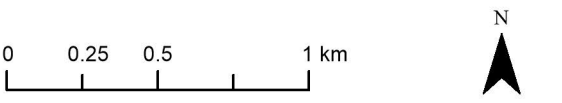
Indicative breeding territory centroid (incl. number of territories recorded):

- | | |
|-------|------------------------|
| Red | Amber |
| CK | Cuckoo (4) |
| S. | Skylark (123) |
| SF | Spotted flycatcher (3) |
| WC | Whinchat (2) |
| Amber | |
| WW | Willow warbler (23) |
| DI | Dipper (1) |
| ST | Song thrush (2) |
| RB | Reed bunting (1) |

Note: Widespread common species (incl. meadow pipit and Green List species) have not been mapped.

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Scale @ A3: 1:25,000
Coordinate System: British National Grid

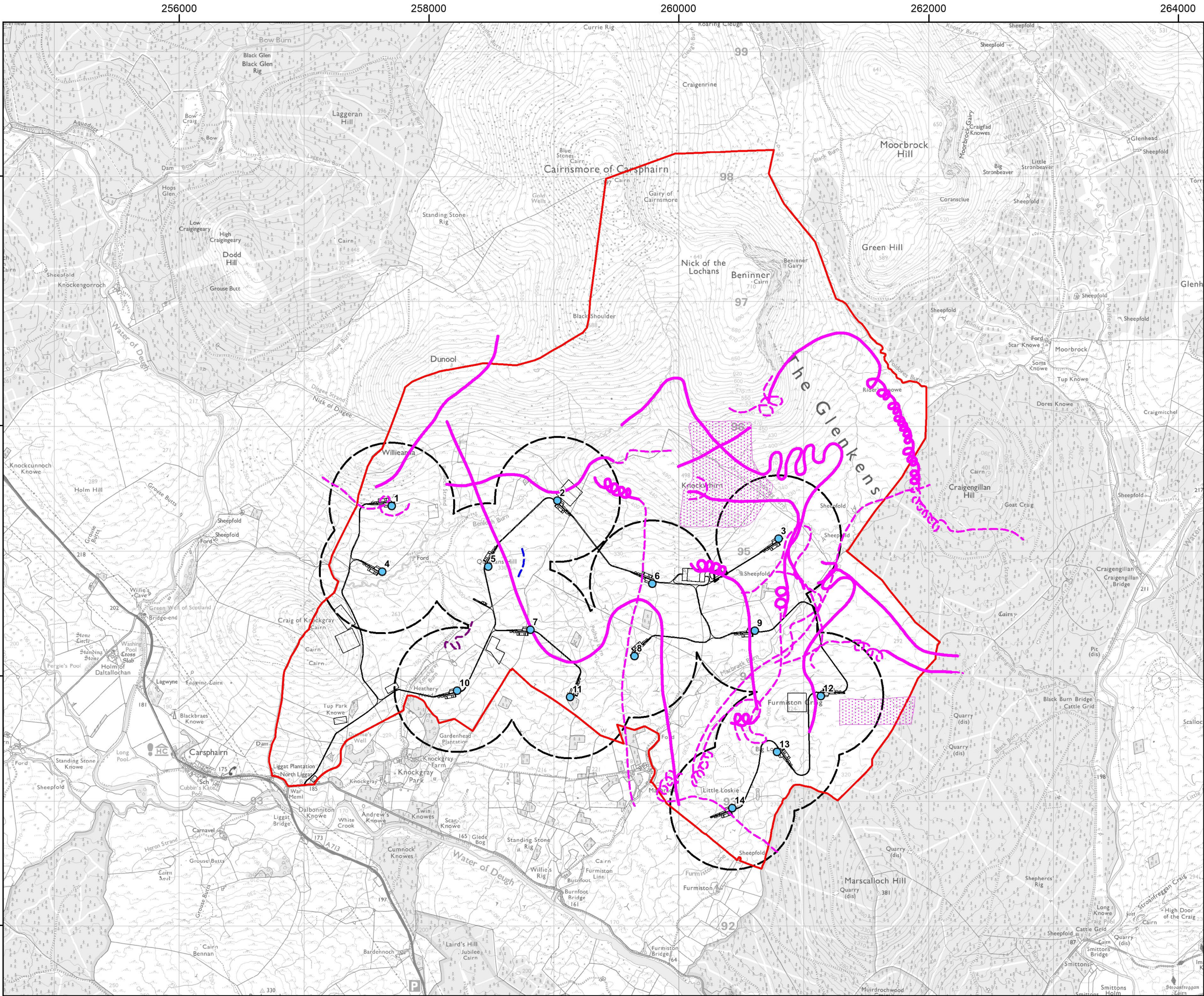


Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.5a: Flight Activity by
Target Raptor Species
- Apr-Aug 2018**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height* Other Heights

- Red kite
- Hen harrier
- Peregrine

Flight Area

- Red kite

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

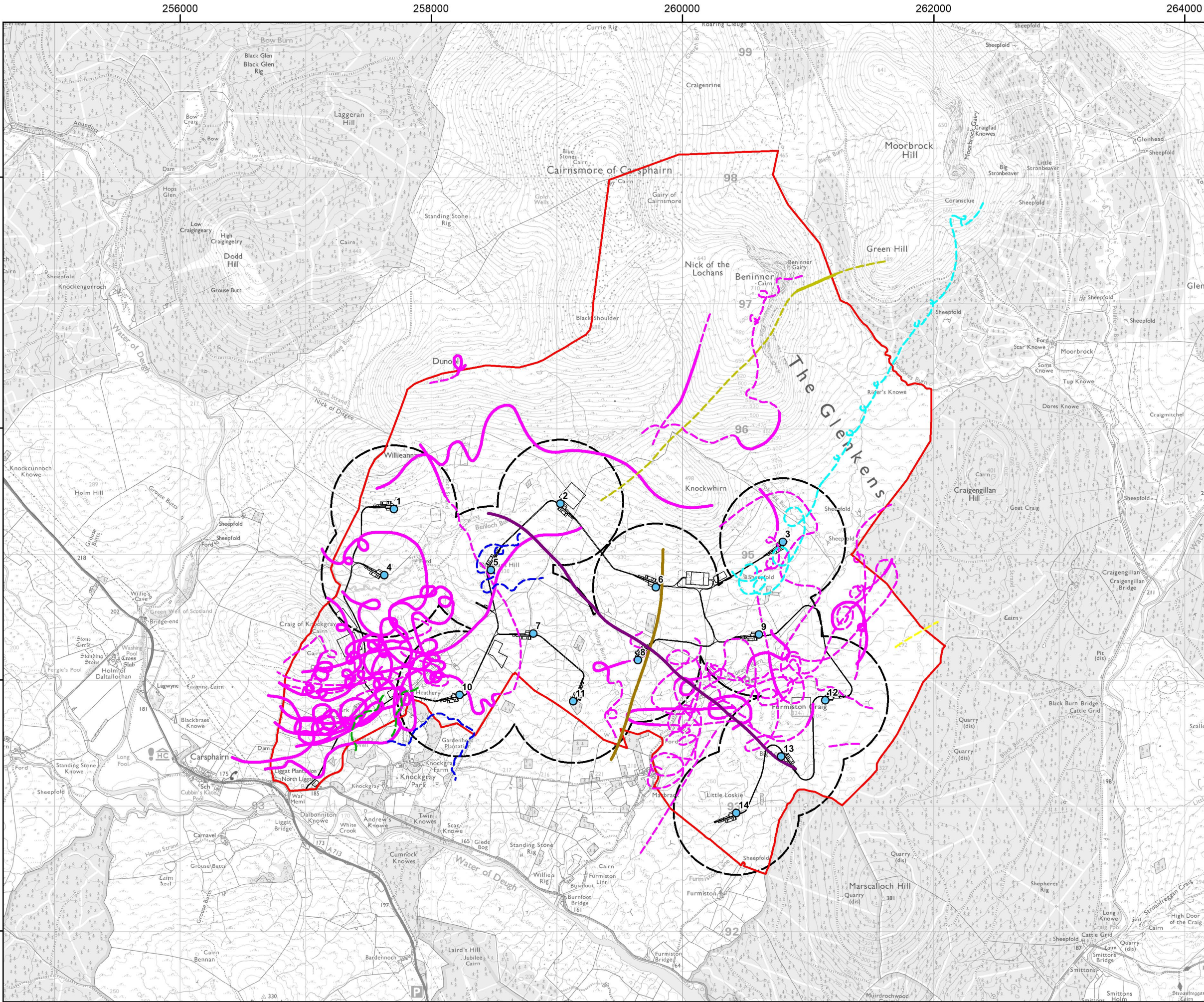
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Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.5b: Flight Activity by
Target Raptor Species
- Sept 2018-Mar 2019**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height*	Other Heights
Red kite	Red kite
Hen harrier	Hen harrier
Goshawk	Goshawk
Golden eagle	Golden eagle
Osprey	Osprey
Golden plover	Golden plover
Merlin	Merlin
Peregrine	Peregrine

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

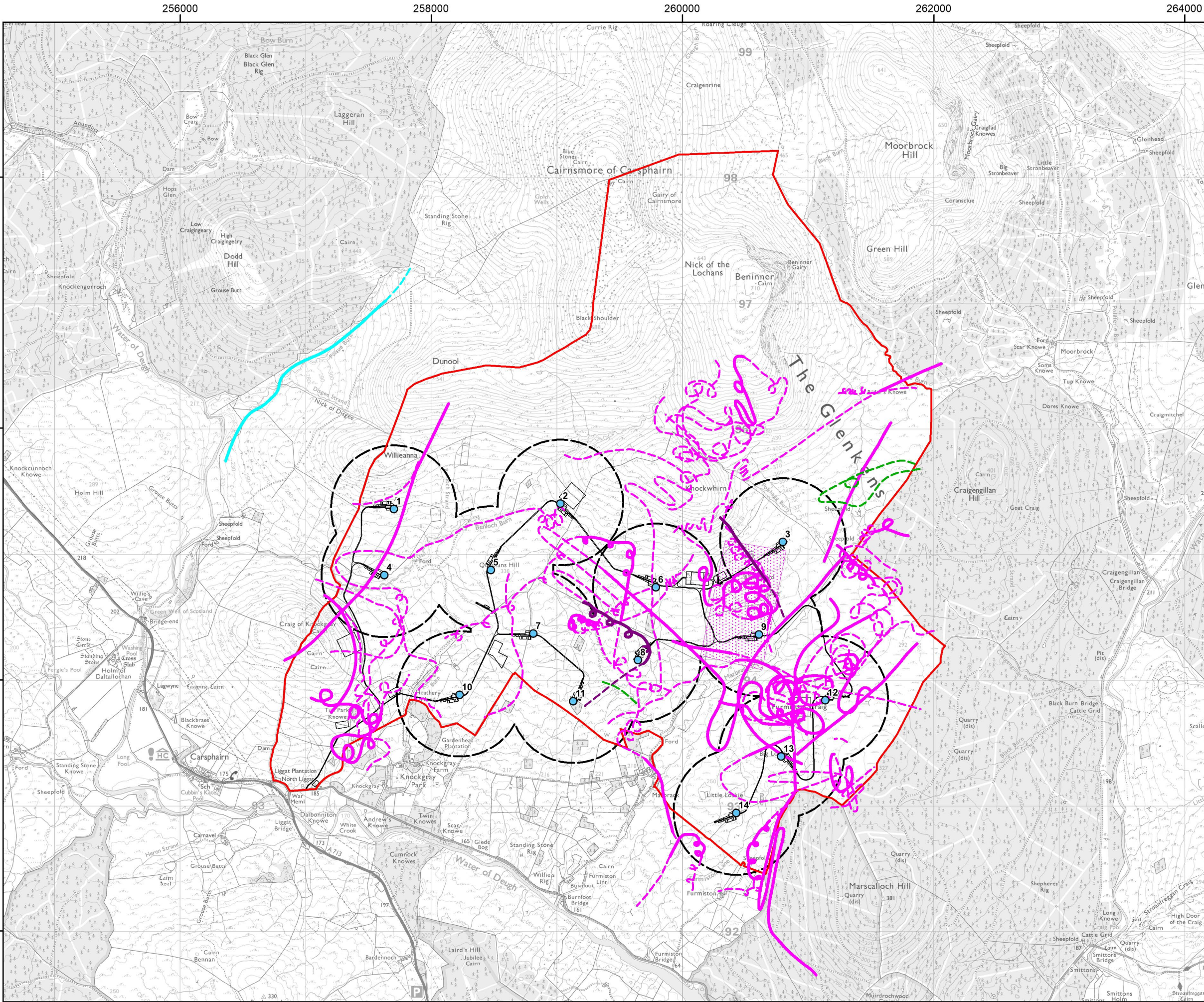
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Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.5c: Flight Activity by
Target Raptor Species
- Apr-Aug 2019**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height* Other Heights

- Red kite
- Osprey
- Merlin
- Peregrine

Flight Area

- Red kite

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

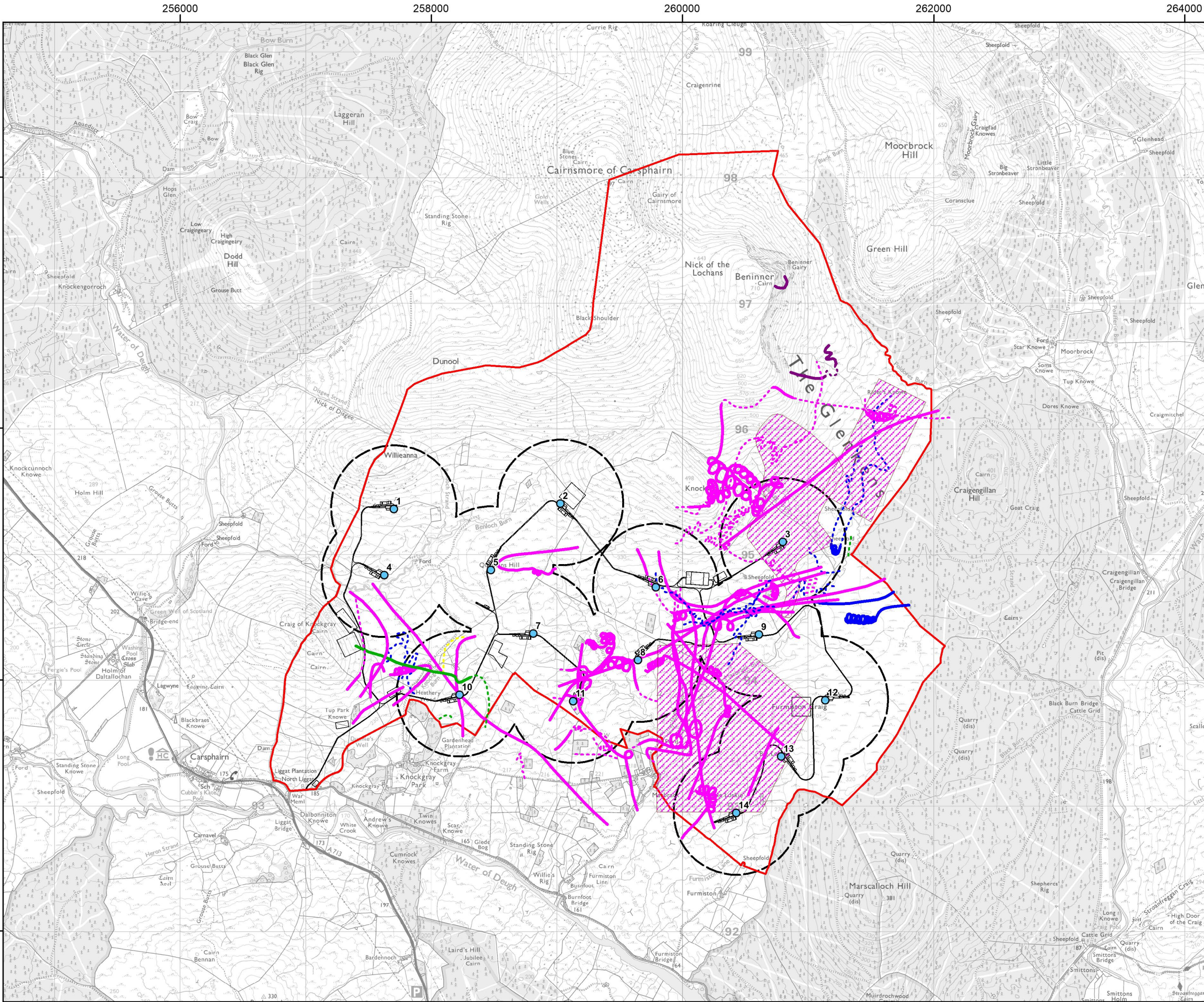
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Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.5d: Flight Activity by
Target Raptor Species
- Sept 2020-Mar 2021**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height* Other Heights

- Red kite
- Hen harrier
- Goshawk
- Merlin
- Peregrine

Flight Area

- Red kite

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

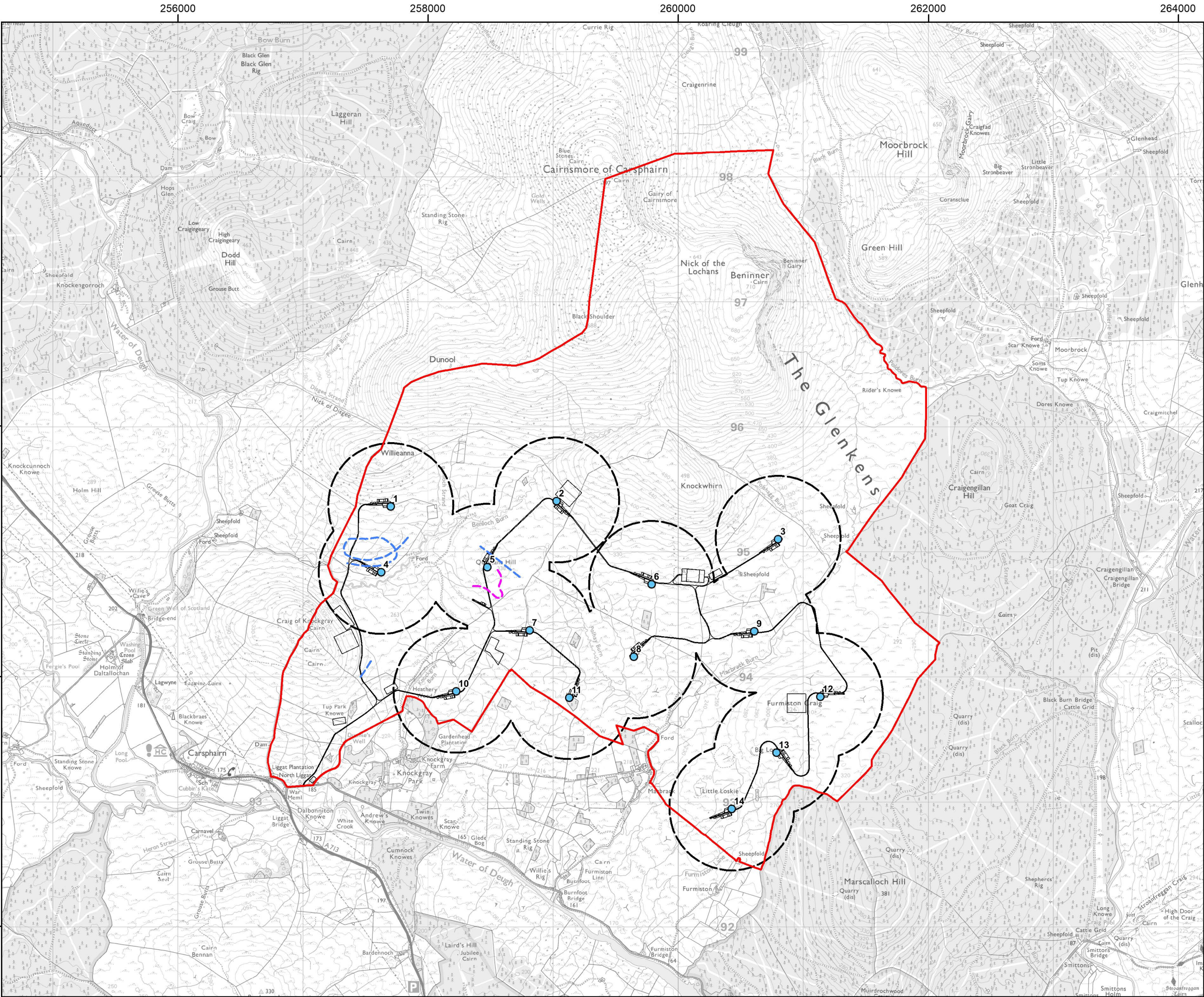
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Date: 31-05-22 Prepared by: SR Checked by: PB

Ref: Layout: 010921_14t_A

Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.6a: Flight Activity by
Other Target Species
- Apr-Aug 2018**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height* Other Heights

- Black grouse
- Curlew

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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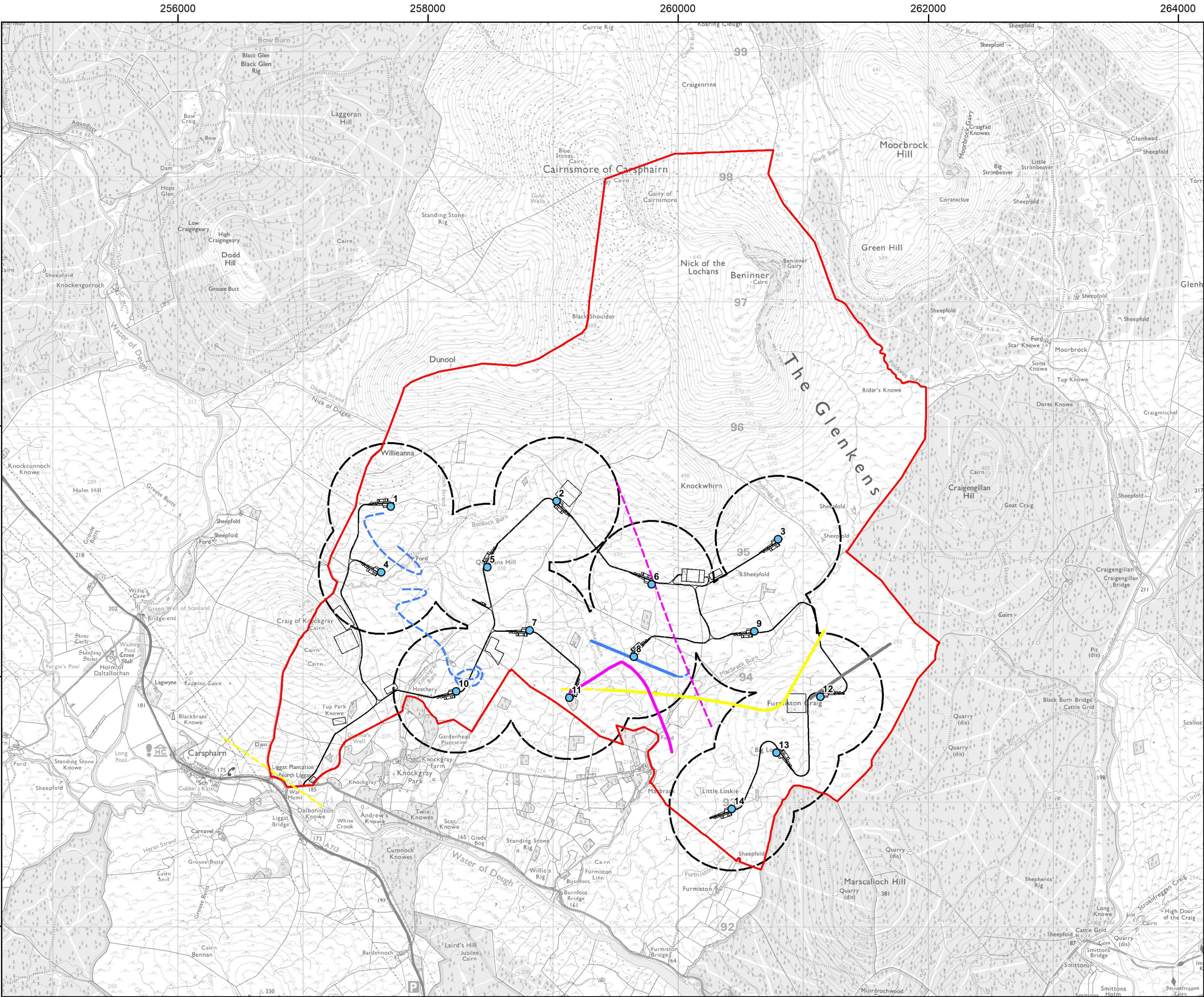
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0 0.25 0.5 1 km

N

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Drawing by:		





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.6b: Flight Activity by
Other Target Species
- Sept 2018-Mar 2019**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height*	Other Heights	Species
Yellow solid line	Yellow dashed line	Whooper swan
Magenta solid line	Magenta dashed line	Pink-footed goose
Grey solid line	Grey dashed line	Greylag goose
Blue solid line	Blue dashed line	Curlew

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

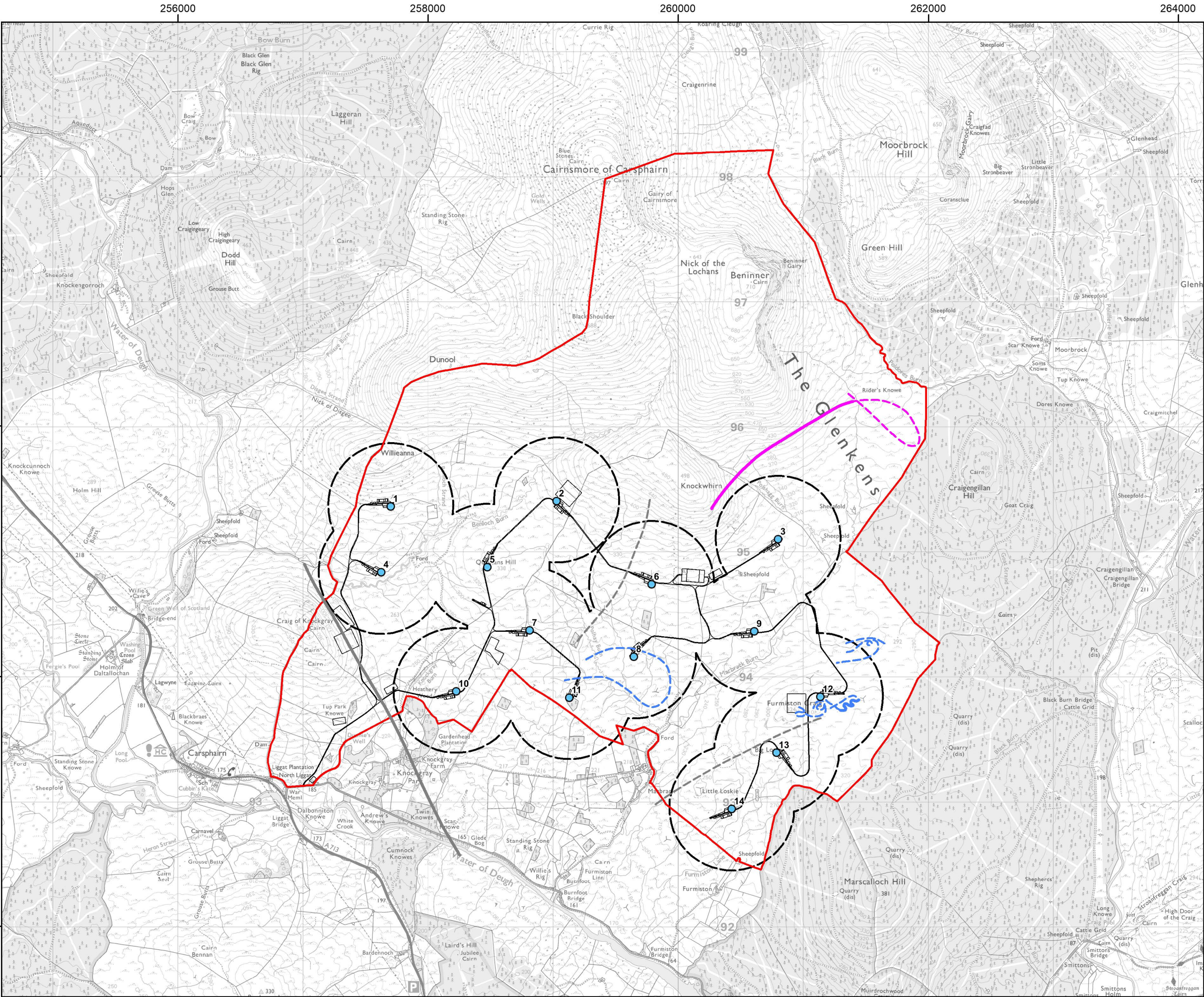
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Drawing by:





Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.6c: Flight Activity by
Other Target Species
- Apr-Aug 2019**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height*	Other Heights	Species
Solid line	Dashed line	Greylag goose
Solid magenta line	Dashed magenta line	Black grouse
Solid blue line	Dashed blue line	Curlew

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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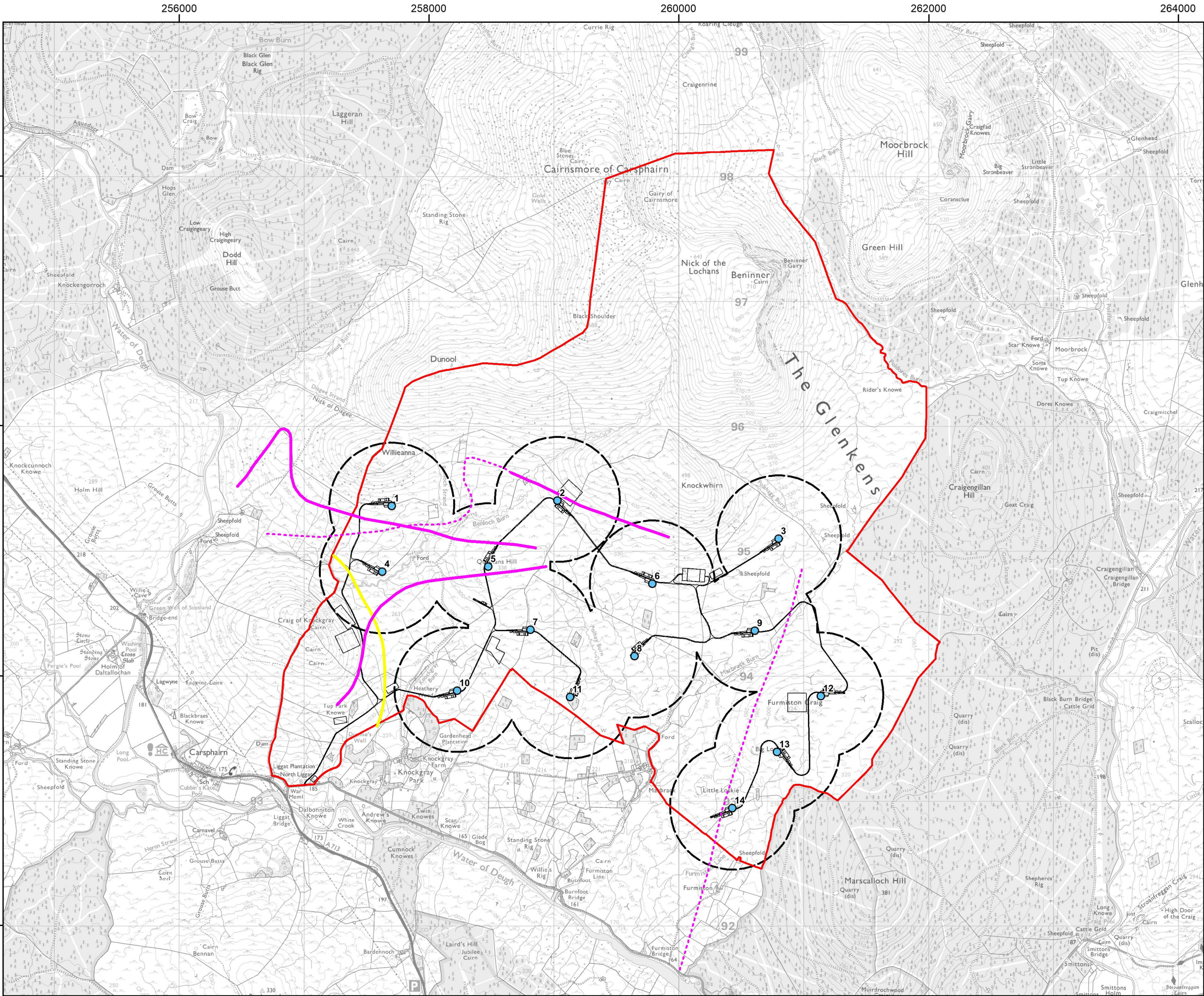
Scale @ A3: 1:30,000
Coordinate System: British National Grid

0 0.25 0.5 1 km

N

Date: 31-05-22	Prepared by: SR	Checked by: PB
Ref:	Layout: 010921_14t_A	
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 7.6d: Flight Activity by
Other Target Species
- Sept 2020-Mar 2021**

Key

- Site boundary
- Proposed turbine
- Proposed development
- 500m turbine buffer

Flight Activity

Risk Height* Other Heights

- Whooper swan
- Pink-footed goose

Note
* 'Risk Height' refers to flights recorded within the Medium height band (50 - 250 m a.g.l.)
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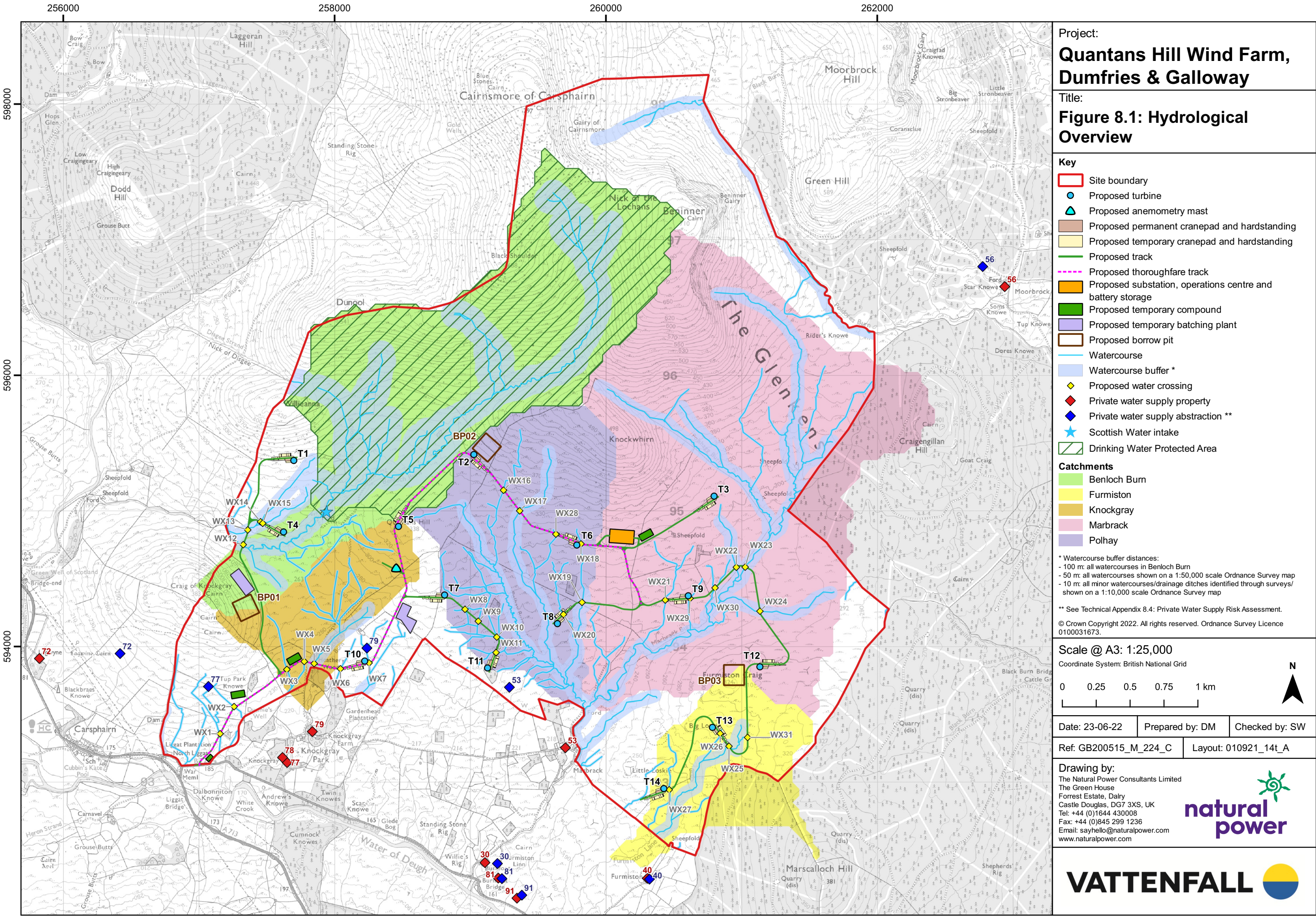
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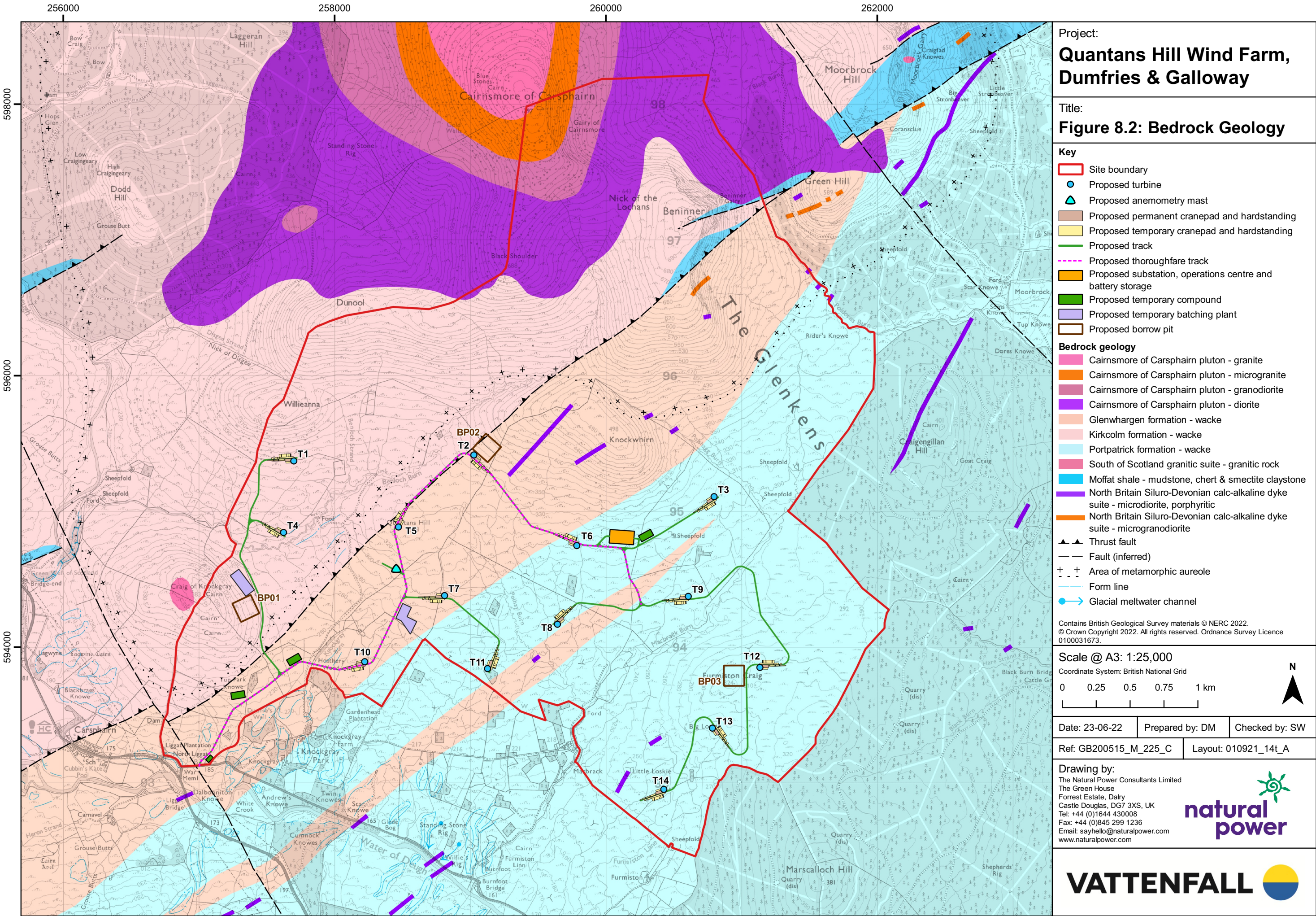
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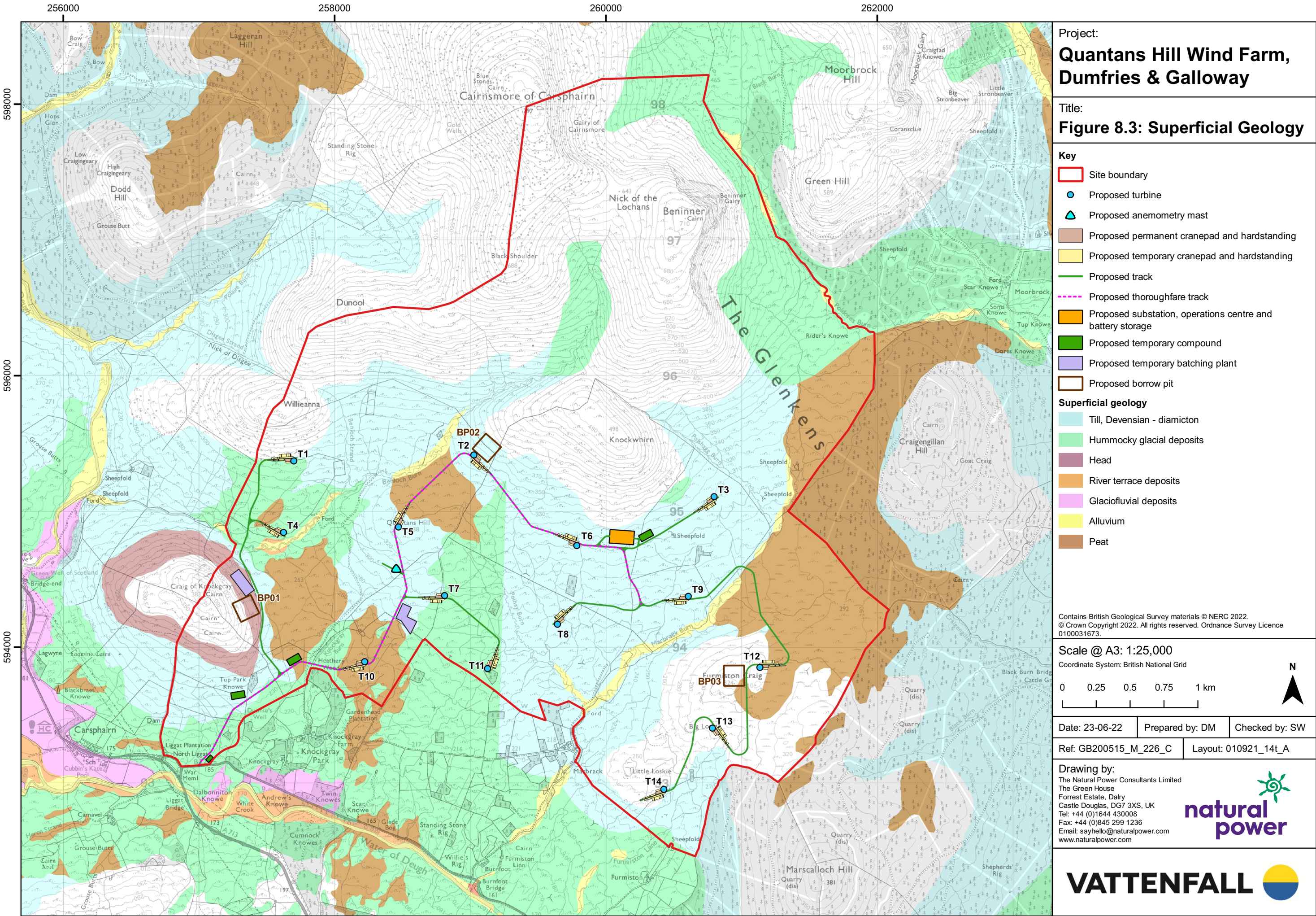
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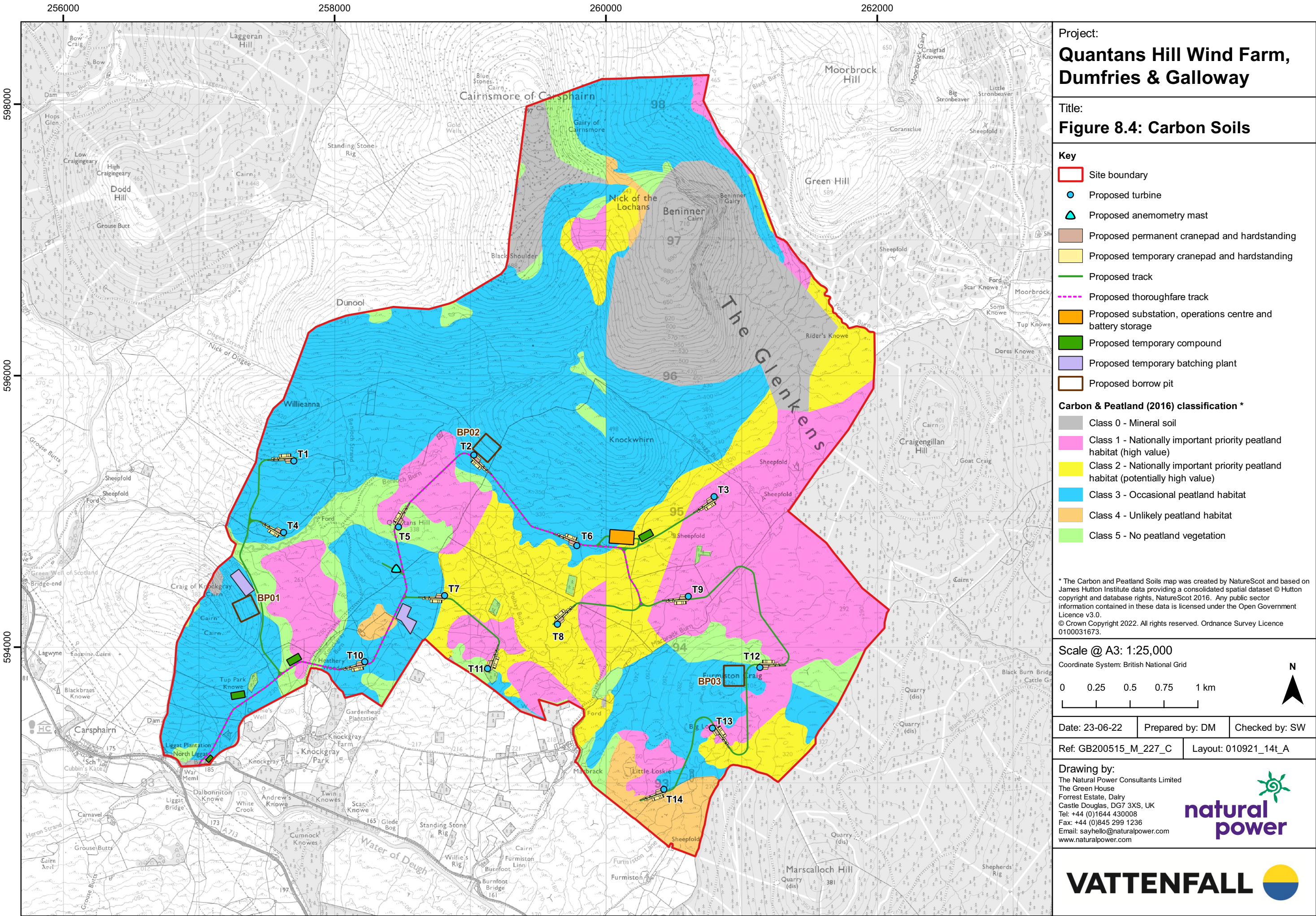
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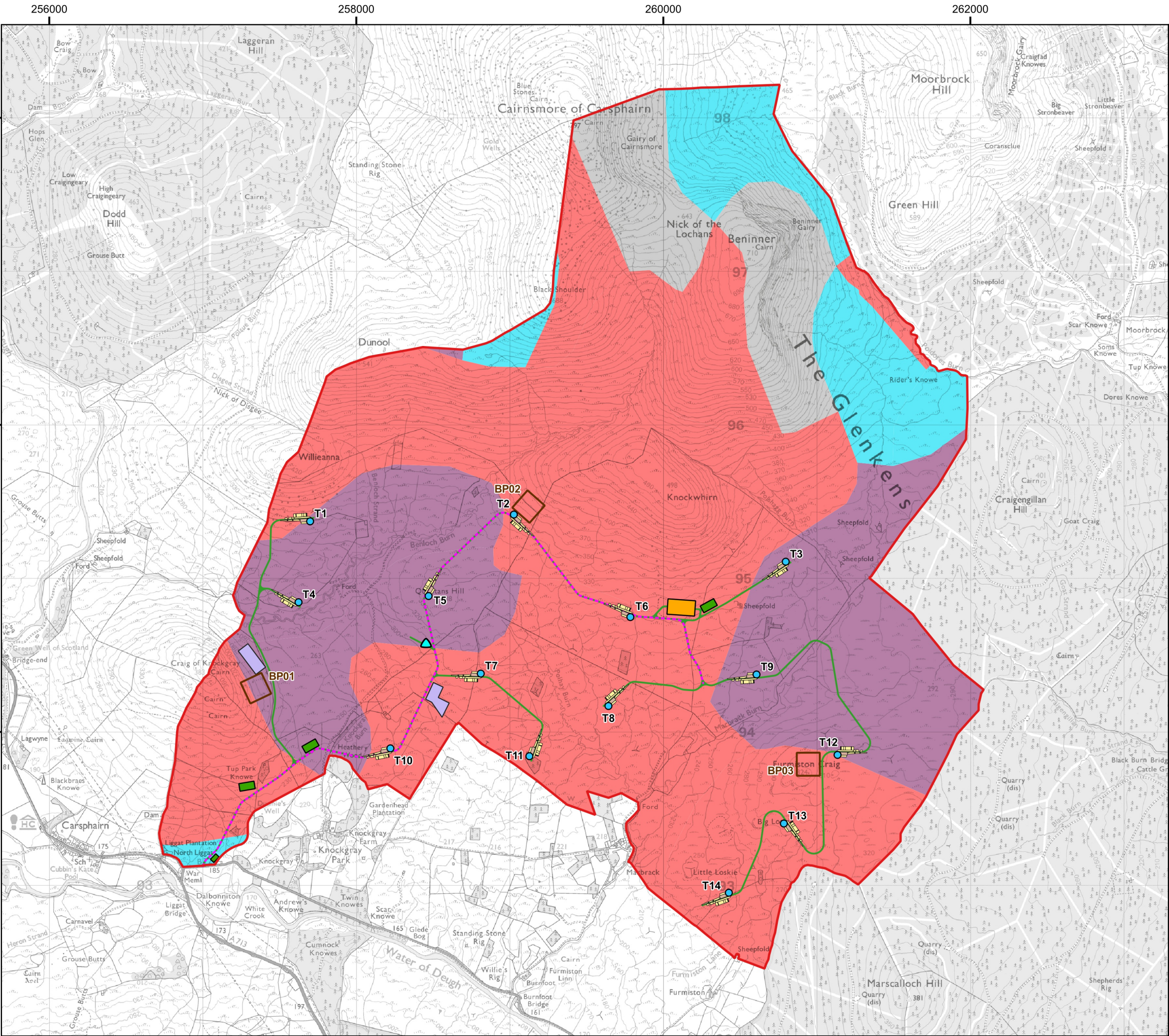












Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
Figure 8.5: Predominant Soils

- Key**
- Site boundary
 - Proposed turbine
 - Proposed anemometry mast
 - Proposed permanent cranepad and hardstanding
 - Proposed temporary cranepad and hardstanding
 - Proposed track
 - Proposed thoroughfare track
 - Proposed substation, operations centre and battery storage
 - Proposed temporary compound
 - Proposed temporary batching plant
 - Proposed borrow pit

- National Soil Map for Scotland:
Generalised Soil Type ***
- Blanket peats
 - Mineral gleys
 - Peaty podzols
 - Rankers (immature soils)

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Scale @ A3: 1:25,000
Coordinate System: British National Grid

0 0.25 0.5 0.75 1 km

N

Date: 23-06-22 Prepared by: DM Checked by: SW

Ref: GB200515_M_228_C Layout: 010921_14t_A

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The Green House
Forrest Estate, Dalry
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Fax: +44 (0)845 299 1236
Email: sayhello@naturalpower.com
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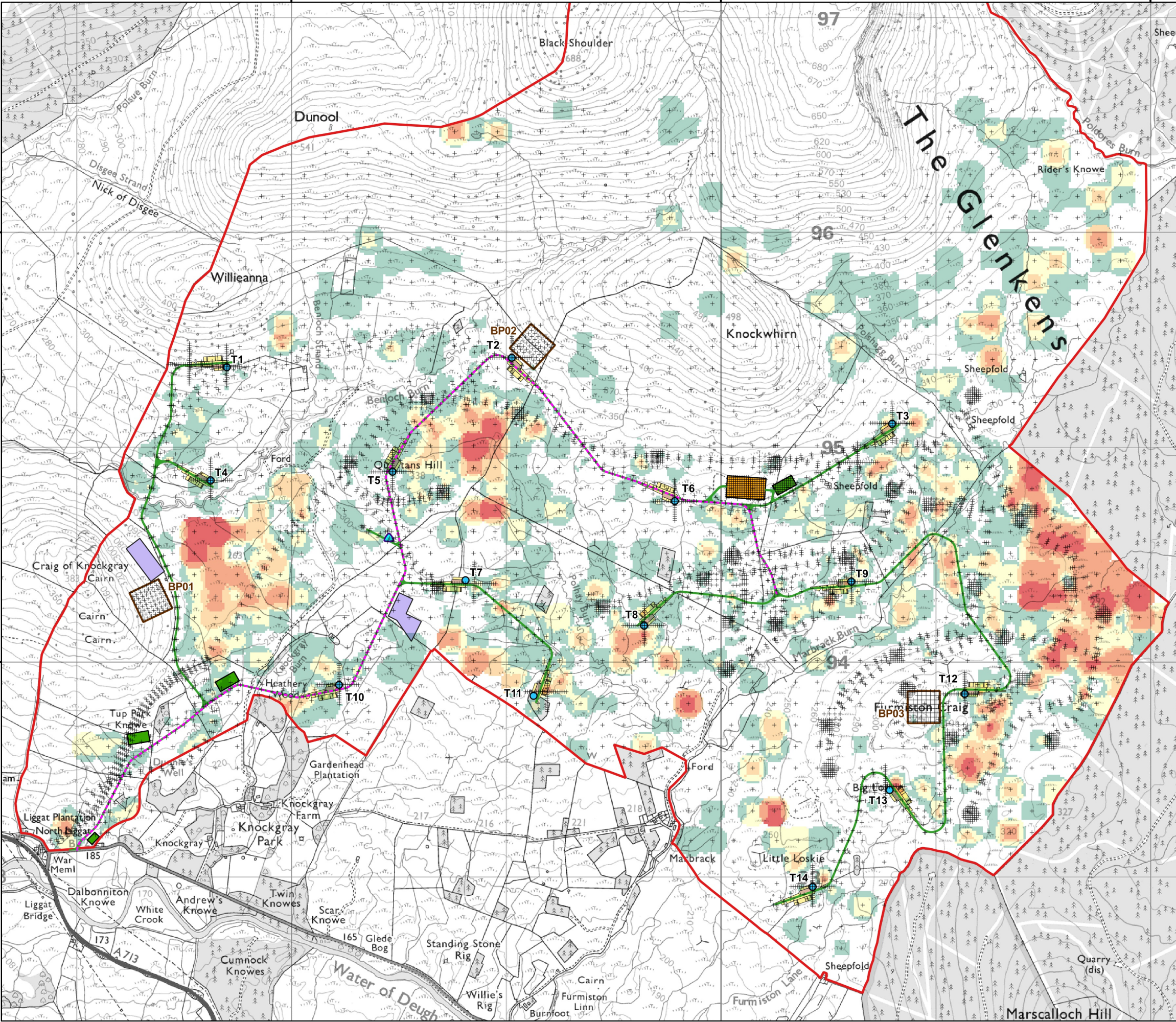
258000

260000

262000

596000

594000



Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 8.6: Interpolated Peat
Depth**

Key

- Site boundary
- Proposed turbine
- Proposed anemometry mast
- Proposed permanent cranepad and hardstanding
- Proposed temporary cranepad and hardstanding
- Proposed track
- Proposed thoroughfare track
- Proposed substation, operations centre and battery storage
- Proposed temporary compound
- Proposed temporary batching plant
- Proposed borrow pit
- Peat probe

Peat Depth (m) *

- ≤ 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 3
- > 3

* Peat data interpolated using Kriging method.

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Scale @ A3: 1:18,000
Coordinate System: British National Grid

0 0.25 0.5 0.75 1 km

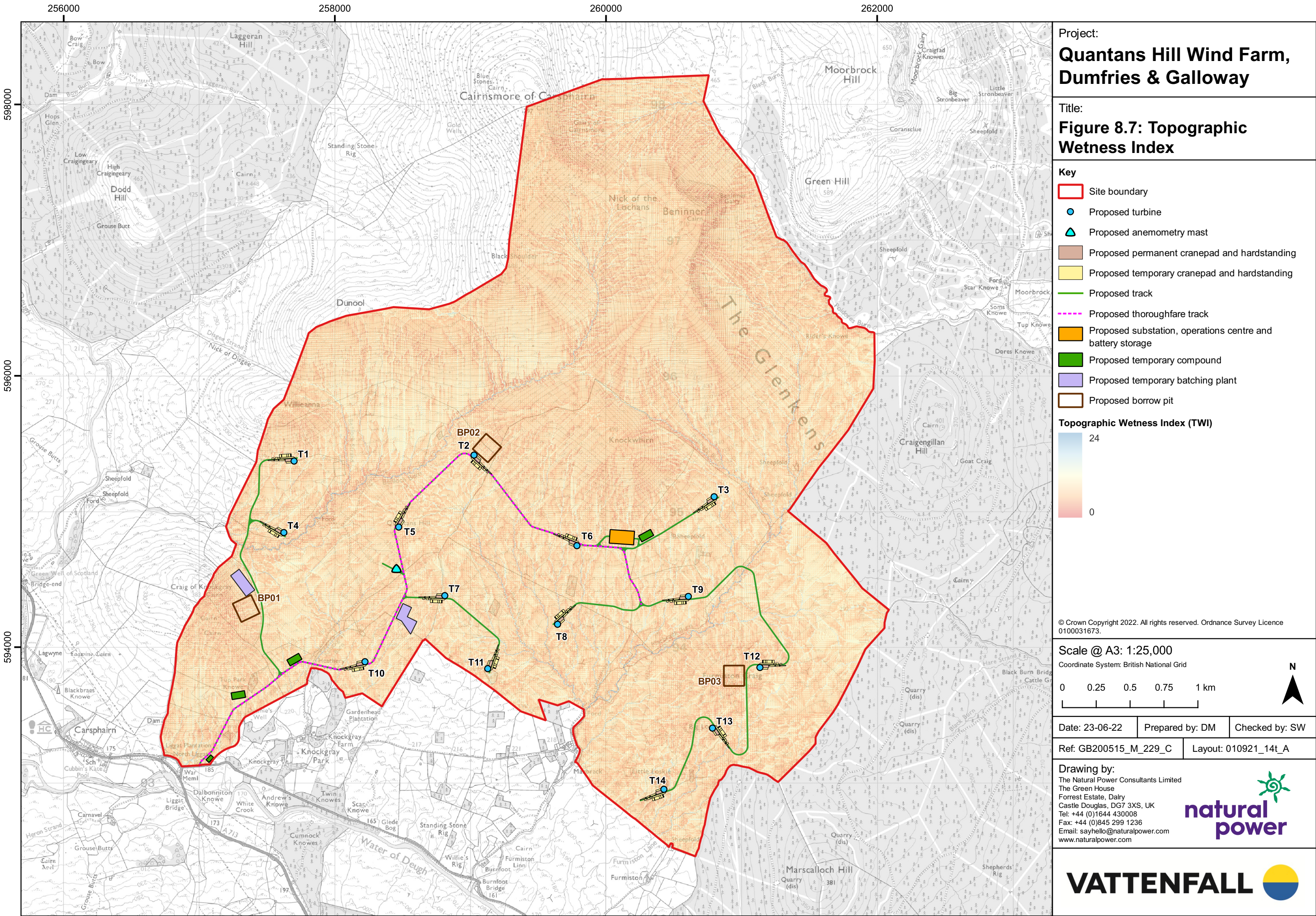
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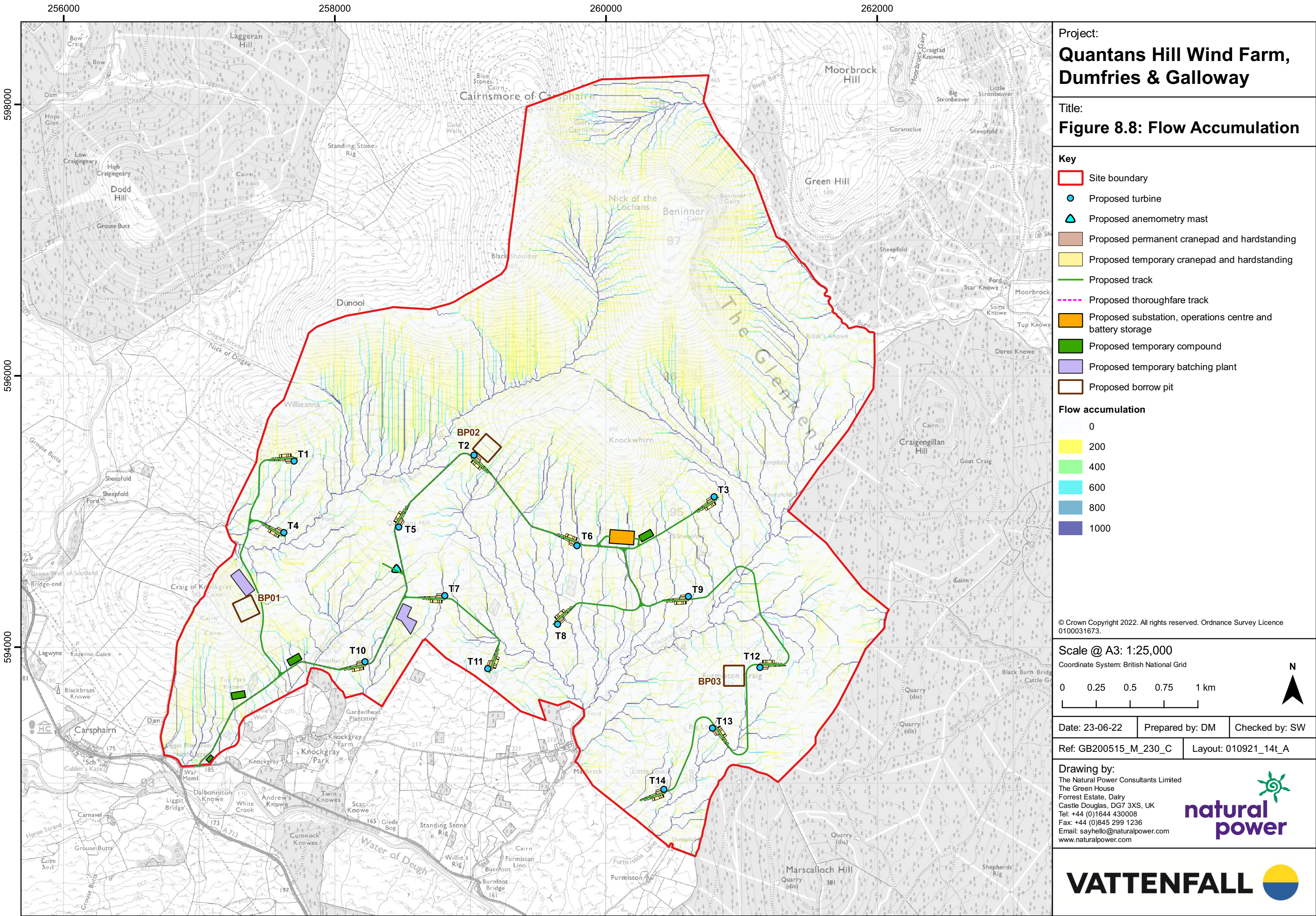
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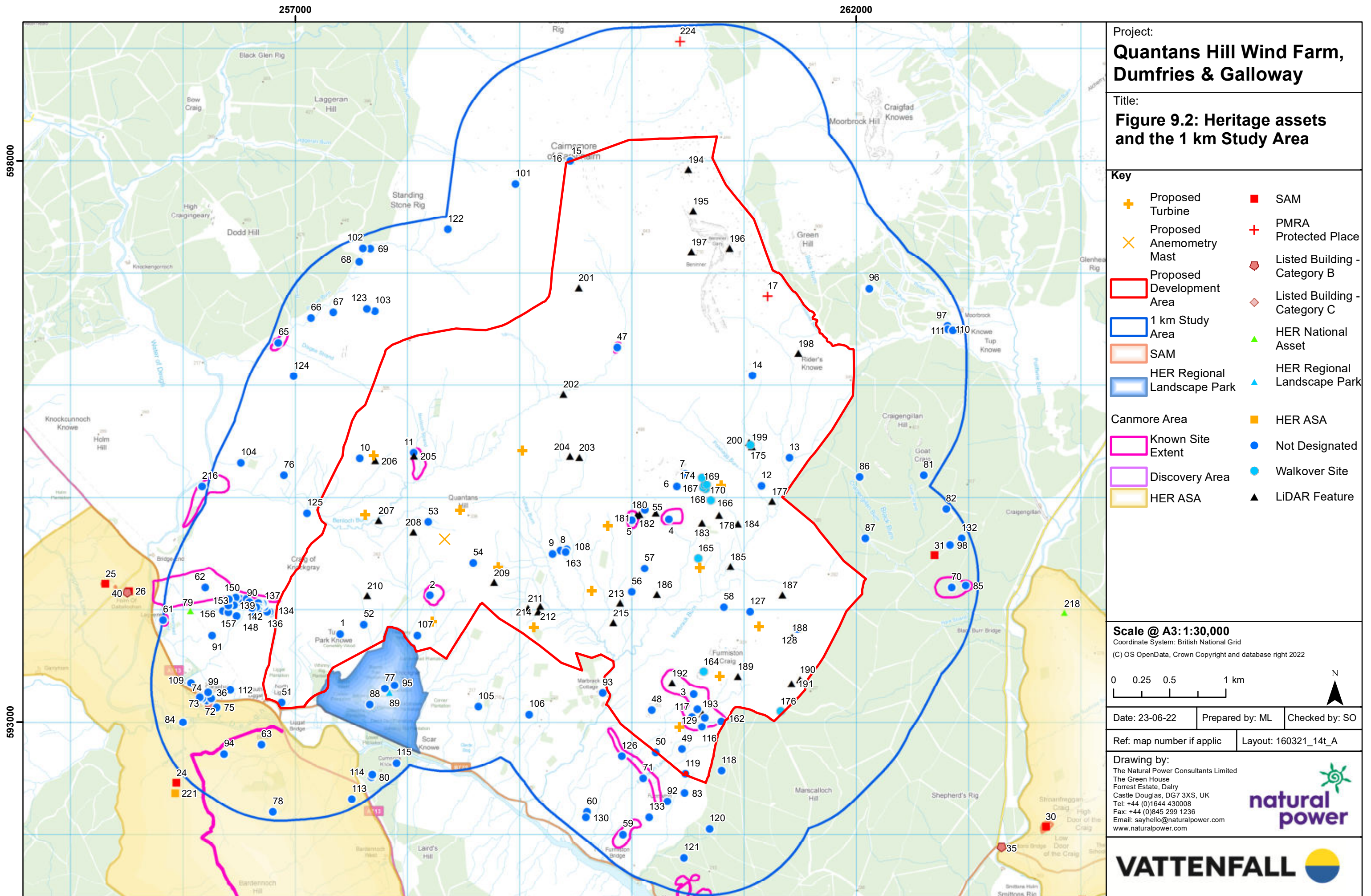
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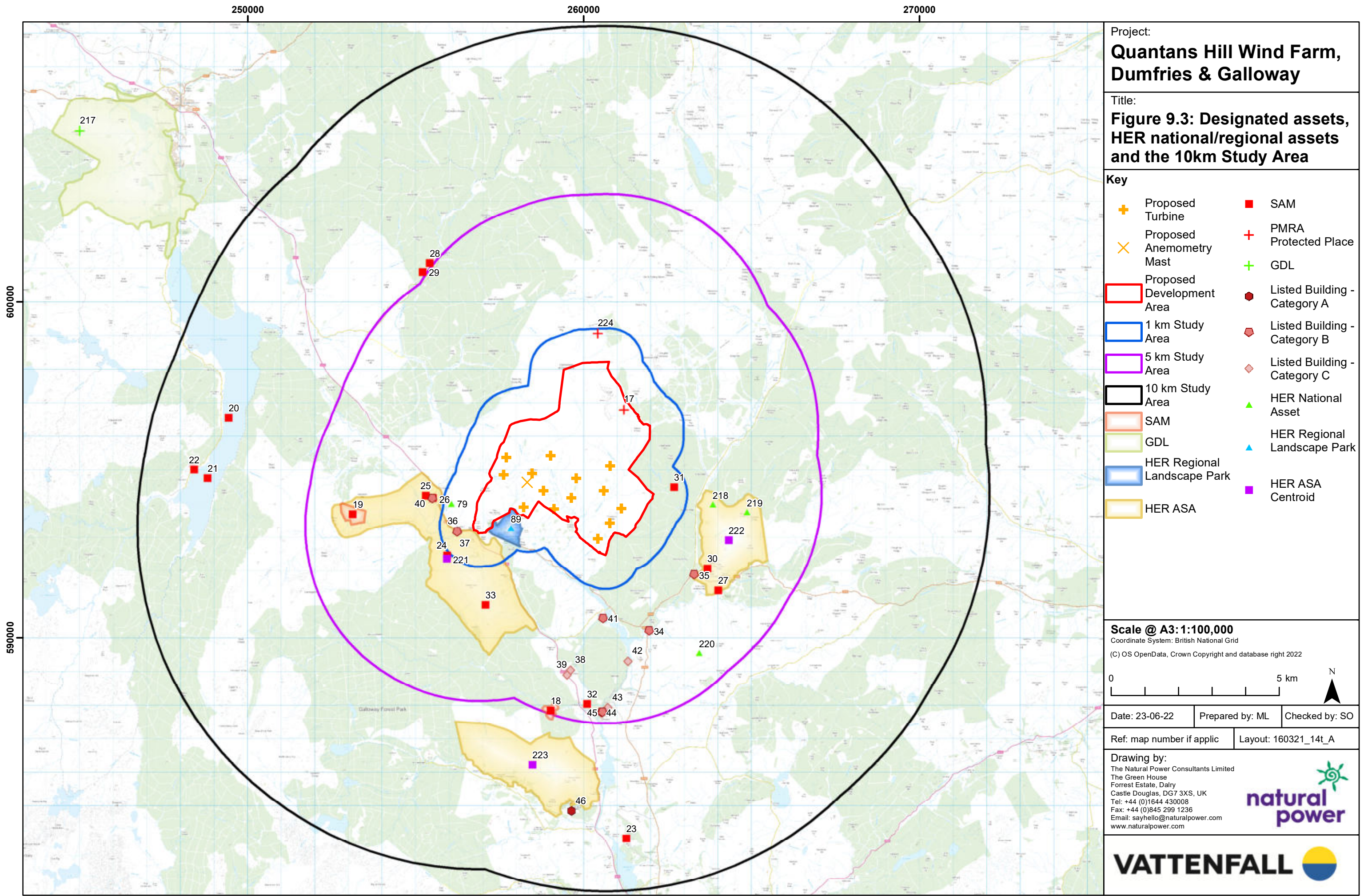
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Forrest Estate, Dalry
Castle Douglas, DG7 3XS, UK
Tel: +44 (0)1644 430008
Fax: +44 (0)845 299 1236
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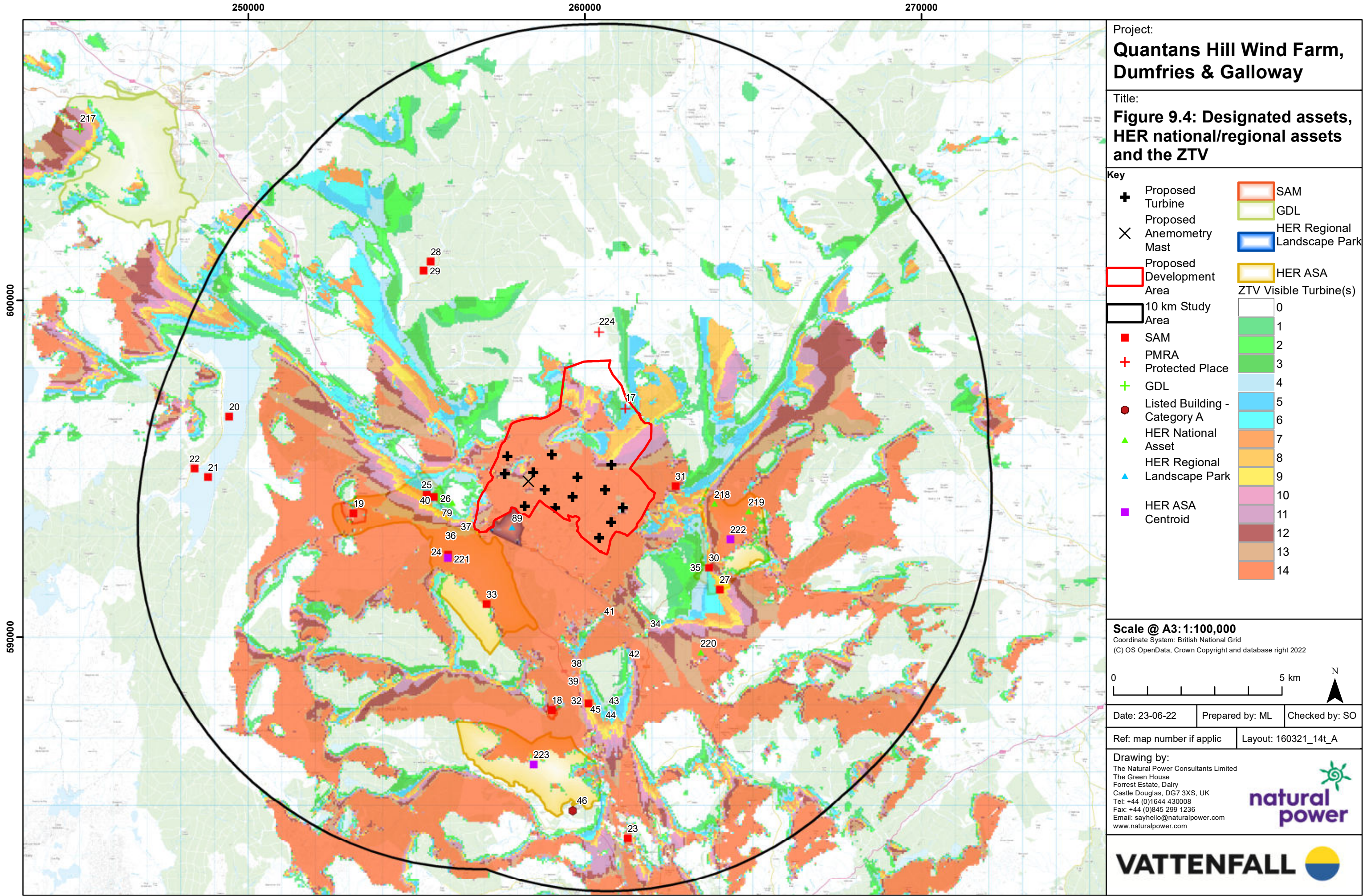
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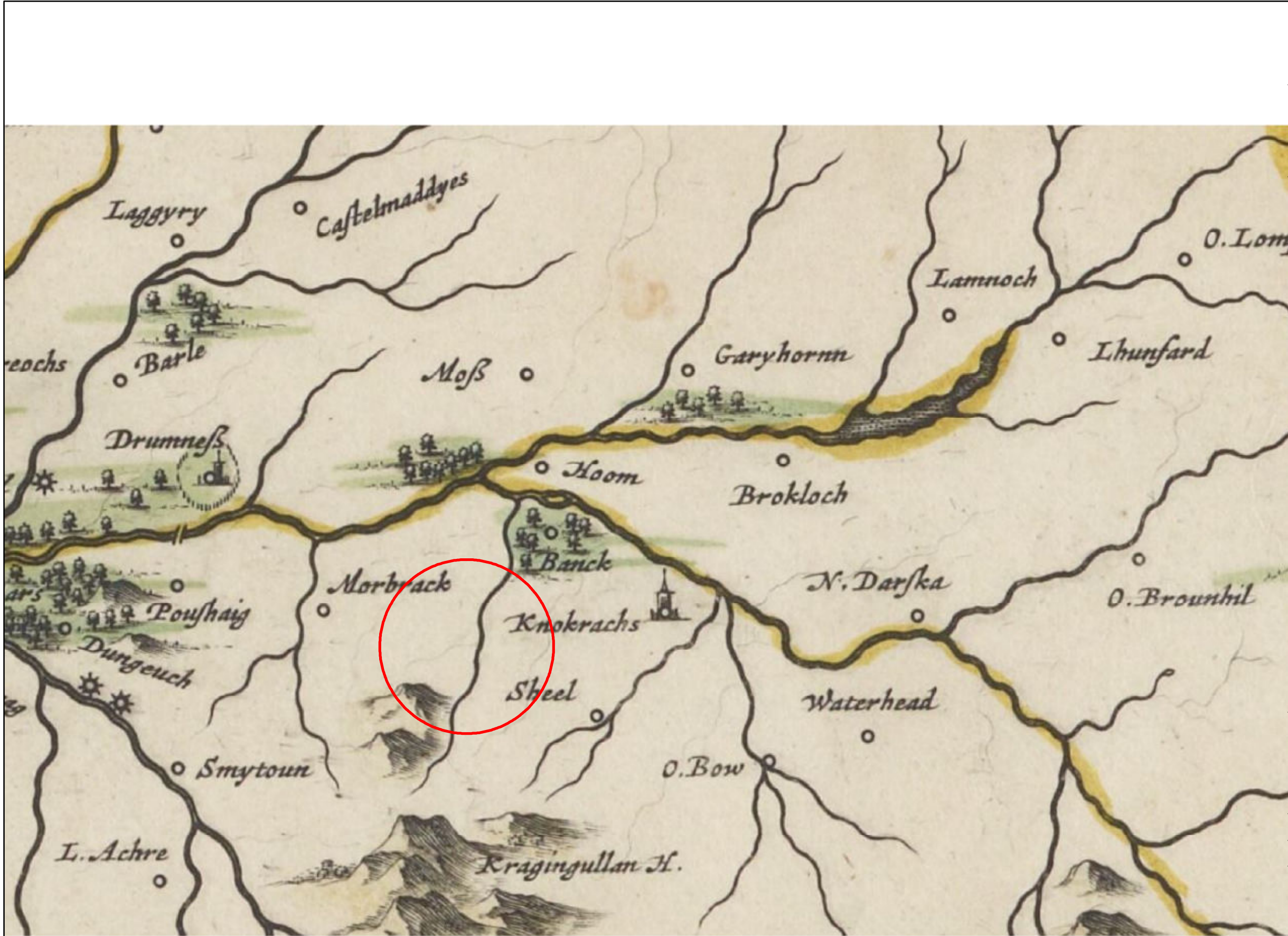













Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 9.5: Extract from a
map by Blaeu, 1654**

Key
 Approximate location of the Site

Not to scale, approximate North

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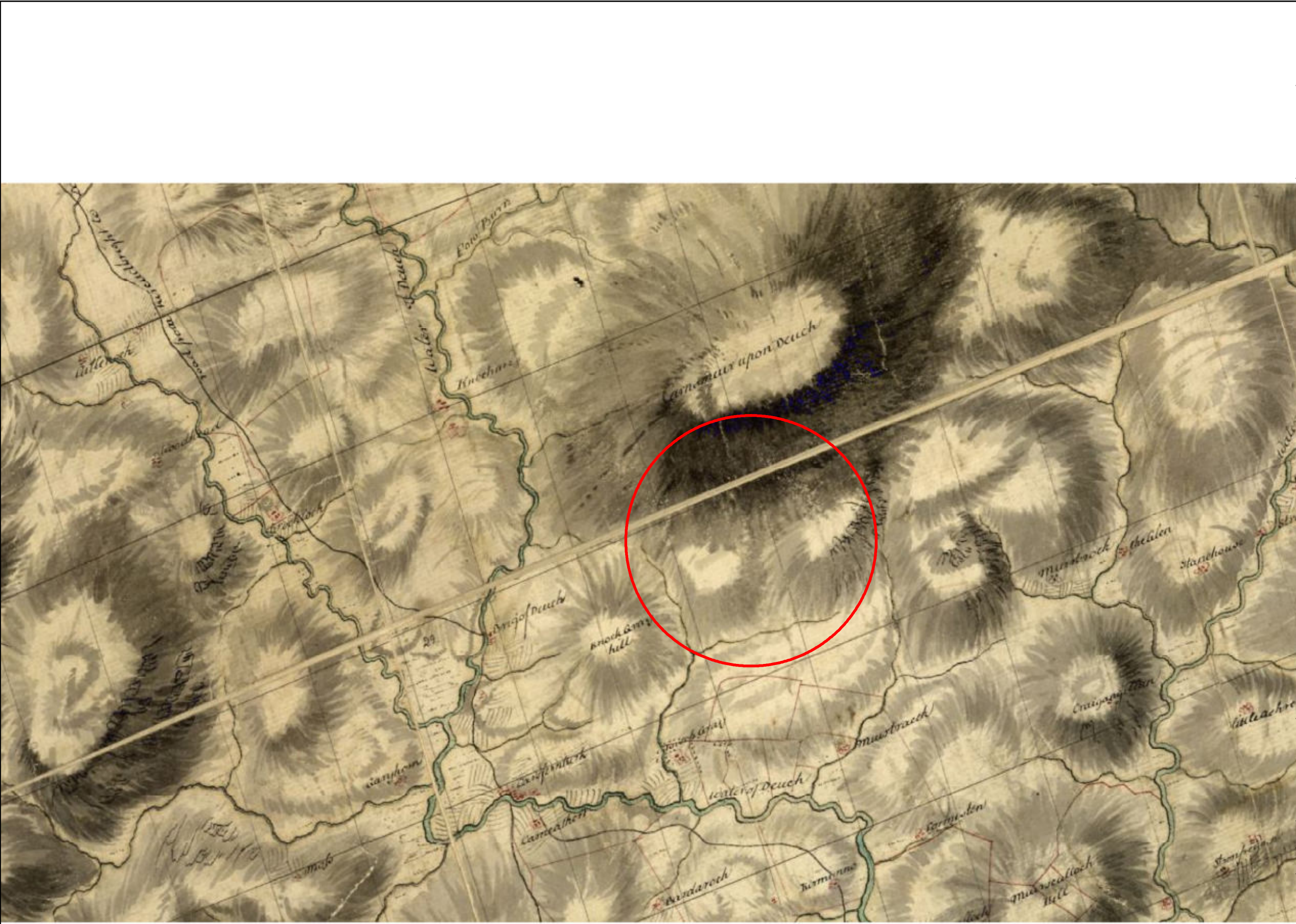
Date: 17-09-21	Prepared by: ML	Checked by: SO
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Ref: map number if applic	Layout: 160321_14t_A
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Email: sayhello@naturalpower.com
www.naturalpower.com




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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 9.6: Extract from a
map by Roy, 1752-55**

Key
 Approximate location of the Site

Not to scale, approximate North

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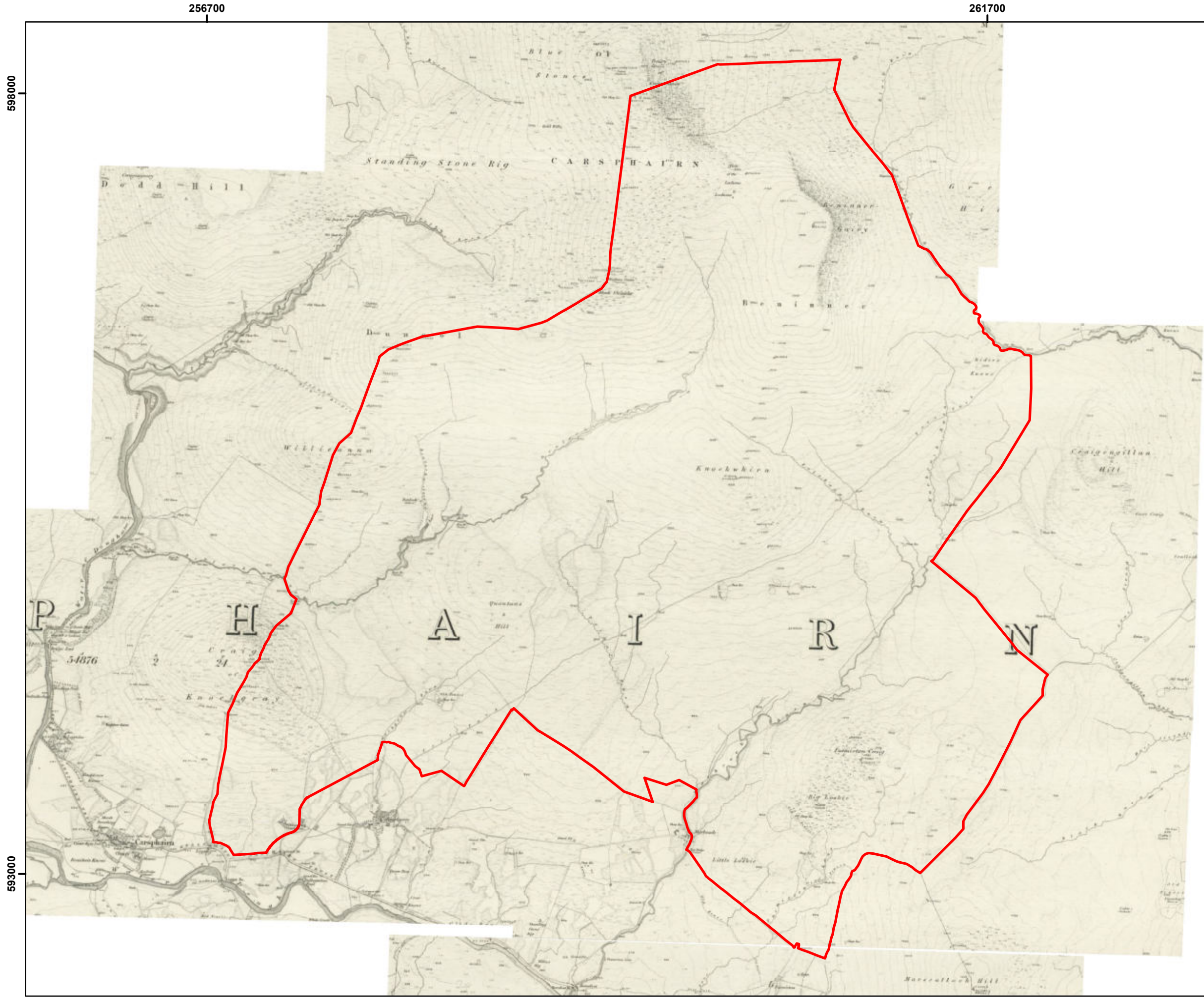
Date: 17-09-21	Prepared by: ML	Checked by: SO
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www.naturalpower.com



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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 9.7: Extract from
Ordnance Survey map, 1853**

Key

Site boundary

Scale @ A3: 1:24,000
Coordinate System: British National Grid
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00.250.51 km

N

Date: 17-09-21


Prepared by: ML

Checked by: SO


Ref: map number if applic

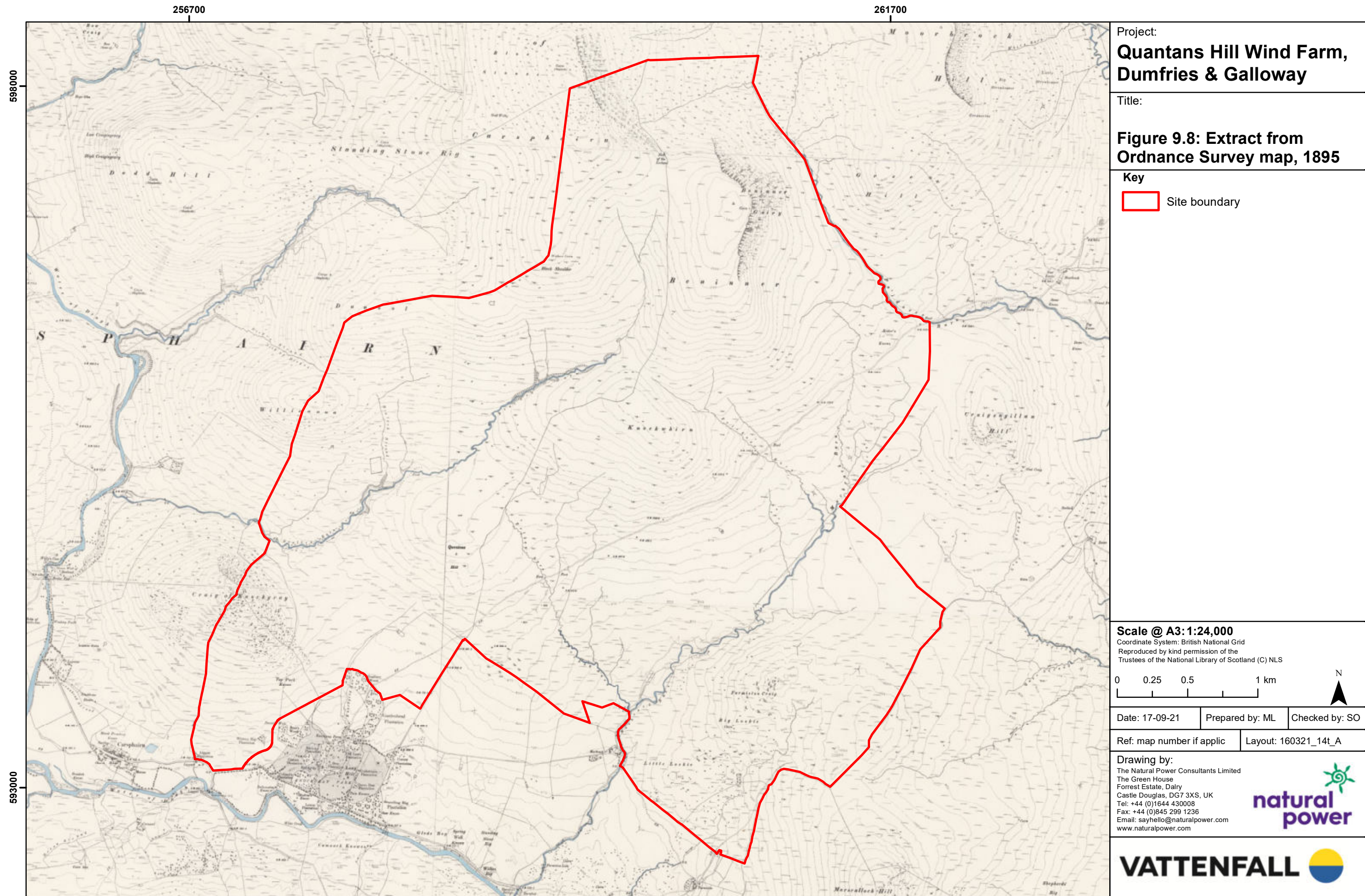
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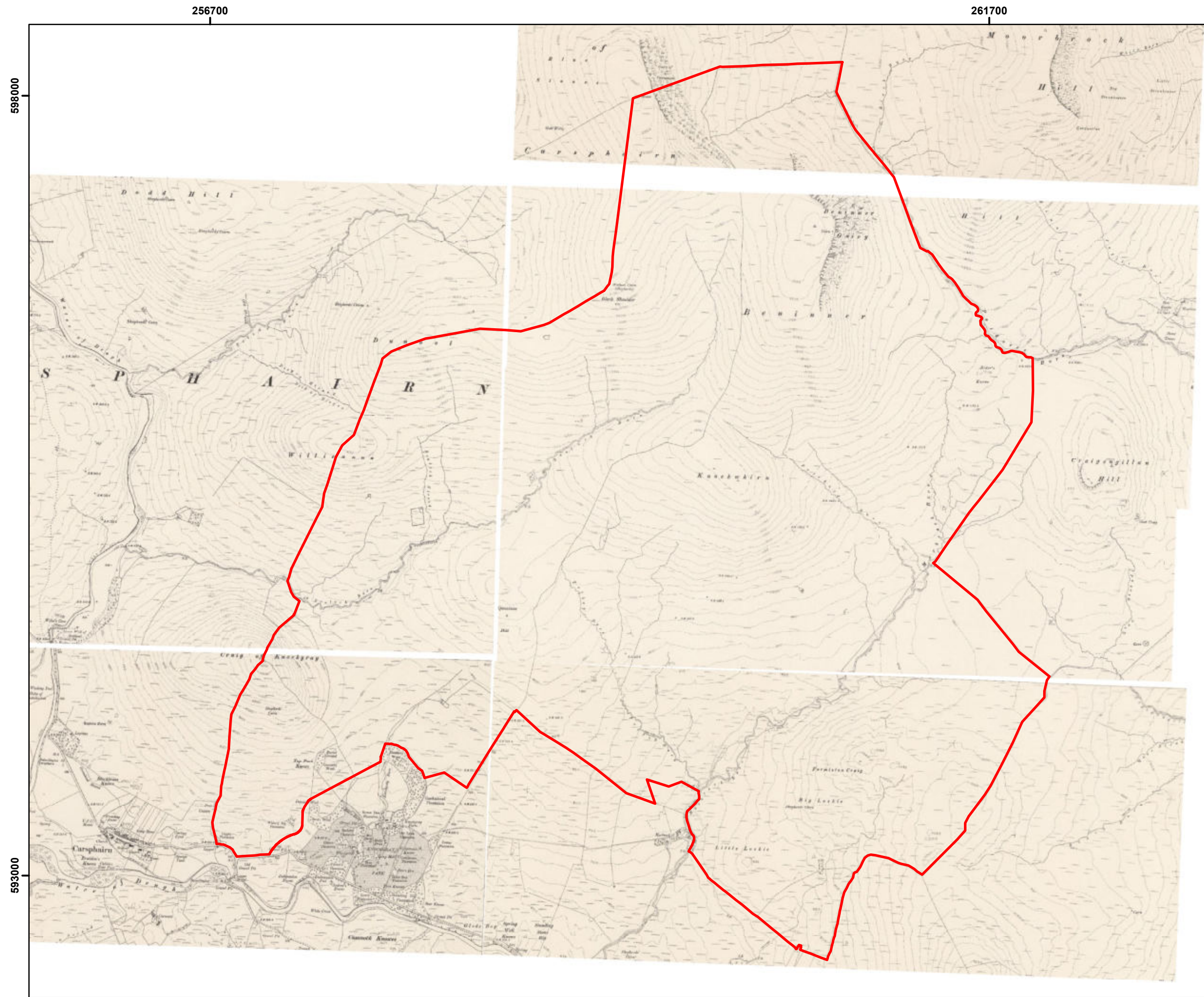
Drawing by:
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Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
**Figure 9.9: Extract from
Ordnance Survey mapping,
1909-10**

Key
 Site boundary

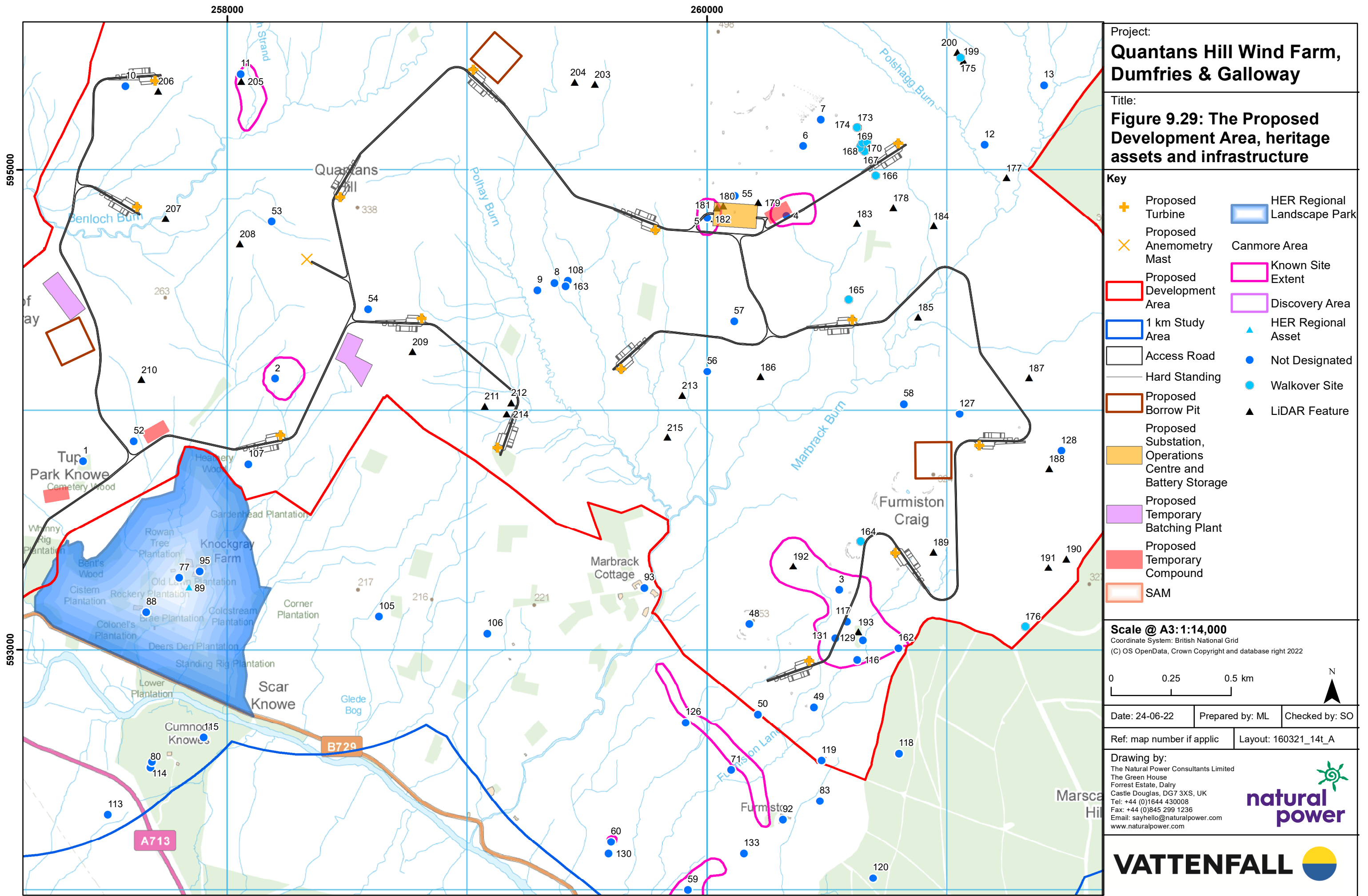
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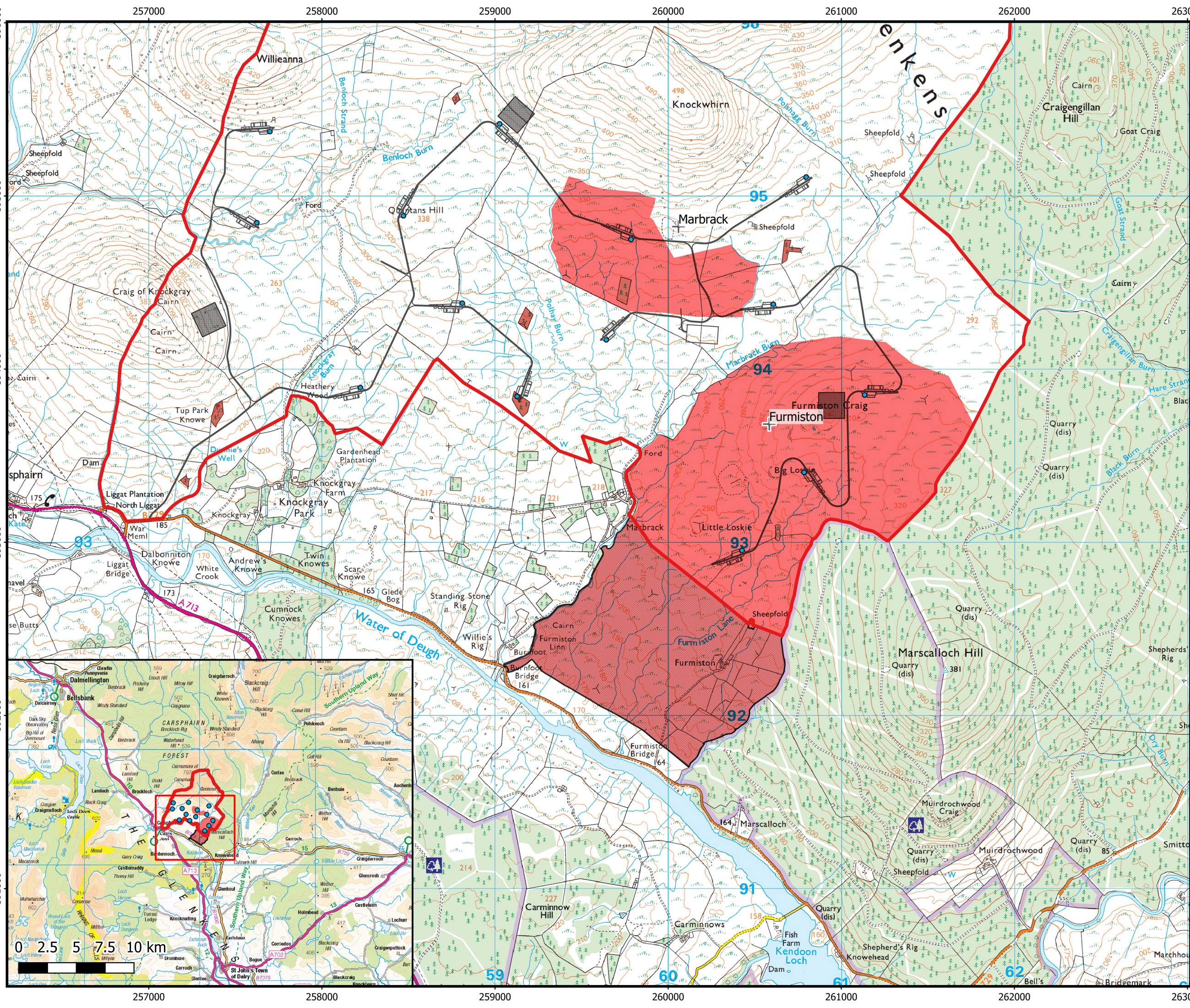
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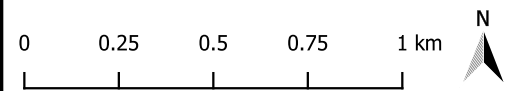


Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
Figure 12.1: Site Location

- Key**
- Proposed Development Area
 - Woodland Area
 - Woodland outwith site boundary
 - Proposed Turbine
 - Tracks and other Infrastructure
 - Borrow pits

Scale: 1:20,000 @ A3
Coordinate System: British National Grid
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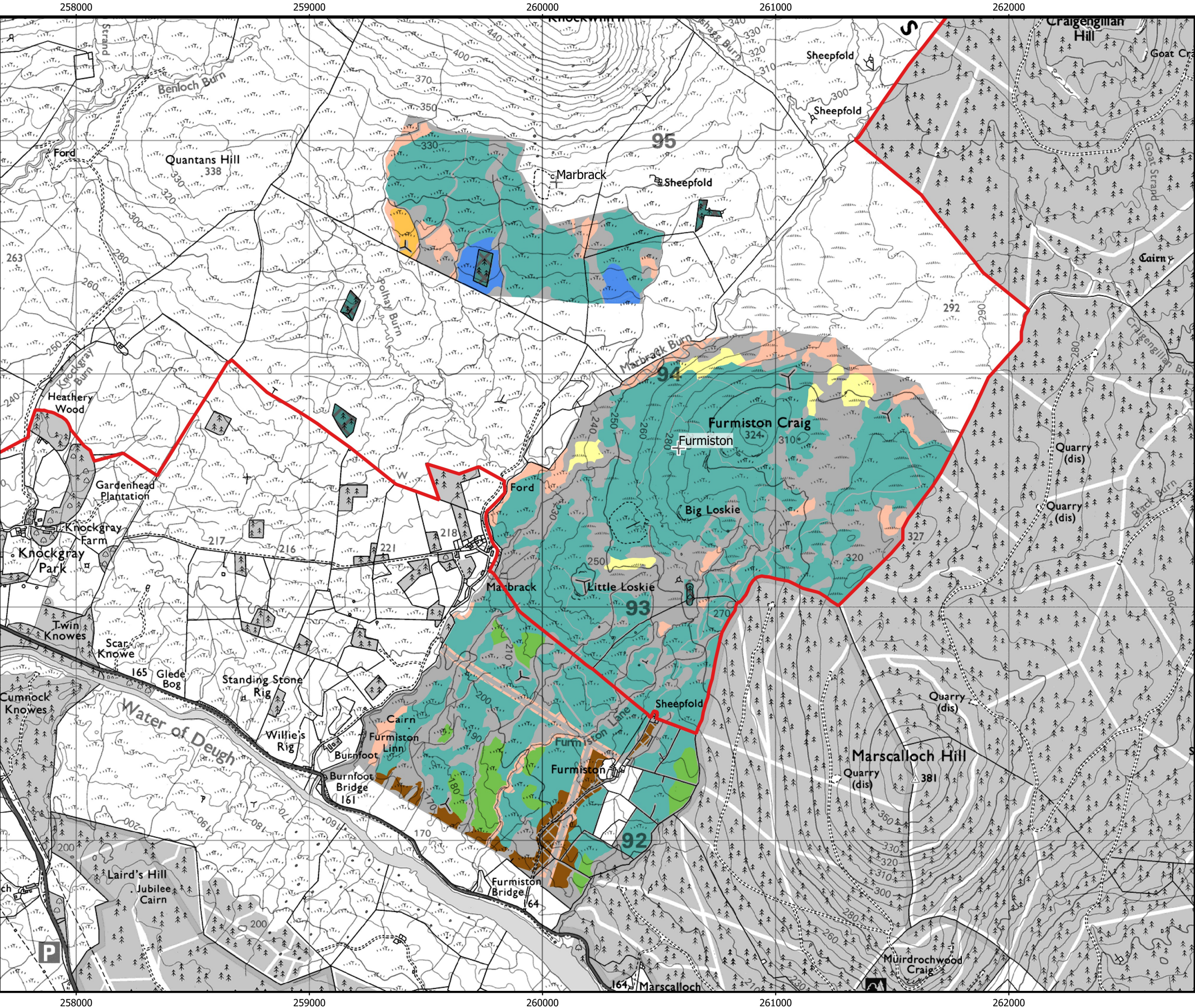
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Ref: Figure 12.1	Issue: 4
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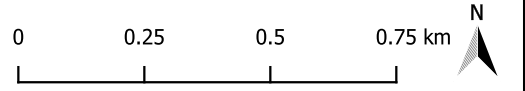
Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
Figure 12.2: Baseline Species

Key

- Site Boundary
- Species Mix**
 - Sitka spruce
 - Douglas fir
 - Pacific silver fir
 - Scots pine
 - Lodgepole pine
 - Conifer shelterbelts
 - Mixed broadleaves
 - Native broadleaves
 - DOG / MB
 - DOG / NBL
 - Open Ground

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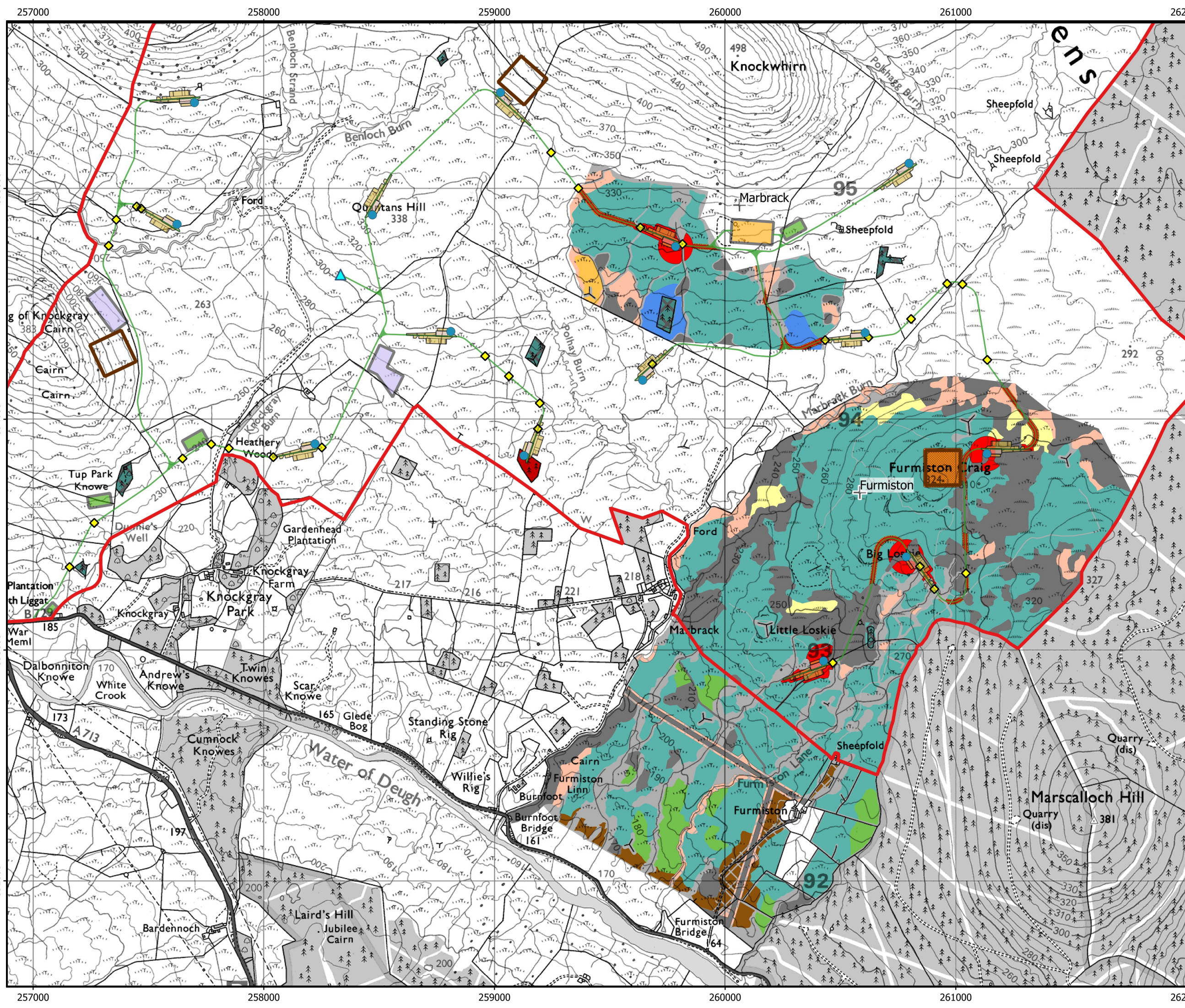
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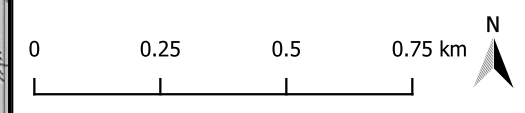


Project:
**Quantans Hill Wind Farm,
Dumfries & Galloway**

Title:
Figure 12.3: Woodland Loss

- Key**
- Site boundary
 - Proposed turbine
 - Proposed anemometry mast
 - Proposed permanent cranepad and hardstanding
 - Proposed temporary cranepad and hardstanding
 - Proposed track
 - Proposed substation, operations centre and battery storage
 - Proposed temporary compound
 - Proposed temporary batching plant
 - Proposed borrow pit
 - Watercourse crossing
- Felling**
- Permanent Fell
 - Temporary Fell

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