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Figure 8.1a: Ornithology Survey Area and Proposed Development Layout

- Site Boundary
- Turbine

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Raptor Survey Vantage Point
- Nightjar Survey Vantage Point
- Breeding Raptor Survey Area
- Black Grouse Survey Area
- Long Eared Owl Survey Area

Note: Vantage Points for Flight Activity Surveys Included on Figure 8.2

0 1 2 km

Map scale 1:25,000 @ A3

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Figure 8.1b: Wader Survey Area and Proposed Development Layout

- Site Boundary
- Turbine
- Turbine 500 m Buffer
- Turbine 800 m Buffer

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Breeding Wader Survey Area

Note: Vantage Points for Flight Activity Surveys Included on Figure 8.2

0 1 2 km

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Figure 8.2: Vantage Points and Viewsheds and Proposed Development Layout

- Site Boundary
- Turbine
- Turbine Location 500 m Buffer

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Vantage Points (VP)
- Vantage Point 2 km Viewing Arc
- Combined Visibility of Vantage Points

Note:
This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 50 dataset (accuracy: 4m RMSE). The ZTV has been generated from a viewing height of 2m above ground level, and a surface offset of 15m The ZTV is generated from a bare earth terrain and does not account for the screening effect of features within the landscape such as woodland.

0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.3.1a: 2021 Breeding Curlew Territories and Proposed Development Layout

- Site Boundary
- Turbine
- Turbine 500 m Buffer
- Turbine 800 m Buffer
- Turbine 1 km Buffer

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Approximate Territory Centre 2021

0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.3.1b: 2022 Breeding Curlew Territories and Proposed Development Layout

- Site Boundary
- Turbine
- Turbine 500 m Buffer
- Turbine 800 m Buffer
- Turbine 1 km Buffer

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Approximate Territory Centre 2022

0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.3.2: Breeding Lapwing Territories and Proposed Development Layout

- Site Boundary
- Turbine

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Approximate Territory Centre 2021
- Approximate Territory Centre 2022
- 2021 Lapwing Approximate Territory Centre 200 m Buffer
- 2022 Lapwing Approximate Territory Centre 200 m Buffer

N 0 1 2 km

Map scale 1:25,000 @ A3

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Figure 8.3.3: Breeding Snipe Territories and Proposed Development Layout

- Site Boundary
- Turbine

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Approximate Territory Centre 2021
- 2021 Snipe Approximate Territory Centre 500 m Buffer

0 1 2 km

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Figure 8.4: Designated Sites with Ornithological Interest Features

Site Boundary
Site Boundary 2 km Buffer
Site Boundary 10 km Buffer
Special Protection Area (SPA)
Local Wildlife Site (LWS)

Migneint-Arenig-Ddualllt SPA
Mynydd Mynyllod and Llyn Mynyllod LWS
Berwyn SPA

0 1 2 km

Map scale 1:100,000 @ A3

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Figure 8.5.1a: Curlew Flightline Density 2021

Site Boundary
Turbine
Turbine 500 m Buffer
Turbine 800 m Buffer
Turbine 1 km Buffer

Permanent Infrastructure

Permanent Hardstanding
Tracks
Substation and Battery Storage Siting Area

Temporary Infrastructure

Borrow Pit
Earthworks Extent
Construction Compound
Temporary Hardstanding
Batching Plant Option
Approximate Territory Centre 2021

Curlew Flight Line Expected Density

High Density
Low Density

Note: Flight Density based on Curlew flight lines recorded during 2021 Vantage Point Surveys. Created using Line Density Tool within ArcGIS Pro, and adjusted to accommodate for overlapping survey coverage.

Flight density mapping is necessarily limited to areas within the VP viewsheds shown in Figure 8.2, because curlew flights outside these areas were not recorded during VP surveys. The flight density mapping therefore only provides an indication of relative levels of flight activity within the VP viewsheds and it is not possible to provide a comprehensive representation of all curlew flight activity within and around the site.

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0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.5.1b: Curlew Flightline Density 2022

- Site Boundary
- Turbine
- Turbine 500 m Buffer
- Turbine 800 m Buffer
- Turbine 1 km Buffer

Permanent Infrastructure

- Permanent Hardstanding
- Tracks
- Substation and Battery Storage Siting Area

Temporary Infrastructure

- Borrow Pit
- Earthworks Extent
- Construction Compound
- Temporary Hardstanding
- Batching Plant Option
- Approximate Territory Centre 2022

Curlew Flight Line Expected Density

- High Density
- Low Density

Note: Flight Density based on Curlew flight lines recorded during 2022 Vantage Point Surveys. Created using Line Density Tool within ArcGIS Pro, and adjusted to accommodate for overlapping survey coverage.

Flight density mapping is necessarily limited to areas within the VP viewsheds shown in Figure 8.2, because curlew flights outside these areas were not recorded during VP surveys. The flight density mapping therefore only provides an indication of relative levels of flight activity within the VP viewsheds and it is not possible to provide a comprehensive representation of all curlew flight activity within and around the site.

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0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.5.2: Curlew Flightline Density 2021 and 2022

- Site Boundary
- Turbine
- Turbine 500 m Buffer
- Turbine 800 m Buffer
- Turbine 1 km Buffer

Permanent Infrastructure

- Permanent Hardstanding
- Tracks
- Substation and Battery Storage Siting Area

Temporary Infrastructure

- Borrow Pit
- Earthworks Extent
- Construction Compound
- Temporary Hardstanding
- Batching Plant Option
- Approximate Territory Centre 2022
- Approximate Territory Centre 2021

Curlew Flight Line Expected Density

- High Density
- Low Density

Note: Flight Density based on Curlew flight lines recorded during 2021 and 2022 Vantage Point Surveys. Created using Line Density Tool within ArcGIS Pro, and adjusted to accommodate for overlapping survey coverage.

Flight density mapping is necessarily limited to areas within the VP viewsheds shown in Figure 8.2, because curlew flights outside these areas were not recorded during VP surveys. The flight density mapping therefore only provides an indication of relative levels of flight activity within the VP viewsheds and it is not possible to provide a comprehensive representation of all curlew flight activity within and around the site.

0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.5.3: Curlew Habitat Suitability

- Site Boundary
- Turbine
- Turbine 500 m Buffer
- Turbine 800 m Buffer
- Turbine 1 km Buffer
- Habitat Survey Boundary

Permanent Infrastructure

- Permanent Hardstanding
- Tracks
- Substation and Battery Storage Siting Area

Temporary Infrastructure

- Borrow Pit
- Earthworks Extent
- Construction Compound
- Temporary Hardstanding
- Batching Plant Option
- 2022 Curlew Territory
- 2021 Curlew Territory

Curlew Habitat Suitability

- 1 - Unsuitable Habitat for Curlew
- 2 - Suitable Habitat for Adult Curlew (Foraging Only)
- 3 - Suitable Curlew Nesting and Chick Rearing Habitat

0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.5.4: Curlew Habitat Suitability and Flightline Density (2021 and 2022 Combined)

- Site Boundary
- Turbine
- Turbine 500 m Buffer
- Turbine 800 m Buffer
- Turbine 1 km Buffer
- Habitat Survey Boundary

Permanent Infrastructure

- Permanent Hardstanding
- Tracks
- Substation and Battery Storage Siting Area

Temporary Infrastructure

- Borrow Pit
- Earthworks Extent
- Construction Compound
- Temporary Hardstanding
- Batching Plant Option
- 2022 Curlew Territory
- 2021 Curlew Territory

Curlew Habitat Suitability

- 1 - Unsuitable Habitat for Curlew
- 2 - Suitable Habitat for Adult Curlew (Foraging Only)
- 3 - Suitable Curlew Nesting and Chick Rearing Habitat

Curlew Flight Line Expected Density

- High Density
- Low Density

Note: Flight density mapping is necessarily limited to areas within the VP viewsheds shown in Figure 8.2, because curlew flights outside these areas were not recorded during VP surveys. The flight density mapping therefore only provides an indication of relative levels of flight activity within the VP viewsheds and it is not possible to provide a comprehensive representation of all curlew flight activity within and around the site.

0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.5.5: Curlew Territories and Braich Ddu Wind Farm Buffers

- Site Boundary
- Turbine

Permanent Infrastructure

- Permanent Hardstanding
- Tracks
- Substation and Battery Storage Siting Area

Temporary Infrastructure

- Borrow Pit
- Earthworks Extent
- Construction Compound
- Temporary Hardstanding
- Batching Plant Option
- Braich Ddu Wind Farm Turbine
- Braich Ddu Wind Farm Turbine 500 m Buffer
- Braich Ddu Wind Farm Turbine 800 m Buffer
- Braich Ddu Wind Farm Turbine 1 km Buffer
- 2022 Curlew Territory
- 2021 Curlew Territory

0 1 2 km

Map scale 1:20,000 @ A3

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Figure 8.6: Indicative Area in Which Restrictions on Construction Would Apply During the Curlew Breeding Season

- Site Boundary
- Turbine

Permanent Infrastructure

- Tracks
- Substation and Battery Storage Siting Area
- Permanent Hardstanding

Temporary Infrastructure

- Temporary Hardstanding
- Earthworks Extent
- Construction Compound
- Borrow Pit
- Batching Plant Option
- Indicative area in which restrictions on construction would apply during the curlew breeding season – based on a 600m buffer around the main area of suitable curlew nesting and chick-rearing habitat

Curlew Habitat Suitability

- 3 - Suitable Curlew Nesting and Chick Rearing Habitat

0 1 2 km

Map scale 1:20,000 @ A3

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