

Chapter 13: Other Considerations

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Chapter 13: Other Considerations

13.1 Introduction

This chapter considers the potential impact of the construction, operation and eventual decommissioning of the proposed Herds Hill Wind Farm, in terms of those parameters which have not been previously addressed in other sections of this report.

This chapter considers impacts on the following:

- Aviation;
- Telecommunications;
- Shadow Flicker;
- Ice Throw;
- Public Rights of Way and Core Paths; and
- Forestry.

13.2 Aviation

The proposed development lies approximately 40km southeast of Glasgow Prestwick Airport, 63km southeast of Glasgow Airport, and 77km southwest of Edinburgh Airport.

The scheme is located 16km west of Lowther Hill radar station and 124km northwest of Great Dun Fell Radar. It is anticipated that NATS may object to the Proposed Development due to an adverse impact on these radars. The Applicant acknowledges that mitigation is available to reduce the impact of the turbines on these radars and will liaise with NATS post submission to devise an appropriately worded condition which would be implemented post planning consent.

The proposed development lies within a High Priority Low Flying Area and a Tactical Training Area, but no impact is expected on these. The development has a proposed tip height of 149m to tip, meaning that no visible aviation lighting is needed to meet Civil Aviation Authorities (CAA) and MoD requirements.

All aviation considerations and constraints are shown in Figure 13.1.

Table 13.1- Aviation Consultation Responses:

Consultee	Date Received	Response	Comments
Ministry of Defence	22/11/2023	No Objection	The MoD are unlikely to object to the impact on Low Flying Area 16 (LFA16) and Tactical Training Area 20T (TTA 20T). The MoD is likely to request lighting and charting conditions to any consent that would be issued to mitigate the development's impact on these areas.
Edinburgh Airport	13/11/2023	No Objection	This development falls out with our Aerodrome Safeguarding zone for Edinburgh Airport.
Glasgow Airport	02/10/2023	No Objection	This development is located out with the radar consultation area for Glasgow Airport.

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Glasgow Prestwick Airport	08/11/2023	No Objection	<p>The proposed turbines would be terrain shielded from the Primary Surveillance Radars here at Prestwick.</p> <p>The presence of high ground within 3 nautical miles of the development would mean that there would be no infringement to any minimum safety altitudes or Instrument Flight Procedures.</p> <p>The site is within the lateral confines of the Instrument Landing System protected area, however given the level of terrain shielding present we would expect there to be no infringement to our ILS signal.</p>
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13.2 Telecommunications

The following telecommunications companies were consulted regarding the proposed development:

- Joint Radio Company (JRC),
- Atkins,
- The Office of Communications (OFCOM) and,
- British Telecom (BT).

All consultation responses highlighted no issues of interference and therefore they do not object to the Proposed Development.

13.3 Shadow Flicker

OS mapping has been used to identify properties with potential susceptibility to shadow flicker, in line with the Parsons Brinckerhoff study Update of UK Shadow Flicker Evidence Base (2011).

The area around the proposed turbine locations within a distance of 10 rotor diameters (1,120m) and 130 degrees either side of north (the zone of potential shadow flicker) has been mapped and is shown in Figure 13.2 alongside the properties. This buffer is considered to be the Theoretical Shadow Flicker Extent.

There is one property, Glengape, which is located within the Theoretical Shadow Flicker Extent of the Proposed Development. This property is under the control of the Applicant, so therefore has been scoped out of this assessment. Given this, no further shadow flicker assessment has been carried out.

13.4 Ice Throw

The occurrence of blade icing is relatively rare however it can occur, when the turbine blades are stationary, under near freezing temperatures and relatively high humidity, with freezing rain or sleet.

Ice throw causes a potential risk of damage or injury to other turbines or onsite structures, vehicles, site personnel, members of the public and livestock.

Mitigation

The following mitigation measures will be implemented to minimise risk to human health and safety:

Herds Hill Wind Farm

- Siting the turbines away from occupied buildings, roads;
- Use of visual warning signs and restricted access to the site or specific turbines if ice is present on turbine blades;
- Use of modern wind turbines which are typically equipped with an ice detection system which then shut off turbines at risk of ice throw. Once the ice has thawed the turbines can then be turned back on.
- Some turbine manufacturers offer optional advanced anti-icing systems which can accelerate the thawing process.

By the implementation of these measures, the impact of ice throw is deemed insignificant.

13.5 Public Rights of Way and Core Paths

The closest pathway to the site is the Kirkconnel to Mynwhirn Hill which is located approximately 1.7km to the northwest of turbines 1 and 3.

Other paths are listed below and shown in Figure 13.3:

- Guildhall Bridge Kirkconnel
- Kirkconnel to Black Law
- Kelloholm To Kirkconnel (Via River)
- Euchan Fall
- Southern Upland Way Sanquhar-High Countam
- Bank Hill to Graystone Hill
- Kirkconnel to Mynwhirn Hill.

Through scoping consultation with the Dumfries and Galloway Council Countryside Access Officer, it is considered that the Proposed Development is not affected by any recorded Core Paths or Rights of Way.

13.6 Forestry

The Proposed Development does not lie within any areas of forestry, neither commercial nor indigenous. Given this, forestry has been scoped out of this Report.



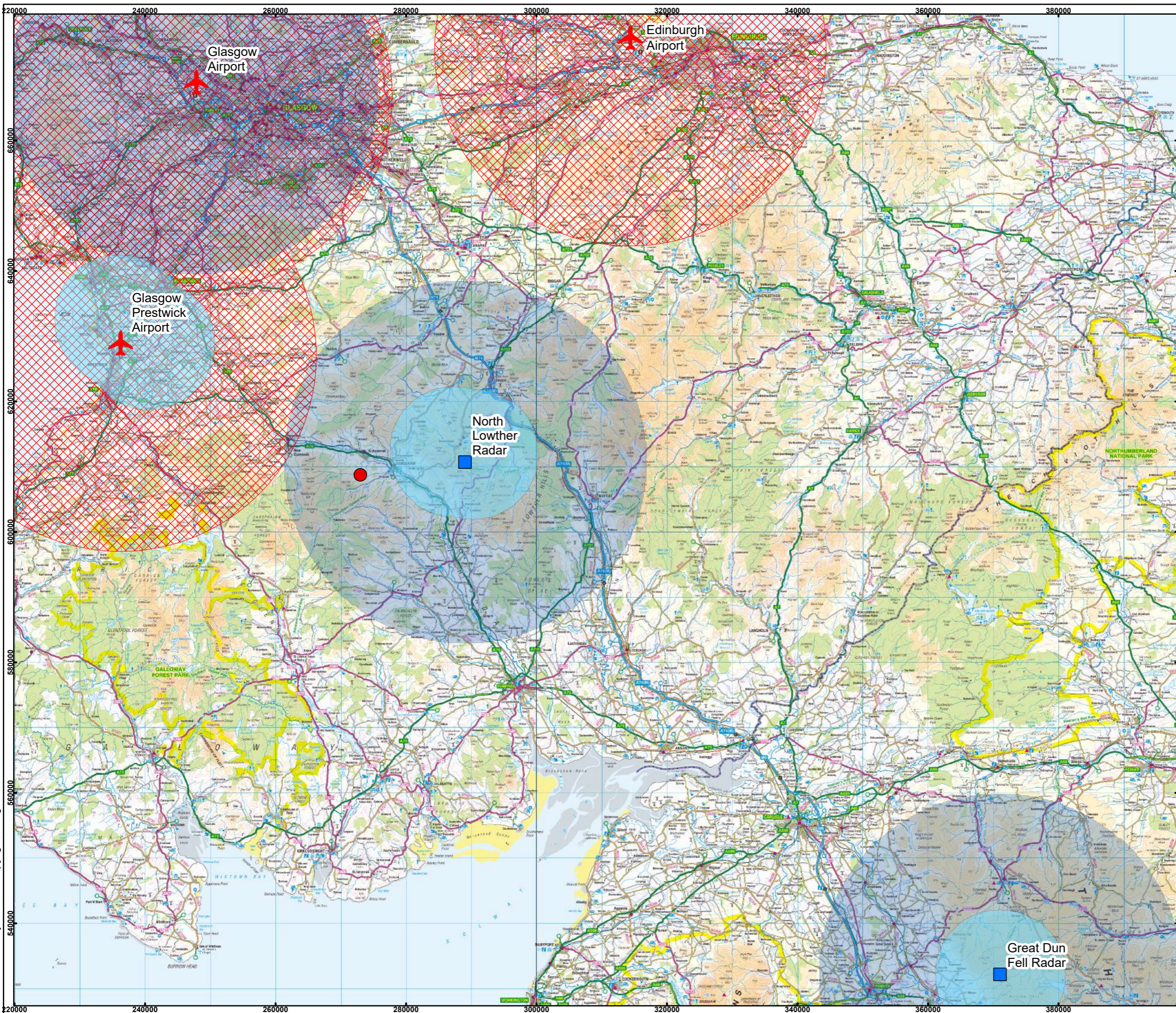
References

Brinckerhoff, B. (2011) 'Update of UK Shadow Flicker Evidence Base'. (Online) Available at: <https://assets.publishing.service.gov.uk/media/5a79770bed915d0422068aa3/1416-update-uk-shadow-flicker-evidence-base.pdf> [Accessed on 05/10/2023]



Legend

- Herds Hill Wind Farm
- National Air Traffic Services
- Radars
- Air Ground Air
- Communications Consultation Zone
- Secondary Surveillance Radar Consultation Zone
- Airports
- ✈ Aerodromes
- Aerodrome Buffers



Notes: The Proposed Development is located in a High Priority Low Flying Zone.

Revisions: N/A
Layout: N/A

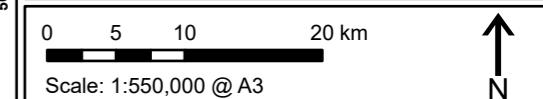


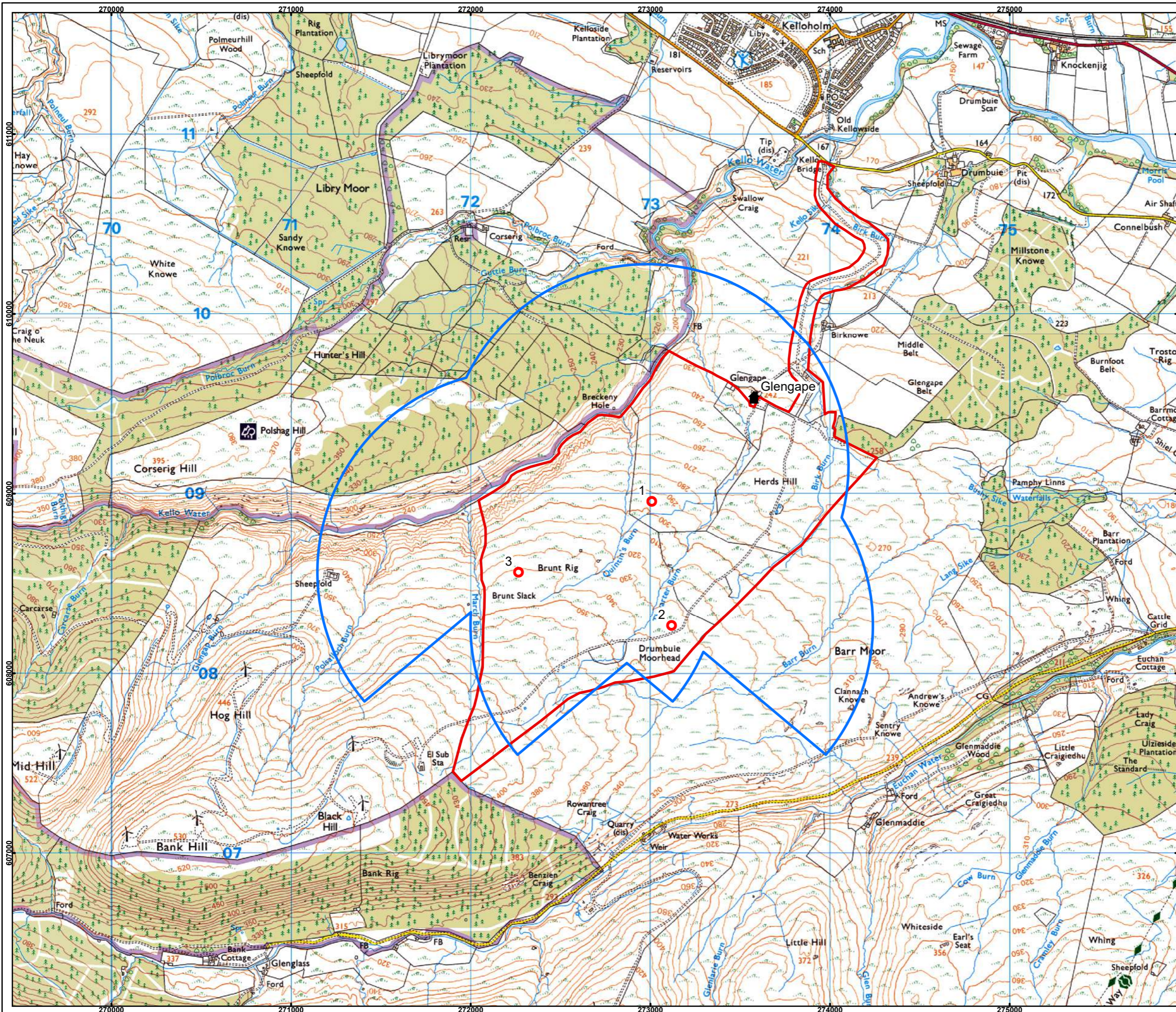
Figure 13.1
Aviation Constraints

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397 Herds Hill

Legend

- Site Boundary
- Wind Turbine (149m to Tip)
- Theoretical Shadow Flicker Extent
- Property within Theoretical Shadow Flicker Extent



Notes: Glengape property is financially involved. Given this, a shadow flicker assessment has been scoped out.

Revisions: N/A
Layout: 397-220905-9005-C

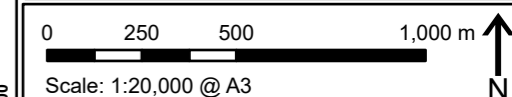


Figure 13.2
Shadow Flicker Extent

Date: 08/11/2023 Ref: 397-230912-7061-A
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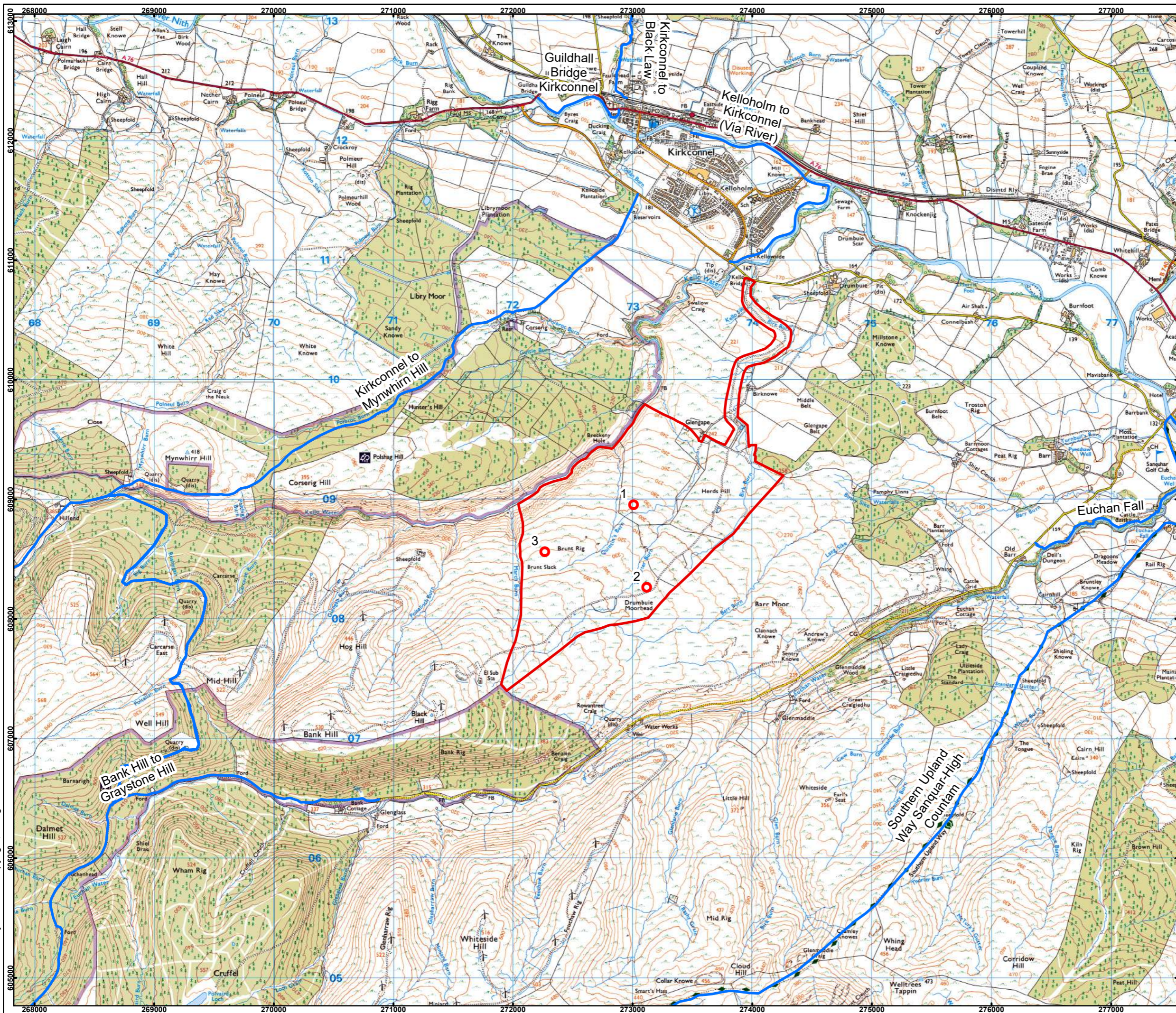


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Legend

- Site Boundary
- Wind Turbine (149m to Tip)
- Core Paths and Public Rights of Way



Notes: N/A
 Revisions: N/A
 Layout: 397-220905-9005-C

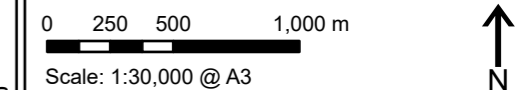


Figure 13.3
 Public Rights of Way and Core Paths

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