

# Welcome

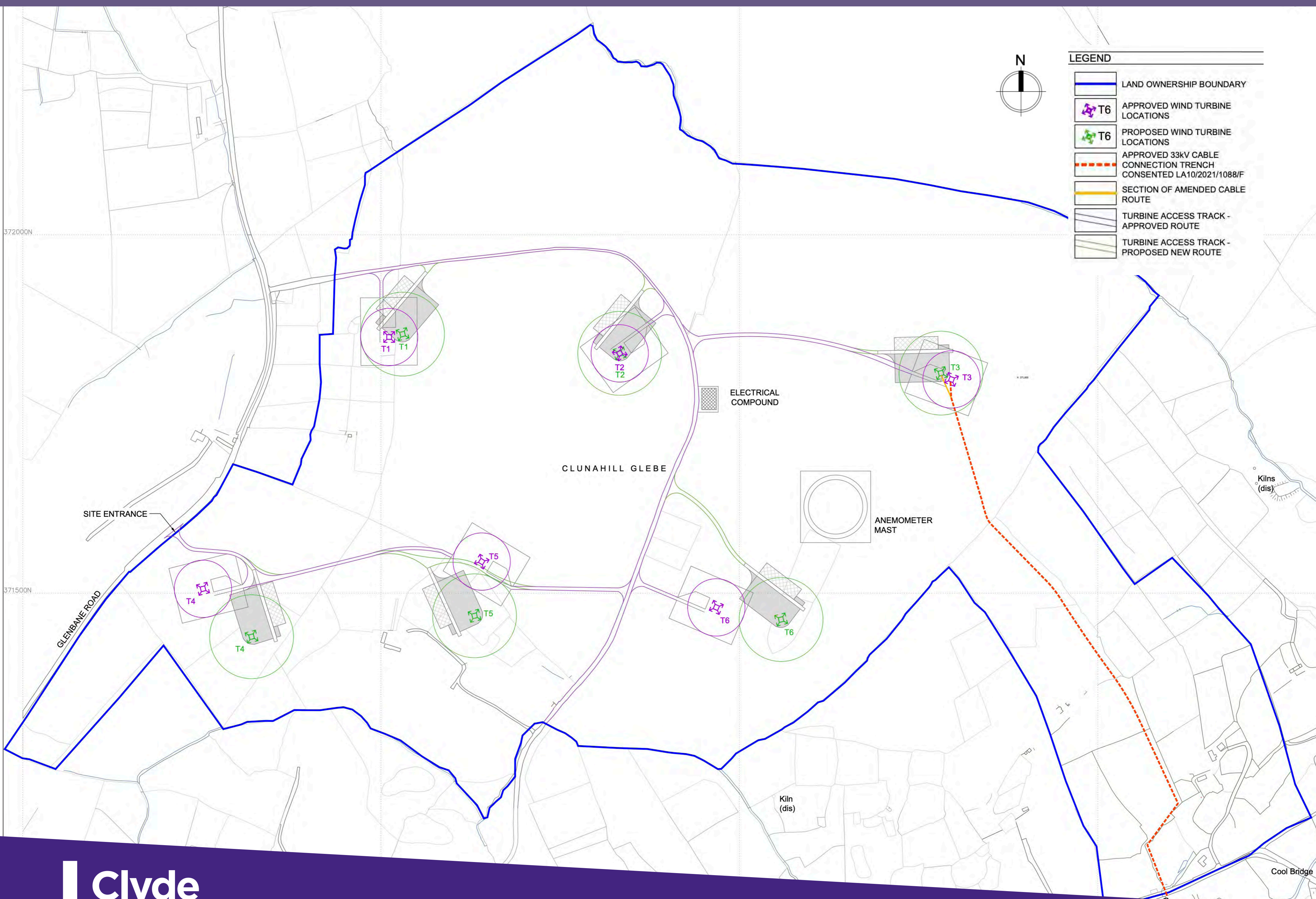
Welcome to this public community consultation event.

This community information event follows a Proposal of Application Notice (PAN) submitted to Fermanagh and Omagh District Council (FODC) in June 2023 notifying the Council that a full planning application will be submitted after the required 12-week notice period expires in accordance with Section 27 of the Planning Act (Northern Ireland) 2011.

The event and consultation boards have been prepared to illustrate the following development on behalf of Pigeon Top Wind Farm Ltd. t/a Energia Renewables at lands at Glenbane Road, Clunahill Glebe, Drumquin:

***“Proposed amendments to previously approved wind farm (K/2007/0547/F re. Clunahill Wind Farm, LA10/2019/1323/F re. new site entrance and LA10/2021/1088/F re. underground cable ducting) comprising 6no. turbines and associated infrastructure, including proposed change in turbine dimensions (tip height up to 142.5m and rotor diameter up to 117m), reconfiguration of turbine siting, reconfiguration of internal access route tracks and proposed amendments to the approved substation; proposed electrical compound / switchyard, met mast, temporary construction compound, delivery route junction improvements, access onto Glenbane Road and all associated ancillary works”***

**Your feedback on the proposal at tonight’s event is very much welcomed and all matters raised will be taken into consideration and reflected upon in the formal application submission to FODC.**





## Background

Full planning permission (K/2007/0547/F) was granted on 19th February 2015 at the site to which this proposal relates for Clunahill Wind Farm comprising six wind turbines with an overall tip height of 100m (60m hub height and 80m blade diameter), access tracks, switchyard, control building and substation, anemometer mast (60m) and ancillary development.

The approved wind farm was implemented prior to its expiration on 19th February 2020.

Following the consent for the wind farm, full planning permission (LA10/2019/1323/F) was granted on 20th December 2019 for a new site entrance from Glenbane Road to access the consented Clunahill Wind Farm.

Permission (LA10/2021/1088/F) was also granted on 5th October 2022 for the construction of an underground cable ducting (825m) between Clunahill Wind Farm and the Glen Road.

This proposal seeks amendments (see Board 4) to the approved development, with a revised layout, as detailed in the information displayed.

## The Applicant

Pigeon Top Wind Farm Ltd. is a subsidiary of Energia Renewables, part of the wider Energia Group. Energia is a leading developer and operator of renewable energy across the island of Ireland and supplies 21% of renewable electricity in Ireland. Their growing renewable energy portfolio consists of 15 onshore wind farm sites, which generate over 300MW of green electricity, and an additional 1,266MW through Power Purchase Agreements.

In 2019, Energia announced a €3bn 'Positive Energy' investment programme, which will see their renewable capability more than double, driving the transition to a net zero carbon future and helping Northern Ireland meet its climate action targets.

Energia are currently developing wind energy, solar technology, hydrogen production, and battery storage projects across the island of Ireland. Energia own and operate Cornavarrow Wind Farm, situated c. 4km to the south west of Clunahill Wind Farm, and have recently gained planning permission for amendments to turbine dimensions (tip height of 142.5m and rotor diameter up to 117m) for the approved Pigeon Top Wind Farm, located adjacent to the Cornavarrow Wind Farm.

## Renewable Energy Targets

The main driver for the development of renewable sources of energy is to reduce the production of greenhouse gases, which are considered to be the main factor in global warming. The Energy Strategy – The Path to Net Zero Energy published by the Department for the Economy in December 2021 set a long-term vision of net zero carbon and affordable energy for Northern Ireland. The Energy Strategy set two targets to drive the changes:

**“1. Energy Efficiency:** Deliver energy savings of 25% from buildings and industry by 2030; and

**2. Renewables:** Meet at least 70% of electricity consumption from a diverse mix of renewable sources by 2030.”

The Energy Strategy also aims to grow Northern Ireland's economy and support the 10X Economic Vision and sets the following target:

**“3. Green Economy:** Double the size of our low carbon and renewable energy economy to a turnover of more than £2 billion by 2030.”

The Climate Change Act (Northern Ireland) 2022 thereafter received Royal Assent on 6th June 2022 and sets mandatory national targets for the overall share of energy from renewable resources and reduction of greenhouse gas emissions for the years 2030, 2040 and 2050 for all Northern Ireland Departments.

The Climate Change Act includes the following relevant renewable energy targets:

- the net Northern Ireland emissions account for carbon dioxide for the year 2050 is at least 100% lower than the baseline for carbon dioxide;
- the net Northern Ireland emissions account for the year 2030 is at least 48% lower than the baseline; and
- that at least 80% of electricity consumption is from renewable sources by 2030.

The Climate Change Act and Energy Strategy therefore raises the bar for renewable targets requiring significant renewable infrastructure to meet the ambitious targets.



# The Site and Surrounding Context

## Site

The site landholding, approximately 105ha in size and irregular in shape, is located approximately 4.5km south-west of Drumquin in the townlands of Clunahill Glebe.

The site consists largely of marshy grassland across the valley slopes. The peaks at the top of the valleys, the valley floors and more level areas consisting of peatland supporting blanket bog. The lands to the southwest and southeast of the site are of an agriculturally improved nature influenced by grazing, cutting and fertilising. A number of minor undesignated watercourses traverse the site at the north.

Access to the site is granted via an existing entrance on Glenbane Road at the western boundary leading to route tracks across the site (as approved by way of LA10/2019/1323/F).

## Surroundings

The lands to the north of Clunahill Glebe and Glenbane Road are low-lying and predominantly in agricultural use. The lands to the south consist of Tappaghan Mountain with Glen Road in the valley. The lands to the west of the site fall before rising to Slieveglass and Bin Mountain in the north west.

The wider surroundings within the valleys are predominantly in agricultural use with dispersed single dwellings and farmsteads.

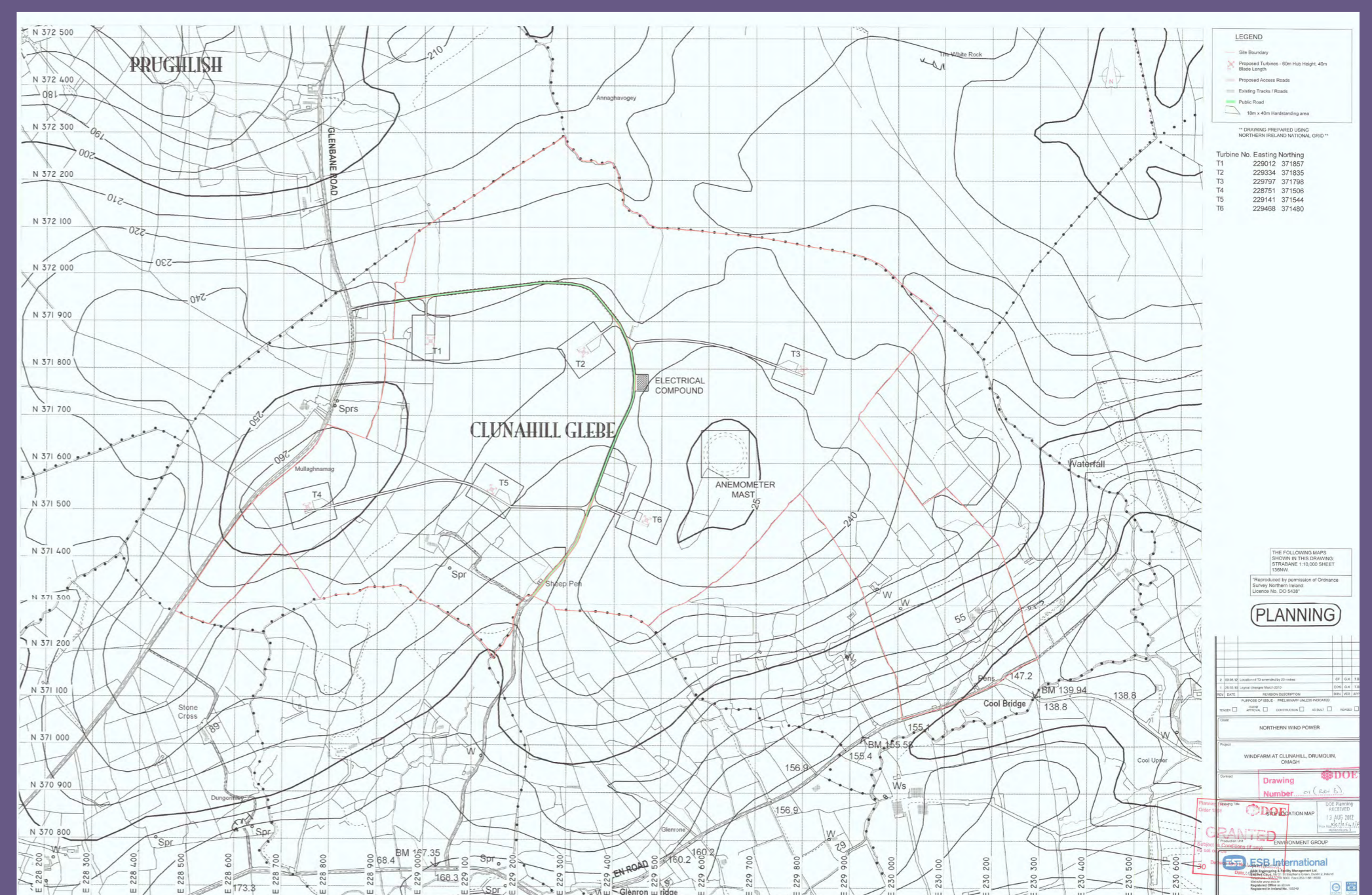
The wider surroundings within 10km of the site comprise a number of existing and operating wind farms. There are also a number of consented but not yet implemented, as well as undetermined pending proposals for wind farm within the surrounding context.

The wind farms include the following as shown on the overview aerial plan:

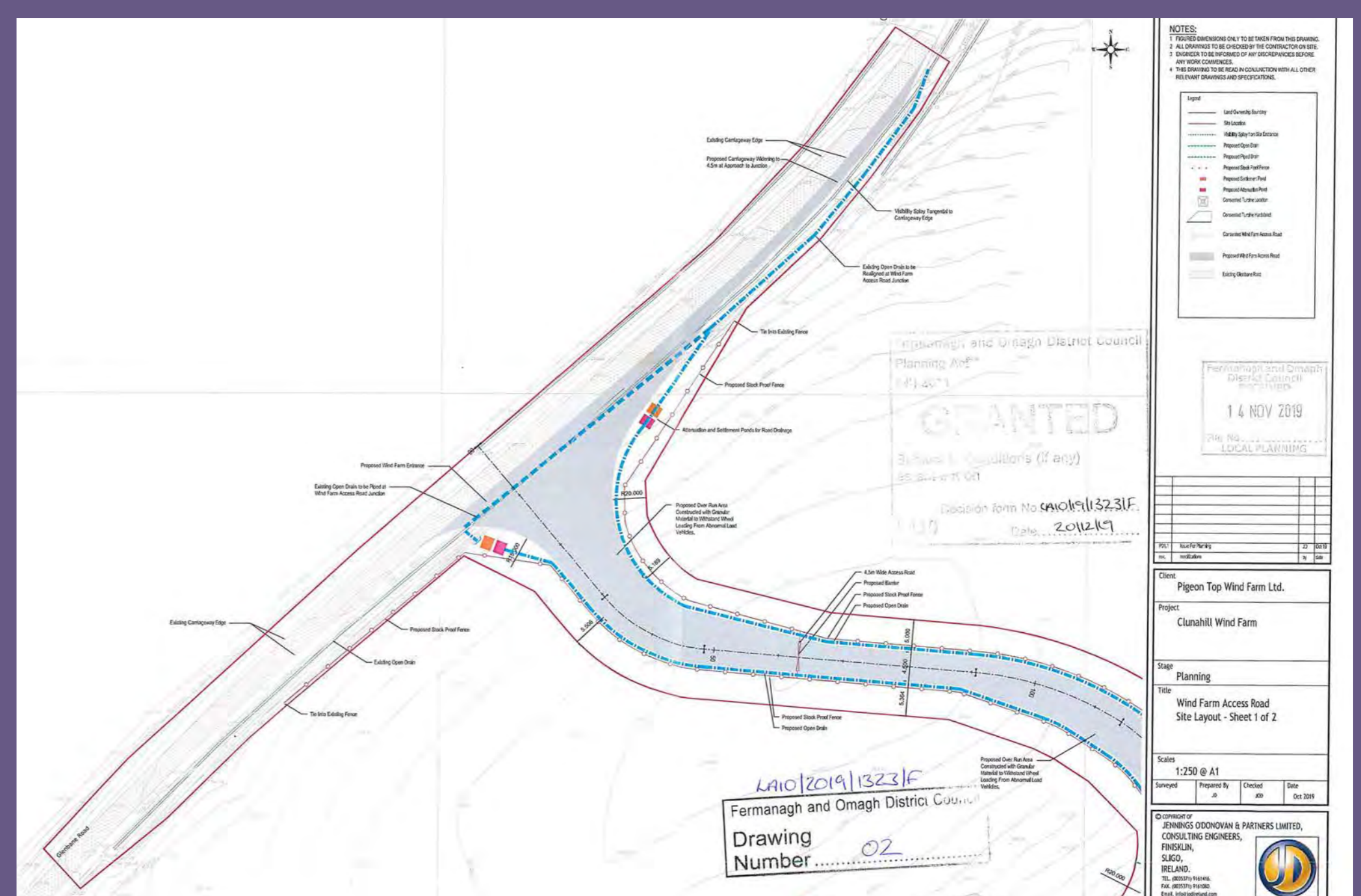
- Bin Mountain (operational)
- Slieveglass (operational)
- Castlecraig (operational)
- Cornavarrow (operational)
- Lough Hill (operational)
- Tappaghan and Tappaghan Extension (operational)
- Thornog and Thornog Extension (operational)
- Curraghamulkin / “Dooish” (proposed amendments to approved wind farm under consideration)
- Pigeon Top (proposed amendments to approved wind farm granted but not yet built)



Wider site context



Site location plan K/2007/0457/F



Approved site access



## Proposed Development

The proposed amendments to the approved wind farm, with an increase of capacity from 12MW to c. 25MW, comprise of the following development:

- **increase in approved turbine dimensions and reconfiguration of 6no. turbines;**

The proposal seeks to increase the approved turbine tip height from 100m to up to 142.5 metres and blade rotor diameter from 80m up to 117m. The approved 6no. turbines are also proposed to be re-positioned but within proximity to consented location.

Three turbine candidates are being considered for the development. These include:

- Vestas V117 (84m hub height, 4.2MW);
- Enercon E115 (85m hub height, 4.2MW); and
- Nordex N117 (84m hub height, 3.6MW)

Each turbine will have an adjacent hardstanding area to provide a base for the cranes, an area of component lay down and vehicle turning.

- **reconfiguration of internal access tracks;**

The site access is insitu as granted by way of LA10/2019/1323/F and the internal track will be extended for the wind farm. The approved internal access track will be

reconfigured in response to the habitat and ground conditions on site.

- **permanent substation / control building and electrical compound;**

The approved substation / control building floorspace is proposed to increase however will remain within the footprint of the approved electrical compound.

The electrical compound will house the substation / control building (comprising necessary switch and control rooms), transformers and switchgear units.

- **met mast;**

It is proposed to amend the approved 60m met mast to an 80m lattice.

- **temporary construction compound;**

The temporary compound will include the site offices, welfare facilities, storage areas, parking and turning areas for contractors on site during the construction period. The compound will be removed and lands reinstated once construction works are complete.

- **underground cable connection;**

The route of approved underground cable and ducting (LA10/2021/1088/F) within the applicant's landholding will be rerouted in response to the proposed reconfiguration of turbine T3.

- **delivery route junction improvement;**

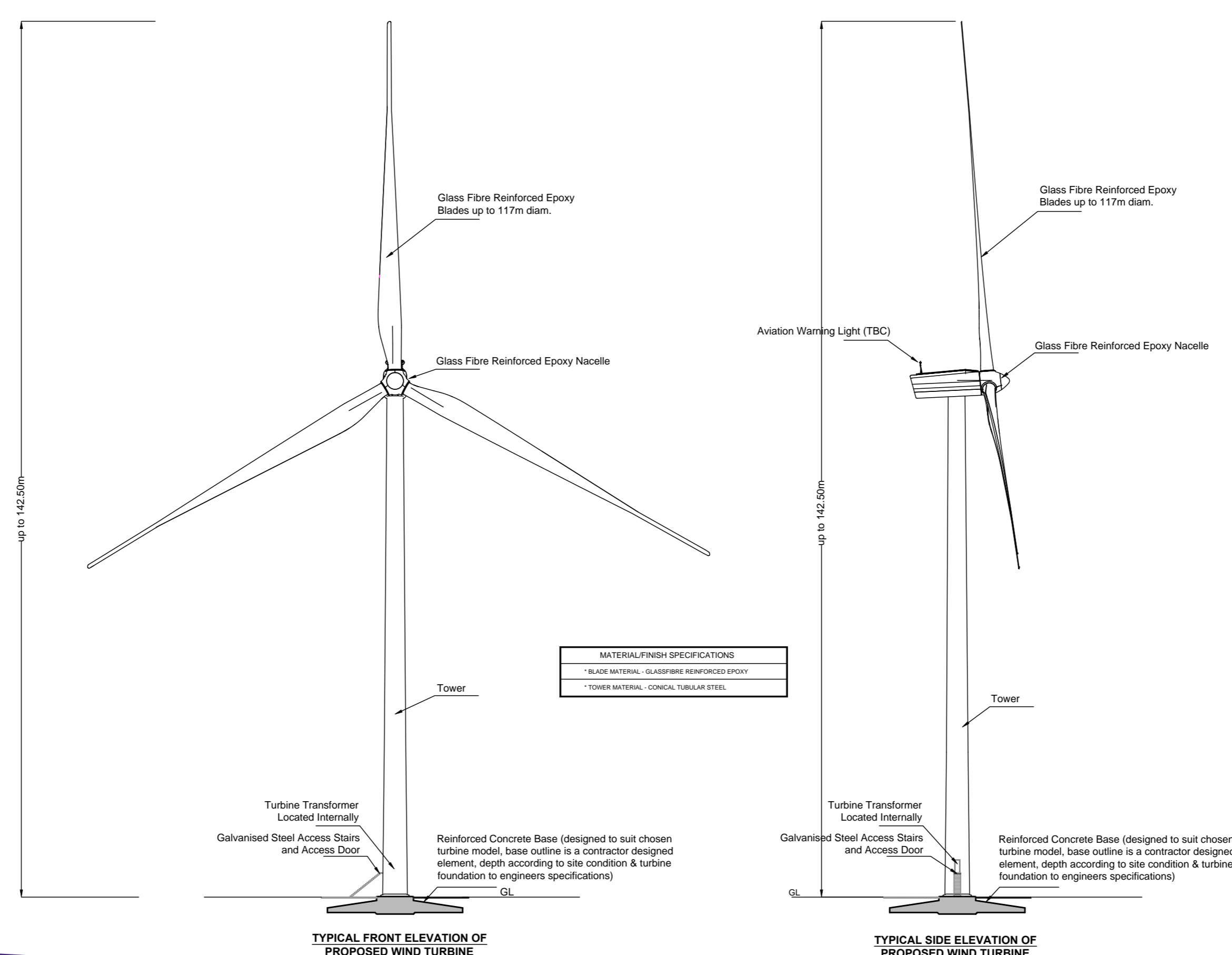
It is anticipated that the delivery route for the turbine components and construction will follow part of the same route as approved however as a result of road improvements and upgrades on the local networks the route will deviate.

Due to the increase in turbine dimensions, additional road junction improvements may be required along the route.

- **all associated ancillary site works.**

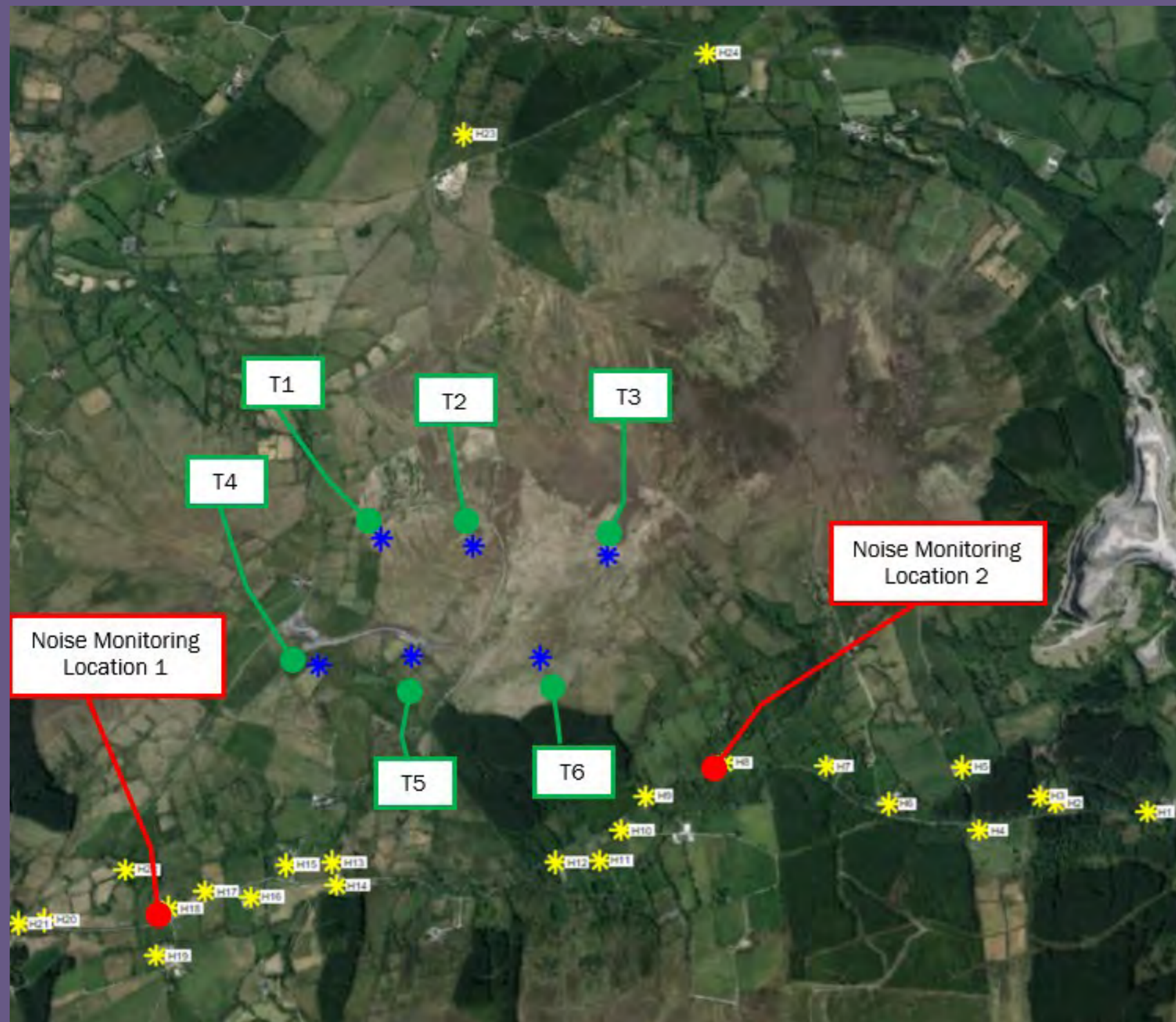
The grid connection has been subject to a joint agreement with SONI for Clunahill Wind Farm and the nearby approved Pigeon Top Wind Farm for connection to NIE Drumquin 110kV Substation.

The wind farm will have an operational lifetime of 35 years, after which the above ground elements of the wind farm will be decommissioned and removed from the site. It is anticipated that construction works for the proposed amendments will start on site in Q1 2025 and the wind farm will become operational by Q4 2026.





## Environmental Considerations



Noise monitoring locations

### Noise

An assessment of the potential noise impact of the proposed wind farm is being undertaken by Irwin Carr, a specialist acoustic consultancy.

There are strict guidelines on noise emissions from wind turbines to ensure the protection of residential amenity for people living close to a wind farm. The principal sources of noise generated by a wind farm during its operational phase are from the blades of the turbines rotating in the air (aerodynamic noise) and from internal machinery, normally the gearbox and, to a lesser extent, the generator (mechanical noise). The blades are carefully designed to minimise noise.

The guidelines require noise to be monitored at a number of representative locations around the site to determine existing background noise levels, which are used as a baseline to compare to the predicted levels of the wind farm during operation via computer modelling software and noise data provided by the turbine manufacturer.

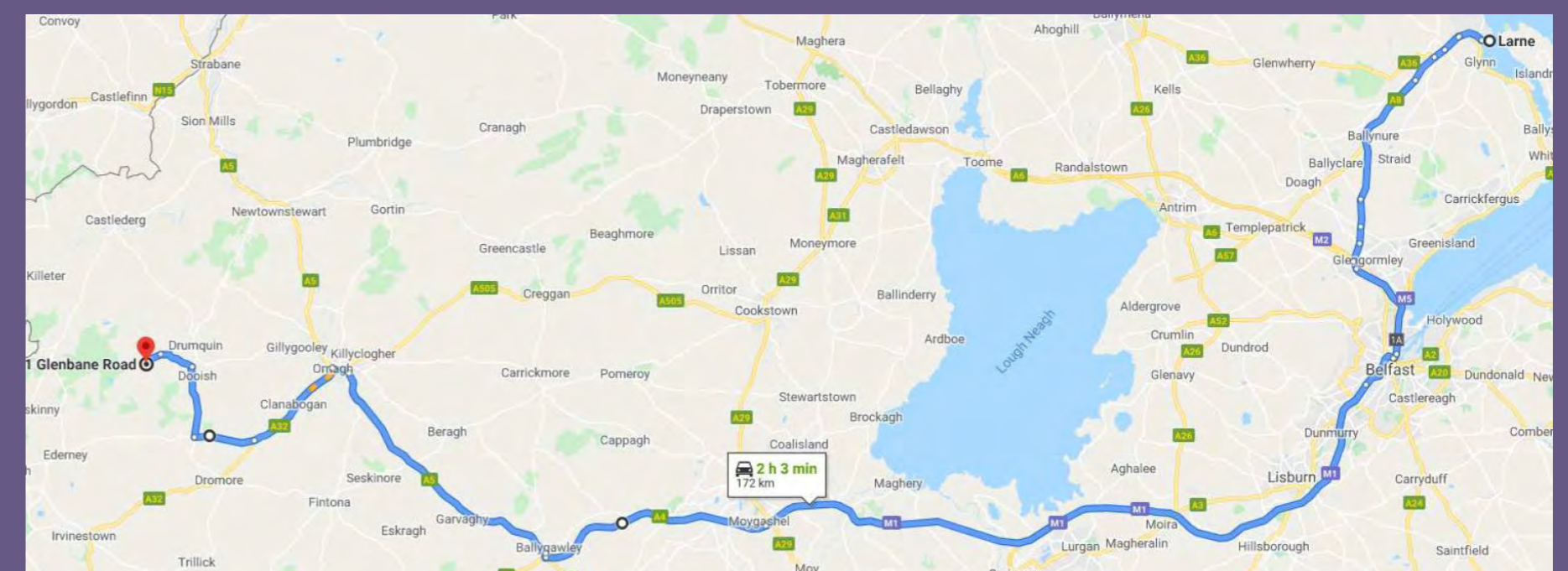
Simultaneous wind speed and rainfall monitoring was taken from turbine hub height at the nearby Cornavarrow Wind Farm (c. 4km east of the site). Where any periods of rainfall are identified, the associated noise and wind speed data points were removed from the analysis.

The baseline noise data will be compared to the predicted noise levels at the nearest dwellings to the site to make an assessment against the strict limits imposed by the ETSU-97 as per Institute of Acoustics guidelines. These noise limits will be strictly adhered to by the proposed wind farm and controlled by planning conditions.

### Transportation and Haulage

An assessment of the potential transportation impacts of the proposed development is being carried out by MRA Partnership. The main transport effects are anticipated to be associated with the movement of Heavy Goods Vehicles (HGVs) and abnormal loads to and from the site during the construction phase. Once operational, traffic movements will be minimal with access required for servicing and maintenance as and when required.

The assessment will review the approved route to the wind farm for the delivery of the turbine components. These are known as abnormal loads due to the length of vehicles required to carry them. It is anticipated that the turbine components will be shipped into Larne Harbour and follow the main motorway and A-class road networks before utilising the local minor road networks on approach to the site from Omagh.



Haulage map

### Socio-Economic Assessment

Stantec (formerly Barton Wilmore) have been commissioned to articulate and quantify the predicted monetary and non-monetary impacts (at a national, regional and local level) that may be attributable to the development of the proposed amendment to the wind farm.

The development, if permitted, will result in further significant socio-economic and environmental benefits for the local area and wider region from that identified with the original consent. The proposals seek to make optimal use of an extant wind energy site, increasing the energy yield and associated socio economic benefits.

The Northern Ireland Executive has set a target that by 2030, at least 80% of the electricity consumed in Northern Ireland must come from renewables.

Achieving these targets means we need to more than double the number of new wind and solar farms across Northern Ireland. The proposed development will make a significant contribution towards these targets by delivering c. 25MW of clean, green energy that can be readily connected to the electricity grid.



## Landscape and Visual Impact

A Landscape and Visual Impact Assessment (LVIA) will be prepared by Park Hood Landscape Architects for the amendments to the wind farm to determine the potential effects of the development on the existing landscape character and visual amenity. An important consideration in the assessment is the extant wind farm, which forms the baseline environment.

The site is located outside of any Area of Natural Outstanding Beauty. It is identified within the 'Lough Braden' Landscape Character Area. Importantly, the approved/implemented Clunahill Wind Farm (K/2007/0547/F) comprising 6no. wind turbines up to 100m in height, established the principle of development and baseline for the wind farm within the landscape of Lough Braden.

A visual appraisal has been undertaken to determine the relationship of the site with its wider surroundings and to understand the potential effects that the proposed amendments may have on views from the surrounding area. A Zone of Theoretical Visibility (ZTV) will be modelled to illustrate the areas where the amended wind farm will theoretically be visible (assuming a bare-earth scenario i.e. not taking into account intervening vegetation or built forms).

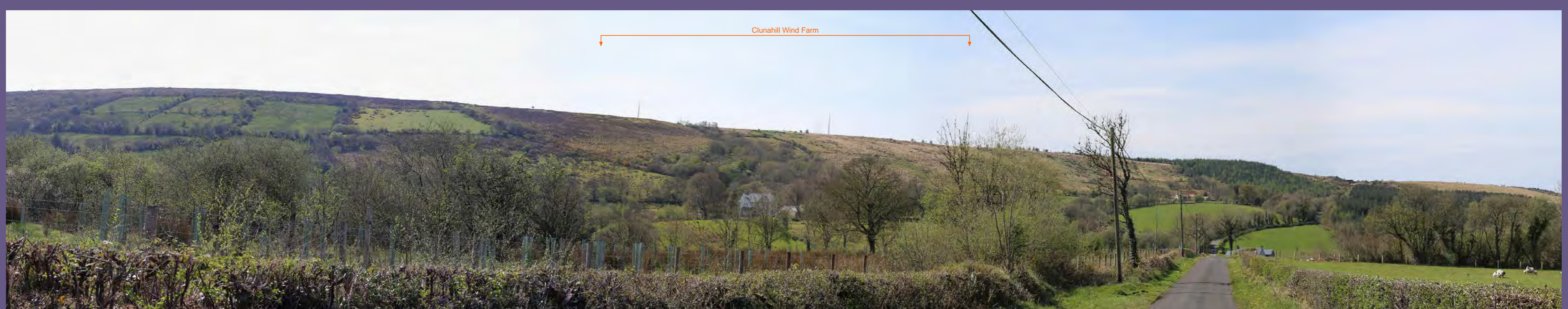
A wide range of representative viewpoints will be selected for inclusion within the LVIA in order to undertake the assessment, a selection of which are displayed. The viewpoints selected are deemed to be representative of both landscape and visual receptors and therefore include locations in different landscape types and key routes over a range of distances. The viewpoints also provide a comparison study of the approved and proposed turbines for information purposes.



Viewpoint 1 - Corradinna Road, Polinalaght



Viewpoint 2 - white are proposed, yellow consented



Viewpoint 3 - Barraevy Road, Barraevy



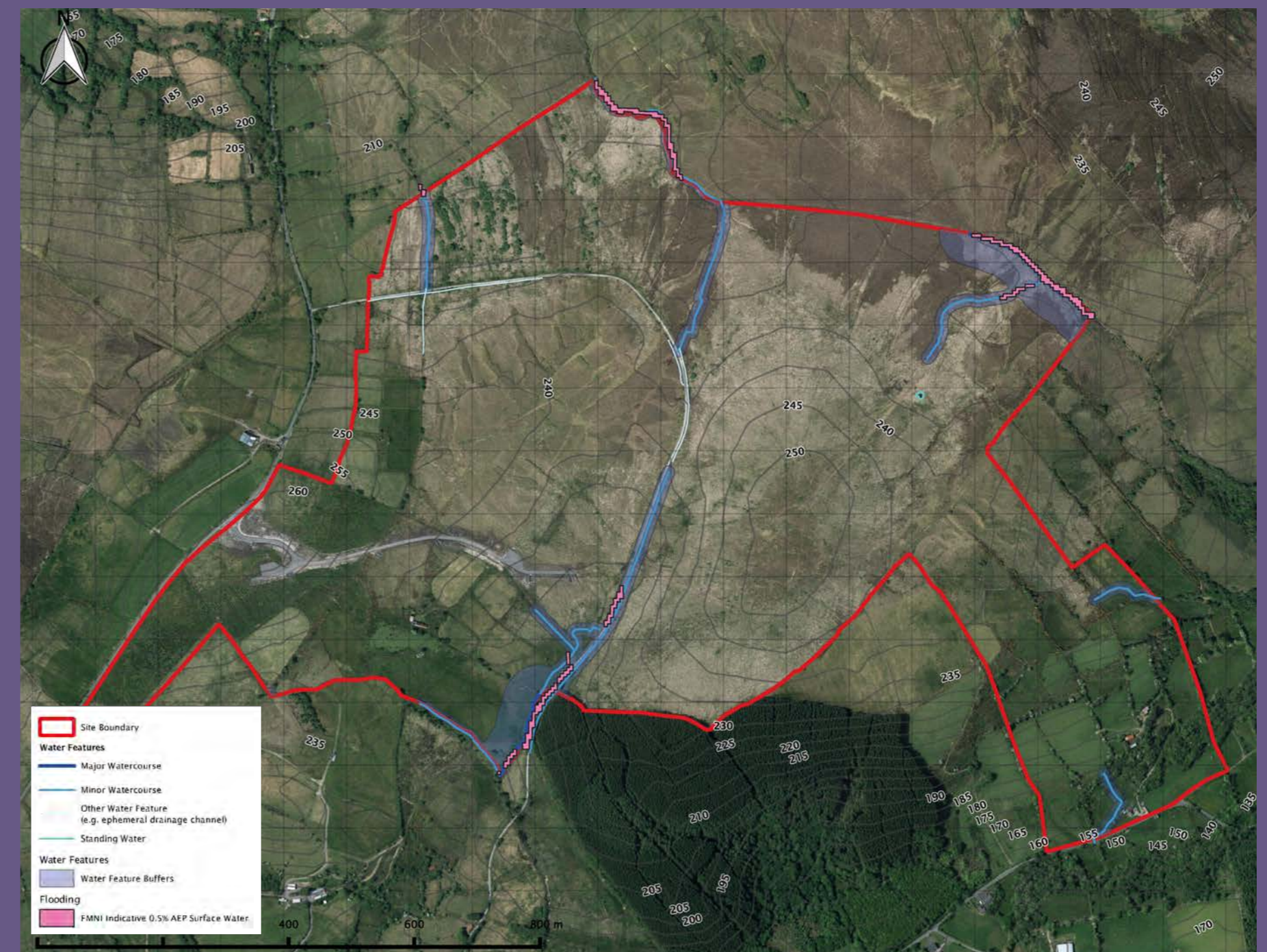
## Water and Geology Environment

An assessment of the potential effects of the proposed wind farm upon the hydrological and geological environment on the site and surrounding environment is being carried out by McCloy Consulting Ltd. A Peat Slide Hazard Assessment (PSHA) is being carried out by Whiteford Geoservices Ltd to determine if there is potential for peat slide and if necessary, detail the mitigation measures to ensure stability for construction.

A number of minor watercourses traverse the site predominantly at the most northern portion and a major watercourse is identified at the southern boundary of the site. The appropriate development buffers will be applied to the watercourses to ensure there is no impact upon their integrity or quality.

The final development layout will ensure that surface water flows are maintained and a site-specific drainage assessment / surface water management plan provided with the full planning application to ensure there is no risk of flooding to and from the development.

With the proposed application site layout and mitigation measures, no significant risk to the water and geology environment are likely.



Preliminary Hydrological Constraints map

## Shadow Flicker

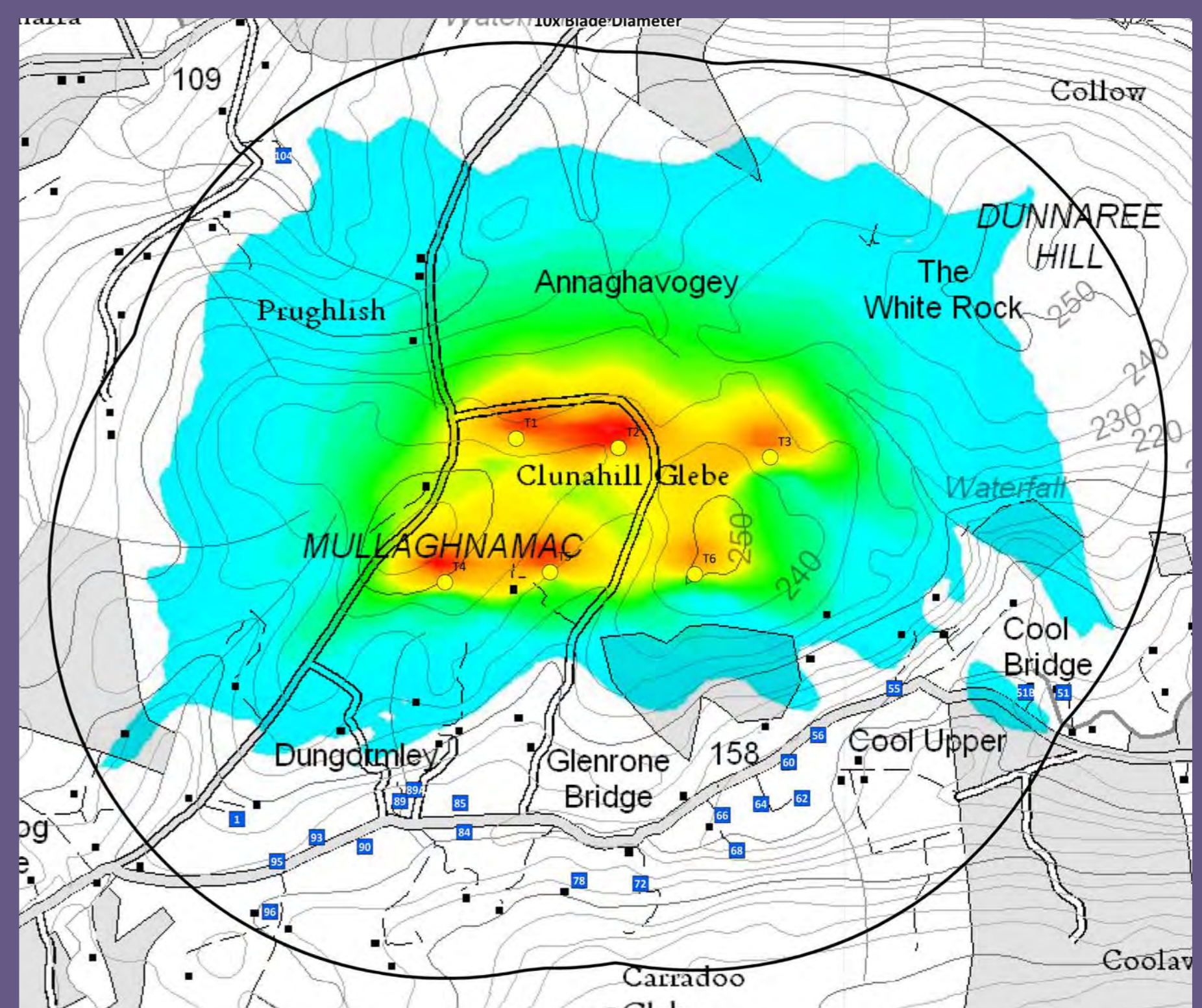
There are strict guidelines on shadow flicker from wind turbines to ensure the protection of residential amenity for people living close to wind turbines.

A Shadow Flicker Assessment has been prepared by Park Hood Landscape Architects. Shadow flicker refers to the flickering effect caused when rotating wind turbines periodically cast shadows over neighbouring properties or observers. Shadow flicker can be experienced by residents living near wind turbines when turning blades are between the sun and a property. Shadow flicker only occurs when it is experienced through an opening in a building i.e. a window.

A computer modelling programme was used to calculate the incidence of shadow flicker based on the positioning of the turbines and their dimensions. The software calculates the occurrences of shadow flicker at each property.

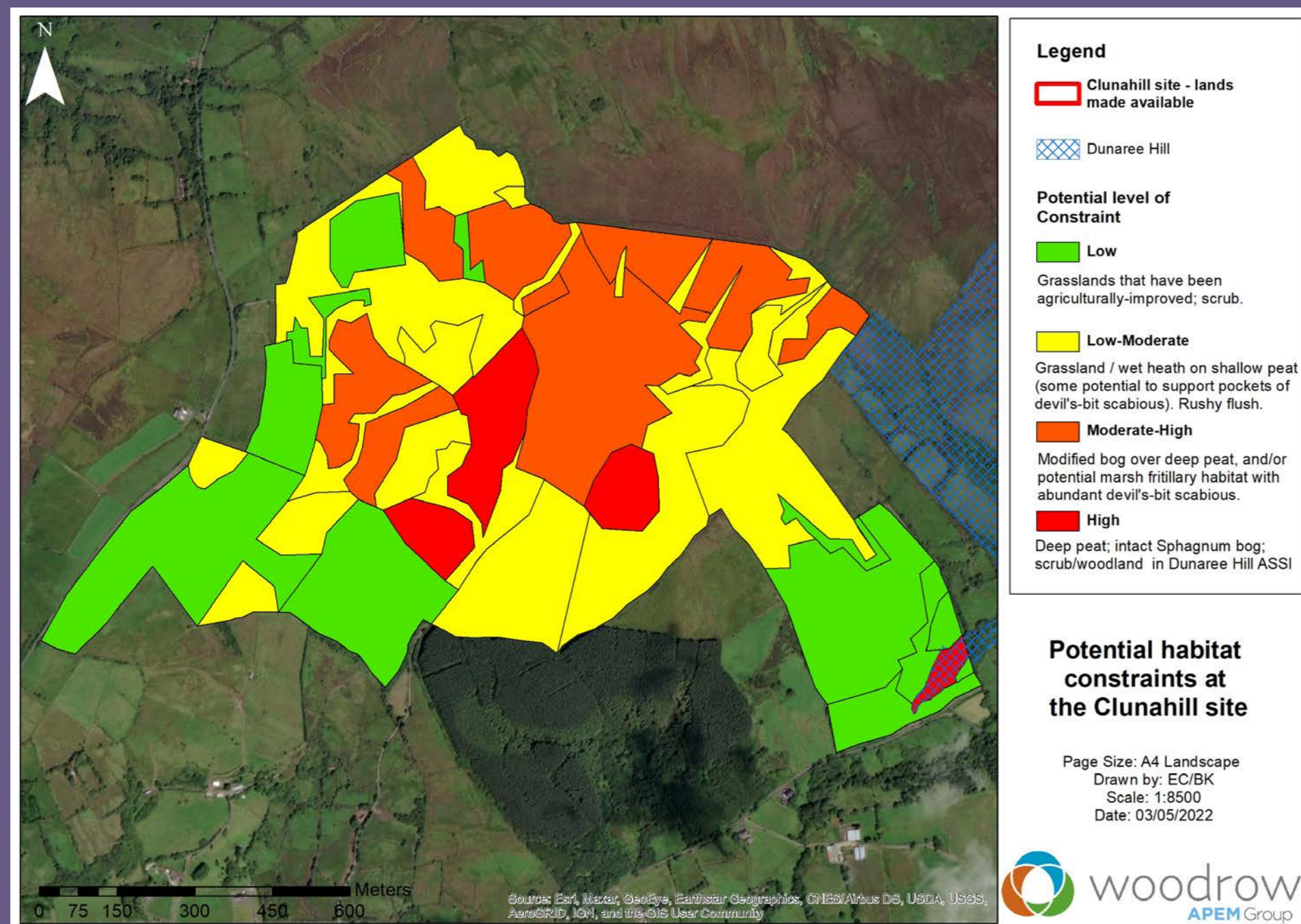
Best Practice Guidance (BPG) recommends “that shadow flicker at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day”.

These shadow flicker limits will be strictly adhered to by the proposed wind farm and controlled by planning conditions where necessary.

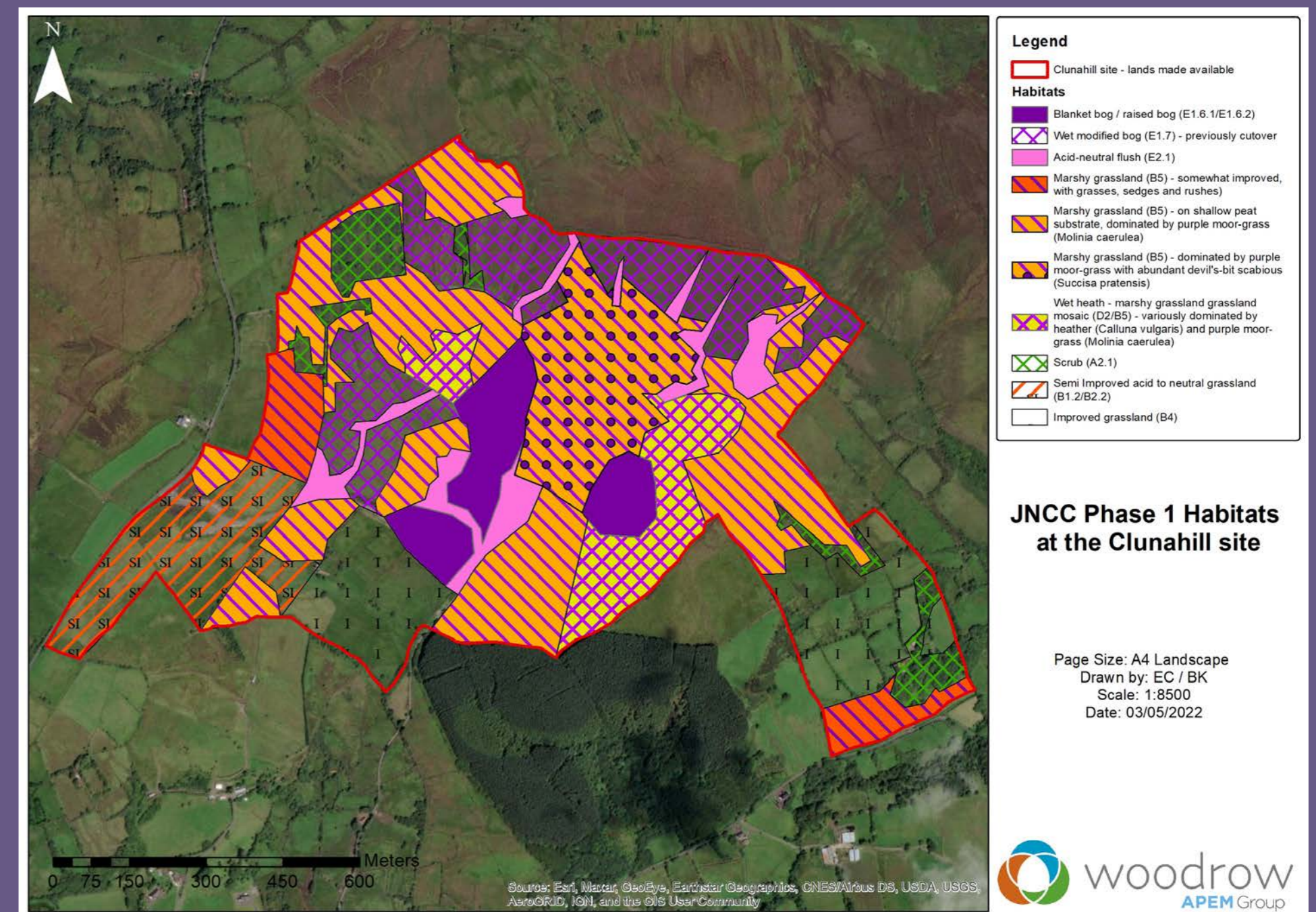


Preliminary Shadow Flicker Map





Preliminary Ecological Constraints



Preliminary Phase 1 Habitats Map

## Ecology and Ornithology

Woodrow Environmental Consultants are carrying out an assessment of the site ecology. The assessment covers existing flora and fauna, with particular focus on protected habitats and species. Nelson Ecology Ltd. is carrying out the assessment of ornithology i.e. birds.

Bird surveys have been undertaken over at least two years (from 2020 to 2023) within the site and the surrounding area in accordance with NIEA requirements.

Mammal surveys and habitat surveys are being undertaken across the site and the immediate surroundings with reference to the relative abundance of key species. This information will be mapped and cross-referenced with data compiled during the desktop survey and will inform the final development footprint.

The results of the intensive survey efforts carried out to date have shaped the proposed development to ensure that there will not be any unacceptable or significant impacts on important flora or fauna as a result of the proposed amendments to the wind farm. Mitigation and enhancement of habitats around the wind farm is also proposed to be included in the final application.

## Fisheries

An assessment of the potential effects of the proposed wind farm upon fisheries and aquatic ecology in and around the proposed wind farm is being undertaken by Paul Johnston Associates. The study will focus on the streams draining the proposed site and on their adjoining catchments. Field surveys are being carried out to assess stream quality in line with the Water Framework Directive procedures, fish habitats and fish stocks.

The site drains to the Upper Drumquin River within River Foyle catchment and to Glendurragh River draining within the Lough Erne catchment. The Foyle catchment system is important for trout and salmon with the Annex II listed species occurring in the lower elevation areas. The surveys carried out to date have identified that while there is no potential impact upon any aquatic species within the landholding, due to the presence of species downstream of the site, mitigation will be proposed to ensure there is no adverse impact to the fisheries and aquatic ecology are likely.

## Archaeology and Cultural Heritage

Gahan and Long Ltd has been commissioned to undertake an archaeological and cultural heritage assessment for the proposed development. The assessment will identify any impacts the development may have on any archaeological sites both at the site and within the wider surrounding area.

The nature and location of existing archaeology has been identified from a desk-based study of publicly held records and maps, as well as relevant literature and in liaison with DfC Historic Environment Division. This is coupled with a site inspection to identify any previously unknown archaeological remains to form the baseline for the assessment.

There are no recorded archaeological monuments or sites within the site however, three scheduled monuments are located within a 5km radius. Wirelines of key sites will be prepared to illustrate changes to key views, where potentially significant effects have been identified or where particularly sensitive assets are present.



## What happens next?

We kindly thank you for taking the time to look through the consultation boards and welcome your feedback on the project and the prospect of the proposed development proceeding through planning.

Your feedback will be taken into consideration by the design team and potential amendments made when finalising the proposal.

A formal planning application will be submitted to Fermanagh and Omagh District Council following the end of the public consultation period.

The application will be accompanied by a Pre-Application Community Consultation (PACC) report, Design and Access Statement, Planning Supporting Statement, Environmental Statement a suite of detailed application drawings for consideration by the Council and its statutory consultees.

Once submitted, the opportunity for public engagement during the full planning application process will take place in the normal manner through the submission of representations to the Council following the application's advertisement and neighbour notification procedures.

## We welcome your feedback

Any comments regarding the proposed amendments to the wind farm are welcomed and can be provided in the feedback forms available.

Alternatively, you can email your comments by 27th September 2023 to:

clunahillwindfarm@clydeshanks.com  
and / or  
clo@energia.ie.

If you have any queries regarding the information contained on these boards, please ask a member of the project team who will be happy to assist. A copy of the information displayed can be provided on request, on the project website at:

[www.energiagroup.com](http://www.energiagroup.com)

or via scanning the QR code provided.

