MWP

RESPONSE TO OBSERVATIONS (ABP-321454-24)

Brittas Wind Farm

Orsted

1 September 2025

Contents

Tables

Figures

Project No.	Doc. No.	Rev.	Date	Prepared By	Checked By	Approved By	Acceptance Code / Status
23318	6014	A	01/09/2025	MT	COC/KF/CM/APM	MT	FINAL

MWP, Engineering and Environmental Consultants
Address: Reen Point, Blennerville, Tralee, Co. Kerry, V92 X2TK, Ireland

www.mwp.ie

1. Introduction

This document provides the responses of the Brittas Wind Farm Limited and Malachy Walsh and Partners (MWP) (the design, planning and environmental assessment consultants on this project) to the submissions received on the proposed Brittas Wind Farm application (ABP-321454-24). This document provides a summary of the observations received from Prescribed Bodies and from members of the public (see Section 2). Thereafter our responses are provided to key issues raised which were deemed to require a response. These have been grouped under responses to issues raised by Prescribed Bodies (section 3), issues raised by members of the public (section 4), and responses to more recent events and changes that have a bearing on the Brittas WF planning application (section 5).

A number of the queries /concerns raised in the submissions have already been addressed in the EIAR, NIS and planning application documentation. Therefore, where relevant reference is made to the applicable application documents.

2. Summary of Responses Received

2.1 Observations Received from Prescribed Bodies

Eight (8 no.) observations were received from the following authorities : Transport Infrastructure Ireland (TII), Dept. of Transport, Uisce Éireann (UE), Office of Public Works (OPW), Irish Aviation Authority (IAA), Development Applications Unit (DAU) (Heritage), Department of Health, Safety and the Environment (HSE), and Geological Survey Ireland (GSI). These are responded to in section 3 below.

2.2 Submissions from the Public

Seventy-three (73 no.) submissions were received from the public. These were almost exclusively from local residents and the lawyer representing the Brittas Wind Farm Action Group. Following a systematic review of these observations it was found that visual impact, noise, ecology, shadow flicker, traffic, flooding, water quality and safety effects were of the main concerns raised, alongside questions about the data used. 'In order to avoid repetition, section 4 below groups together similar issues and provides a response on a thematic basis, rather than providing a response to each individual submission

3. Responses to Issues Raised by Prescribed Bodies

3.1 Conditions required by Prescribed Bodies

Table 1 below outlines the conditions proposed by the prescribed bodies and our responses to these.

Table 1: Proposed Planning Conditions for the Brittas Wind Farm from Prescribed Bodies

#	Prescribed Body	Conditions	Response
1	Health Service Executive (HSE)	1. The mitigation measures proposed in the EIAR should be applied and conditioned. 2. The NEHS recommends that the conditions suggested in the 2019 draft WF guidelines with regard to the mitigation of shadow flicker effects be applied. 3. Any potential waste soil to be removed from site be notified under Article 27 (EU Waste Directive Regulations 2011) or treated to comply with Article 28 of the same regulations if practicable. Any materials containing invasive species should be appropriately managed and sent to the authorised facilities. 4. During construction, potential sources of contaminants (i.e. oils and chemicals) will not be stored at the site except where it is done within safely bunded areas that can safely contain all spillages and prevent the migration of contaminants into soil and bedrock. 5. Refuelling should be completed using a double skinned fuel bowser with spill kits on the ready in case of accidental spillages and not be undertaken within 50m of any watercourse. 6. To mitigate dust effects, the condition of the access roads to the site is monitored and any defects identified are repaired within 24 hrs. Vehicles delivering material with dust potential shall be enclosed or covered with tarpaulin at all times. 7. There should be no emissions of wastewater into ground or surface water during the construction phase. All drinking water sources and public water scheme sources must be identified and protected as per the EIAR. 8. Noise effects: general guidance for controlling construction noise through use of Best Practice (BS 5228) should be followed. Operations should be limited to normal working hours specified in the planning condition. Any deviations from these hours should be agreed in advance with the local authority. Blasting should not be carried out in the early morning or evening times. 9. Decommissioning: Any relevant guidance, legislation and best practice at the time of decommissioning must be complied with. 10. The applicant should outline proactive adaptation measures to ensure the long-term resilience of the proposed infrastructure to the impacts of climate change.	See numbered responses below. 1. Noted and Accepted. 2. The EIAR and CEMP provides mitigation measures to comply with the 2006 Wind Farm Guidelines. If the proposed thresholds and other site specific measures cannot effectively comply with the 2006 guidelines then it is proposed that turbine control measures be applied. 3. Noted, accepted and included in the CEMP. 4. Noted, accepted and included in the CEMP. 5. Noted, accepted and included in the CEMP. 6. Noted, accepted and included in the CEMP. 7. Noted, accepted and included in the CEMP. 8. Noted, accepted and included in the CEMP. 9. Noted, accepted and included in the EIAR. 10. Noted. The CEMP and EIAR do propose a range on monitoring and management measures that will ensure resilience.
2	Transport Infrastructure Ireland (TII)	The following planning conditions should be applied to the proposed development of the grid route: 1. Approval by the local authority for the detailed designs of the cable routes under the roads, including any deviations	See numbered responses below. 1. Accepted and included in CEMP and EIAR.

#	Prescribed Body	Conditions	Response
		2. Compliance with all appropriate standards, and inter alia the Guidelines for Managing Openings in Public Roads 2017 in order to ensure orderly development. 3. Recording the exact location of the cables using BIM type technology in construction surveys for all infrastructure altered, added, removed or relocated and the exact detail of the road construction including the drains and other features encountered. These records should be lodged with the ESB networks and local authorities for their records. 4. The elimination of permanent jointing bays under the road pavement 5. To route cables away from bridge structures and specifically from attaching cables to road bridges. 6. The replacement of culverts excavated during the cable duct placement operation. These should be designed appropriately to include allowance for the effects of climate change. 7. The developer to notify the Roads Authority of the names and contact details of the owners and controllers of the cable and power transmitted along the cables and any changes in ownership.	2. Accepted and standard practice. 3. Accepted and standard practice 4. Noted and accepted. The grid route will only be on local roads. 5. Noted and accepted. HDD crossings are proposed where needed. 6. Noted and accepted. 7. Noted and accepted.
3	Transport Infrastructure Ireland (TII)	The following planning conditions should be applied to the proposed works associated with the turbine delivery route: 1. The application should consult with all PPP Companies, MMaRC Contractors and road authorities over which the haul route traverses to ascertain any operation requirements and to ensure the strategic function of the national road network is maintained. 2. Mitigation measures identified by the applicant (see EIAR and CEMP) are included in any planning conditions. 3. To ensure the maintenance and safeguarding of the strategic capacity and safety of the national road network. For the proposed works at the N62/L8018 junction and other minor works to the national road network: 1. These works must be temporary and the works and lands reinstated thereafter, including the closure of any temporary accesses. 2. The temporary works should be closed off with a temporary safety barrier when not in use for turbine component delivery. Pending completion of construction, the temporary works shall be permanently closed and lands reinstated. 3. Any damage to the pavement on the national road at the access from the N62, due to the turning of abnormal loads shall be rectified in accordance with the TII pavement standards and details in this regard will be agreed with the Road Authority prior to commencement of any development on site. 4. A road safety audit must be undertaken and the recommendations incorporated into the final designs	See numbered responses on the general issues below. 1. Accepted and included in CEMP and EIAR. 2. Noted and accepted 3. Noted and accepted See numbered responses on the conditions for temporary works to N62/L8018 roads below. 1. Accepted and included in CEMP and EIAR. 2. Accepted and standard practice. 3. Noted and accepted 4. Noted, accepted and included in CEMP and EIAR.

#	Prescribed Body	Conditions	Response
		for construction. The requirement to implement the recommendation should be included in the planning condition. 5. All works to the national road shall comply with TII Publications (formerly NRA DMRB), technical design standards for national roads. The following planning conditions should be applied to the transport of abnormal weight loads on the national roads: 1. The operator who wants to transport a vehicle or load whose weight falls outside the limits allowed by the Road Traffic (Construction Equipment and Use of Vehicles) Regulations 2003, SI 5 of 2003, must obtain a permit for its movement from each local authority through whose jurisdiction the vehicle shall travel. 2. No technical load assessment appears to have been undertaken for the proposed development. If abnormal weight loads are a feature of the proposed development, a full assessment by the applicant of all structures on the national road network along the haul route should be undertaken, where relevant, and all road authorities along the haul routes should confirm their acceptance of the proposals by the applicant. Specific arrangements for 'Exceptional Abnormal Loads' will be required where necessary. 3. Given the proposed Thurles Bypass Scheme in the Tipperary County Development Plan, 2022-2028 – consultation with the Tipperary CC Road Design Office (RDO) is recommended to address and resolve any impacts to this national road scheme. 4. Consultation with Tipperary CC's internal greenways/active travel project and design staff is recommended.	5. Noted and accepted See numbered responses on the conditions related to abnormal loads below. 1. Accepted and included in CEMP and EIAR. 2. Noted and Accepted. A preliminary route assessment of the TDR has already been undertaken and included in Appendix 2A of the EIAR (Vol.3). 3. Noted and accepted. 4. Noted and accepted.
4	Development Applications Unit (DAU)	The following archaeological/heritage planning conditions (that align with Sample Conditions C3, C5 and C6 of the OPR Practice Note PN03: Planning conditions (October 2022) should be applied to the proposed development: 1. All the mitigation measures proposed in Chapter 11 of the EIAR should be implemented in full and conditioned except as may be required in order to comply with the conditions of this order. 2. Archaeology assessment in EIAR is a site visit and desktop assessment and does not include any advance archaeological investigations. Pre-development archaeological testing in areas of proposed ground disturbance should be undertaken by a suitable qualified archaeologist (licenced under the National Monuments Act) to determine if any unknown sub-surface archaeological features or deposits. An archaeological impact assessment report must be submitted for the written agreement of the planning authority, following consultation with the Department (DHLGH), in advance of the any site preparation works or groundworks, including site investigation	See numbered responses on the archaeological conditions below. 1. Noted and accepted. 2. Noted and Accepted

#	Prescribed Body	Conditions	Response
		works/topsoil stripping/site clearance and or construction works. The report shall include an archaeological impact statement and mitigation strategy.	
		3. Any further archaeological mitigation requirements specified by the planning authority, following consultation with the Department, shall be complied with by the developer.	3. Noted and accepted
		4. No site preparation and/or construction works shall be carried out on site until the archaeologists report has been submitted to and approval to proceed is agreed in writing with the planning authority.	4. Noted and accepted
		5. A suitable qualified archaeologist shall be retained to advise on and establish appropriate exclusion zones around the external-most elements of vulnerable heritage assets located within the development site that have been identified in the EIAR or any subsequent investigations associated with the project during the construction and decommissioning phases. They will develop a decommissioning plan based on the EIAR and any subsequent archaeological investigations that will specify all the mitigations measures to be employed.	5. Noted and accepted
		6. The planning authority and Department will be furnished with a final archaeological report describing the results of all archaeological monitoring and investigations, following the completion of all archaeological work on site and any necessary post-excavation specialist analysis. The costs of these investigations and reports will be borne by the developer.	6. Noted and accepted
		7. Exclusion zones shall be fenced off or appropriately demarcated for the duration of the construction works in the vicinity of monuments. The location and extent of each Exclusion Zone and the appropriate methodology for fencing off and demarcating at each location shall be agreed in advance with the Department and the Planning Authority.	7. Noted and accepted
		8. No groundworks of any kind (including but not limited to advance geotechnical site investigations) and no machinery, storage of material or any other activity related to construction will be permitted within an Exclusion Zone.	8. Noted and accepted
		9. The CEMP shall include the location of any and all archaeological or cultural heritage constraints relevant to the proposed development as set out in Chapter 11 of the EIAR and any subsequent investigations associated with the project. The CEMP must clearly describe all identified likely archaeological impacts, both direct and indirect, and all mitigation measures to be employed during all phases of construction.	9. Noted and accepted
		10. A programme of underwater archaeological assessment be undertaken for potential instream impacts on waterways along the grid connection route. Details of the scope and nature of these	10. Noted and accepted

#	Prescribed Body	Conditions	Response
		assessments, and the licences and expertise required are detailed in the DAU submission.	
5	Irish Aviation Authority (IAA)	In the event of planning consent being granted, the applicant should be conditioned to contacting IAA to: (1) Agree an aeronautical obstacle warning lighting scheme for the wind farm development, (2) Provide as-constructed coordinates in WGS-84 format together with ground and blade tip hight elevations at each wind turbine location, and (3) Notify the authority of intention to commence crane operations with at least 30 days prior notification of their erection in accordance with SI 215 of 2004 IAA (Obstacles to Aircraft Flight) Order.	Noted and accepted
6	GSI	GSI made suggestions on geological data sources to use in the assessment.	These data sources have been used in the design and assessment of the proposed development.

3.2 Archaeology and Cultural Heritage

This section responds to three specific issues raised by the OPW about the assessment of cultural heritage effects on the following three monuments:

1. The Rock of Cashel
2. Holycross Abbey, and
3. Ballynahow Castle/Tower House.

The location of these monuments is illustrated in **Figure 1**. These three National Monuments are located within c.10km radius from the Proposed Wind Farm. These are: two early medieval churches at Leigh townland (National Monument No. 266) and Holycross Abbey (National Monument No. 121) and Ballynahow Castle / Tower House. There are no National Monuments in State Care within the Proposed Wind Farm.

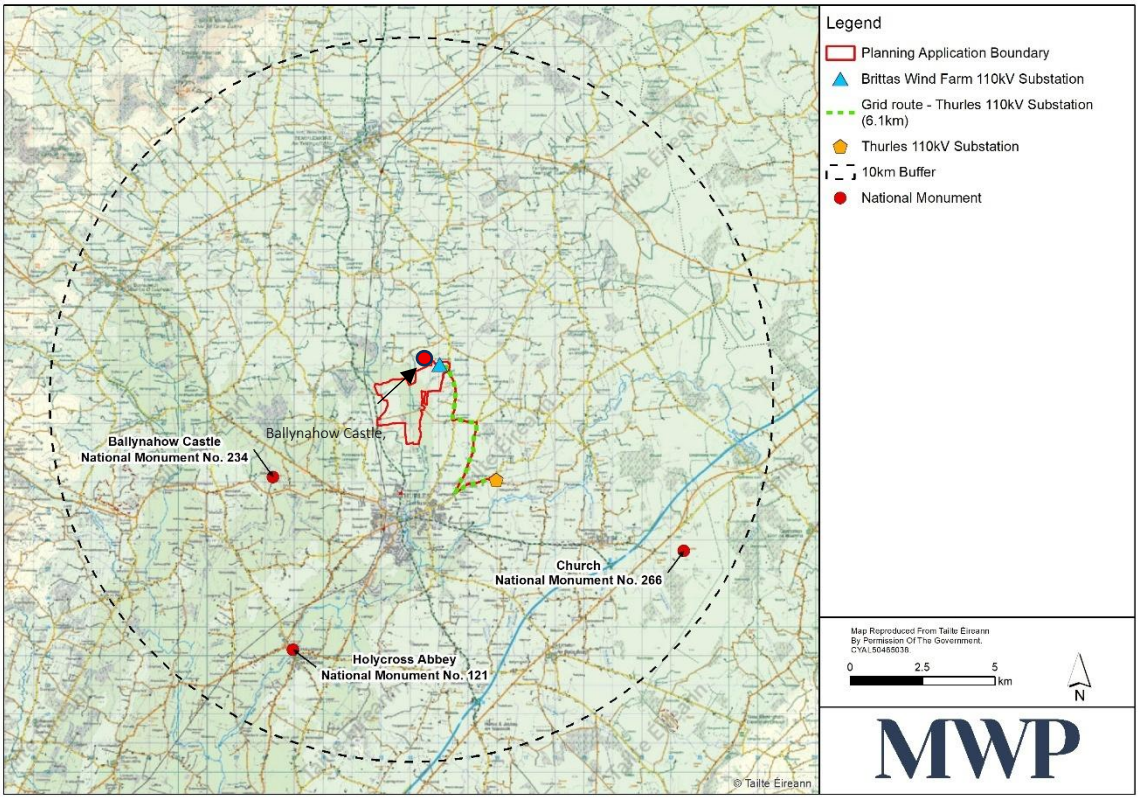


Figure 1: National Monuments in State Care identified within *c.*10km radius from the Proposed Wind Farm (www.archaeology.ie).

3.2.1 Rock of Cashel

See below the relevant extract from the OPW submission.

3.0 OPW Observation

The Rock of Cashel Tentative List World Heritage Property – The Royal Sites of Ireland.

The OPW is concerned about the potential impact on the potential Outstanding Universal Value (OUV) of the Rock of Cashel, National Monuments No. 128. The Rock of Cashel is one of six sites forming part of a serial, transboundary World Heritage Property bid for inscription on the World Heritage List. The Royal Sites of Ireland is one of three potential World Heritage Properties on the Irish Tentative List.

The existing landscape to the north of the Rock of Cashel as noted below in the statement of potential OUV, is substantially intact. Although it contains existing windfarms, they are at a considerably greater distance from the Rock than the proposed Brittas windfarm. Photomontage

Viewpoint 22 depicts the proposed turbines of Brittas windfarm and demonstrates that it will be predominantly visible from the Rock of Cashel.

The OPW notes that official guidelines do not exist on assessment of the visual impact of windfarms on cultural heritage receptors. The industry standard that has evolved is assessment of impacts on National Monuments to a 10km radius from the centre of the windfarm and 25km from World Heritage Properties (WHPs) and Tentative List sites. In this windfarm planning application, WHPs and Tentative List sites within a distance of 20km have been assessed (EIAR 11.3.1) resulting in a negative search result. The visual impact assessment for the Rock of Cashel, follows the same standard of assessment methodology as that for a National Monument. The correct tools, in line with best practice for World Heritage Tentative List sites are UNESCO Guidance and Toolkit for Impact Assessments in a World Heritage Context and the tool UNESCO Guidance for Wind Energy Projects in a World Heritage Context to assess the impact of the windfarm on the potential OUV of the World Heritage Tentative List property.

It is the opinion of the OPW that the potential impacts on the intangible cultural heritage links, including visual links, between the Rock of Cashel and the lands to the north, through the plain and to the horizon, require detailed and careful assessment.

The Potential Outstanding Universal Value[1] statement of the Royal Sites of Ireland states that:

'All of the Royal Sites form part of larger archaeological landscapes characterised by a large concentration of ritual monuments demonstrating in physical form the development of power, ceremony and religion in a Celtic society. Situated on strategic and elevated locations, the Royal sites are directly associated with Irish mythology and traditional beliefs and continue to represent spiritual and symbolic centres of Irish culture and identity, which have influenced approaches to life in many countries of the world' (Justification).

'The Sites all retain their prominent hill-top positions with panoramic views across their surrounding cultural landscapes'. (Authenticity)

'The visual links between each Royal Site and its cultural hinterland remain intact, despite occasional intrusions'. (Integrity)

And the UNESCO website Tentative List[2] entry for the Royal Sites of Ireland states:

'The sites are located in largely intact pastoral landscapes, which have contributed to the retention of a unique sense of place, spirit and feeling.' (Integrity)

RESPONSE

The Rock of Cashel is located 21km south of the proposed Brittas Wind Farm. This site is not currently a World Heritage Site and the possibility of it becoming a World Heritage Site, together with all the other Royal Sites of Ireland, at some point in the future remains uncertain and dependant on a wide variety of factors. Consequently, the developers and the Archaeological/Heritage Impact Assessors for the proposed Brittas WF are not legally required to undertake an impact assessment of this site in compliance with the UNESCO World Heritage Sites Impact Assessment Guidelines.

In addition, there are also a number of other existing wind farms within 8 to 20km from the Rock of Cashel that will be visible in the distance in all directions. The nearest other Royal Irish heritage sites are over 100km

away to the north and north-east and there would have been no line of site between them. The average distance a person with average eyesight can see on unobstructed flat land is around 5km. This may be extended somewhat for elevated sites like the Rock of Cashel but will be affected by atmospheric and weather conditions and the earths' curvature. The photomontage from the Rock of Cashel (see **Appendix 1**) taken on a clear, bright sunny day, indicates that the Brittas WF which is located on the horizon will not be easy to make out in the distance. The Theoretical Zone of Visibility analysis for the hub heights (see extract from EIAR Appendix 15A in **Figure 2**) also indicates that the visibility at this distance and with the presence of some obstructions in the landscape, will be poor. Consequently, we conclude that the 'Outstanding Universal Value' (OUV) of the Rock of Cashel as a royal site (i.e. it's significant cultural importance together with the other Irish Royal sites) will be unaffected by the proposed Brittas Wind Farm. This is confirmed by the assessment of the heritage effects in Chapter 11 of the EIAR.

In this chapter of the EIAR the visual effect on the Rock of Cashel is described as follows:

*Analysis the results of photomontage undertaken from the location of the site revealed that all turbines will be visible from the elevated monument site (see **Appendix 1**). Considering that and a distance (over c.20km) to the proposed development, the likely cultural visual effect on the monument during operation phase will be classified as slight.*

The turbines will have a degree of external peripheral visibility from the location of the Rock of Cashel, from within the encompassing graveyard environs. However, for the most part visitors at the Rock of Cashel are focussed on the immediacy of their enclosed historic surroundings and their appreciation, either discerning or non-discerning, of the built heritage around them is visually and for the most part towards their approach to the buildings and continues into the interior. Our opinion is that the visitor's experience in exploring/ admiring and appreciating the interior of the Rock of Cashel, will not be diminished by the turbines as they cannot be seen from the inside. While there will be a degree of external visibility from the Rock of Cashel, the impact on the visitor's appreciation and character of the National Monument is deemed to be slight if not imperceptible.

Figure 3 provides an elevated view of the Rock of Cashel from the north. The bus and car park are located adjacent to the castle on the north side. Visitors debouching from vehicles either individually, in small numbers or in tour groups are immediately taken with the local dominance of the historic medieval complex.

Appendix 1 provides the photomontage of the view north north-east towards the proposed Brittas WF from the Rock of Cashel. Given the distance, the location of the turbines on the lowlands and the other intervening infrastructure and structures, the presence of the turbines on the distant horizon is deemed to be imperceptible and does not change the character of the agricultural landscape. The presence of other modern dwellings and agricultural structures is more visible than the proposed turbines.

Figure 2: Rock of Cashel. Extract from Google Maps accessed 26/04/2024.

Figure 3: View of Rock of Cashel from the north over the car park.

3.2.2 Holycross Abbey

See below the relevant extract from the OPW submission.

Holycross Abbey

The planning application assesses Viewpoint 14 (Holycross Abbey, NM No. 121) as a receptor of High- Medium sensitivity. The OPW is concerned that as the photograph was taken in the spring/ summer with full foliage and bloom, and that 'screening by the intervening vegetation/ buildings' may be less effective in the other 6 months of the year.

REPONSE

The Holycross Abbey is located *c*.8km to the SW of proposed planning boundary and it is currently a significant tourist's attraction. The landscape in this area is relatively flat. Analysis of ZTV shows that all no 10 turbines will be theoretically visible from the location of the monument. However, results of the photomontage (see Appendices 2 and 3) revealed that this ecclesiastical site is surrounded by mature trees and houses. As the proposed turbines are below the height of the trees on the horizon, the turbines will consequently not be visible from the monument site during the summer when the trees are in full leaf and will be imperceptible in the winter. Considering this and the distance to the development, the likely cultural visual effect on the monument during operation phase is classified as not significant.

3.2.3 Ballynahow Castle

Extract from OPW Submission

Ballynahow Castle

The OPW notes that Ballynahow Castle (TNI041-019; NM No. 234) has not been marked on Figure 11-1 and the impact on views has not been undertaken. This is a serious omission. The OPW request that the photomontage methodology is applied to the assessment of impact on Ballynahow Castle.

RESPONSE

We acknowledge that a heritage assessment of this site was mistakenly omitted. We have provided an assessment of the impact on this site below that includes some photographs. We can provide a photomontage if required.

The following assessment of the effect on the Ballynahow Castle was undertaken by the qualified Archaeologist, Laurence Dunne of Laurence Dunne Archaeology Ltd with 28 years of experience in the sector, in response to the OPW Submission. A photomontage of the Brittas WF from this site has not been included and is not considered necessary given that this is not a publicly accessible monument and the view from this monument is compromised by the existing modern farm sheds in the foreground, adjacent to the monument. A number of photographs of the view towards the proposed Brittas WF from the tower are however provided below.

Ballynahow Castle-tower house, TN041-019 is National Monument No. 234. The tower house is located 5km west south-west of the proposed Brittas Wind Farm. It is located in a living farm complex at Ballynahow that the landowner allows access around and into it. Ballynahow is a 'round, four-storey with parapet, tower house (int. dim. 5.95m; ext. dim. 10.7m; wall T at base 3.1m) of late sixteenth-century date composed of roughly coursed limestone rubble with base-batter' (www.archaeology.ie accessed 09/07/2025). Access to the upper levels is gained via a spiral stair. A doorway in the S embrasure on the 4th floor provides access to the parapet and wall-walk where square chimneys on the S and W jut out onto the wall walk and thereby narrowing perambulation around the circular parapet.

Topographically, the castle that is situated on a flat plain c.4.5km west-south-west of Brittas. From the parapet of the tower house there is an expansive view to the east-north-east towards Brittas (see Figure 4). The view

extends locally over a complex of several modern farm buildings in the near foreground, more or less abutting the castle . However, the view from the staircase (see **Figure 3**) is somewhat constrained by the doorway access from the mural stair onto the parapet at this location. Otherwise, views east-north-east from the tower house towards Brittas are constrained / restricted to the narrow loops on the intra-mural spiral stair. There are no views from the ground level at Ballynahow towards Brittas due to several modern farm buildings and a substantial two storey residence separated from the farm buildings by a high enclosing wall. Furthermore, at a ground level, contextual views of Ballynahow are otherwise locally constrained by the presence of mature trees. Ballynahow Castle is situated on private property, however public access to the castle is possible by permission.

Cultural Visual Impact

Figures 3 and **4** provide photographs of the view towards the Brittas WF from an upper window in the Ballynahow Castle Tower House. This view is constrained by the doorway access from the spiral staircase on the left. Given the limited view and the distance, the limited access to this monument located on private land, it is considered that there will be no appreciable cultural visual impact by the proposed Brittas WF. The impact is consequently classified as imperceptible.

Figure 4: Parapet view ENE towards Brittas, c.4.5km distant. View constrained by doorway access from spiral stair on left (LDARCH 2025).

Figure 5: View of Farmhouse and farm buildings from the parapet of Ballynahow tower.

3.3 Uisce Éireann

See below the relevant extract from Uisce Éireann Submission

> The proposed development has the potential to impact an Uisce Éireann Drinking Water Source. It is a requirement of the Water Framework Directive that waters used for the abstraction of drinking water are protected so as to avoid deterioration in quality. Therefore Further Information is requested in relation to the following matters:
>
> EIAR – Chapter 9.3.5.3 Abstraction (Wells and Springs)
>
> The applicant has not included any of the Uisce Éireann Public Supplies Table 9-9 & Figure 9-18, with particular reference to the Thurles Water Tower and Creamery Well groundwater supplies.
>
> Whilst the proposed wind turbines are not located within the surface water or groundwater abstraction catchments (ZOCs) for any public water supplies, the connector cable route from the proposed windfarm crosses the Zone of Contribution for the Thurles Water Tower, with the cabling located approximately 3km from the spring abstraction point. Any potential impact to this spring source from the construction, operation and decommissioning of the development should be assessed as part of the EIAR.

Uisce Éireann has requested that the EIA clearly assesses any potential risk to Uisce Éireann Drinking Water Sources during the construction, operation and decommissioning phases of the proposed development. Specifically, attention was drawn to the intersection of the proposed grid connection cable route with the Zone of Contribution (ZOC) associated with the Thurles Water Tower and Creamery Well, both of which serve as important groundwater-based public supplies.

Response

While section 9.4.3.7 of Chapter 9 (Water) in EIAR Vol. 2 has assessed the potential effects of the project works on groundwater and Local Well Supplies and found these to be slight, the earlier discussion of the local wells in section 9.3.5.3 did not specifically mention or profile the Uisce Éireann Creamery and Thurles Tower wells. As indicated in **Figure 10** below, the Creamery Well is located 2.36km south of the nearest Turbine (No,10) and is located adjacent to the River Suir. The Tower well is located 855m south-west of the nearest point of the proposed Grid route. Consequently, neither of these wells will be directly affected by the proposed works. Any potential indirect effects on water quality would be effectively mitigated by the standard water quality mitigation measures proposed in the EIAR and incorporated into the project design (see section 9.4.2 of Chapter 9 of the EIAR Vol. 2). These measures will effectively ensure that there is no significant effect on the local wells and their associated zone of consideration/abstraction.

During the construction phase, the grid route cable will be installed under existing road corridors and the proposed access tracks. Crossing a groundwater abstraction catchment with underground infrastructure carries potential risks, particularly where critical recharge zones or areas of high groundwater vulnerability are present. However, the cable trench will be narrow and shallow relative to the groundwater table at approximately 1.2–1.5 metres deep. Consequently, as the duration of these effects will be temporary, the magnitude will be low and the significance of the effects slight and indirect.

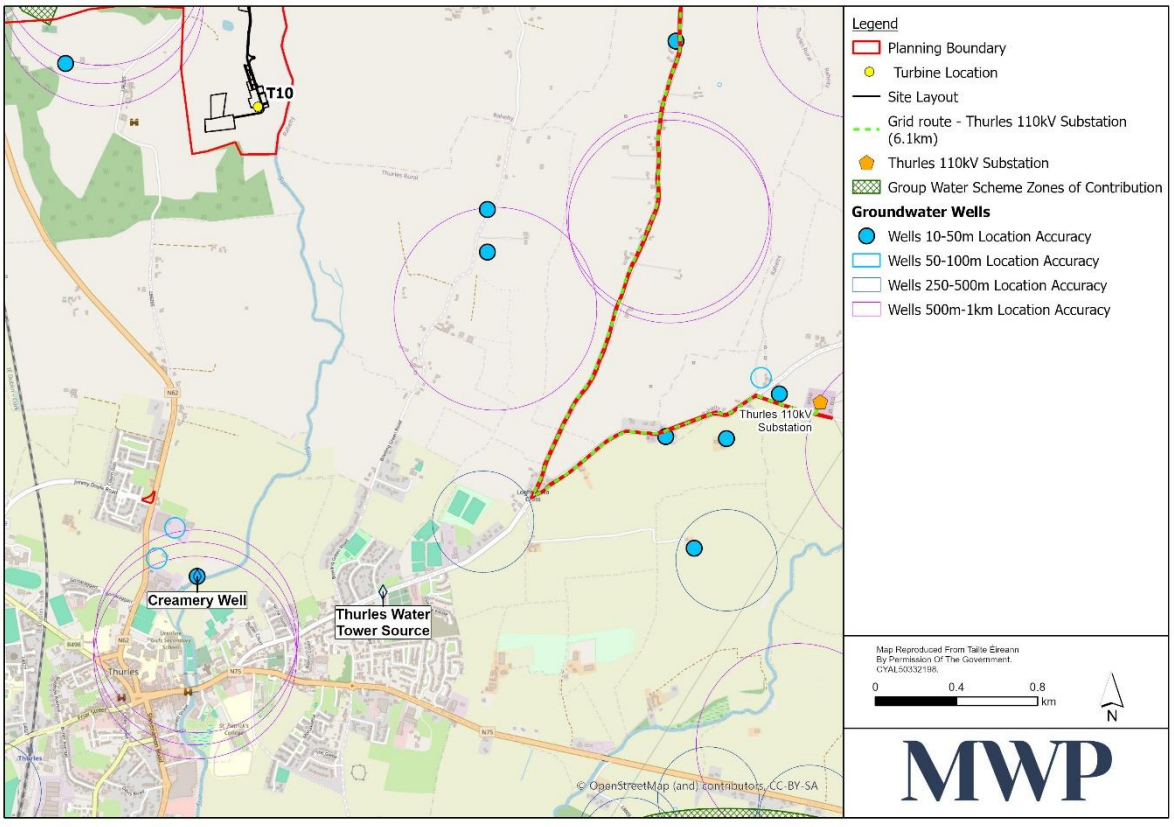


Figure 6: Location of the Creamery and Thurles Water Tower Source relative to the proposed Brittas WF and Grid Route.

To manage these potential impacts, construction activities will be governed by the Construction Environmental Management Plan (CEMP), which will include site-specific pollution control measures such as hydrocarbon

bunding and emergency spill response protocols. Refuelling, plant maintenance and chemical storage will also be restricted to designated areas of the site compound. See sections 4.1.8 and 4.1.9 and EMP 2, EMP 3 and EMP 4 in the CEMP.

Laying grid connection infrastructure and services generally and including watermains in public roads is regularly completed by local authorities, Uisce Eireann, communication service providers and other utilities. Trenching for the grid connection is shallow in depth and is not of a scale that would alter or affect groundwater flow or any aquifers. In addition, good practice during construction and using the mitigation measures mentioned above that are included in the CEMP ensures no risks.

In the operational phase, the installed cable will be inert and poses no residual risk to groundwater. The power ducting will be encased in lean mix concrete for structural protection eliminating any pathway for contamination or ongoing disturbance and overlain by approximately 450 mm of compacted stone backfill. Although the lean mix is of low permeability, its limited spatial extent ensures that any localised restriction to vertical percolation is minimal. The compacted stone backfill, while denser than native soils, retains sufficient permeability to facilitate shallow subsurface flow. The reinstated native soils above will also allow for the continuation of natural percolation and recharge. Establishing baseline data for spring flow and water quality before construction begins and continuing to monitor these parameters during and after the work, is key to detecting and responding to any negative impacts promptly.

At the decommissioning stage, the existing grid route will remain in situ. If they are required to be removed, this will be limited to the removal of the cables from the ducts. The ducts themselves will remain in place and no excavation works will be required. All works will be carried out under the same environmental controls as during construction. If removal is required, it will be undertaken under an updated CEMP, with groundwater monitoring and protection protocols in place.

Any additional mitigation measures required by the Planning Authority or Uisce Éireann shall be complied with in full. Provision for monitoring during and after construction is included in the CEMP water management mitigation measures to to ensure that groundwater quality and supply integrity are not adversely affected.

The applicant is committed to ongoing engagement with Uisce Éireann to protect and conserve drinking water sources.

4. Responses to Issues Raised by Members of the Public

4.1 General Response to Issues raised by Local Residents

Visual, noise, ecology, shadow flicker, traffic, flooding, water quality and safety effects were the main concerns raised throughout the submissions from local residents, alongside some questions about the data used. The subsections which follow provide responses to the key concerns and questions raised. These deal with a broad spectrum of concerns raised (i.e. visual, shadow flicker, traffic, cultural heritage and ecological concerns).

In order to avoid repetition, we have not responded individually to each of the 73 no. submissions, but have instead grouped together similar issues and provided a response on a thematic basis.

Almost all the issues raised were fully and systematically assessed in the EIAR, in compliance with the specific required impact assessment methods specified in the various national and European EIA guidelines and other directives. While there were some significant pre-mitigation effects identified, the EIAR and CEMP includes a variety of mitigation measures that will ensure that the post-mitigation residual effects are minimized and not significant.

The EIAR has acknowledged that the most significant effects associated with the proposed development that are difficult to mitigate are three (of the twenty five) visual effects during the operational phase that are rated as significant to moderate-significant. A detailed response to some of the concerns around visual and landscape effects is provided in section 4.2 below.

4.2 Visual Concerns

Most of the local residents who made submissions had concerns about the visual effects and effects on the landscape character of the proposed Brittas Wind Farm. The lengthiest submission was made by the Brittas Wind Farm Action Group which is largely representative of the other landscape and visual concerns raised. The responses here address concers about visual and landscape effects raised in the Brittas Wind Farm Action Group (BWFAG) submission which is representative of the other submissions that raised concerns about landscape and visual effects. The responses provided to these submissions draw on the Landscape and Visual Impact Assessment (LVIA) undertaken as part of the EIAR for the proposed Brittas WF (see EIAR Vol. 2, Chapter 15).

4.2.1 Objection regarding 'Accommodating Capacity of the Receiving Landscape'

OBJECTION:

On page 8 of the BWFAG submission under the heading 'Accommodating Capacity of the Receiving Landscape', it is stated that:

> *"At Section 15.3 of the applicant's Landscape and Visual Impact Assessment, the author fails to record and reference the sensitivity of the site noted in the Wind Strategy, focusing instead on the assessed sensitivity of the wider plains. As such, the completed assessment is founded on an incorrect assessment of the carrying capacity of the receiving landscape and, in turn, leads to an incorrect finding that the development, despite its overall scale, will have a limited adverse impact."*

RESPONSE:

The site of the proposed development is not within an area identified as 'Sensitive,' as per Map 4 'Quantitative Landscape Sensitivity Analysis' (Appendix 2 Renewable Energy Strategy of the Tipperary County Development Plan 2022-2028). Rather, the site is within an area identified as 'Areas Open for Consideration for New Wind Energy Development'. This has already been referenced in Figure 15-4 within the LVIA and is sourced from the Tipperary CDP 2022-2028 Appendix 2 Renewable Energy Strategy Map 1 (Adapted).'

However, Landscape Character Assessments within County Development Plans are a more appropriate, comprehensive and accurate assessment of a landscape's inherent, designated sensitivity, or lack of, which directly inform the baseline studies of an LVIA (i.e., 'Section 15.3 Existing Receiving Environment' in this instance). Accordingly, 'Section 15.3 - Existing Receiving Environment' of our LVIA Chapter covers the planning

policy context, while 'Section 15.4 - Receiving Environment' describes the landscape character of the 'site and immediate surrounds' and the 'wider landscape'.

As stated in Section 15.3.2.3 of the LVIA, 'the site is within LCA5 Templemore Plains, while only a small section of the grid connection route is outside this LCA.' In terms of the 'Landscape Sensitivity and capacity,' the Landscape Character Assessment notes that LCA5 is a "high capacity/ low sensitivity Landscape."

In addition, in the LVIA the landscape character of the 'site and immediate surrounds' are described separately to the character of the 'wider landscape'. As such, landscape values are derived separately for the 'site and immediate surrounds' (Section 15.4.7.1) and for the 'wider landscape' (Section 15.4.7.2). It is worth noting that in Section 15.4.7.1 of the LVIA, for a variety of transparent, coherent and comprehensive factors, the landscape value of the 'site and immediate surrounds' is considered to be 'Low-Medium.'

Consequently, the aforementioned statement made in the BWFAG submission is misleading and incorrect. The appropriate LVIA methodology and guidance have been used throughout, and the assessment has been carried out in accordance with best practice.

4.2.2 Objection regarding "At Odds with Policy Objectives 11-16"

OBJECTION:

Page 9 of the BWFAG submission states that:

> *'The Landscape Impact Assessment submitted by the applicants notes that "In terms of the significance of likely landscape effects during the operational phase (i.e. post-construction), this will result in a Moderate significance of landscape effect for the on-site elements of the proposed development. The quality of effect will be Adverse in nature and long-term in duration." This clearly highlights the applicant's view, which we share, that the proposed development does not integrate with or respect the character, sensitivity and value of the landscape in accordance with the designations of the Landscape Character Assessment. As such it should be refused permission.'*

RESPONSE:

There is no evidence within the LVIA on which to base such a misleading statement as to the applicant's view'. Rather, it is clear from our assessment that any adverse landscape and visual effects are highly limited and localised.

As mentioned, as is common in LVIAs for proposed wind farms, the landscape character of the 'site and immediate surrounds' are described separately to the character of the 'wider landscape'. As such, landscape values are derived separately for the 'site and immediate surrounds' (Section 15.4.7.1 of the LVIA) and for the 'wider landscape' (Section 15.4.7.2).

The significance of likely landscape effects are also assessed under multiple headings for consistency and appropriateness, in accordance with best practice LVIA guidelines and guidance. This includes likely effects during 'construction phase' (Section 15.5) and 'operational phase' (Section 15.6).

The significance of the likely landscape effects during operational phase on the receiving environment are as follows:

Table 2: Significance of Likely Landscape Effects

Receiving Environment	Significance of Landscape Effects	Quality of effect	Duration of effect
Wind Farm Site	Moderate	Adverse	Long-term
Grid Connection Route	Imperceptible	Neutral	Long-term
Turbine Delivery Route	Imperceptible	Neutral	Long-term
Re-routing the permitted ESB 38kv overhead powerline	Imperceptible	Neutral	Long-term
Wider Landscape	Slight	Neutral	Long-term

Although the 'Wind Farm Site' is likely to experience 'moderate' significance of landscape effects, that are 'adverse' and 'long-term', this site and its immediate surrounds consists of privately-owned, intensively managed farmland representing a small portion of the Receiving Environment of the LVIA Study Area.

Meanwhile, the overwhelming majority of the LVIA receiving environment is likely to experience either a 'slight' or 'imperceptible' significance of landscape effect that will be 'neutral' in quality Therefore, the BWFAG submission's exclusive focus on a single element misrepresents the overall findings. Thus, on balance, the proposed development will not have a significant adverse material impact on the landscape and visual amenities of the receiving environment.

4.2.3 Objection Regarding being within 300m of Major Rivers and Water Bodies

OBJECTION:

Page 2-3 of the BWFAG submission states that:

> *'As identified in the Landscape Character Assessment in the Tipperary County Development Plan, the site is located in the Templemore Plains Landscape Character Area. The compatibility of the use of land on the Templemore Plains for wind farms is low, the second lowest possible compatibility score. As well as a dominant sensitivity of an entire character area such as the Templemore Plains, Figure 5.4 (Landscape Character Area Sensitivity Mapping) of the Landscape Character Assessment identifies particular areas of the overall landscape that are particularly sensitive. The site of the proposed development is clearly demarcated as being a sensitive one and as such is unsuitable for wind energy developments of this scale.'*

RESPONSE:

Tipperary County Council have designated the area where the site is located as being in "An Area Open For Consideration for New Wind Energy Development," as such it is not located in an area "unsuitable for wind energy developments". As stated in the EIAR section 15.3.2.3, the Landscape Character assessment carried out by Tipperary Co. co. notes that: "In terms of "Landscape Sensitivity and Capacity", it states that: "In the context of the County Landscape Capacity, this is a high capacity/ low sensitivity Landscape i.e. Change or

Development generally acceptable – subject to all other relevant objectives and policies - as it may beneficially alter, enhance or reinforce landscape character and value (e.g. the landscape is robust in its character, undergoing change or the precedent for such and similar development is set and the landscape is capable of absorbing considerable change without detriment)." The objection and response immediately below discusses this further.

OBJECTION:

The submission continues, by stating:

> *'The Landscape Character Assessment also sets out that wind farm developments within 300m of Major Rivers and Water bodies are only compatible with wind farm developments in exceptional circumstances. In this case, exceptional circumstances to support the need for this development within 300m of the River Suir have not been demonstrated.'*

RESPONSE:

The submission is referencing information derived from 'Table 6.3 Principle Landscape Sensitivity Factors compatibility with Principle Land Use Types' from the Co. Tipperary Landscape Character Assessment. However, the document immediately follows on from Table 6.3, and states that:

> *'…In general, projects located within 300m of these sensitivity factors are more likely to give rise to landscape effects than those in other areas. These estimations are provided for guidance only – the actual visual impacts will depend on details of the project, including site layout, local landscape factors – such as topography, vegetation and existing structures. The planning authority may request more detailed analysis if necessary to determine visual impact on sensitivity factors.'*

In this instance, a comprehensive Visual Impact Assessment (LVIA) has been carried out on the proposed development on any such perceived sensitivity factors and finds that the site is suitable for this location for the proposed development.

4.2.4 Objection regarding 'Visual Impacts Generally'

OBJECTION:

'Siting and design guidance for hilly and flat farmland' (p11)

The submission incorrectly suggests that the proposed development is located on "flat farmland". The EIAR describes the proposed development's 'site and immediate surrounds' are low-lying in nature with gentle undulations, and 'wider landscape' is lowland in nature and topography ranging from 100m AOD to 400-500 AOD. The Landscape Character Assessment states that the "Templemore plains form a large, gently undulating lowland area"

The submission goes on to state (on p. 11) that:

> *"Given the exceptional height of the proposed turbines at c180m, it is clear that they do not comply with the national guidance, will visually dominate a very wide area, including Thurles Town, and will irreparably destroy the visual equilibrium that currently exists."*

RESPONSE:

Again, this is incorrect.:

- As technology has advanced proposed turbine height of 180m have become much more common in planning applications, so it is not accurate to suggest that a 180m height is 'exceptional'
- The height and setback to properties do comply with the national guidance.
- As has been demonstrated through a comprehensive and robust visual analysis within the EIAR, the proposed turbines are suitably sited for the location.
- The proposed turbines will have a 35-year lifespan, after which they will be removed and decommissioned, unless an application to repower the project is approved at that stage. Consequently, any visual impacts that are identified are reversible and are not 'irreparable' as suggested in the submission.

OBJECTION:

The BWFAG submission objection on pg.12 states:

> *"The unavoidable and unacceptable negative visual impact of the windfarm is clearly documented in the applicant's own submission but not acknowledged. Of the viewpoint locations selected by the applicants for assessment to support their assertion that the development will have a negligible visual impact, nearly half of the locations selected (10 out of 25) were recorded as having a significant or moderate adverse impact on the visual amenities of the area."*

RESPONSE:

Viewpoints were selected in accordance with best practise and methodology, being GLVIA3, and the 2024 Technical Guidance Note, ensuring a representative range of viewer types, distances, and directions. The selection was informed by the Zone of Theoretical Visibility (ZTV), consultations and site visits, as per GLVIA3 (Chapter 6: Visual Effects), which states:

> *"The selection of viewpoints should be informed by the Zone of Theoretical Visibility (ZTV), site visits and consultation, and should be representative of the range of views and viewer types likely to be affected. The rationale for selection should be clearly explained."*

This is supported and expanded upon in the 2024 Technical Guidance Note (LITGN-2024-01), which emphasises that:

> *"Viewpoints should be chosen to represent the experience of different types of viewers, at different distances and directions from the development, and should include both publicly accessible locations and those of particular sensitivity or importance."*

Therefore, a range of viewpoints have been chosen to represent the experience of different types of views from varying distances and directions from the proposed development – including those in the immediate vicinity of the site.

For each representative visual receptor across the study area - including those in the immediate vicinity of the site - the viewpoints have been chosen as a worst-case scenario to depict the proposed development, in accordance with best practice guidance, demonstrating the integrity and transparency of the LVIA process undertaken throughout.

Of the 25 no. viewpoints selected for the visual assessment, it was found:

- One viewpoint (VP3) was judged to be 'significant.'
- Three more viewpoints (VP1, 4 & 27) were judged to be 'moderate to significant.'

- Three viewpoints (VPs 2, 6 & 11) were considered 'Moderate.'
- Three viewpoints (VPs 9, 24 & 26) were considered 'Slight-Moderate.'
- Seven viewpoints were considered Slight (VPs 7,8,12,13 & 15, 18 & 25).
- Three viewpoints were considered 'Not Significant' (VPs 14, 16 & 22).
- Five viewpoints were considered 'Imperceptible' (VPs 10, 17, 19, 20 & 21).

Therefore, 16% (i.e. four out) of 25 no. viewpoints are experiencing effects that are 'moderate to significant' and 'significant', with a further 3 no. viewpoints considered 'Moderate.'

Meanwhile, the majority of viewpoints - 60% (i.e. fifteen out) of 25 viewpoints - experienced 'slight' to 'imperceptible' effects.

Impact on Thurles

Two representative viewpoints were considered from Thurles i.e., VP6 and 7. VP6 is from the northern outskirts of Thurles Town (the town's closest linear residential development to the site), i.e., worst-case scenario. The other viewpoint, VP7, was taken from close to the centre of Thurles Town. This was deliberately chosen from a bridge over the railway (higher point than all other roads or public places in the town) to assess the "worst-case scenario". Even in such a maximum potential of visibility from Thurles town, only the proposed blade tips are likely to be visible, as was deemed to have a 'Slight, adverse" significance and quality of likely visual effect.

Numerous additional viewpoints could have been inappropriately selected from lower lying terrain across Thurles, where buildings or tall vegetation are present in the foreground (as with most towns), and where any likely views of any aspect of the proposed development would have been imperceptible at the outset. Thus, the two representative viewpoints were chosen for Thurles to represent "worst-case scenario" views: one from the most northern outskirts of the town (nearest the site) and one from near the town centre that has the maximum potential visibility of the proposed development.

The LVIA has carefully considered the extensive viewpoint selection based on the ZTV, the location of sensitive receptors, and the worst-case scenario for such category of visual receptors in the study area.

Impact on Cultural Heritage Sites - View from the Bridge

While Viewpoint 3 experiences 'Significant' visual effect, the visual receptor sensitivity is 'Medium-Low', as viewers at this location tend to be motorists, who tend not to be focused on the intensively managed agricultural landscape to either side, rather than the road in front of them.

Yet again, this viewpoint has been selected as a "worst-case scenario" in accordance with best practise, in a location with maximum proximity to the proposed turbines, and on a section of the road where there is no roadside vegetation.

It is worth noting that other potential viewpoints along extensive sections of the same road, within 150m east or west of this location, where there is an abundance of mature roadside treelines (on both sides of the road) would have resulted in a considerably lower, if not imperceptible, likely visual impact. This again demonstrates the integrity, robustness and transparency of the viewpoint selection process, and the wider LVIA.

Impact on Cultural Heritage Sites - View from Clobanna Church and Graveyard

This photomontage is from near a heritage asset which was requested by the cultural heritage consultant on this application, for use within the cultural heritage chapter only.

The Clobanna Church and Graveyard is entirely surrounded by, and fenced off from, a private agricultural field. During the EIAR assessment the consultant attempted to gain access to this heritage asset, there was and is

no known public access either into the field or to the graveyard complex. As this location was, therefore, not deemed to be publicly accessible, the corresponding viewpoint was excluded from this LVIA assessment.

In accordance with best practice, this specific viewpoint has been selected for use by the heritage consultant in their assessment. This viewpoint has not been assessed within the LVIA because this location is not publicly accessible.

"Visual Stacking" (pg 14/15 of the BWFAG submission)

The siting of the proposed wind farm has been carefully planned. Indeed, the Draft Revised Wind Energy Development Guidelines 2019 states that:

> *"It is preferable to avoid locating turbines where they can be seen one behind another, when viewed from highly sensitive key viewpoints (for example, viewing points along walking or scenic routes, or from designated views or prospects), as this results in visual stacking and, thus, confusion. This may not be critical, however, where the wind energy development to the rear is in the distant background."*

Thus, in accordance with those Guidelines, all such 'highly sensitive key viewpoints' in the study area that have any capacity for views/partial views of the proposed development (i.e. are in ZTV), were subsequently selected, as part of a robust, transparent and comprehensive LVIA process. These were:

- 8 (TCC View 62: View from the N75 in Borris, east of Thurles).
- 16 (TCC V 54: Views north and south of the R498 from Bouladuff through Borrisoleigh to Latteragh).
- 17 (TCC V58 N62 at Clonakenny townland).
- 18 (TCC V31: Views to the west between Glengoole and Ballysloe, along R689).
- 24 (TCC V55: Views north and south on sections of the R503 from Newport to Ballycahill).

A further analysis reveals the following visual effects (see Table 3):

Table 3: Further Analysis of Visual Effects

View Point #	Rationale for Selection	Significance of visual effect	Quality	Visual Stacking	Distance to Nearest Visible Turbine
8	Scenic Route	Slight	Adverse	Yes	6.76 km
16	Scenic Route	Not Significant	Adverse	No	9.24 km
17	Scenic Route	Imperceptible	Neutral	No	15.44 km
18	Scenic Route	Slight	Neutral	Yes	14.93 km
24	Scenic Route	Slight-Moderate	Adverse	Yes	9.57 km

It is worth noting that in the three instances where such visual stacking is likely to occur from such 'highly sensitive key viewpoints' in the study area, the highest likely significance of visual effect is 'Slight-Moderate.'

No significant adverse visual effects are likely to be experienced from these locations, as highlighted in the above table. Indeed, visual stacking has been avoided, where possible, when viewed from highly sensitive key viewpoints, all of which are more than 6km from the nearest visible turbine.

4.2.5 Visual and Landscape Effects Conclusion

The LVIA was conducted using best practice methodology and guidance, with a transparent, comprehensive and robust assessment of the likely landscape and visual effects arising from the proposed development.

We consider the BWFAG submission's observations on the findings of the LVIA to be inaccurate.

4.3 Shadow Flicker and Weather Data

A number of local residents pointed out that the shadow flicker assessment was based on weather and sunshine information from Kilkenny Weather station between 1978 and 2007. They point out that the Kilkenny station was closed in 2007 and more recent weather Met Éireann data shows an increase in the annual sunshine hours by 4.5% or 58.6 hours. They allege that this undermines the shadow flicker analysis in the EIAR.

RESPONSE

Due to the limitations with availability of local data for the most recent period, national average data from Met Éireann was used to supplement the shadow flicker analysis, and to ensure a robust assessment despite these limitations. In response to these concerns, the worst-case scenario in terms of change in sunshine hours has since been calculated and the result was 21.1% which is the same as the results in Chapter 13 (Shadow Flicker) in the EIAR.

4.4 Noise

There were some local residents who were concerned about adverse noise effects that would affect their health and quality of life as neighbours of the proposed wind farm. There was also concern about the effect on the children attending the local school (located 3.2km east of the centre of the proposed Brittas Windfarm).

RESPONSE

The noise impact assessment in chapter 12 of the EIAR Vol. 2 has assessed the potential worst case noise effects for all the residents and facilities within 2.5km of the proposed wind turbines which was the study area for the proposed development. No noise impacts are predicted for the local school as it is located 3.2kms away and well beyond the study area for the noise impact assessment in the EIAR. The study area must cover the area where the predicted noise would exceed the 35dB L_{a90} up to 10m/s wind speed from all existing and proposed turbines (which is illustrated in Figure 12-1 in the EIAR noise chapter). Any facilities such as the school which are located beyond this study area would not be effected by noise.

The noise assessment of the proposed Brittas Wind Farm (including the Battery Energy Storage System and Substation) has been comprehensively assessed following best practice, national and international guidance and methodologies for the construction, operational and decommissioning stages . The design of the site layout, the type of turbines and the intervening topography is such that the predicted operational noise levels of the wind farm are not expected to exceed the noise limits.

A thorough background noise survey was conducted to quantify the current conditions at representative locations over the operational wind speeds of the turbines. The construction/decommissioning programme has been assessed at all stages and the operational noise levels carefully predicted, including the cumulative effects of other existing wind farm developments. A conservative, worst-case approach was adopted, and suitable uncertainty factors considered.

The initial noise modelling informed the design of the turbine layout to avoid exceeding any of the guideline noise limits for neighbouring dwellings and social service facilities that would be considered sensitive receptors. Thereafter, the noise assessment of the proposed layout demonstrated that the construction/decommissioning phases will result in short-term elevated noise levels but these will be within appropriate noise limits. Nevertheless, a comprehensive range of mitigation measured were proposed to minimise any potential adverse effect (see section 12.7 of the EIAR Noise Chapter or EMP 5 in the CEMP)..

The design of the site layout, the type of turbines and the intervening topography is such that the predicted operational noise levels of the wind farm are not expected to exceed the noise limits. In addition, suitable monitoring and mitigation measures are available to assess the actual noise impact were the scheme to proceed and thus ensure compliance (see section 12.7 of the EIAR Noise Chapter or EMP 5 in the CEMP).

4.5 Height of Turbines (inaccuracies in data)

There is an allegation of inaccurate ground level data for several submitted drawings of the turbines in submission 077952.25 (ACP reference no.). A table was provided comparing the ground levels for each turbine from the drawings with the 'actual ground level' and the differences. This submission alleges that these inaccuracies could significantly impact the floodplain and have flooding effects if incorrect levels are adhered to. He expressed concern about the potential impact on the river due to construction of the turbine foundations and road within or near the floodplain.

RESPONSE

It is not clear where the ground level data on 'actual' ground levels mentioned in the submission was obtained. The language in the submission suggests that the author himself did a survey, but he provides no data on how this survey was undertaken. The ground level data used for the design of the wind farm and recorded in the planning drawings was obtained from the Bluesky 2m contour data for the site. This is the most detailed topographic data available for this site and is commonly used by design consultants for most planning applications in Ireland. This topographic data is accurate to a height deviation of 1.5m.

The design of the wind farm and all facilities was also informed by a detailed flood risk assessment (see Appendix 9A of EIAR Vol. 3). This assessment was based on an on-site topographic survey of the River Suir and its tributaries within the site. Consequently, the flood extents have been accurately mapped.

If the wind farm is permitted, additional on-site topographic surveys will be undertaken to finalise the designs of the turbines, roads, bridges, drainage network and other facilities associated with the wind farm.

Details of the proposed surface water drainage system for the project (see Chapter 3 of the EIAR Vol.2) was developed based on a detailed Flood Risk Assessment (see Appendix 9A of EIAR Vol. 3). This plan includes measures to contain any construction runoff and to make provision for delayed drainage back to river – to avoid exacerbating any flooding (see CEMP sections 4.1.8 and 4.1.9 and EMPS 2,3 and 4). The proposed mitigation measures will also ensure that construction work will be suspended in the event of floods and heavy rainfall.

4.6 Flooding Risks and Requests for more detailed designs

Submission 077952-25 made requests for more detailed designs for elements of the project (i.e. the new bridge on the access track to turbine 7) in order to be able to assess the flooding and water quality effects of the proposed development. There was an assumption in one of the submissions that the height of the new

road and bridge over the Rossestown River along the access road for turbines 3,4,5, and 7 would need to be increased by 1.8 – 2m above current levels.

There was also a concern about digging the turbine foundations close to the river where ground water may be encountered and have to be pumped out. This could result in water quality effects

RESPONSE

No changes to the existing bridge over the River Suir are proposed.

We can confirm that the height of the proposed new road and bridge over the Rossestown stream along the access track to Turbine 7 will be 2.15m above the existing ground levels. This road and bridge will be raised above ground level and the 100yr flood level and will allow for the natural drainage of this area that is susceptible to flooding. In the event of a 100yr flood event the new bridge will be above the flood level but sections of the access road on either side will be flooded (see Figure 5-5 in the Flood Risk Assessment Report). The flood risk modelling undertaken indicates that this structure will increase the 100 yr flood levels immediately upstream of the bridge but only slightly. There will be no significant change in flood levels upstream of the bridge and the flooding extents will remain within the project site and will not impact any neighbouring properties. In addition, the the new bridge and road over the Rossestown stream will act as a partial temporary obstruction to the flow of the flooding stream and is expected to reduce the rate of water flow from this stream into the River Suir. This will reduce the potential high flood levels downstream that would occur without this partial obstruction.

The design of the proposed development was informed by a detailed tier 3 flood risk assessment based on a site-specific topographic survey of the River Suir and its tributaries within and around the site. This assessment informed the design and proposed layout of the WF which was able to avoid any potential significant water quality or flooding effects. All turbines have been located at least 50m from the banks of the River Suir. The EIAR proposed mitigation measures to be applied to ensure that any potential effect was avoided or minimized and would not result in a significant adverse effect. All these mitigation measures were incorporated into the Construction Environmental Management Plan (CEMP) submitted with the planning application. These measures include a tailored Sustainable Drainage System (SuDS) for the construction, operational and decommissioning phases of the proposed project on this site that would not increase the rate of surface water flow off the site into the River Suir and would not contaminate the water quality in the river system.

In the event that ground water pumping for the turbine foundations is needed, the ground water (which is likely to be sediment laden) will be pumped out of the excavation and will be put through a temporary treatment system with swales and sediment ponds close to the site. Once the sediment has been deposited and removed from the water, it will then be discharged over vegetated ground via a level headed spreader unit. This will ensure that there are no adverse effects on water quality, water supply or flooding.

4.7 Traffic Impact and Sight lines

Submission 077952-25 also raised concerns about the limited sight lines at Entrance 3 and associated safety concerns for road users.

RESPONSE

As part of the design process for the project, the entrances were assessed and surveyed and two sight line drawings for the entrances were included in the tender drawings pack. A traffic speed survey was conducted

along the L8017 road at Entrance 3. This found that the cumulative average speed of vehicles traveling along this road was 50km/hr. This reduces the standard sight lines for a road with an 80km/hr speed limit.

The existing sightlines at entrance 3 are limited due to the proximity and height of the bridge over the River Suir and the corner where the proposed entrance is located. However, the low average speed of vehicles traveling along this road, and additional signposting to regulate traffic, will be sufficient to ensure the safety of road users. A road safety audit will be conditioned for this project (see section 3.1 above) and this will also ensure that adequate safety measures are put in place to ensure the safety of road users. In addition, there is a Traffic Management Plan that was submitted in Appendix 16A of EIAR Vol. 3. This proposes various management measures to address the potential construction traffic effects. This plan will be updated as necessary and approved by the local authorities prior to construction being initiated.

4.8 Cultural Heritage Effects

Concerns were raised by some members of the public about the potential adverse visual effects on Brittas Castle and Shyane graveyard and church in Clobanna. These are responded to separately in the subsections below.

RESPONSES

4.8.1 Brittas Castle

Brittas Castle is located on private land adjacent to the proposed Brittas Wind Farm. This castle is not accessible to the public and the landowners are involved in the wind farm development and have no objection to the proposed wind farm.

In Chapter 11 of the EIAR, the effect on the Brittas Castle is described as follows:

The entire (Brittas Castle) site consists of a country house (Reg. No. 22404101) built on the site of a medieval castle), a second single-storey house (Reg. No. 22404111) in use, a gate lodge as well as walls, gates and railings (Reg. No. 22404113). There is a possibility that the proposed turbines will be visible from some of these features. However, Brittas Demesne belongs to the private owner who is involved in the proposed development. In that context potential visual effect will be classified as likely slight.

Given that the landowners are involved in the project and have no objection to it, and that the castle is located on private property where trespassing is not permitted, and any visitors to view the Castle need permission from the landowners, the visual effect is considered slight.

4.8.2 Shyane graveyard and Church in Clobanna

In Chapter 11 of the EIAR, the visual effect on this heritage resource is described as a '*significant visual effect'*. This is one of 86 recorded monuments with c3km of the nearest turbine (see Table 11-3 in EIAR Chapter 11). The significance of the effect on these monuments is assessed in section 11.4.3.3 of EIAR Chapter 11). This monument is one of two given this significance rating. No mitigation measures for these visual effects are proposed.

In response to the submission we note:

(1) the relict monument is set back inside on a gently rising pasture field and while it is accessible to pedestrian visitors, there is no easy access to it as there is no public gate or pathway to the site;
(2) there is no roadside signage giving information about or directing visitors to the site;

(3) there is no public car park and extreme care is required in approaching the site of the church due to the narrow road.

4.9 Ecological Concerns

4.9.1 Hedgerow

Several submissions regarding the proposed removal of approximately 4 km of hedgerow within the application have been made.

RESPONSE

While this extent of removal may appear substantial, it is 27% of the hedgerow within the application area. The applicant acknowledges the ecological and landscape value of hedgerows and has committed to a No Net Loss approach in line with best practice and national biodiversity policy.

As outlined in Section 6.6.1 of the Environmental Impact Assessment Report (EIAR), any hedgerows that are felled during construction will be replaced using similar or native species, to maintain continuity of habitat and ecological function. Where permanent loss of hedgerow is unavoidable, planting will be undertaken in more ecologically appropriate locations. This approach is designed not only to offset habitat loss, but also enhance ecological connectivity and landscape integration.

Importantly, the replanting strategy has been developed to support wildlife movement, particularly for commuting and foraging species such as bats and small mammals, by guiding them away from areas of construction and operational activity. This will help reduce potential disturbance and fragmentation of established movement corridors.

The applicant recognises that newly planted hedgerows require time to establish and mature. Based on likely species selection, maturity and planting methods, it is anticipated that functional hedgerow structure will establish within 0–3 years, after which the residual ecological effects are expected to be not significant.

This mitigation strategy reflects a precautionary and proportionate response to the potential impacts identified, so that hedgerow-related biodiversity and landscape functions are maintained over the long-term.

4.9.2 Red Squirrel

Several submissions have been made about the potential presence of red squirrel (*Sciurus vulgaris*) within the application area, specifically referencing Knox Wood. These concerns are supported by anecdotal evidence, including a photograph submitted by a member of the public and reference to the Natura Impact Statement (NIS) for the Felling & Replanting Project TFL00087117 at Brittas, Co. Tipperary undertaken in 2021.

RESPONSE

The applicant acknowledges the potential for red squirrel presence in the wider landscape. However, despite a comprehensive ecological survey effort(including looking for evidence and signs of this species during all terrestrial surveys), no definitive signs of red squirrel activity, such as dreys, feeding remains (e.g. gnawed pinecones), or direct sightings, were recorded within the application area during field surveys (refer to Section 6.3.3.4 of the EIAR). These surveys were conducted in accordance with best practice guidance and covered suitable habitat areas within and adjacent to the application area.

The referenced NIS for TFL00087117 also concluded that the woodlands in question are relatively homogenous, supporting a limited diversity of flora and fauna. The species assemblage recorded is typical of commercial forestry in this part of Tipperary and central Ireland more broadly. Importantly, no red squirrel dreys were identified within the application area either during the applicant's surveys or those associated with the TFL00087117 assessment.

Red squirrel was not identified as a key ecological receptor during the scoping of the Environmental Impact Assessment Report (EIAR), Section 6.3.3.4 of the EIAR), and as such, no specific assessment has been undertaken for this species within the EIAR. Based on available evidence, including the absence of confirmed red squirrel activity within the application area and the presence of suitable alternative habitat in the surrounding landscape, the potential for direct or indirect impacts is considered negligible.

Given this context, red squirrel has been scoped out of the ecological assessment, and no changes to the EIAR or associated mitigation measures are proposed. The ecological conclusions presented in the EIAR remain valid.

It should be noted that the mitigation measures proposed for pine marten (see Section 6.5.1.1 of the EIAR), including pre-construction/felling surveys within 100 m of the works corridor and the provision of egress points in excavations, will also serve to reduce the likelihood of construction-related impacts on red squirrel.

4.9.3 Bats

Several submissions have been raised regarding the perceived lack of specific measures within the assessment to protect bat species potentially affected by the application.

REPSONSE

Bat specific surveys undertaken as part of the application have confirmed the presence of several bat species roosting within, and commuting and foraging across the application area. These findings are based on detailed fieldwork and acoustic monitoring, which have informed the assessment of potential impacts on local bat populations as discussed in Section 6.3.3.5 of the EIAR.

In line with current best practice, the assessment has drawn upon guidance from:

NatureScot (2021) – Bats and Onshore Wind Turbines: Survey, Assessment and Mitigation,

Northern Ireland Environment Agency (NIEA, 2024) – Guidance on Wind Energy and Protected Species, and

Marnell *et al.* (2022) – Bat Mitigation Guidelines for Ireland.

These documents provide evidence-based recommendations for reducing impacts on bats in the context of wind energy developments. Based on the nature and extent of bat activity recorded, and the efficacy of mitigation measures outlined in the guidance, the level of mitigation proposed (Sections 6.5.1.1.and 6.5.1.2 of the EIAR), including turbine curtailment strategies, buffer zones, and habitat retention, is considered proportionate and appropriate to the potential risks identified.

The proposed mitigation is designed to reduce collision risk, disturbance, and habitat fragmentation, and reflects a precautionary approach consistent with both national and EU conservation obligations. The measures will be implemented as part of the project's construction and operational phases, with monitoring provisions included to evaluate effectiveness and compliance.

4.9.4 Survey of Common Frog

One submission raised concerns that no surveys were undertaken during the breeding season for common frog (*Rana temporaria).*

RESPONSE

As outlined in Section 6.2.2.3 of the EIAR, the decision not to undertake further surveys was based on the confirmed presence of the species within the application area. This confirmation provided sufficient baseline data to inform the ecological assessment, which was subsequently carried out on that basis.

4.9.5 Overlap between EIAR Ecological Assessments and Appropriate Assessment

The above submission also raised concerns regarding the adequacy of the assessment of Annex IV and V-listed species and the perceived overlap between the Environmental Impact Assessment Report (EIAR) and the Natura Impact Statement (NIS) processes.

RESPONSE

The Appropriate Assessment (AA) process undertaken for this application was carried out in accordance with Article 6(3) of the EU Habitats Directive (92/43/EEC). This process specifically assesses the potential for a plan or project to adversely affect the integrity of Natura 2000 sites, which include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The scope of AA is limited to the qualifying interests of these designated sites, which comprise:

- Annex I habitats and Annex II species for SACs, and
- Annex I bird species and regularly occurring migratory birds for SPAs.

Annex IV and V species, while strictly protected under Article 12 of the Habitats Directive, are not linked to site designation and are not necessarily a 'qualifying interest' of any designated Natura 2000 site or part of the conservation objectives of any Natura 2000 site. As such, they are not included in the AA process unless a particular protected species happens to also be a 'qualifying interest' of one of the Natura 2000 sites potentially affected by the project. Instead, potential impacts on Annex IV and V species are addressed through the EIAR. This approach supports the upholding of all relevant legal protections, while maintaining the integrity and focus of the AA process on site-specific conservation objectives and their respective qualifying interests.

While the EIAR and AA share data sources, they are distinct assessments governed by separate legislative frameworks, and the assessment has been undertaken as two parallel but complementary processes, each complying with its respective legal requirements under the EIA Directive and the Habitats Directive. The ecological surveys conducted for the EIAR have provided essential baseline data and context for the AA, and relevant methodologies and results are outlined in the appendices of the NIS. However, the assessments themselves remain independent in scope, purpose, and regulatory compliance.

4.9.5.1 Cumulative assessment

This same submission raises concerns regarding the adequacy of the cumulative impact assessment within the EIAR and NIS and the perception that the absence of identified direct impacts from the application alone implies no potential for cumulative effects.

RESPONSE

The NIS was prepared in accordance with the most up-to-date and relevant guidance (refer to Section 2.1 of the NIS), including:

- DoEHLG (2010) – Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (2010 revision),
- NPWS Circular 1/10 & PSSP 2/10 – Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities,
- European Commission (2021) – Assessment of Plans and Projects in Relation to European Sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive.

The NIS followed a structured and evidence-based approach, as outlined in the Section 2.5 of the report, including:

- Identification of project elements with potential to affect Natura 2000 sites;
- Detailed analysis of implications for site integrity in view of conservation objectives;
- Consideration of best scientific knowledge to assess impacts on key habitats and species;
- Evaluation of potential effects, both alone and in combination with other plans or projects;
- Description of mitigation measures to avoid or reduce adverse effects;
- Determination of whether residual impacts remain following mitigation.

Therefore in-combination effects were addressed prior to the implementation of mitigation measures. No plans or projects were identified as having potential for in combination effects with the project.

It is important to clarify that the NIS does not conclude that there are no impacts from the project. Rather, it concludes that, following mitigation and based on the best available data, no significant adverse effects on the integrity of Natura 2000 sites are likely, either from the project alone or in combination with other plans or projects.

The EIAR chapter was prepared in accordance with the most up-to-date and relevant guidance (refer to Section 6.1.4.3 of the EIAR) including:

- Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report (European Commission 2017);
- Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022a);
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute Ecology and Environmental Management. Version 1.2.
- Guidance Document on the strict protection of animal species of Community interest under the Habitats Directive. Commission Notice (2021) Brussels, 12.10.2021 C (2021) 7301 final
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (DoEHLG, 2018)
- European Commission Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (EU, 2013).

The EIAR followed a structured and evidence-based approach, as outlined in the Section 6.1.1 of the EIAR.

- Produce a baseline study of the existing ecological environment in the vicinity of the proposed project; Identify all potential significant ecological effects (positive and negative) associated with the proposed project during the construction, operational and decommissioning phases;

- Ensure compliance of the proposed project with nature conservation legislation;
- Identify mitigation measures to avoid, remediate or reduce likely or significant negative effects;
- Assess likely or significant cumulative effects of the proposed project as a result of other developments;
- Provide an assessment of the significance of any residual impacts; and
- Detail monitoring measures required to verify performance of mitigation measures.

Although the cumulative effects section of the EIAR follows the evaluation of residual effects, allowing for the incorporation of proposed mitigation measures into the analysis.. Plans and projects with potential for cumulative impacts were identified and assessed in combination with the project.

One project, the rerouting of powerlines, was integrated into the EIAR (see Chapter 04: Alternatives). All other identified plans and projects were excluded from further assessment based on the following considerations:

- Completion or operational status prior to project commencement
- Insufficient proximity to the site
- Limited scale and scope, unlikely to result in significant cumulative effects
- Existing mitigation measures already in place

As a result, no external plans or projects are considered to have potential cumulative effects with the project (refer to Section 6.7 of the EIAR).

It is important to clarify that the EIAR does not conclude the absence of no significant effects from the project. Rather, it determines that, following implementation of the prescribed mitigation measures and based on the best available data, residual effects will be reduced to a level of not significant for the identified key ecological receptors across all phases of the project.

4.9.5.2 Material Sourcing

Another concern raised in the above mentioned submission was about the lack of cumulative assessment regarding the sourcing of construction materials, particularly from quarries.

RESPONSE

The impacts of quarry operations are not assessed in detail within the cumulative sections of the EIAR and NIS, since such activities operate under separate planning permissions and environmental assessments. These are subject to their own EIA and licensing regimes and any quarries from which materials are being sourced have been established independently prior to the application. However, the potential impacts associated with the transportation of materials, such as traffic, noise, and emissions, are addressed within chapters 12 (Noise), 14 (Air), and 16 (Traffic) of the EIAR and considered in Section 4.4.1 of the AA screening and 5.3 of the NIS. In summary, while quarry operations are not directly assessed as part of the application, their potential indirect impacts, particularly those related to material transport, have been considered within the scope of chapters 8 (Land and Soils), 9 (Water), 10 (Material Assets), 12 (Noise), 14 (Air), and 16 (Traffic) of the EIAR and Section 5.3 of the NIS, in line with current planning and environmental assessment practice.

4.10 Effects on Birds

This section provides a detailed response to multiple third-party concerns regarding the potential ornithological impacts of the proposed Brittas development. The concerns raised relate to alleged exploitation

of biodiversity, collision risks for protected species (such as owls, hen harrier, and swans), the abundance of wildlife on-site, and the presence of rare or endangered species. In a general response to broad claims by multiple third parties, the EIAR relies on multi-year field surveys, national datasets, and best-practice assessment methods to demonstrate that:

- Owl species (barn, long-eared, and short-eared) occur only in low numbers locally, with negligible collision risk and potential for habitat enhancement.
- Hen harrier and other Special Conservation Interest species show minimal usage within the site or zone of influence, with no evidence of significant population-level impacts.
- Common Red-and Amber-listed birds, including meadow pipit, grey wagtail, and wintering waterbirds, occur at local-level abundances, well below national thresholds of importance.
- Swans (mute and whooper) exhibit sporadic, low-level site use, with no identified commuting routes or collision risk concerns.
- Overall, the site supports typical local ornithological diversity but does not constitute a location of disproportionate conservation importance. Mitigation and habitat enhancement measures incorporated into the proposed project is expected to maintain or provide a net benefit to local species.

The responses collectively indicate that the third-party claims of significant ornithological impacts are not supported by the quantitative evidence presented in the EIAR.

4.10.1 Objection to exploitation of biodiversity

Third-Party concern:

Exploitation of biodiversity: "*Our unique biodiversity should no longer be exploited for economic profit…, including protected bird species, freshwater mussels, otters and owls".*

Response:

No specific bird species are mentioned by the 3rd party; therefore, it is difficult to provide comment. The EIAR includes detailed survey data and assessment for protected bird species including the three owl species recorded in Ireland. Freshwater Pearl Mussel was assessed and ruled out as there is no downstream hydrological connected between the known location of the population and the site as outlined in section 6.3.3.2 of the biodiversity chapter. Otter has also been assessed in section 6.3.3.4 of the biodiversity chapter and further covered in the NIS as this is an Annex II species.

Conclusion

The project site has been assessed for protected bird species and the EIAR covers potential impacts and mitigation strategies. As no specific bird species are outlined in this concern no further comment can be made.

4.10.2 Collision Risk for Hen Harrier

Third-Party concern:

"Collision risk for hen harrier not robust: the information cited re: hen harrier and the site is loaded with errors, there are no SPAs within the zone of influence, habitat suitability is limited within 2km of the proposed wind farm site and recorded usage was exceptionally low. Likewise, for other SCI species mentioned (merlin, whooper swans) there are no SPAs within the zone of influence."

This 3rd Party observation also refers to incorrect assessment of Wetlands & Waterbirds A999, but it is unclear which SPA this relates to and the observations also incorrectly refers to an SAC at the end of the paragraph. Given the lack of clarity within parts of this submission we have not been able to provide a response below to some elements of it. .

Response:

Hen harrier

Concerns regarding collision risk for hen harrier is not supported by the evidence. As discussed in Section **Error! Reference source not found.** of the EIAR is based on a detailed desk study and three full years of field surveys. No SPA for hen harrier occurs within the zone of influence of the project site. Habitat within the site and out to 2 kilometres is largely unsuitable for breeding, with no known roost sites in this area. Over the three-year period, hen harriers were recorded only twice — far below the national threshold for a regularly occurring population. Given this extremely low level of usage, collision risk modelling was not warranted based on best practice nor meaningful. The conclusions are robust and fully supported by both national datasets and field evidence. EIAR Section 7.3.5.2 concludes exceptionally low recorded usage by hen harrier and therefore no further assessment required.

Wetlands & Waterbirds

The same is true for wetlands and wintering waterbirds. No SPAs designated for "Wetlands & Waterbirds A999" an SPA qualifying interest category occur within the zone of influence. The zone of influence was defined using established best-practice guidance and includes only species with demonstrable ecological or

hydrological connectivity to the site. Ornithological surveys identified one feature of national importance — breeding lapwing — with all other wetland species recorded only in small numbers or irregularly, well below thresholds for significance. While occasional higher counts occurred, they were not regular enough to qualify as important ecological features. There is no evidence of any source–pathway–receptor link between the project site and any SPA for wetland birds see EIAR section 7.3.2 and appendix 7A section 2.2.

Conclusion

In short, the available evidence shows that the development site is well beyond the range of any qualifying hen harrier or wetland bird populations, and the third-party claims of significant impacts on these species are therefore unfounded.

4.10.3 Understatement of wildlife prevalence in the area

Third-Party concern:

"*Application understates the amount of wildlife in the area: Three endangered species of bird, the meadow pipit, the Eurasian Oystercatcher and the grey wagtail will be further endangered by these turbines*"

Response:

Meadow pipit

Although Red-listed, the species is common and widespread in Ireland. The project site supported up to 40 breeding and 45 wintering meadow pipit— far below thresholds for county or national importance. EIAR Section 7.3.7.2 concludes the population of meadow pipit is of local importance only. During construction effects on meadow pipit are assessed as imperceptible and therefor not significant as outlined in section 7.4.2.29. In the operational phase passerines including meadow pipit are assessed as not significantly impacted by wind farms. In the specific case of meadow pipit it is considered that due to clearance of plantation forestry that there is the potential to create more cover for ground nesting, outlined in section 7.4.4.28,

Oystercatcher

No oystercatchers were recorded in three full years of baseline surveys. There is no evidence to support the claim that this species will be 'further endangered by these turbine' as there is no evidence of this species occurring within the project site.

Grey wagtail

Also Red-listed but recorded in low numbers (1–4 birds) see EIAR section 7.3.7.3, with probable breeding along the River Suir. Turbine buffer habitats are largely unsuitable as the steep sided, densely vegetated banks of the River Suir within the 500 m proposed turbine buffer, are without rapids or shingle banks EIAR Section 7.3.7.3 concludes local importance only. Grey wagtail was assessed during construction as being unlikely to be adversely affected by construction activities based on the mitigation presented. Ultimately it is outlined in the EIAR section 7.4.2.29 that the impact would not be significant. In the operational phase for grey wagtail it is considered that deterioration in water quality would not result in a significant effect, outlined in section 7.4.4.28.

Conclusion:

The baseline surveys confirm that the project site supports the meadow pipit and grey wagtail only at low,

local-level abundances. No oystercatchers were recorded during three years of surveys; meadow pipits occur well below county or national importance thresholds, and grey wagtails are present in very small numbers within largely unsuitable habitat. The EIAR assessment concludes in section 7.4.2 that turbine installation will not result in significant impacts on these species. Overall, the project site does not represent a location of conservation importance for these birds, and the third-party claim of increased endangerment is not supported by the evidence.

4.10.4 Effects on species listed on the Red Endangered List

Third-Party concern:

"A bird survey conducted on February 3, 2025 between 8am – 9am, recorded 34 bird species around Rossestown Bridge including three species on the Red Endangered List."

And

"Bird conservation Concerns: Additional species identified as seen and heard in woodland on site were heron, jay, long-eared owl, great tit, coal tit, goldcrest, chiffchaff, bullfinch and goldfinch."

Response:

Of the species identified in these concerns by the third parties, only two are currently Red-listed under Birds of Conservation Concern in Ireland (BoCCI) (2020–2026) — meadow pipit and grey wagtail — and eight are Amber-listed, with the remainder Green-listed. Furthermore, all but two species (carrion crow and oystercatcher) were recorded during the three years of survey for this EIAR, as discussed in Section 7.3.4 and in every case, numbers and patterns of use indicate populations of local or, at most, county importance, far below national or international thresholds.

The claim that the list alone demonstrates "hugely important the wetland" and for "huge populations of birds' is not supported by the quantitative evidence:

- One submission refers to "carrion crow" — a species that does not regularly occur in Ireland — and "Paragon Falcon," which it is presumed refers to peregrine falcon. This suggests a degree of inaccuracy in the species list for the local area where non regularly occurring species are being potentially mis identified for regularly occurring ones.
- Red-listed passerines (meadow pipit, grey wagtail) occur in low numbers, with site usage assessed as local importance only, as discussed in Section 7.3.4 to 7.3.7 of the EIAR.
- Amber-listed species such as kingfisher, goldcrest, skylark, starling, mallard, and greylag goose are present in small numbers, with infrequent or sporadic use, well below national importance thresholds, as discussed in Section 7.3.4 to 7.3.7 of the EIAR.
- Green-listed species dominate the list and are widespread, common breeding or wintering birds in Ireland, as discussed in Section 7.3.4 to 7.3.7 of the EIAR.
- No species recorded on the project site meet or exceed the 1% threshold for national or international importance under standard conservation assessment criteria except for breeding lapwing, as discussed in Section 7.3.9 of the EIAR.

Conclusion:

The baseline survey results (presented in appendix 7A) show that while the project site supports a diversity of bird species, it does so at typical local-level abundances and does not represent a site of importance for large populations of either native or migrant species. The broad species list alone is not a valid indicator of

exceptional conservation value without context on population size, conservation status, and relative importance — all of which are provided in the EIAR throughout the species accounts sections 7.3.4-7.3.7and demonstrate only local significance.

4.10.5 Adverse effects on Swans

Third-Party Concerns:

Multiple third parties, expressed concerns that the Proposed Development could negatively affect local swan populations (mute and whooper swans). Specific points raised include:

- *Observations of swans in the area every year, contrary to the application's claim of only one sighting in the last eight seasons.*
- *Potential disruption of swan flight paths from Thurles towards Loughmore and Templemore.*
- *Threats to wintering habitat on the floodplain along the River Suir and Knox's Wood.*

Response:

The EIAR presents in appendix 7A robust, seasonally representative baseline data collected over three years from October 2020 to September 2023, which demonstrates the following:

- Mute swans: Ten flights were recorded within the 500 m proposed turbine buffer, with only one flight (nine birds) entering the Collision Risk Zone (CRZ). No regular commuting routes between roosting and foraging areas were identified. Activity was concentrated along the River Suir, and breeding and wintering numbers were low (typically 2–6 birds). Mute swans are known to tolerate human activity and infrastructure, as covered in the EIAR with reference to (Tuite et al., 1984) and no significant population-level impacts (>1%) are anticipated (see Section 7.4.4.14 of the EIAR).
- Whooper swans: Only sporadic use was recorded, with a small flock (3-5 birds) observed just outside the 500 m turbine buffer during one winter season (2020/21). No flights through the CRZ or regular commuting routes were identified. Collision risk modelling was unnecessary due to minimal activity, and no significant adverse effects are expected (see Section 7.4.2.8 of the EIAR). Additional monitoring data from Irish Wetland Bird Survey (I-WeBS) show whooper swan usage of Cabragh Wetlands declined from a peak of 22 birds in 2011/12 to a single individual in 2016/17, with no records reported since winter 2017/18. The Cabragh Wetlands Habitat Study (2020) similarly confirms that whooper swan use peaked between 2008–2010, with up to 85 birds observed, before declining in line with the I-WeBS data.
- Displacement risk: Given the low and irregular use of the site by whooper swans and the general tolerance of mute swans to disturbance, any temporary disruption is predicted to be minor, localised, and short-term, with no measurable impact at regional or national population scales, as discussed in Section 7.4.2 and 7.4.4 of the EIAR.

Conclusion:

The comprehensive, multi-year monitoring confirms that neither mute nor whooper swans regularly commute through the project site, and the floodplain habitat will continue to support only locally important numbers of these species. The design of the project site, combined with mitigation measures, ensure that swan habitat use and population viability will be maintained. Third-party assertions of significant displacement, disruption, or threat to swan populations are not supported by the evidence.

4.10.6 Adverse effects on critically endangered or protected species

Third-Party Concerns:

A number of third parties have raised concerns that the proposed development will negatively affect wildlife, specifically claiming that the area supports critically endangered or protected species and that turbines will result in bird strikes. These submissions cite species including golden plover, oystercatcher, kestrel, barn owl, woodcock, snipe, red kite, buzzard, sparrowhawk, curlews, peregrine falcon, hen harrier, lapwing, little egret, swans, and other waders.

Response:

Conservation Status:

None of the cited species are classified as "Critically Endangered" in Ireland under the International Union for Conservation of Nature (IUCN) Red List or BoCCI 2021–2026. Several species are Red- or Amber-listed (e.g., golden plover, curlew, barn owl, kestrel, hen harrier), while others such as buzzard, sparrowhawk, and peregrine have stable or increasing populations and are not considered under imminent threat of extinction nationally.

Baseline Survey Findings:

Multi-season ornithological surveys during the period 2020 to 2023, including vantage point watches, breeding bird surveys, and wintering bird counts, showed the following:

- Oystercatcher and red kite were not recorded during baseline surveys.
- Habitat within the project site and a 2 km hinterland is largely unsuitable for breeding hen harrier; no known roosts exist within 2 km (see Section 7.3.5.2 of the EIAR).
- Peregrine falcons breed at Brittas Castle, approximately 350 m from the southern borrow pit and 600 m from the nearest turbine, beyond the 500 m turbine buffer. Core foraging range is 2 km, and the project site may form part of this range without affecting breeding success (see Section 7.3.5.6 of the EIAR).
- Most species use the site infrequently, with presence limited to transient overflights rather than core foraging or nesting. Core habitats for sensitive species are located outside the project site footprint and remain unaffected.

Collision Risk Assessment:

Collision risk modelling (CRM) identified only eight species with a predicted total of one or more collisions over the 35-year operational period: buzzard, cormorant, golden plover, grey heron, kestrel, lapwing, lesser black-backed gull, and little egret. Risk for barn owl, curlew, hen harrier, woodcock, snipe, sparrowhawk, and peregrine was deemed negligible or low (see Section 7.3.3.5 of the EIAR). For peregrine, the assessment accounted for fledgling dispersal near turbines, predicting no significant population-level effects. For buzzard and kestrel, predicted collision effects were moderate at the local breeding population scale. Buzzard populations are currently stable or increasing, but kestrel populations are in long-term decline across much of their range. Consequently, even moderate collision impacts may have greater significance for kestrel conservation at the local level. Overall, the combination of baseline survey data, habitat assessments, and CRM indicates that potential impacts on the cited species are negligible or low and within thresholds considered sustainable for local and regional populations, as discussed in Section 7.4.4 and 7.4.5 of the EIAR.

Conclusion:

The submissions asserting that the project site poses a serious threat to the survival of protected or notable bird species in the area, are not supported by evidence. Robust, multi-season baseline data, national conservation assessments, and detailed collision risk modelling collectively demonstrate that significant adverse effects are not anticipated for any of the species cited, as concluded in Section 7.4.4 and 7.4.5of the EIAR.

4.10.7 Collision Risk Models tend to underestimate mortality.

Third-Party Concerns:

"Study from Belgium one of very few undertaken shows the variation in Bird mortality rates for the studied wind farms in Flanders was quite high. This is also the case in other wind farms across Europe: Where correction factors for available Search area, scavenging and search efficiency were applied, the average mortality was highly variable between almost zero and 63 birds per turbine per year. The variation can be explained by different local factors including the characteristics of the development, the topography of the surrounding land, the habitats affected, the species and their behavior and the number of birds present (Drewitt & Langston Citation2006, de Lucas et al. Citation2008). The highest mortality rates in Flanders, were seen in wind farms close to the coast or important wetlands for birds. In a review by Hötker (Citation2006), it was also found that wind farms near wetlands and mountain ridges had significantly more collision fatalities than in other more common landscapes. Due to the turbines sites proximity to Cabragh Wetlands we believe that the collision risk to red listed species like breeding stock dove, and a range of amber listed breeding passerines, such as spotted flycatcher and goldcrest, as well as green listed species such as great spotted woodpeckers that have recently colonized the area, wintering woodcock and birds of prey, including breeding buzzard, sparrowhawk and long-eared owl A has been under stated"

Response:

The 3rd party's assertion that "*Collision Risk Models tend to underestimate mortality*" is a generalisation that is not supported by the evidence for this inland, predominantly agricultural–woodland site. The often-quoted Belgian/Flanders range of "0–63 birds per turbine per year" originates from Hötker *et al*. (2006) and Everaert's coastal studies, where the highest rates were recorded at turbines adjacent to major wetland or coastal migration corridors, and are not representative of inland Irish locations without such concentrations of high-risk species. As Drewitt & Langston (2006) and more recent reviews note, collision rates vary primarily with local bird abundance, behaviour, topography and turbine siting, and modern collision risk modelling (CRM) practice uses empirically derived avoidance rates to align predictions with post-construction monitoring. At Brittas, two years of vantage-point data from the period 2021-2023 show extremely low flight activity at rotor height for the majority of Red- and Amber-listed passerines cited by the 3rd party (e.g. spotted flycatcher, goldcrest, bullfinch), with no modelled collisions and typical foraging/territorial behaviour well below the collision risk zone. Stock dove, although Red-listed nationally, was recorded only once as a possible breeding pair, reflecting the site's limited arable habitat; it is assessed as being of Local Importance and no collision risk modelling was warranted. For higher-risk species, CRMs incorporated precautionary avoidance rates (e.g. 98% for buzzard, kestrel, lapwing, golden plover) and generated predictions that are either negligible over the 35-year operational period (e.g. grey heron, little egret, cormorant) or, where elevated, have been assessed against local and regional population sizes with conservative magnitude-of-effect scoring. In this context, the extrapolation of maximum coastal European mortality rates to Brittas is methodologically flawed, and the site-specific analysis demonstrates that the predicted effects are both evidence-based and precautionary.

Conclusion:

Overall, the evidence indicates that collision risk at Brittas is very low, and the proposed development is unlikely to result in significant adverse impacts on local or regional bird populations, as discussed in appendix 7H (CRM) and sections 7.4.3 and 7.4.4of the EIAR.

4.10.8 Environmental Impact on wildlife – only desktop study done.

Third-Party Concerns:

"Environmental Impact on Wildlife. On many occasions I would walk the dark to enjoy the Wildlife Of the area. The bam Owl which is on the red list of protected species in Ireland, was spotted within 650 meters from turbine 10. The presence of the wind turbines are in the direct pathway of these Barn Owls. One of the consenting landowners is claiming the acres grant for nest boxes for owls. A proper field study should be required as the information in the Impact Assessment Report (EIAR) Brittas Wind Farm states that it was for the most part a DESKTOP study"

Response:

The assertion that the Brittas Wind Farm EIAR "*was for the most part a desktop study*" is incorrect. The ornithology assessment alone, as outlined in Chapter 7 of the EIAR, was informed by three full years of structured, seasonally distributed fieldwork, including monthly vantage point watches, species-specific breeding and wintering surveys, targeted habitat inspections, and collision risk modelling based on site-derived activity data. These field surveys were supplemented—not replaced—by desk-based analysis of national and local datasets, as is standard best practice. The Barn Owl account (see Section 7.3.5.7 of the EIAR) is a clear example: veteran trees and built structures within the 500 m turbine buffer were inspected in the field for roosting or nesting evidence, and no active sites were recorded. While known breeding pairs occur within 1.1 km of the project site and at Cabragh Wetlands, scientific evidence (Barn Owl Trust, 2015; Lusby & Cleary, 2014; Lusby *et al*., 2021) confirms that this species' low flight height (< 3–4 m) means collision risk with modern large turbines which typically come to as low as c. 15-20 meters is negligible, with greater threats coming from road mortality, secondary poisoning, and nest site loss. The assessment therefore correctly focused on indirect effects and proposes enhancement measures such as nest box provision to deliver a local conservation gain (Section 7.3.5 of the EIAR). The combination of comprehensive field data, evidence-based species accounts, and precautionary mitigation demonstrates that the assessment is grounded in on-the-ground survey work, not simply desktop review.

Conclusion:

Overall, the EIAR's assessment of Barn Owls and other wildlife at Brittas is based on robust, multi-season field surveys supplemented by desk-based data, providing a comprehensive and evidence-based evaluation of potential impacts. The proposed mitigation measures discussed in Section 7.5.1 of the EIAR, and site-specific analysis, outline that any risks are reduced, demonstrating that the assessment is thorough and precautionary rather than being a simple desktop study.

4.11 PFAS (per- and poly-fluoroIkylated substances in components of the wind development)

A number of submissions mentioned concerns about the adverse health effects of PFAS substances to be used in the wind farm development

RESPONSE

The **WindEurope statement on PFAS restriction** is provided below in response to the concerns raised about PFAS.

In April 2023, following recommendations from five Member States, the European Chemicals Agency (ECHA) tabled a proposal to restrict the use of per- & polyfluoroalkyl substances (PFAS) in Europe.

PFAS are a class of thousands of substances that are widely used in industrial and domestic applications. In the media they have been dubbed 'forever chemicals'.

Many PFAS are used in closed industrial applications with a limited impact on the environment. This includes several use cases in the energy sector.

However, not all PFAS are the same and they can have very different environmental impacts. Indeed, some PFAS constitute significant long-term health and environmental hazards and can rightly be described as 'forever chemicals'. But others are not bio-accumulative and break down into non-hazardous compounds after 30 years.

Before a restriction is put in place the functionality, criticality, and availability of suitable alternatives should be assessed for each specific PFAS use. In addition, a possible restriction on PFAS should not contain retroactive measures and must be aligned with the EU's wider climate and energy goals.

PFAS and the wind industry

The ECHA proposal points to potential PFAS use in coatings for rotor blades. And it recommends restricting the use of PFAS in these applications. The restriction proposal also mentions the possible use of PFAS in cable insulation, lubricants, and greases. Some of these may be used in wind turbine components.

The wind industry is already using PFAS-free coatings for the rotor blades. And it continuously assesses whether other components and materials may contain PFAS and, if so, whether PFAS-free alternatives are available. The wind industry acknowledges that in certain use cases downstream industries may need time to develop performant substitute materials.

PFAS and the grid

The ECHA proposal includes provisions to ban the use of PFAS in electrical switchgear and circuit breakers over time. PFAS are used in insulation materials and seals in switchgear, and in the nozzles of circuit breakers. The use of PFAS in these cases is critical. Alternatives do exist but have limited availability. But technology continues to develop. A restriction on PFAS in grid equipment and spare parts could impact the repairability and maintenance of the installed grid.

Some of the gas alternatives to SF6 might also contain PFAS. SF6 is widely used in electrical switchgear and circuit breakers as a dielectric insulator. It is a greenhouse gas that is 23,000 times more potent than CO2. The PFAS gasses used in some of the SF6-free alternatives may not be climate neutral, but they are also not bio-accumulative and have a dissipation half-life of 30 years or less.[12]

To deliver the energy transition, Europe needs to accelerate the build out of transmission and distribution grids and ensure that existing grids can be repaired and maintained. The European Commission and ECHA

[1] https://echa.europa.eu/brief-profile/-/briefprofile/100.233.498

[2] https://echa.europa.eu/registration-dossier/-/registered-dossier/31289

must consider whether a possible restriction on PFAS use in grid equipment aligns with the EU's climate and energy policies.

5. Responses to New Circumstances

5.1 Proposed Bypass for Thurles

The route for the emerging preferred Thurles town bypass included in the Thurles and Environs Local Area Plan 2024-2030 (March 2024) (see map in Figure 6.17 below) runs along the southern boundary of the Brittas Farm and forests. The proposed road would bypass Thurles on the eastern side and would connect the N62 to the north and south with the N75 to the east of the town. At it's closest point the proposed bypass would be around 615m south of Turbine 10 (the most southerly of the proposed turbines). This is well outside the fall distance for the turbine. The Brittas forests would also partially screen the turbines from the view of potential future road users.

This is just a proposal at this stage. There is no design or planning application lodged for the bypass. Construction of this would be likely to take place after the construction of the Brittas WF. Consequently, there is not expected to be any cumulative noise, water, flooding, population and human health, or land and soils effects.

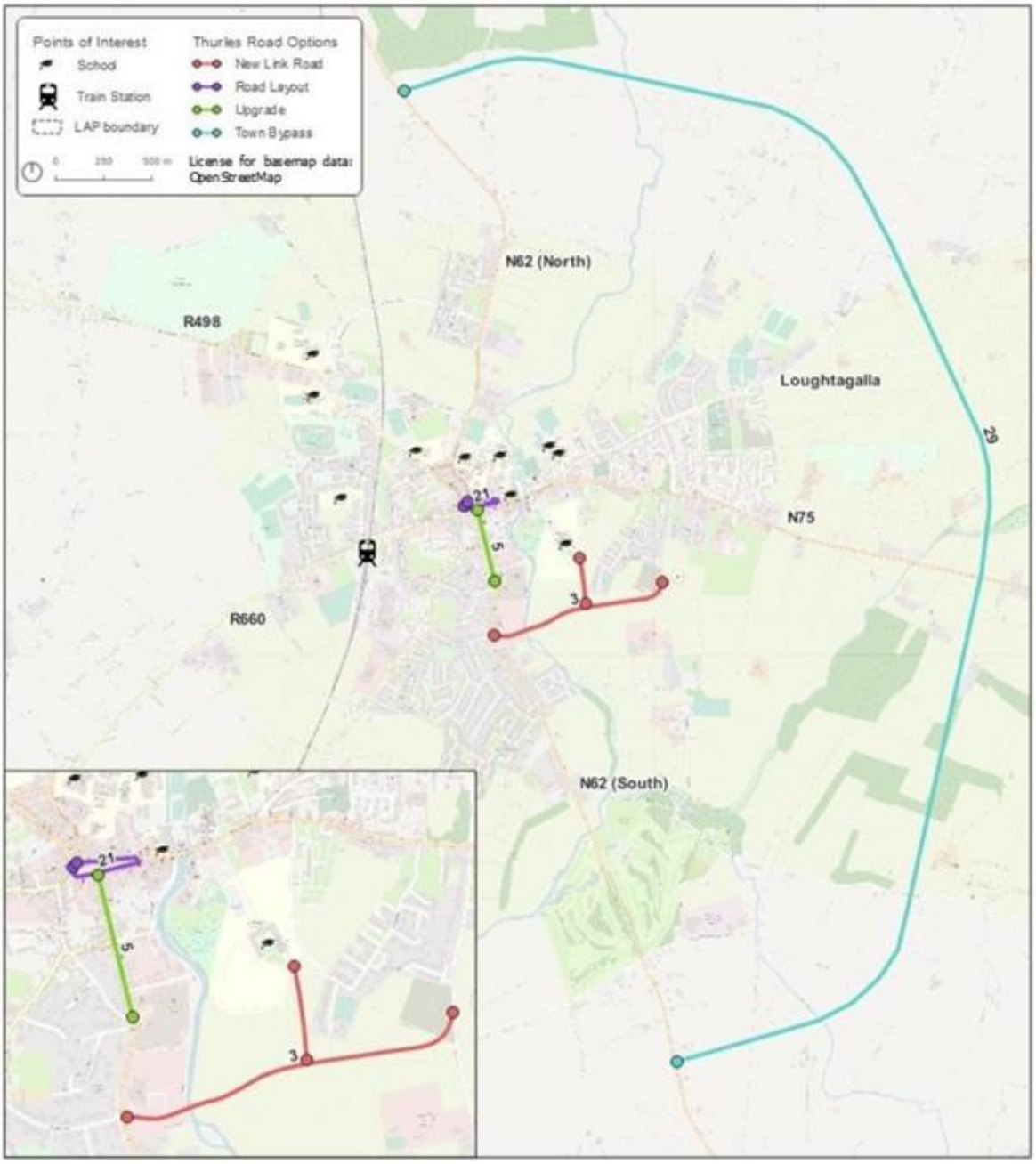


Figure 7: Map of Preferred Brittas Town Bypass Road extracted from the Thurles and Environs Local Area Plan 2024-2030

6. References

Barn Owl Trust (2015). *Barn Owl Conservation Handbook: Ecology, Conservation and Research Techniques*. Pelagic Publishing, Exeter.

BirdWatch Ireland & RSPB NI (2021). *Birds of Conservation Concern in Ireland 4: 2020–2026*. BirdWatch Ireland, Wicklow & RSPB NI, Belfast. Available at: https://birdwatchireland.ie/app/uploads/2021/04/BOCCI4-leaflet-2-1.pdf

Drewitt, A.L. & Langston, R.H.W. (2006). *Assessing the impacts of wind farms on birds*. Ibis, 148 (Suppl. 1), 29–42. DOI: https://doi.org/10.1111/j.1474-919X.2006.00516.x

Hötker, H., Thomsen, K-M., & Jeromin, H. (2006). *Impacts on biodiversity of exploitation of renewable energy sources: the example of birds and bats*. NABU, Bergenhusen, Germany.

Lusby, J. & Cleary, G. (2014). *The Barn Owl in Ireland – a review of distribution, ecology and threats*. Irish Birds, 9, 1–18.

Lusby, J., Lusby, B., & O'Toole, L. (2021). *Barn Owl population trends in Ireland and the effectiveness of mitigation measures*. Irish Birds, 44, 1–14.

NatureScot (2021). Bats and Onshore Wind Turbines – Survey, Assessment and Mitigation. NatureScot (Scottish Natural Heritage), Natural England, Natural Resources Wales, Renewable UK, Scottish Power Renewables, Ecotricity Ltd, the University of Exeter and the Bat Conservation Trust (BCT).

NIEA (2024). Guidance on Bat Surveys, Assessment and Mitigation for Onshore Wind Turbine Developments in Northern Ireland. Version 1.1. NIEA, Natural Environment Division.

Marnell, F., Kelleher, C. & Mullen, E. (2022) Bat mitigation guidelines for Ireland v2. Irish Wildlife Manuals, *No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland*

Appendix 1: Photomontage from Rock of Cashel.

Brittas Wind Farm – Visual Impact Assessment

Viewpoint 22
View from Rock of Cashel

Viewing Instructions
Angle of View of Panorama: 53.5° (planar projection)
Principal Distance (printed at 84 x 29.7cm): 81.25cm
Depicted Turbine Specifications
Hub: 105m, Tip: 180m, Rotor Diam. 150m

Viewpoint Location & Capture Information
Location (ITM): 607477.27, 641048.67
Camera Level (Metres Above Ordnance Datum): 123.6
Date & Time: 24/05/2023 5:05 PM
Weather Conditions: Sunny, intermittent clouds

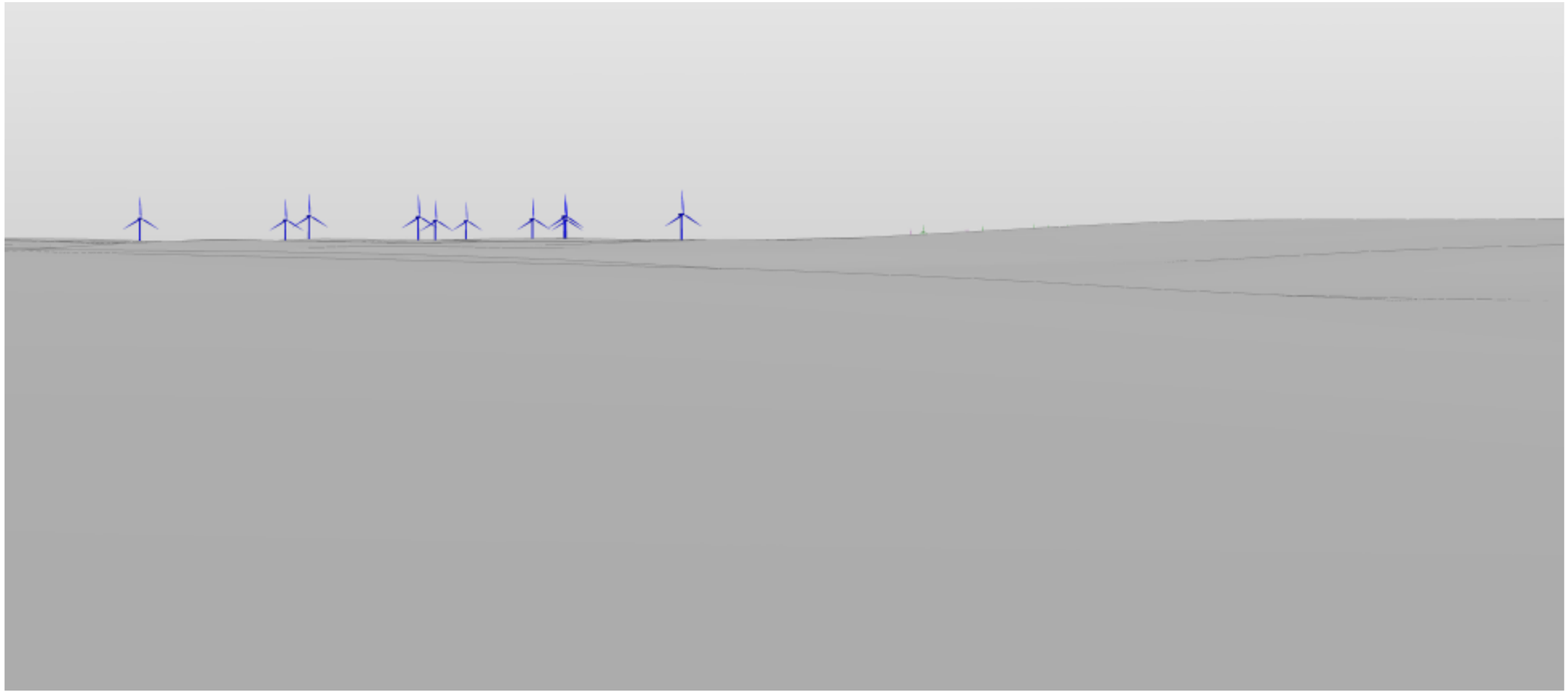
Visibility Information
Distance to Nearest Visible Turbine (km): 21.3
Number of Proposed Nacelles Visible: 10
Direction of View (From Grid North): 14°

Camera Information
Camera: Canon 5D Mark IV
Lens: Canon EF 50mm f/1.4 USM
Focal Length: 50mm

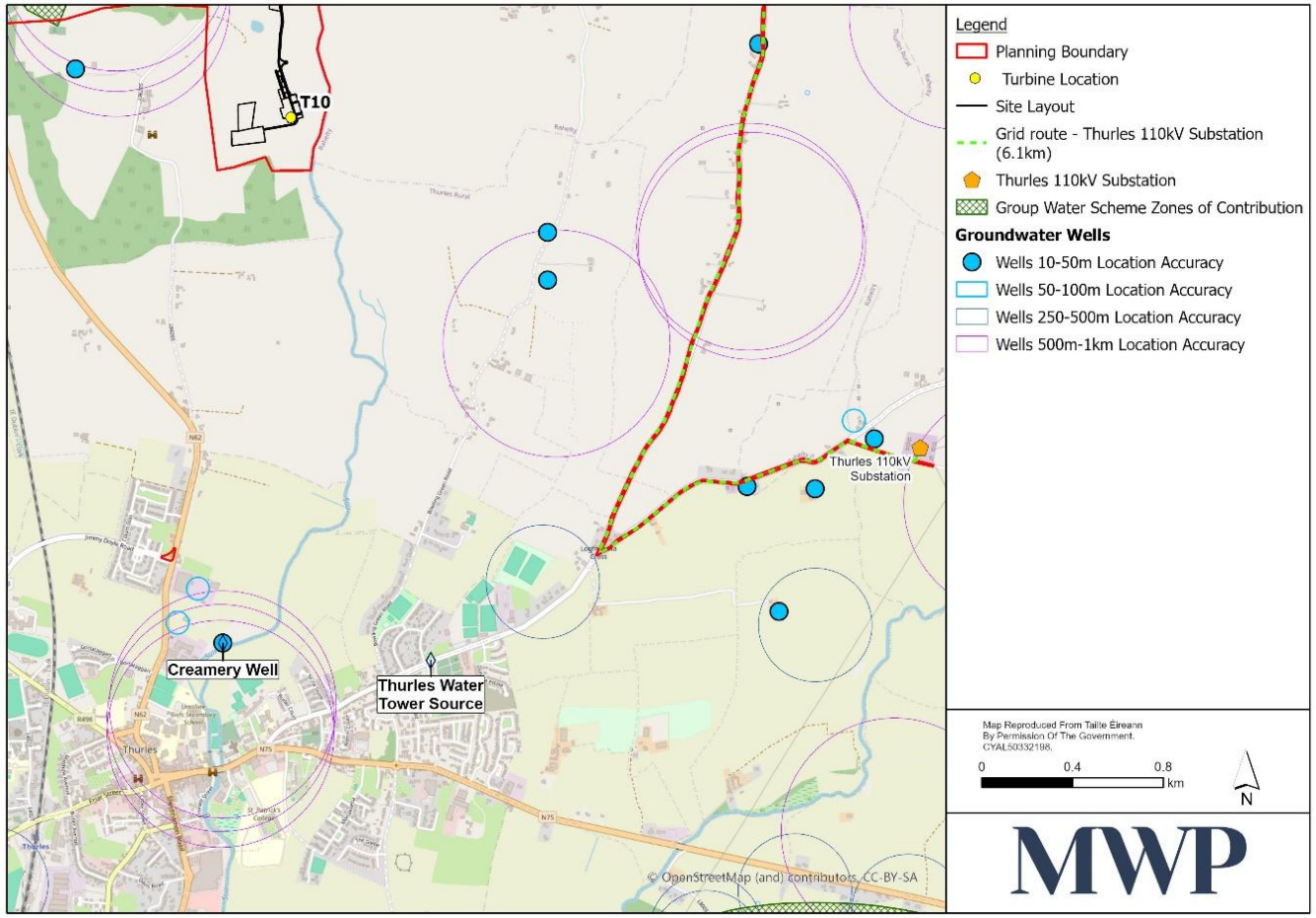
Visuals prepared by innovision

Appendix 2: View from viewpoint 14 at the Holycross Abby towards the proposed Brittas WF

Appendix 3: Photomontage images taken from Holycross Abby towards the proposed Brittas Wind Farm



Appendix 4 Map of proposed Brittas Wind Farm Grid Route and location of Thurles Water Tower Source and Creamery Well



Appendix 5: Map of proposed Thurles Bypass (extracted from Thurles and Environs Local Area Plan 2024-2030).