



Appendix 5 – Material Deviations from Permitted Plans

Following the November 2020 Peat Slide, a detailed retrospective comparison between what had been built and what was permitted, was undertaken by Planree Ltd. and by Donegal County Council (DCC). Planree Ltd. also engaged MKO to prepare an Environmental Report (ER) to consider and assess the effect of identified deviations, individually and cumulatively. In April 2022, DCC advised Planree Ltd. that there were a number of deviations from the original planning permission that required regularisation via the substitute consent process.

DDC's direction to Planree Ltd was based on a report prepared by SLR entitled '*Meenbog Windfarm – Ecological Assessment of Planning Deviations (February 2022)*' and which is enclosed with this Appendix for completeness. The SLR Report identified 47 no. potential deviations. A detailed analysis of the SLR Report by MKO and Planree Ltd has determined that of the 47 no. potential deviations, 25 no. were considered to be material and were ultimately the basis for the Substitute Consent planning application submitted to the Coimisiún in April 2024 (Ref: SU05E.319466) and subsequently withdrawn in February 2025. The 22 no. potential deviations that were not included in the 2024 Substitute Consent planning application were/are not considered to be material for the following reasons:



1. *What has been built on-site is different to what was permitted and shown on the original planning application drawings, only because what has been permitted, has not yet been constructed or completed.*
2. *What has been built on-site is different to what was permitted and shown on the original planning application drawings, only because what has been built now occupies a smaller footprint than what was originally permitted.*
3. *Elements of the permitted development have not been constructed/developed, and will not be constructed/developed, giving rise to a difference between what is on-site and what was permitted and shown on the original planning application drawings.*
4. *Elements of the permitted development were identified as potential deviations, before being confirmed as having formed part of the original planning permission application and having the benefit of planning permission.*
5. *Elements of the development were identified as potential deviations, even though they were temporary construction-related installations, such as storage containers or temporary site offices.*
6. *An identified potential deviation was a pre-existing forestry road, and was not developed as part of the works to the permitted wind farm.*
7. *Some identified potential deviations were emergency works undertaken in the period immediately after the peat failure, which have now been removed or reverted back to the permitted design/layout.*
8. *“Tree movement” was identified as a potential deviation, but would not constitute works or development within the meaning of the Planning and Development Act for which substitute consent may be required.*
9. *Some potential deviations were enhanced water protection measures (as provided for in the ELAR’s drainage design) in the form of additional silt ponds, check dams and roadside berms, and therefore integral to the protection of water quality during the construction of the permitted wind farm.*

At the time the 25 no. deviations arose during construction, the Applicant understood that the development was being carried out in accordance with the granted permission and in MKO’s view, this was a reasonable understanding. The identified deviations can be grouped into the following categories:

- Site Roads and Hardstand Area
- Borrow Pits
- Peat and Spoil Management
- Environmental and Water Quality Mitigation Measures

Each of these deviations and the reason for the deviation are detailed in Table 1 below.

It is acknowledged that the detailed retrospective comparison between what had been built and what was permitted established that there were a series of minor deviations from the permitted development. However, it is important to distinguish between the technical planning analysis



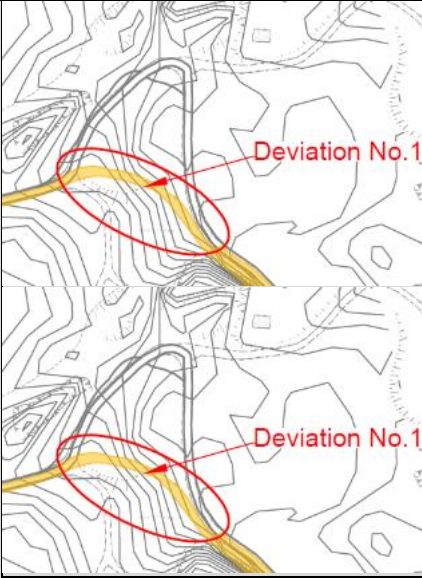
undertaken by DCC as part of a retrospective comparison exercise and the Applicant's reasonable understanding at the time the works were undertaken.

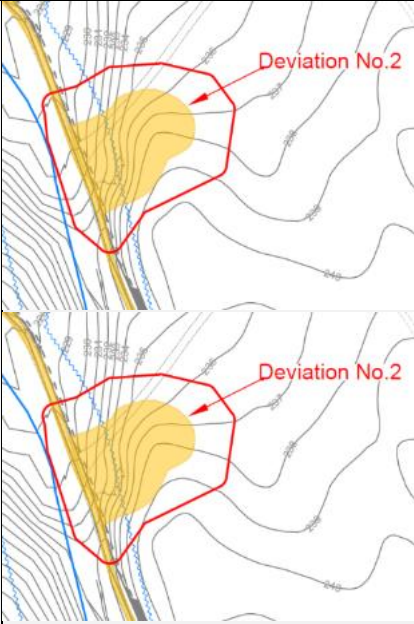
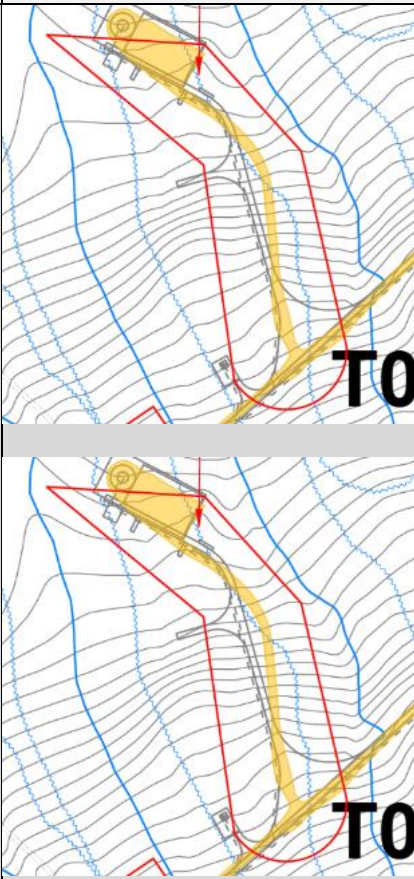
Throughout the construction phase, the Applicant believed that the development was being carried out in accordance with the granted planning permission. The development, as built, closely reflects the approved scheme in terms of its overall scale, form, and purpose, and the deviations arose in response to site-specific and practical considerations encountered during construction.

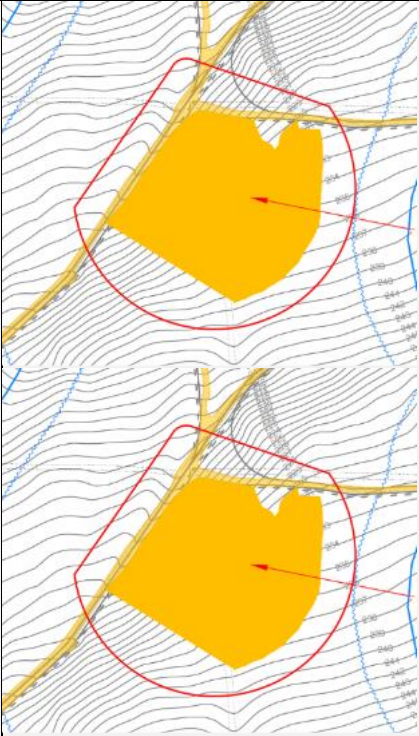
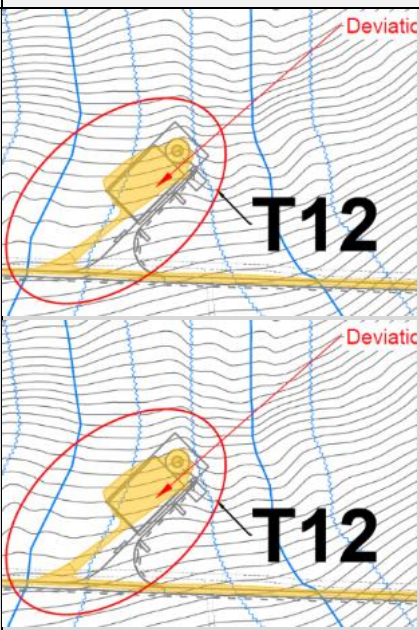
These deviations arose due to site topography, safety considerations, drainage and surface water management, as detailed in Table 1 below. These matters are technical in nature and arose during the construction of the project. Site specific issues often arise during the construction stage that would not necessarily have been precisely identifiable at the planning and design stage. It is important to note that the Applicant considered, reasonably in MKO's view, that the deviations were minor in scale and that they did not represent a material or fundamental departure from the terms of the planning permission. This matter is discussed further in Section 8 of the Planning Report.

Table 1 Deviations between the Existing Development and the Permitted Development

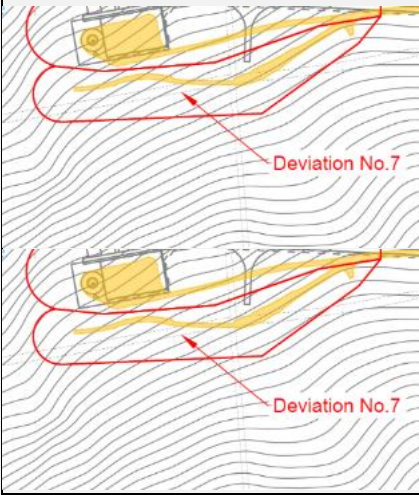
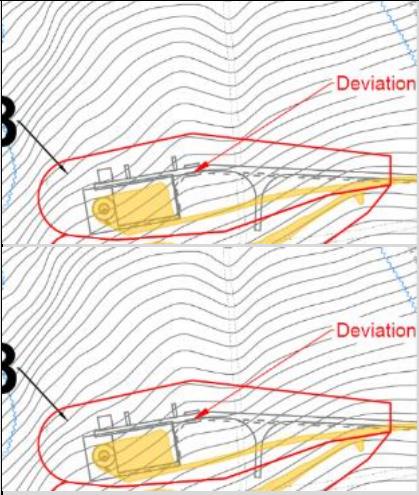


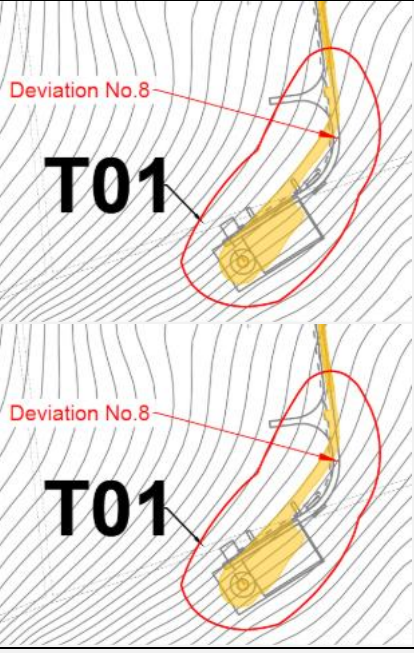
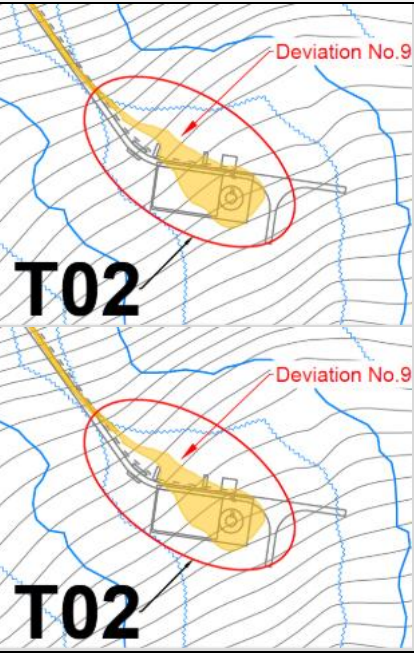
No.	Deviation Description	Location of Deviation	Reason for Deviation
1	Entrance road off N15 (the hairpin bend)		The existing hairpin bend was unsafe as it did not provide adequate line of sight for vehicles using the road. This was a safety concern that only came to light prior to construction and after it was established that the as-built route was feasible from a geotechnical perspective with the benefit of site investigations. Furthermore, the longer blades authorised by the S.146B process in June 2019 can be more easily accommodated on the as-built road by eliminating the need to traverse the hairpin bend. The as-built alignment also required a reduced construction footprint compared to the permitted alignment.

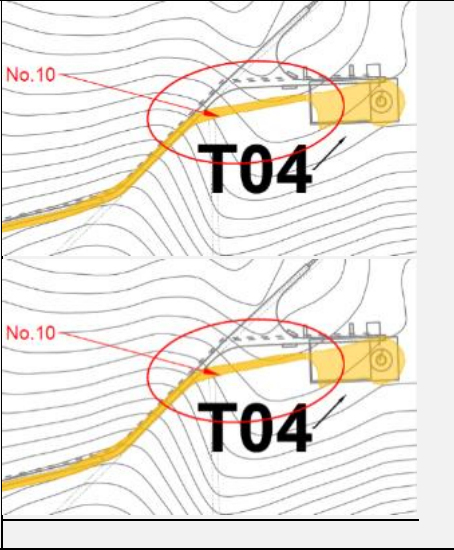
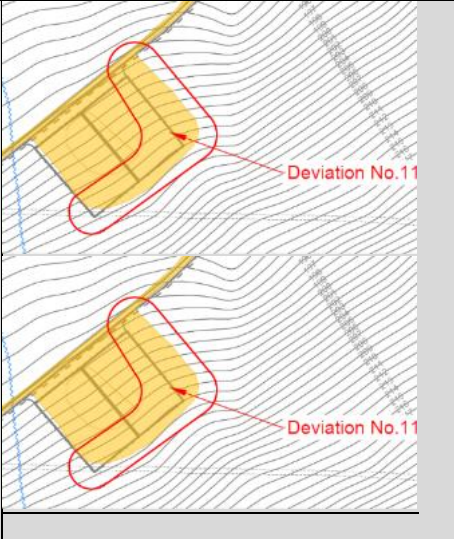
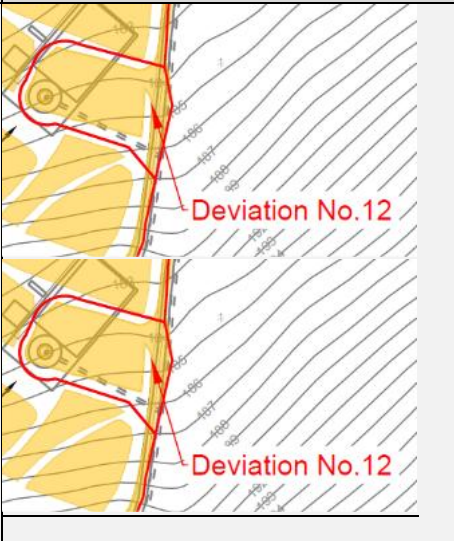
2	Peat cell southeast of substation		Peat cells were created as part of the engineering plans for excess peat that was generated during the course of construction and required management, greater than the volumes estimated pre-construction.
3	T10 access road:		Realigned road was adjusted to follow more favourable ground conditions and topography.

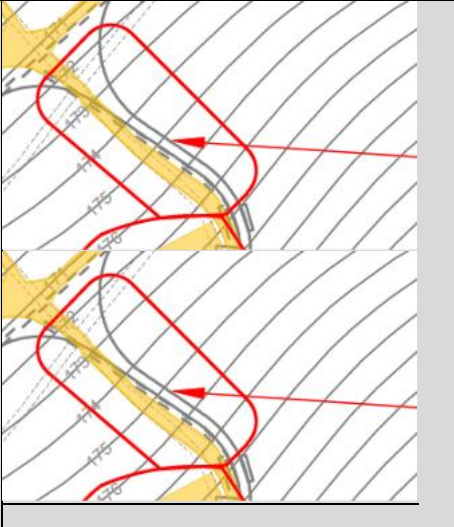
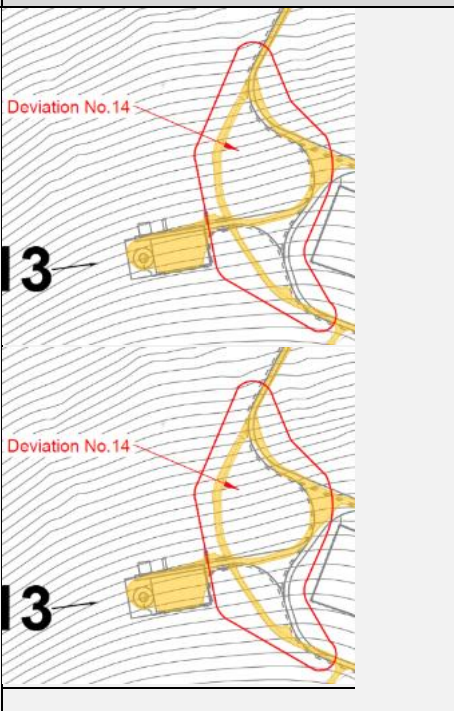
4	Borrow Pit southwest of T12		Existing forestry borrow pit was expanded to win stone on-site ahead of gaining access to the wind farm borrow pits. Excavation of the existing forestry borrow pit continued in lieu of excavation at the permitted BP1 borrow pit.
5	T12 access road		The natural topography on site required a slight realignment of the approach to T12 due to rising ground to the east of the planned road. Moving the road approximately 30 metres to the west negated the need for excessive cut at this location.

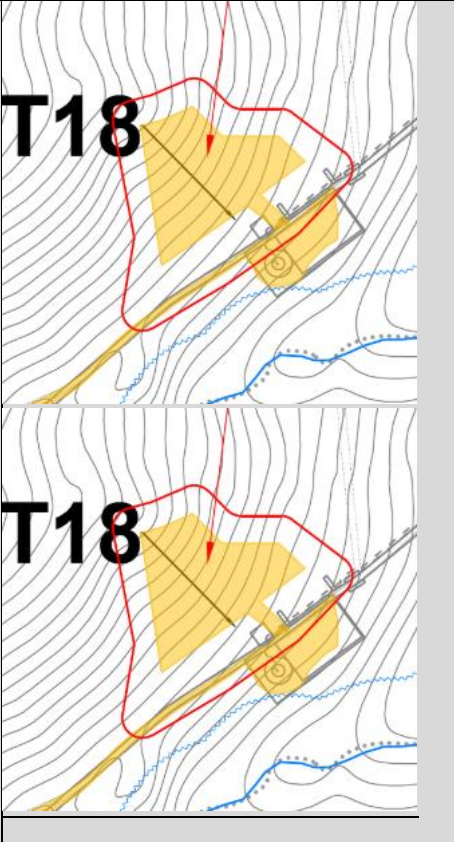
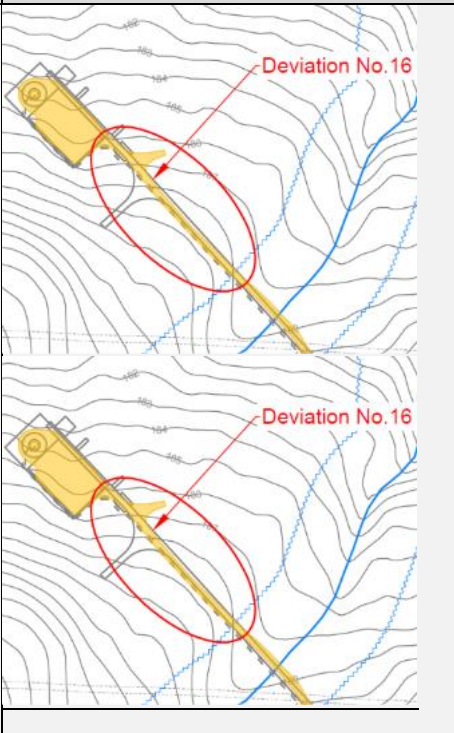


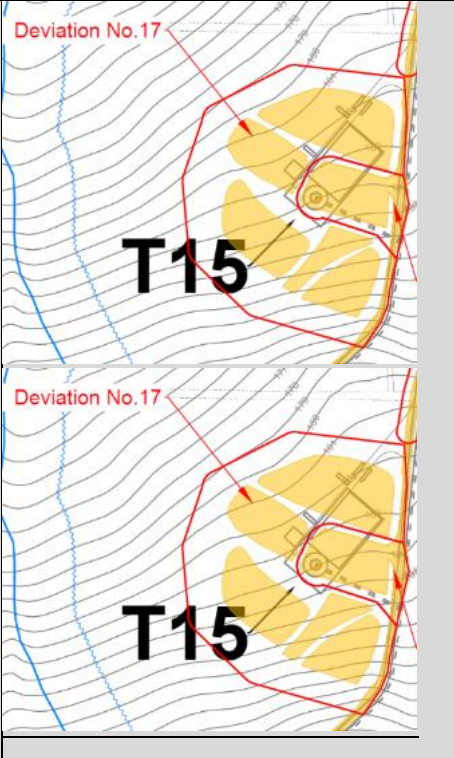
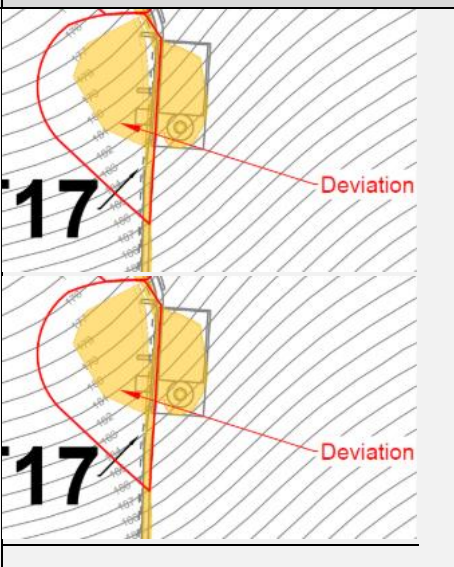
6	Peat containment berm near T8		A berm was constructed to the south of T8 as a peat containment safety measure prior to constructing T8.
7	T8 access road (see 6 further above for peat containment berm)		The access road to T8 was amended to approach the southern side of the turbine and align with the berm.

8	T1 access road		The approach to T1 was slightly amended to provide a more effective alignment for delivery vehicles based on detailed design of road alignment pre-construction, resulting in a slight reduction in road length.
9	T2 access road		The approach to T2 was slightly amended to provide a more effective alignment for delivery vehicles based on detailed design of road alignment pre-construction.

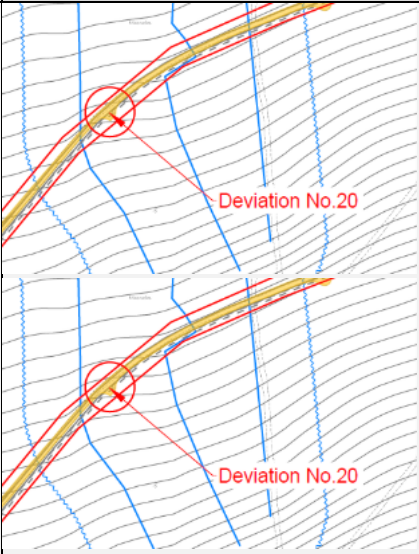
10	T4 access road		The approach to T4 was slightly amended to provide a more effective alignment for delivery vehicles based on detailed design of road alignment pre-construction.
11	Borrow pit (BP2) south of T15		Permitted borrow pit was expanded slightly to win more rock on-site and avoid the importation of additional volumes from off-site.
12	T15 hardstand and access road		The natural topography on site facilitated direct access to T15 off the main spine road at this location which negated the need for the proposed road to T15. This was achieved by rotating the hardstand by 90 degrees.

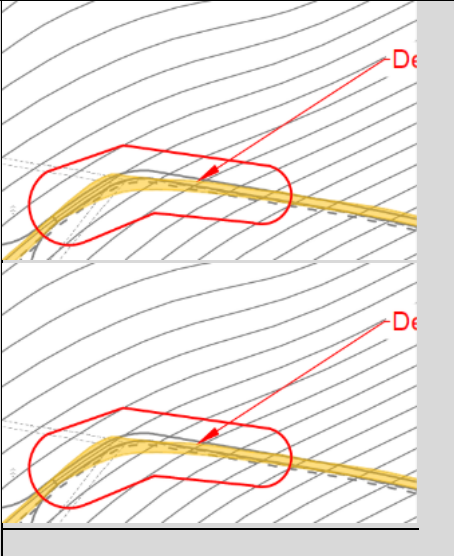
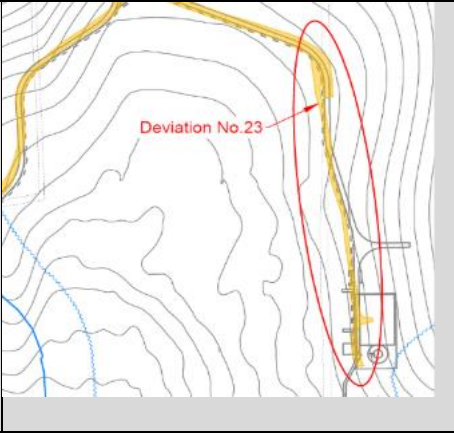
13	T17 access road		The permitted road followed the route of a pre-existing forestry firebreak, and the as-built road was constructed as intended, along that firebreak. The intent was clear, but a minor difference in alignment arose between the permitted road and as-built road.
14	T13 road alignment (upgrade of existing forestry track)		An existing forestry road was upgraded and used, thus preventing the need for the construction of the section of new permitted road based on detailed design of road alignment pre-construction.

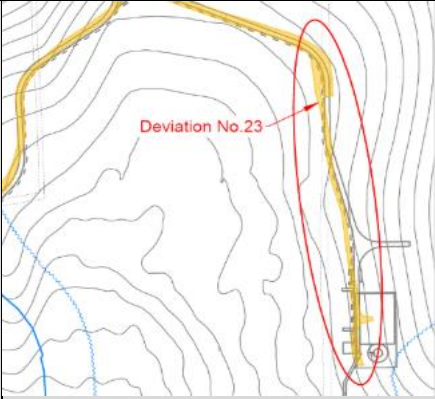
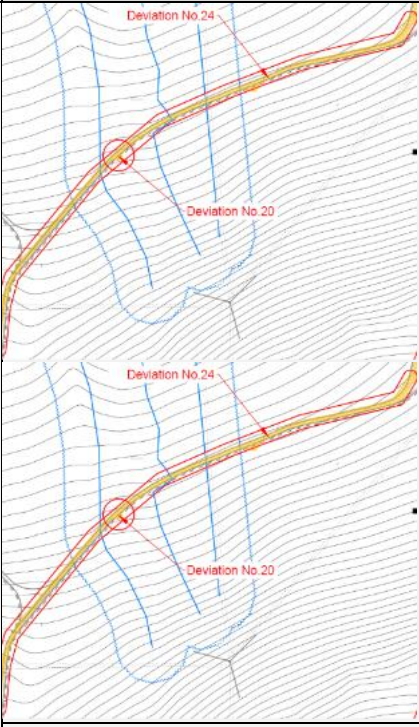
15	Peat cells NW of T18		Peat cells were created as part of the engineering plans for excess peat that was generated during the course of construction and required management, greater than the volumes estimated pre-construction.
16	T14 turning head		Position of turning head altered to suit the natural topography on the ground.

17	Peat cells near T15		Peat cells were created as part of the engineering plans for excess peat that was generated during the course of construction and required management, greater than the volumes estimated pre-construction.
18	Peat cells near T17		Peat cell was created as part of the engineering plans for excess peat that was generated during the course of construction and required management, greater than the volumes estimated pre-construction.

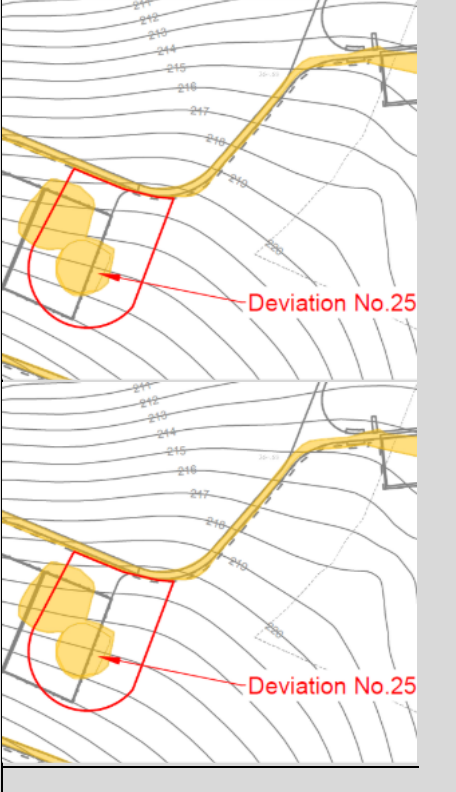


19	Layby south of T10 with welfare facilities		This was an existing forestry access for harvesting, which was repurposed for locating site office and welfare facilities, which will be removed upon completion of construction.
20	Layby northeast of T15		Layby in this area installed as a safety measure to allow construction traffic to pass. It is along the original permitted road alignment to T15. Passing bays were included in the planning drawings though actual location on the ground may have varied as dictated by ground conditions.

21	T19 access road		Slight widening and curve realignment to increase horizontal bend radius for turbine blade delivery.
22	T9 access road		The permitted road followed the route of a pre-existing forestry track, and the as-built road was constructed as intended, along that forestry track. The intent was clear, but a minor difference in alignment arose between the permitted road and as-built road.
23	Additional storage area and access road to T7		The slightly realigned road served the dual purpose of acting as a peat containment berm following the November 2020 peat failure.

			
24	Roadside berms and settlement ponds		Small, low-level roadside berms were used to contain mud within the road corridor surface and prevent run-off into the wind farm drainage system or settlement ponds, check dams and silt fences. Settlement ponds are entirely consistent with the permitted wind farm's drainage design, but would not have been shown on planning drawings and therefore may appear to have been outside the Permitted Development footprint.



25	Assessment of additional excavated borrow pit and peat storage cell at T-13	 A topographic map showing contour lines with elevations ranging from 212 to 219. Two yellow circular areas are highlighted on the map, each with a red line pointing to it from the label 'Deviation No.25'. The map also shows a yellow line representing a road or path and some black lines representing boundaries or structures.	Position of permitted borrow pit was repositioned to suit local topography.
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MEENBOG WINDFARM

Ecological Assessment of Planning Deviations

Prepared for: **Donegal County Council**
Client Ref: Ud20254 DCC:017800000216

SLR Ref: 425.02036.00795/501.00677.00001
Version No:3
February 2022



Document Control	
Document Properties	
Organisation	SLR Consulting / SLR Consulting Ireland Ltd.
Project Name	Meenbog Wind Farm
Report Title	Meenbog Windfarm Ecological Assessment of Planning Deviations
Author(s)	Richard Arnold
Draft version/final	Final
Document reference	220217 425.02036.00795 Meenbog Review RA_MB 010

Date	Revision No	Prepared By	Reviewed By	Approved By	Status	Comments
13/12/2021	1	Richard Arnold	Colin Duncan	-	Draft	Issued for client comment
30/01/2021	2	Richard Arnold	Colin Duncan	-	Draft	Issued for client comment
15/02/2022	3	Richard Arnold	Colin Duncan	Michael Bailey	Final	
18/03/2022	4	Richard Arnold	Colin Duncan	Michael Bailey	Final	Further comments

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CONTENTS

1.0 INTRODUCTION.....	2
1.1 Background.....	2
1.2 Brief Site Description.....	2
1.3 Details of the Proposed Development.....	2
1.4 Purpose of this Report.....	3
1.5 Evidence of Technical Competence and Experience	3
1.6 Relevant Legislation.....	4
1.6.1 Environmental Impact Assessment	4
1.6.2 Habitats and Species.....	4
1.6.3 Water	4
1.6.4 Environmental Liabilities	5
1.6.5 Planning	5
2.0 DOCUMENT REVIEW	6
3.0 SITE INSPECTION	6
4.0 BASELINE CONDITIONS.....	6
4.1 Designated Sites	6
4.2 Habitats and Soils	7
4.3 Topography and Hydrology	8
4.4 Species	8
4.5 Summary of Baseline Conditions	9
5.0 WIND FARM LAYOUT	9
6.0 DEVIATIONS FROM PLANNING CONSENT	10
7.0 POTENTIAL ECOLOGICAL RISKS.....	12
8.0 MITIGATION.....	15
9.0 PLANNING CONSIDERATIONS.....	15
10.0 AA SCREENING REPORT	16
11.0 CONCLUSION.....	16
12.0 REFERENCES.....	18

DOCUMENT REFERENCES

TABLES

Table 1. Summary of Deviation Types 10

Table 2. Summary of Ecological Risks 13

FIGURES

Figure 1 Wind Farm Layout, map extracted from MKO response of 1/03/2020, 'Required Actions List and associated actions map'

Figure 2 As Constructed Drawings, map extract from MKO Environmental Report, 'Appendix 1 - As constructed drawings'

APPENDICES

Appendix 1 Detailed Assessment of Ecological Risks

Appendix 2 Review of AA Screening Report

1.0 Introduction

SLR Consulting Ltd (SLR) was commissioned by Donegal County Council to review the ecological risks associated with 45 deviations from the planning consent for the Meenbog Windfarm, County Donegal.

1.1 Background

The Meenbog Windfarm was given planning permission by An Bord Pleanála (ABP-300460-17) on 19th June 2018. Construction commenced in late 2019/ early 2020 and the enabling works were ongoing with much of the infrastructure (tracks, hardstanding and some of the bases) in place but no turbines on site when a large 'bog burst' event occurred on the site in November 2020. Construction activity then ceased other than emergency works to contain the peat slide and remedial works to restore habitats damaged by the 'bog burst' event. The wind farm proposal was the subject of an Environmental Impact Assessment Report and a Natura Impact Assessment which were submitted with the planning application. Following the event, the construction work in progress was compared to the planning consent and found to differ in up to 45 places, ranging from areas of hard standing not yet constructed, deviations to planned access tracks, the creation of a large borrow pit, and additional peat storage cells.

1.2 Brief Site Description

Meenbog wind farm is located in County Donegal in the townlands of Meenbog and Croaghonagh, approximately 8km southwest of Ballybofey/Stranorlar and approximately 12km northeast of Donegal Town. The wind farm site adjoins County Tyrone and is located approximately 19km west of Castlederg. The land use is commercial forestry (Coillte occupied and managed), with conifer trees planted on blanket bog. Some areas of intact bog are also present. The site is accessed from the N15 road with the main wind farm area lying about 2km east of the road.

1.3 Details of the Proposed Development

The consented wind farm development comprises the construction of a wind farm along with all associated site and access works to include:

- 19 wind turbines, associated foundations and hard standing areas. The turbines will have a generating capacity in excess of 50MW and a blade tip height of 156.5m.
- 1 x permanent c.110m high meteorological mast.
- 1x 110kV electrical sub-station with 2 x control buildings & fencing.
- All associated internal underground cabling.
- 110kV underground grid connection cabling (to Clogher substation).
- Upgrade of access junctions.
- Upgrade existing tracks and roads.
- Provide new site access roads and hardstand areas.
- Excavation of 3 x borrow pits.
- Installation of 2 x temporary construction compounds.
- Provide a new public amenity area (tracks & trails, picnic & play areas, car parking & vehicular access).
- Installation of a site drainage system.

- Forestry felling and replacement planting.
- Permanent signage.
- All associated site developments and ancillary works.
- A 10-year permission with a 30-year operational life.

The consented layout of the wind farm is provided in drawing on drawings in the EIAR, including Figure 9.4, Chapter 9 - Water.

1.4 Purpose of this Report

The scope of works is as follows:

1. Review the following documents:
 - An Bord Pleanála SID documents i.e. Inspector's Report, Order and Direction,
 - Relevant chapters of the EIAR, namely
 - Chapter 4 Project Description,
 - Chapter 6 Flora and Fauna,
 - Chapter 8 Land, Soils and Geology and
 - Chapter 9 Hydrology,
 - Stage 1 AA Screening Report and a Stage 2 Natura Impact Statement (NIS) for the project;
 - Construction Environmental Management Plan and relevant appendices;
 - Council's planning assessment of deviations to date (supported by matrix of deviations, site layout of deviations and deviation descriptions) and
 - Ecological submissions from the developer (these documents are to be treated as private and confidential and the information contained therein is not for dissemination outside of this project).
2. Carry out a joint site inspection with Council staff to examine the deviations and evaluate the ecological risk of each of these, where possible.
3. A report providing an ecological opinion of the 45 no. identified deviations to the permitted windfarm development, excluding those associated with emergency works.

The report should consider the significance of any / all ecological risks that have arisen from these deviations, whether or not said risks (and associated new and / or modified mitigation measures as implemented on site) have been appropriately considered within the scope of the original application EIAR / AA; and conclude whether or not these deviations would individually or cumulatively require separate regularisation through the planning process / substitute consent process.

1.5 Evidence of Technical Competence and Experience

The review team comprises Richard Arnold and Colin Duncan.

Richard Arnold BSc(Hons) MRes MCIEEM CEnv is a Technical Director – Ecology, with responsibilities for a team of ecologists based in Cork, Ireland and a second team based in London. He has 23 years of ecological consultancy experience encompassing the UK and Ireland. His recent work has included assisting An Bord Pleanála on several major development projects, including the Seven Hills Windfarm in Co. Roscommon. Richard is a botanist and habitat specialist with expertise in Annex I habitats and the EIA and AA processes as they are practised in Ireland.

Colin Duncan BSc (Hons) MSc is a Technical Director – Land Quality in SLR’s Stirling office. He has over thirty years’ experience in environmental consulting and geology. Colin’s recent specialist area is Engineering Geological Assessment in the renewables sector. Currently, Colin is working on a number of EIA projects for proposed wind farms, providing both pre and post consent services, in geological and geotechnical services. Colin has worked on over 100 wind farm projects and 15 substation projects from initial site selection to cable routing and site investigation for engineering design purposes, in Scotland, Ireland and Wales and has experience, in infrastructure design, geological assessment, borrow pit assessments, mining related studies and peat slide risk assessments. This includes sites on behalf of RES, SSE Renewables, ScottishPower Renewables, Vattenfall, Ridgewind/Blue Energy, RWE nPower, Falck Renewables, Gamesa, Wind2, ESB, Coriolis and Infinis. He has been involved in engineering and geological assessment of a number of sub-station sites, cabling routes and transmission line routes in Scotland, including site selection, site investigation and outline design. Colin has previously prepared Hearing Statements and presented at Public Inquiry on peat and historic mining, for sites in Scotland, including Harryburn, Arecleoch Dell and in Ireland on Curraghinalt Gold Mine, for peat landslide risk.

1.6 Relevant Legislation

1.6.1 Environmental Impact Assessment

- Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment 1985, as amended in 1997 (Council Directive 97/11/EC), 2003 (2003/35/EC) and 2009 (2009/31/EC), codified in 2011 (2011/92/EU) and amended again in 2014 (2014/52/EU) (the EIA directive).
- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, as amended.
- The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2012/2017, as amended.

1.6.2 Habitats and Species

- European Union Habitats Directive, (1992). Council Directives 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
- European Union Birds Directive (2009) Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version).
- European Communities (Birds and Natural Habitats) Regulations, 2011, as amended.
- The Conservation (Habitats &c.) Regulations (Northern Ireland) 1995, (as amended).
- Wildlife Act, 1976, as amended.
- Wildlife (Amendment) Act, 2000, 2010, 2012.
- Flora (Protection) Order 2015.
- Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species, as amended, together with Commission Implementing Regulation (EU) 2016/1141 and Implementing Regulation (EU) 2019/1262.
- The Heritage Act 2018.

1.6.3 Water

- European Communities (Water policy) Regulations, 2003, as amended.

- European Communities Environmental Objectives (Surface Waters) Regulations 2009.
- The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017, as amended.

1.6.4 Environmental Liabilities

- European Communities (Environmental Liability) Regulations 2008.
- Environmental Liability (Prevention and Remediation) Regulations (Northern Ireland) 2009, as amended.

1.6.5 Planning

- Planning and Development Act 2000, as amended, including S.34 (12) and (12C) and Part XAB.

2.0 Document Review

The documents listed in section 1.4 were reviewed prior to the site inspection and were consulted again during the preparation of this report. The review of these documents forms the basis of sections 4, 5 and 6 of this report.

3.0 Site Inspection

A site visit was undertaken on 25th November 2021. It was attended by representatives of Donegal County Council, SLR Consulting and the construction contractor. All 45 of the identified deviations were inspected, as well as the emergency works and other elements of the infrastructure and surrounding land.

4.0 Baseline Conditions

4.1 Designated Sites

There are a number of designated sites in proximity to the windfarm site. These are given in Tables 6.6, 6.7 and 6.8 of Chapter 6 of the EIAR and shown on Figure 6.1. The designated sites include:

- Croaghonagh Bog SAC (000129) and pNHA (000129), adjoins the windfarm site, with its western boundary coinciding with the access track to the windfarm for 0.75km and connected directly to the windfarm site by Mary Breen's Burn, which flows northwards from the wind farm site through the centre of the SAC before joining the Mourne Beg River which, further downstream, is included in the River Finn SAC and, on the NI side of the border, the River Foyle and Tributaries SAC.
- River Finn SAC (002301), 1km North-east of windfarm site and connected by streams, including Mary Breen's Burn (crossed by the access track), Bunadaowen River and the Shruhanganarve Stream, all of which flow northwards through the windfarm site to join the Mourne Beg River which, as described above, becomes part of the River Finn/Foyle SAC downstream. Included in this SAC is an area of blanket bog on the west side of the Shruhanganarve Stream (see Croagh Bog ASSI).
- River Foyle and Tributaries SAC (UK0030320) and ASSI (ASSI229), adjoins windfarm site and is connected to it by the Glendergan River and its tributaries, which flow directly from the southern part of the wind farm site towards the SAC; the Glendergan River is included in the SAC and ASSI further downstream and the wind farm site is also connected to the River Foyle and Tributaries SAC in the same way as described above for the Croaghonagh Bog SAC and River Finn SAC.
- Lough Eske and Ardnamona Wood SAC (000163) and pNHA (000163), c.4.6km from the windfarm site and connected by surface water flows from the land around the site entrance off the N15 and the first c. 1km of the access track via a tributary of the Lowerymore River and then the Lowerymore River itself, which is included in the Lough Eske and Ardnamona Wood SAC further downstream.
- Cashelnavean Bog NHA (000122), adjacent to the wind farm site on the opposite side of a tributary of the Lowerymore River and mostly on the opposite side of the N15, however there is a small area of the NHA which is immediately adjacent to the windfarm site entrance on the same side of the N15 as the wind farm site.
- Barnesmore Bog Complex NHA (002375), adjoins the windfarm to the south and is effectively part of the same peat mass as the windfarm site, with the NHA and the wind farm site having been a continuous area of blanket bog in the past, before the wind farm site was planted with conifer trees.
- Killeter Forest and Bogs and Lakes ASSI (ASSI357) 550m south, includes part of the same peat bog as the Barnesmore Bog on the Northern Ireland site of the border, with the same connections to the wind farm site as described for the Barnesmore Bog Complex NHA.

- Croagh Bog ASSI (ASSI378) lies 550m east of the windfarm at the base of the valley drained by the Shruhingarve Stream, on the east side of the stream, and adjoins an area of blanket bog to the west side of the Shruhingarve Stream which is included in the River Finn SAC.; these areas of blanket bog lie directly downslope from the wind farm site.

Given the connections described above, all these designated sites are at risk from indirect effects arising from the wind farm during construction and decommissioning, principally through the release of suspended solids and organic material (peat) into watercourses and/or the movement of peat downslope, as has been clearly demonstrated by the bog burst event.

4.2 Habitats and Soils

The habitats present on the windfarm site are listed in Table 6.14 of the EIAR and described in the EIAR p6.22 to p6.31 and mapped in Figure 6.4 of the EIAR. The habitats present include:

- Conifer plantation (WD4) 823.5ha 91.9%, known as Croaghonagh Forest, planted over blanket bog and wet heath in the 20th century. It has been subject to more than one tree harvest, producing the current patchwork of mid-aged and young conifer trees. The vegetation reverts to a degraded wet heath-blanket bog community after tree removal which persists until the canopy closes; therefore, a good deal of the area mapped as conifer plantation could more accurately be considered degraded blanket bog with small conifer trees, as evidenced from aerial photographs and Plate 6.1 in the EIAR. The peat depth ranges from less than 0.5m to 6m, with most of the site having over 0.5m of peat. The forestry areas are capable of restoration to blanket bog (Coillte has been undertaking some restoration works here).
- Upland blanket bog (PB2)/ Wet Heath (HH3) 54.9ha 6.1%, the native vegetation of the wind farm site which is intact in areas which have escaped tree planting, principally on the hill above the Shruhingarve Stream and parts of the hill above Carrickaduff Lough. These are Annex I habitats which, within the wind farm site, are outside any SAC, however adjoining areas are included in the Croaghonagh Bog SAC and the River Finn SAC (alongside the Shruhingarve Stream). Some areas have been subject to peat harvesting (Cutover blanket bog (PB4) 4.6ha 0.5%) and others considered to be purely wet heath (Wet Heath (HH3) 4.2ha 0.4%). The intact bog/wet heath is of high nature conservation value.
- Dystrophic lakes (FL1) 0.5ha 0.05%, Carrickaduff Lough, which is an Annex I habitat (Natural dystrophic lakes and ponds) and is of high nature conservation value.
- Eroding/upland rivers (FW1) 13.3 km, as described for the designated sites, there are several named streams and their tributaries which drain the wind farm site; Mary Breen's Burn, the Bunadaowen River, the Shruhingarve Stream, a tributary of the Lowerymore River and the Glendergan River. As well as connecting the wind farm site to the various designated sites downstream, these are habitats of high nature conservation value in their own right.
- Other habitats including Active quarries and mines (ED4) 1.6ha 0.1%, existing borrow pits, Scrub (WS1) 2.7ha 0.3%, Wet grassland (GS4) 0.7ha 0.1%, Other artificial lakes and ponds (FL8) 0.05ha 0.005%, a pond in one of the old borrow pits.

The upland blanket bog / Wet Heath, Carrickaduff Lough and the streams/rivers are all high value and sensitive habitats which are at risk during the construction and decommissioning of the wind farm. The areas planted with young conifer plantation should not be disregarded as these have elements of the blanket bog/wet heath structure and vegetation and are capable of being restored to blanket bog.

As part of the enabling works, trees have been cleared along all the access roads and for an 84m radius around each of the turbine bases. Following forestry clearance around the turbine bases, *Molinia*, *Juncus* and *Agrostis* have colonised or increased in abundance, creating further areas of grassy wet heath/blanket bog type

vegetation. The same species are also colonising the newly created peat cells within the borrow pits and elsewhere.

4.3 Topography and Hydrology

The windfarm site includes parts of five valleys, which are each drained by one of the five streams/rivers mentioned previously. The head of these valleys is a range of five connected hilltops to the south of the wind farm site, including Barnsmore (451m), Croaghanagh (433m), Cross Hill (350m) and Carrickaduff Hill (329m). Three of the valleys radiate north-eastwards, the fourth eastwards and the fifth lies to the west.

The first valley is drained by Mary Breen's Burn, which flows on to join the Mourne Beg River, which is itself a tributary of the River Derg, itself a tributary of the Mourne River which meets the River Finn at Lifford. Due to this downstream connection, the Mourne Beg River is included in the River Finn SAC (Ireland) and it is also part of the Foyle and its tributaries SAC (Northern Ireland).

The second valley, to the east of the first, is drained by the Bunadaowen River, several tributaries, and a network of small forest drains. The Bunadaowen River also flows northwards to join the Mourne Beg River. Two relatively small peat slides occurred on this eastern flank of Bunadaowen River valley during the construction period, one between turbines T5 and T8, in the direction of T8, and another in proximity to T12 (see Section 5.0 for details of the wind farm layout).

The third valley, to the east of the second, is drained by the Shruhangerve Stream and a tributary. The Shuhangerve Stream also flows northwards to meet with the Mourne Beg River (and therefore the River Finn/Foyle SACs). This is the valley which was affected by the main bog burst event, with peat moving down the valley from the native peat bog/wet heath above Carrickaduff Lough and the location of turbine T7 northwards (away from the Lough) and down the Shruhangerve Stream towards the Mourne Beg and the blanket bog included in the River Finn SAC and Croagh Bog ASSI.

The fourth valley lies to the east of the hills and is drained by the Glendergan River and its tributaries. The Glendergan River and its tributaries drain to the southeast where they also join with the River Derg. The Glendergan River is also included in the Foyle and its tributaries SAC from the point where both banks are within Northern Ireland.

The fifth valley is the Barnesmore Gap, to the west of the hills, which carries a tributary the Lowerymore River, which flows southwards to join the Lowerymore River, which further downstream is included within the Lough Eske and Ardnamona Wood SAC.

4.4 Species

The surveys undertaken to support the EIAR confirmed the presence of protected species, Annex II species and other species of conservation concern within and around the wind farm site. These include:

- Fish species, including brown trout, Atlantic salmon, stone loach and European eel
- Common frog
- Smooth newt
- Ground nesting birds such as meadow pipit, skylark and snipe
- Tree nesting birds such as crossbill, siskin, song thrush, willow warbler and coal tit
- Bats (pipistrelles, *Myotis* and Leisler's)
- Red squirrel
- Pine marten

- Irish hare

Other species were presumed to be present including common lizard, otter and badger.

4.5 Summary of Baseline Conditions

All the valleys which overlap with the windfarm site contain a layer of blanket peat over the bedrock, forming blanket bog which is intact (or restored) in places but mostly degraded by forestry; by both the planting of trees and forestry drains which were installed to facilitate tree growth.

The area has high rainfall which may come in heavy and sustained downpours. Rainfall that washes off the site will eventually reach a section of river designated as an SAC by one of five routes.

The receiving environment is therefore fragile and surrounded by or connected to sites of high nature conservation, many of which are vulnerable to waterborne pollution. These factors mean that any development in this location must be very carefully designed and implemented, with particular attention to surface water management.

5.0 Wind farm layout

The wind farm layout is shown on drawings in the EIAR, including Figure 9.4, Chapter 9 – Water and on Figure 1. The lowest elevation of the turbines is c. 86m ASL and the highest 327m ASL.

Most of the turbines for the proposed windfarm site (13 turbines; T5, T6 and T10 to T17 and T19) are located on the eastern flank of the valley drained by Bunadaowen River, with a further turbine (T18) located on the western flank of the same, towards the valley floor. Two of the remaining turbines (T7 and T9) are on the western flank of the valley drained by the Shruhargarve Stream. The last four turbines (T1 to T4) are in the head of the valley which is drained by the Glendergan River and its tributaries. Most of the infrastructure is within the same valleys as the turbines, however, the access road crosses the valley which is drained by Mary Breen's Burn and the site access off the N15 is on the eastern flanks of the valley carrying the tributary of the Lowerymore River.

Two turbines (T16 and T19) are located in high quality Annex I priority habitat blanket bog, while two (T7 and T6) are within forestry but immediately adjacent to the same type of habitat. The remainder of infrastructure is located in forestry which has been planted on former blanket bog/wet heath. As described above, the trees have been variously cleared and replanted as part of the forestry cycle, resulting in patchwork of mid-aged, closed canopy conifer plantation interspersed with open areas with young trees growing in a degraded wet heath/blanket bog type vegetation. Most of the turbines are in the mid-aged conifers while a few are in or overlap with the open areas (these are T1, T3, T9, T10 and T11). The access roads have largely followed the alignment of pre-existing forestry tracks plus extensions of varying lengths to reach each of the turbine bases.

The consented layout includes three borrow pits, an electricity substation and two construction compounds, all in specific locations, as showing on the EIAR drawings.

6.0 Deviations from Planning Consent

There are up to 45 deviations in the planning consent. These are listed in Appendix 1 of this document and shown on maps provided in Appendix 1 of the Environment Report: Meenbog Wind Farm (MKO, 2021) and on Figure 2. The deviations range from elements of the wind farm which have not yet been built to the creation of a 2ha borrow pit which has subsequently been used to store excess peat. It has been agreed that some of the 45 deviations are not now considered to be deviations. A summary of the type of deviation is given in Table 1.

Table 1. Summary of Deviation Types

Category	Description	Deviation
1	An unconsented element of the development which lies wholly or partially outside the consented footprint.	1 (the hairpin bend) 3 (peat cell southeast of substation) 5 (borrow pit south of T12) 7a (a peat containment berm nr. T8) 14 (upgrade of existing forestry track nr. T13) 15 (peat cells nr. T18) 24 (existing T-junction) 25 (existing layby nr T10 for welfare) 37 (settlement ponds) 38a (some peat cells, retaining wall)
2	An unconsented element which lies wholly inside the consented footprint.	18 (peat cells nr. T15) 19 (peat cells nr. T17) 38b (some peat cells, retaining wall) 41 (storage container at T11)
3	A consented element which has been constructed wholly or partially outside the consented footprint; a slight relocation or realignment with a greater footprint .	11 (borrow pit [BP2] south of T15) 26 (layby northeast of T15) 28 (T19 access road)
4	A consented element which has been constructed wholly or partially outside the consented footprint; a slight relocation or realignment but no greater footprint.	4 (T10 access road) 6 (T12 access road) 7b (T8 access road) 8 (T1 access road) 9 (T2 access road) 10 (T4 access road) 12 (T15 access road) 13 (T17 access road)

Category	Description	Deviation
		17 (turning head nr. T14) 29 (T9 access road)
5	A consented element which has been built within the consented footprint, not yet finished and will be expanded later but still within the consented footprint	21a (some turning heads and junctions) 27 (junction nr. T15) 34 (junction nr. T1) 36 & 39 (T16 access road)
6	A consented element which has been built within the consented footprint, but occupying a smaller area and is complete or will not be expanded later.	21b (some turning heads and junctions) 31 (T11 junction) 33 (junction nr. T5 & T3) 35 (junction nr. T2)
7	A consented element which has not been built but will be built later.	16 (the Northern Construction Compound) 23 (T-junction south of sub-station) 30 (T9 turning head)
8	A consented element which has not been built and will not be built.	2 (the Substation Construction Compound) 42 (borrow pit BP1)
9	Not a deviation.	20 (Walls 1, 2 & 3 peat containment berms) 22 (bridge over the Bunadaowen River) 32 (access road to T7) 40 (borrow pit BP3 nr. T13) 43 (water management at T2) 44 (tree movement at T10/T8) 45 (met mast)

Deviations in categories 1 to 3 and, to a lesser extent, 4 (totalling 27 no. identified deviations) require most scrutiny, whereas deviations in all the other categories can generally be deemed acceptable within limits of constructability. There are exceptions; 36 & 39 (T16 access road), 42 (borrow pit BP1) and 44 (tree movement at T10/T8), which may have ecological risks associated with incomplete construction works.

7.0 Potential Ecological Risks

There are two categories of potential ecological risks associated with the deviations from the planning consent. The first is a physical risk, i.e. the deviations from the consent could have resulted in actual ecological harm such as the loss of an area of habitat. The second is a legal and procedural risk in that certain assessments should have been undertaken prior to the works being carried out on the site.

The types of **physical risk** arising from the deviations *potentially* include:

- **Loss of habitat:** Loss of Annex I habitat, potential Annex I habitat or other uncommon habitat as a result of an increased footprint or development in a different place from consented.
- **Loss of flora:** Loss of individuals of protected or uncommon flora present within or near the area affected by deviation. The only detailed botanical data in the EIAR is for T16 and T19, so we have no information about what was present in the areas affected by many of the deviations, other than it being commercial forestry/conifer plantations. The description of conifer plantation in the EIAR is seven lines, with a list of tree species but no description or species lists for the ground flora. Whilst it is likely that there were common species within the areas affected by the deviation, there is no data or evidence to confirm.
- **Loss of fauna:** Loss of individuals or breeding sites of protected or uncommon fauna present within or near the area affected by deviation. Examples could include common frog, smooth newt, common lizard, any breeding bird (ground nesting and tree nesting), red squirrel and pine marten.
- **Disturbance of wildlife:** Disturbance of mammals and birds as a result of construction activity including blasting, felling of trees and other noisy activity, or the presence of construction workers.
- **Water pollution:** Water pollution because of inadequate surface water management at the location of the deviation; the submitted and consented Surface Water Management Plan cannot have taken into account significant deviations from the planning consent leading to a risk that mitigation measures were inadequate, and then a risk of suspended solid and organic matter pollution affecting watercourses with the site and downstream, including areas designated as SAC.
- **Peat movement:** Peat movement in and around areas affected by the deviations, resulting in damaged habitats within and around the area of the deviation. This could include (i) a peat slide above a borrow pit leading to habitat loss above and potentially below borrow pits, (ii) potential failure of peat cell retaining walls at some point in the future leading to downstream impacts on terrestrial and aquatic ecosystems, or over flow from peat cells to the same effect and (iii) general movement of peat around construction activity, noting that the wind farm site adjoins several sites designated for nature conservation because of their peat bog habitats.
- **Invasive Species:** Spread of invasive species should these be present at the location where the deviation from the consented development took place. Spread of invasive plants would have negative effect on native habitats and flora and is legally controlled.

The **legal and procedural risks** *potentially* include:

- **Protected species licences:** Protected species licences may have been required but not obtained because the need for such licences was not identified at the assessment stage.
- **Environmental Impact Assessment:** The starting point of an Environmental Impact Assessment is the description of the project and all subsequent steps in the assessment are based upon the project being implemented as described. Omissions and inaccuracies in the project description, and later variations from it, could therefore undermine the whole of the assessment. including the identification of likely significant effects and their description, and potentially the adequacy of the

mitigation measures, and conclusions on residual impacts. The accurate description of likely significant effects is a legal requirement in EIA.

- **Natura Impact Statement:** The Project description for the NIS **may not be accurate** This could undermine the assessment of effects in a similar way as for EIA. This time, however, it may undermine the conclusion that was reached on adverse effects on the integrity of Natura 2000 sites and therefore the planning consent.
- **Appropriate Assessment (AA) Screening:** The deviations from the planning consent can be considered as a project in their own right and therefore should have undergone screening for AA and potentially AA, both in combination with the consented wind farm development, prior to any works taking place which were not described in the existing NIS.

These risks were considered for each of the 45 deviations, with the physical risks for each set out in Appendix 1 and the legal and procedural risks considered in Section 9. A summary of the risk assessment in Appendix 1 is provided in Table 2.

Table 2. Summary of Ecological Risks

Category	Description	Deviation
A	Higher ecological risk	1 (the hairpin bend) 3 (peat cell southeast of substation) 5 (borrow pit south of T12) 15 (peat cells nr. T18) 18 (peat cells nr. T15) 19 (peat cells nr. T17) 38a&b (some peat cells, retaining wall)
B	Medium ecological risk	4 (T10 access road) 7b (T8 The access road) 10 (T4 access road) 11 (borrow pit [BP2] south of T15) 25 (existing layby nr T10 for welfare) 36 & 39 (T16 access road) 42 (borrow pit BP1) 44 (tree movement at T10/T8)
C	No material change in ecological risk, or reduced	2 (the Substation Construction Compound) 6 (T12 access road) 8 (T1 access road) 9 (T2 access road) 12 (T15 access road)

Category	Description	Deviation
		13 (T17 access road) 14 (upgrade of existing forestry track nr. T13) 16 (Northern Construction Compound) 17 (turning head nr. T14) 21ab (turning heads and junctions) 23 (T-junction south of sub-station) 24 (existing T-junction) 26 (Layby northeast of T15) 27 (realignment of junction northeast of T15) 28 (T19 access road) 29 (T9 access road) 30 (T9 turning head) 31 (T11 junction) 32 (T7 access road) 33 (junction nr T5 & T3) 34 (Junction nr T1) 35 (junction nr T2) 41 (storage container at T11)
D	Not a deviation	22 (bridge over the Bunadaowen River) 40 (borrow pit BP3 nr. T13) 45 (met mast)
E	Mitigation for ecological risk	20 Walls 1, 2 & 3 peat containment berms 7a (a peat containment berm nr. T8) 37 (settlement ponds) 43 (water management at T2)

(i) deviation 20 has been excluded from ecological assessment and (ii) assessment of deviations 10, 16, 23, 30, 34 and 35 is based on these works having been rectified / completed as consented on site.

8.0 Ecological Clerk of Works Advice

It is understood that an Ecological Clerk of Works was present on site during the construction works. The presence and the advice of the Ecological Clerk of Works is likely to have addressed some of the physical ecological risks associated with the deviations. For example, the Ecological Clerk of Works is likely to have checked for the presence of protected species prior to the clearance of any vegetation and appears to have also advised on additional surface water management actions that are in place alongside some of the deviations.

9.0 Planning considerations

Our brief includes (i) an assessment of whether the ecological risks that have arisen from the deviations have been appropriately considered within the scope of the original application EIAR / AA; and (ii) a conclusion on whether these deviations would individually or cumulatively require separate regularisation through the planning process / substitute consent process.

As set out in Table 1, there are several deviations which fall outside the planning consent and were therefore not specifically described in the EIA/AA. Seven were also judged to have higher ecological risks. These were 1 (the hairpin bend), 3 (peat cell southeast of substation), 5 (borrow pit and peat storage area south of T12), 15 (peat cells nr. T18), 18 (peat cells nr. T15), and 19 (peat cells nr. T17) and 38 (some peat cells, retaining walls), as listed in Table 2. A further eight (or nine) were considered to have medium ecological risk, also as listed in Table 2. Some of these elements of the development may have been assessed generically in the planning documents, however ecological risks are location specific, as are the requirements for mitigation. The deviations listed above may have resulted in significant effects which were not described in the EIAR. For example, the loss of the pond within the existing borrow pit which was expanded, with potential impacts on amphibians. Therefore, our view is that these 16 deviations were not appropriately considered within the scope of the original application EIAR / AA.

There is also potential for the risks associated with those 16 deviations to combine variously with each other. Deviations 5, 15, 18, 19, 42 and 44 all have a potential risk of suspended solid pollution in the Bunadaowen catchment, all except four had a risk of impacts on protected species, and Deviations 1, 3 and 5 all resulted in additional habitat loss.

Therefore, our view is that the deviations require separate regularisation, both individually and cumulatively with each other and the consented development and other mitigation works.

There are two potential routes for regularisation through the planning process. These are (i) to make an application to the local planning authority under Section 34 (12)¹ of the Planning and Development Act 2000, as amended; and (ii) to make an application to An Bord Pleanála for 'substitute consent' under Part XA of the Planning and Development Act 2000, as amended. This is in two stages, firstly an application for leave to apply for substitute consent and secondly the application for substitute consent.

To determine if route (i) applies, the planning authority must first consider the deviations as if they had not been constructed and an application to construct them has been made. In that scenario, the planning authority must consider whether any of the following would have been required (a) an environmental impact assessment, (b) a determination as to whether an environmental impact assessment is required, or (c) an appropriate assessment.

For (a), the deviations would not on their own exceed thresholds for an environmental impact assessment however they are part of a development which does exceed such thresholds and, moreover, sub-threshold development may still require an environmental impact assessment if it is likely to have significant effects on the environment. For (b), a screening assessment (i.e. a determination) for an environmental impact assessment for

¹ as inserted in 2011 by the Planning and Development (Amendment) Act 2010 (30/2010), s. 23(a)(i)-(iii) and (c), S.I. No. 132 of 2011.

sub-threshold development is generally required unless likely significant effects on the environment can be readily excluded. This is therefore a low bar as the trigger for a screening is just the possibility of likely significant effects on the environment. For (c), a Stage 1 AA screening assessment, as set out in the Habitats Directive/Regulations is required to determine if a Stage 2 appropriate assessment is needed. If any of these assessments (a - c) are required then route (i) is closed, leaving only route (ii) substitute consent.

Separately there is a need to comply with the Habitats Directive and Regulation 41 (1) and (2) of the European Communities (Birds and Natural Habitats) Regulations, 2011, as amended. These do not allow for retrospective assessments and therefore the assessment under the Directive/Regulations may need to consider the ongoing existence of the deviations in combination with the consented development.

10.0 AA Screening Report

During the preparation of this report, the wind farm developer submitted an AA screening report which covered the deviations from the planning consent. A detailed review of this document is provided in Appendix 2. The AA screening report confirms that the deviations are not directly connected with or necessary to the management of any Natura 2000 site, which completes Step 1 of the assessment. For the remaining three steps, the AA screening report is not consistent with the latest methodological guidance provided by the EC (EC, 2021) and does not provide sufficient information to enable Donegal County Council reach the conclusion that 'likely significant effects' can be excluded. Therefore, Donegal County Council must either ask for further information or conclude that a Stage 2 appropriate assessment is, or would have been, required.

11.0 Conclusion

Approximately two thirds of the deviations are ecologically benign, posing no greater risk to ecological features than the consented wind farm, and many are covered by the original consent or are a very slight deviation. The remaining third pose some risk with approximately half of these posing a higher ecological risk. The risks encompass suspended solid pollution during construction, peat instability post-construction, loss of features used by protected species, loss of habitat and compromising the ability to restore peat bog habitats. The Natura Impact Statement and Environmental Impact Assessment Report for the consented wind farm should therefore be revisited.

To meet with the tests set out in Section 34 (12) of the Planning and Development Act 2000, as amended, there was a need to assess the c.16 deviations as if they were proposed to be implemented and an application was being made to implement them now. This assessment should determine whether, in that scenario, a Stage 2 Appropriate Assessment would have been required and whether an EIA screening would have been required.

Separately, there is no provision in the Directive or Regulations for retrospective screening of actions already taken. To meet with the requirements of the Directive and Regulations, the AA screening would also have needed to consider the ongoing existence of the deviations in combination with the consented wind farm.

In any event, the project and the legislative basis of the AA screening should have been carefully defined.

The submitted AA screening report does not provide sufficient information upon which to reach the conclusion that 'likely significant effects' can be excluded. Without requesting further information, where 'likely significant effects' cannot be excluded, the conclusion has to be that a Stage 2 appropriate assessment is required. This would also suggest that screening for an environmental impact assessment is also required.

The regularisation of the deviations through the planning process is contingent on the assessed need for AA and EIA screening under S.34 (12). If neither a Stage 2 Appropriate Assessment nor an EIA screening would have been needed, then regularisation could have been sought through the application of S.34 (12) of the Planning and Development Act, 2000 (as amended) through a standard regularisation application lodged with the Planning Authority.

However, as the 16 no. deviations posing a higher ecological risk were not appropriately considered within the scope of the original EIAR / AA, and the submitted opinion on the AA Screening report does not provide sufficient information upon which the planning authority can reach a screening conclusion of no 'likely significant effects', then the remaining route is an application to An Bord Pleanála for 'substitute consent' under Part XA of the Planning and Development Act 2000 (as amended). This is in two stages firstly an application for leave to apply for substitute consent and secondly the application for substitute consent. This would involve the preparation of a remedial Natura impact statement and/or a remedial environmental impact assessment report.

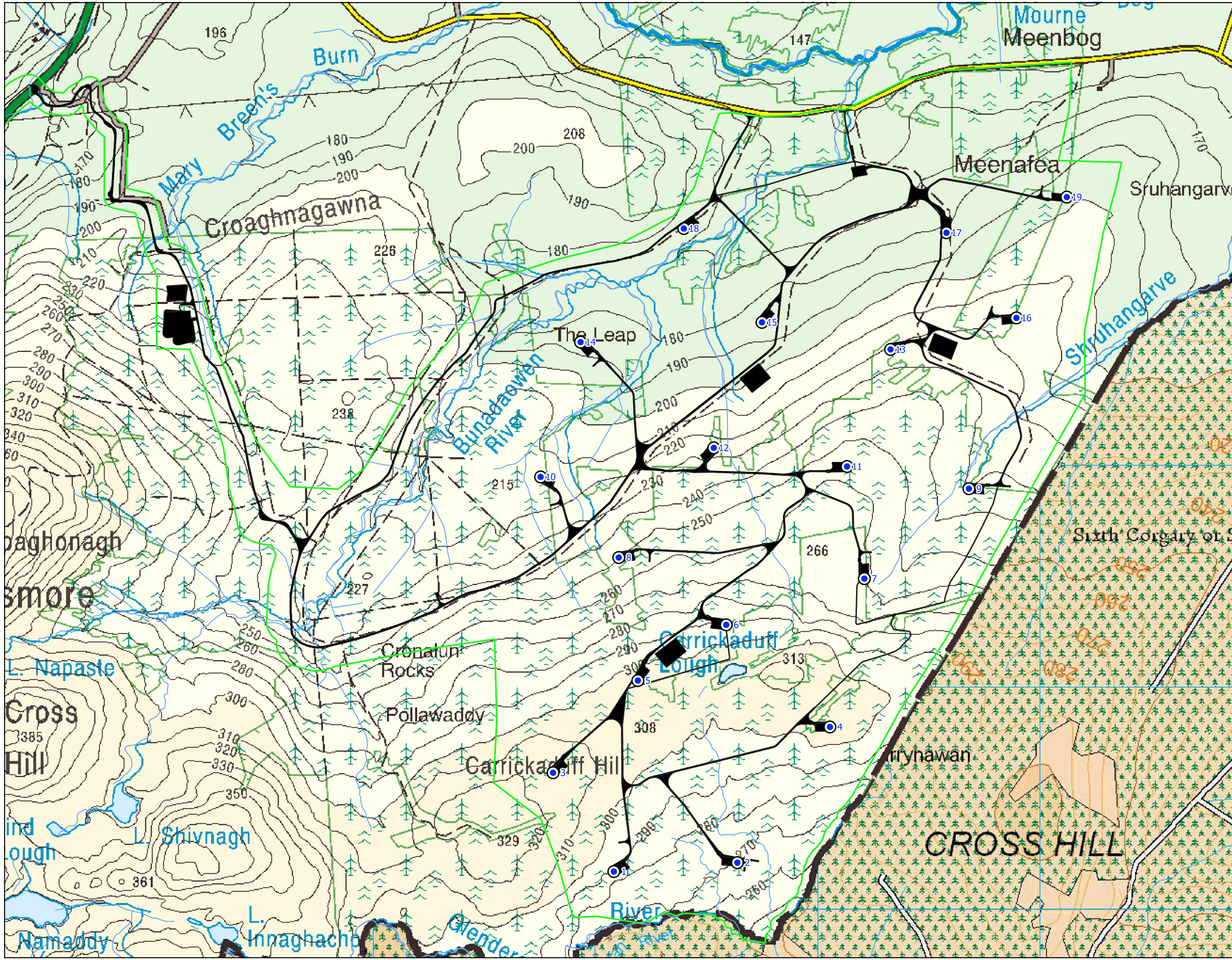
Separately, any negative effects that resulted from the deviations at the time of construction may need to be addressed under other legislation such as the Wildlife Act 1979, as amended, the European Communities (Environmental Liability) Regulations 2008 and the Environmental Liability (Prevention and Remediation) Regulations (Northern Ireland) 2009, as amended.

12.0 References

- EC. (2001). *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Luxembourg: European Commission.
- EC. (2018). *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*. Brussels: European Commission.
- EC. (2021). *Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Brussels: European Commission.
- NPWS. (2010). *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*. Dublin: National Parks and Wildlife Service .

FIGURE 1

Wind Farm Layout, map extracted from MKO response of 1/03/2020, 'Required Actions List and associated actions map'



Map Legend

- Site Boundary
- Development Footprint
- Turbine Locations
- River/Streams

Actions List

- Open
- 0)



Site Audit Actions Sections	
Project Title	
Meenbog Wind Farm	
Drawn By	Checked By
SC	MW
Project No.	Drawing No.
190501	N/A
Scale	Date
1:15000	18.02.21

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FIGURE 2

As Constructed Drawings, map extract from MKO Environmental Report, 'Appendix 1 - As constructed drawings'

AS-BUILT TURBINE COORDINATES

Turbine	Easting	Northing
T1	207133	384174
T2	Not Constructed	
T3	206859	384619
T4	208106	384825
T5	207241	385034
T6	207637	385283
T7	Not Constructed	
T8	207155	385589
T9	208732	385899
T10	206803	385951
T11	208183	385998
T12	207583	386083
T13	208379	386526
T14	206983	386559
T15	207800	386648
T16	Not Constructed	
T17	208631	387051
T18	Not Constructed	
T19	209173	387212

LEGEND	
	AS-BUILT TURBINE BASE
	AS-BUILT SOLID SITE ROADS
	AS-BUILT FLOATING SITE ROADS
	AS-BUILT FLOATING ROAD WIDENED TO SOLID
	AS-BUILT HARDSTANDS
	AS-BUILT STONE BERMS
	AS-BUILT EMERGENCY CONTAINMENT/STABILISATION WALLS
	AS-BUILT WIND FARM DRAIN
	EXISTING DRAIN
	AS-BUILT SILT TRAP
	AS-BUILT SETTLEMENT POND
	PEAT STORAGE AREAS
	EXCAVATED BORROW PIT
	PLANNING BOUNDARY
	PLANNING LAYOUT HARDSTANDS
	PLANNING LAYOUT ROADS
	PLANNING LAYOUT BORROW PITS



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NOTES

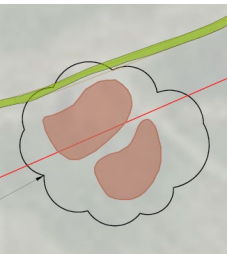
					ENGINEER IONIC CONSULTING The Hyde Building, The Park, Carrickmines, Dublin 18, D18VC44, Ireland E: hello@ionicconsulting.ie T: +353 (0) 1 845 5031 W: www.ionicconsulting.ie Formerly known as WIND PROSPECT IRELAND		CLIENT		PROJECT		MEENBOG WIND FARM					
					DRAWN BY		DATE		PAPER SIZE		SCALE		TITLE		REVISION	
					S.O'MAHONY		15/12/2020		A1		1:10000					
					CHECKED AND APPROVED		DATE		STATUS		DRAWING NUMBER					
					C.O'DUBHTHAIGH		15/12/2020		AS-BUILT		MNBG d024.1.0					

APPENDIX 1

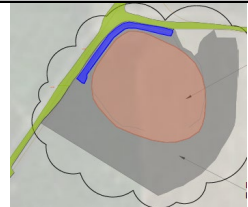
Detailed Assessment of Ecological Risks

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
1	Entrance road off N15. Minimal works were required to construct a bypass access link here in lieu of upgrading the existing hairpin bend access road. This provides a safer and more sensible approach to the site by eliminating a sharp, blind bend in the main entrance road to the site.	Mapped as scrub in EIAR but described as disturbed ground in response. Aerial imagery suggests that disturbed ground is more accurate. Recolonising vegetation is now present alongside the new track. Within 50m of Croaghonagh Bog SAC. In the Lowerymore catchment.	Approximately 60m of new forestry track at approximately 5m wide, so an additional 0.03ha. Standard forestry track construction in appearance.	Loss of scrub(?) habitat, not assessed in EIAR, however, the affected area is small. Loss of species, e.g. breeding birds if at wrong time year, timing unknown, mitigation unknown. Straightened road could create conduit for drainage, dewatering above, flood risk or suspended solid risk below, works c. 200m from tributary of Lowerymore River which becomes (6.3km downstream) part of Lough Eske and Ardnamona Wood SAC, designated for <i>inter</i>		

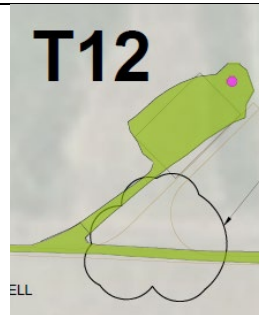
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
				<i>allia</i> FWPM and salmon, timing unknown, mitigation unknown. Risk is low, and possibly averted by N15 drainage system, but this cannot have been assessed pre-consent.		
2	Construction Compound opposite Substation: Compound not constructed and a smaller compound was established within the footprint of the Substation construction area	Mapped as forestry in EIAR for both compound and substation, confirmed by aerial imagery. However compound area is now mainly <i>Molinia</i> with scattered conifer trees presumably following earlier removal of trees. 250m from Croaghonagh Bog SAC.	Reduced development footprint as the compound was not built. All ground works and surfacing of the substation are now complete., and the construction compound within the footprint of the substation has been removed.	No material change in ecological risk. Some benefit to biodiversity as the conifer trees have largely been replaced by a wet heath type habitat at the original location of the proposed compound.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
3	Peat cell southeast of substation: Peat cells were created as part of the engineering plans for peat deposition. This was however not part of the consented development	Mapped as forestry plantation in EIAR however aerial imagery suggests about 50% open habitat, such as wet heath/disturbed ground and 50% conifer plantation. It is located <50m from watercourse, a tributary of Mary Breen's Burn, in the Mourne Beg River catchment. Croaghonagh Bog SAC is c.750m downstream.	Peat stored in a two peat cells, borrow pit and retaining wall (piled-up rocks and finer material) with 10m depth of peat in the cell. Peat was added up until c. July 2020. Retaining wall adjacent, parallel and above forestry road. Ground then falls away to a watercourse which is a tributary of Mary Breen's Burn, which in turn is a tributary of the Mourne Beg River (c.2.3km downstream to confluence), reaching the SAC boundary c.7.3km downstream. Water filters through the retaining wall and there is also a pipe.	Loss of habitat, mapped as conifer plantation however also some open habitat which could have been (degraded) wet heath and some disturbed ground. Loss of species during site clearance. Risk of suspended solid pollution during construction, mitigation unknown. Risk of pollution event should the retaining wall fail or be over-topped by liquified peat.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
4	T10 access road: Realigned road followed more favourable ground and natural topography on the ground. Turning Head not constructed	Forestry plantation, confirmed by aerial imagery. It is in the Bunadaowen catchment.	Adjacent to permitted access road. Road moved to the east a maximum of 10-15m and for a maximum length of 200m. The habitat that would have been affected along the approved alignment and the as built alignment was originally the same. Reduced development footprint and therefore a reduced area of habitat loss.	Additional tree removal required to facilitate access road construction with risk to species such as breeding birds, squirrel and pine marten. However, also some benefit to biodiversity, as conifer trees had already cleared for the turning head and permitted route alignment, resulting in the effective reinstatement of wet heath type habitat which will now not be developed.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
5	Borrow Pit south of T12 Existing Forestry Borrow Pit was expanded to win stone on site ahead of gaining access to the designated borrow pits. Area already partially reinstated with peat storage. It is intended to place further peat here to further reinstate this area.	Existing small borrow pit, young plantation, and semi-mature plantation, according to imagery, but simply mapped as conifer plantation in EIAR. The young plantation would have been dominated by <i>Molinia</i> etc on peat c.0.5m deep (assessed from exposed peat at cliff tops) so essentially wet heath or blanket bog with small conifer trees. Aerial imagery indicates that this is at least the second crop of trees in this location. The borrow pit is > 50m from watercourse, but still connected	Unconsented use of an existing forestry borrow pit, involving blasting out of rock and expanding the borrow pit to 10 times its original size (was < 0.2ha and is now c.2ha). The resultant pit was then filled with peat to a depth of 20m (with more material than expected due to clearing up after the 'event') held in on the downslope side with a ~2m high retaining wall constructed from rock and finer material. Peat and other soil has been stripped back above the 'quarry face' however vertical peat 'cliffs' are present above. Water discharged from the peat cells via two pipes into the forestry drains which ultimately discharges to	Disturbance of wildlife due to blasting of rock. Loss of 2ha of habitat, comprising the existing borrow pit, a small pond within the borrow pit, some semi-mature conifer plantation and some young conifer plantation/degraded wet heath. The pond in the borrow pit is described as a small artificial pond, see p6-30 of EIAR, with only two plant species recorded however this may reflect a lack of survey effort rather than an impoverished flora.		 

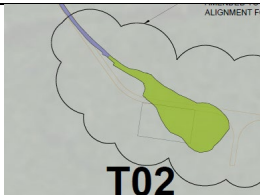
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
		to surface waters via the forestry drains. It is within the Bunadaowen catchment	Bunadaowen River. There was suspended solid pollution mitigation in place. It is adjacent to the permitted development and has increased the development footprint by about 2ha.	Loss of protected animals, frogs and newts may have bred in the pond (both species recorded elsewhere on the site), while the young forestry plantation probably offered suitable habitat for common lizard, a species presumed in the EIAR to be present. The semi- mature forestry may have supported breeding birds, pine marten and red squirrel. Suspended solid pollution of water courses during blasting etc possible, although there is mitigation in place now. About 310m directly to a tributary		

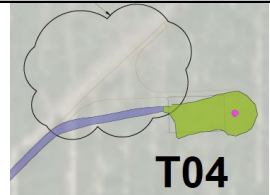
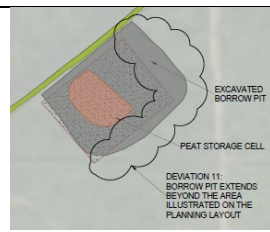
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
				of the Bunadaowen River.		
6	T12 access road: The natural topography on site required a slight realignment of the approach to T12. The road was moved west, and downslope approximately 30 metres. This negated the need for excessive cut at this location.	Forestry plantation, mix of young and semi-mature trees. Area now cleared of trees and recolonising with <i>Molinia</i> etc. (or <i>Molinia</i> etc. was already present among small conifer trees). Bunadaowen catchment.	Adjacent to permitted access road, reduced development footprint, realignment within area cleared of trees around the turbine location so no or little additional loss of trees or creation of open habitats as a result of the change.	No material change in ecological risk between consented and as built.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
7a	T8: A Peat Containment Berm was constructed to the south of T8 as a safety measure prior to constructing T8.	Forestry plantation, adjacent to permitted development Increased development footprint, Bunadaowen catchment	The berm (wall) was constructed in response to a peat slide on the hill above the access road (and below an unused borrow pit, having the effect of halting the peat slide at the position of the wall, or preventing further peat slide beyond its position. The wall is c250m long and 21m wide at the base. Water is carried under the wall by a pipe which discharges into the forestry drains. It could be considered emergency works rather than a deviation. The peat slide happened a few months before the main event, as did another in the vicinity of T12.	Loss of habitat at the position of the wall; semi-mature conifer trees were present prior to the wall being constructed. Loss of species at the position of the wall; potential habitat for red squirrel, pine marten and breeding birds. Prevented further ecological impact below (and above?) the wall by halting the peat slide.		

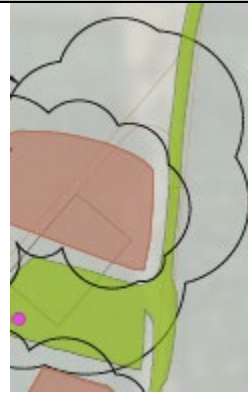
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
7b	T8: The access road to T8 was amended to approach the southern side of the turbine and align with the Containment Berm (see 7a).	Forestry, a mix of semi-mature and small conifer trees, Bunadaowen catchment	Access road to T8 moved to the south of the T8 turbine base rather than joining with the north side, around 250m of access road has been constructed outside the consented footprint about 25m southwards at its furthest. A turning head (small than consented) has also been constructed c.90m east of the consented location.	A small area of semi-mature conifers had already been cleared for the consented alignment; therefore, some additional tree clearance appears to have been needed for the southern alignment. This is potential habitat for red squirrel, pine marten and breeding birds, therefore a slight increase in ecological risk. The overall footprint is about the same as was consented and the retained areas where trees have been removed may provide an ecological benefit. The realignment moves the access road slightly further away from a tributary of	As above	

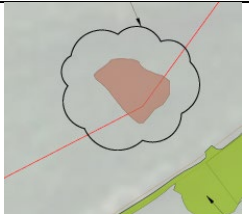
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
				the Bunadaowen River.		
8	T1: The approach to T1 was slightly amended to provide a more effective alignment for delivery vehicles.	Forestry plantation, but recently cleared of trees and now resembling a degraded blanket bog/wet heath with open vegetation. Glendergan catchment, c200m from river.	As built road is adjacent to permitted access road, alignment moved to northwest by c.10m max for c.60m. Reduced development footprint overall. A new Coillte tree felling track has also been constructed or refurbished in this locality, as shown in the aerial images below (first image before, second image after construction). 	No material change in ecological risk. The same type of habitat was affected by the amended route as would have been affected following the consented route.		

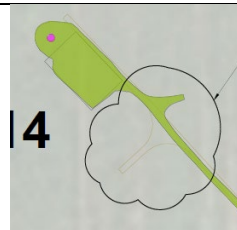
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
						
9 & 43	T2: Not fully complete and base is not installed. The approach to T2 was slightly amended to provide a more effective alignment for delivery vehicles.	Forestry plantation, cleared of trees for bat mitigation around the turbine base, with regenerating wet heath evident. Glendergan catchment c200m from river.	Similar situation as for Ref 8. 'As built; is to northeast of consented by c.10m and for c.60m. No change to development footprint.	No material change in ecological risk.		

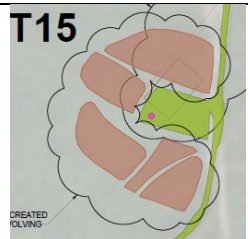
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
10	T4: The approach to T4 was slightly amended to provide a more effective alignment for delivery vehicles.	Forestry plantation, mid-aged trees some of which have now been cleared for bat mitigation. Glendergan catchment	Similar to Refs 8 and 9, with access track moved south by c.10m for c.100m. Reduced development footprint. However, the amended route may be removed and the original alignment constructed at a later date.	Possibly a small amount of additional tree clearance than consented due to realignment. As above, risks for protected species during tree removal and a potential benefit by providing the opportunity for wet heath/bog, which will be compromised but not lost if road is moved 'back' to the consented location.		
11	Borrow Pit [BP2] south of T15: Borrow pit extends beyond the area illustrated on the planning layout.	Forestry plantation, mid-aged conifers, now cleared for the borrow pit and surrounding area. Bunadaowen catchment, c.130m from a tributary of the Bunadaowen River.	The borrow pit is a new borrow pit which is consented but has been expanded further by blasting rock deeper into the hills side, creating a larger borrow pit, steeper cliffs and larger (and deeper?) peat cells. It is said to be <10% larger than consented	Loss of habitat, due to increased footprint of the borrow pit; this was all dense forestry plantation (over peat). Additional disturbance of wildlife due to		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			size (not verified) and is now c.1ha. Some cells are filled and others not. There is a settlement pond prior to discharge to the forestry drains. The trees, vegetation and soil around the cliffs of the pit have been stripped away and a berm created. The land continues to slope upwards from the borrow pit cliffs, with conifers planted on peat on hill slope.	additional blasting of rock. Loss of species, pine marten, red squirrel and nesting bird risks of loss of breeding or resting habitat. Risk that surface water management plan/ mitigation measures were not adequate due to larger size of borrow pit. Higher peat volumes may exacerbate risks in the event of wall failure or overtopping.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
12	T15: The natural topography on site facilitated direct access to T15 off the main spine road at this location which negated the need for the proposed road to T15. This was achieved by rotating the hardstand by 90 degrees.	Forestry plantation, mid-aged conifers which have now been cleared for bat mitigation. Bunadaowen catchment.	Approximately 140m of access road not constructed leading to a potential reduction of the development footprint, however much of this area has now been developed as peat cells see Ref 18.	Reduced risk as slightly less vegetation clearance required.		
13	T17 approach road: Road followed the actual position of the existing road on the ground.	Existing forest road and adjoining vegetation, Bunadaowen catchment	It is unclear if trees had already been cleared along the route of the consented alignment before the decision was made to use the existing road.	No material change in ecological risk. Removal of conifers and retention of regenerating vegetation along the consented alignment may have provided an ecological benefit.		

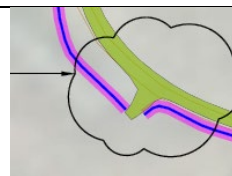
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
14	T13: Existing road alignment utilized in lieu of proposed new road at this location.	Forestry track. The area for the new road was mid-aged conifers but now the trees have been removed, with regenerating wet heath/bog vegetation. Bunadaowen catchment	A c.220m section of existing forest track, the curve to the west, has been upgraded and brought into use while c.80m of consented road has not been constructed.	No material change in ecological risk. Removal of conifers and retention of regenerating vegetation along the consented alignment may have provided an ecological benefit.		
15	T18 peat storage: Peat cells [and a borrow pit] were created as part of the engineering plans for peat deposition	Forestry plantation, was mid-aged conifers, now cleared of trees for bat mitigation around turbine. Bunadaowen catchment, less than 50m from the Bunadaowen stream.	Peat cell and a borrow pit which were not part of the planning consent, has been constructed with no silt curtains and no settlement lagoon.	Risk of suspended solid pollution during construction. Loss of species; common frog, smooth newt and common lizard during site clearance. Reduced area for regenerating wet heath/blanket bog around turbine (although a less natural form may develop on the peat cell).		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
				Risk of peat cell wall failure or overtopping with wet peat and reaching Bunadaowen River.		
16	Northern Construction Compound: Compound not constructed - offices and welfare facilities set up centrally on site at widening of main spine road.	<i>Molinia</i> dominated vegetation, within the Bunadaowen catchment.	Compound not constructed yet; however it is intended to provide permanent visitor/welfare facilities here, in accordance with the planning consent.	No material change in ecological risk (but see Ref. 25).		No photo.
17	T14: Turning head position altered and reduced in size	Forestry, small trees. Bunadaowen catchment	Standard turning head. Turning head moved to opposite side of track and reduced to about half the length of the consented turning head. Trees already cleared from consented turning head so more trees	No material change in ecological risk. Trees too small to support red squirrel and nesting birds. Risks to other species is the same as consented, or less.		

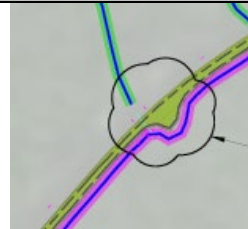
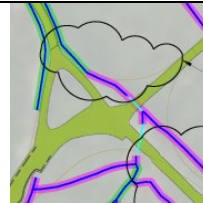
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			removed despite the smaller footprint.			
18	T15 peat storage: Peat cells were created as part of the engineering plans for peat deposition	Forestry plantation, mid-aged conifers now cleared of trees as bat mitigation around the turbine. Bunadaowen catchment, c.250m upslope from a tributary of the Bunadaowen Stream.	Large peat storage cells collectively c2ha. These are within an 84m radius of T15 which had been cleared of trees as bat mitigation, surrounding area suggests mid-aged conifers were present. The removal of trees is therefore included in the consent but not the peat storage cells. There was no evidence of surface water mitigation measures (settlement ponds, silt curtains etc) and no pre-construction designs, just as built	Loss of species (smooth newt, common frog and common lizard) during the ground clearance works prior to construction, although habitat has now been replaced albeit on deeper peat than before. Loss of opportunities to restore natural wet heath/blanket bog around turbine although similar vegetation may develop on the peat cells.	T15 	

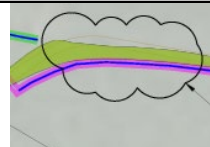
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			drawings. Water discharges to forestry drains and then on to natural watercourses.	Suspended solid pollution during construction, and in the event of an engineering failure or peat liquefying in the cells and overtopping the retaining wall, with knock-on effects for aquatic life potentially as far downstream as the Mourne Beg, designated SAC, where there may be important spawning grounds for salmon, one of the QI species for the SAC.		
19	T17 peat storage: Peat cells were created as part of the engineering plans for peat deposition.	Forestry plantation, Bunadaowen catchment, c.500m upslope from the Bunadaowen River.	Unconsented peat cell, c.0.32ha, constructed with a rock/fines retaining wall within area of forestry cleared of trees for bat mitigation around the turbine base, along the same lines as Ref 18.	As for Ref 18.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
20	Walls 1, 2 & 3 peat containment berms: Emergency works – Not assessed in this document.	N/A	N/A	Emergency works which are therefore excluded from the assessment.	N/A	N/A
21	General comment - Turning heads and junctions. Not all turning heads at hardstands constructed. Junctions not constructed to the extents indicated on the planning layout.	N/A	The general effect is to reduce the development footprint.	No material change in ecological risk.	No map, general comment.	N/A
22	Culvert Widening: Full scope and extent of works ongoing to widen of bridge/ river crossing on site southeast of substation.	Bunadaowen catchment	Culvert/bridge widened over the Bunadaowen River which was consented, existing trackway and bridge replaced with a wider structure. It has now been agreed that	N/A		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			this is not a deviation from the consent.			
23	Realignment of T-junction south of sub-station/compound,	Cleared forestry now supporting a mix of <i>Juncus</i> and <i>Molinia</i> , Bunadaowen catchment	Full route not constructed yet, with the alignment shown by the blue markers in the photograph.	No material change in ecological risk.		
24	Turning head south of T-junction. This turning head is not part of the wind farm works and will be removed from the as-built provided. This turning head was in place before wind farm	Existing trackway.	The turning head was existing and has simply been re-surfaced and other minor upgrades. It is not part of the windfarm development.	No material change in ecological risk.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
	construction commenced.					
25	Layby with containers stored and welfare services southwest of T10	Existing layby and adjoining vegetation, Bunadaowen catchment, c.70m upslope from a tributary of the Bunadaowen River.	Small layby which was made bigger and resurfaced, used for welfare, drains into forestry drains. No plumbing, with facilities serviced once per week. This welfare should have been provided at the Northern Construction Compound (see Ref. 16).	Slight risk of water pollution associated with chemicals which may have been used and stored here, similar risk associated with leaks of fluids from vehicles. Forest drains would carry any pollution directly to natural watercourses, with a forest drain directly draining the layby area. No evidence of mitigation.		

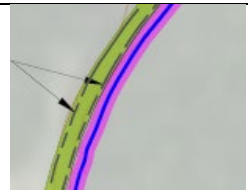
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
26	Layby northeast of T15. Layby in this area installed as a safety measure to allow construction traffic to pass. It is along the original permitted road alignment to T15. Passing bays were included in the planning drawings though actual location on the ground may have varied as conditions dictated.	Forestry plantation, mid-aged trees. Bunadaowen catchment	Small layby/passing bay. This may be a changed location rather than an additional layby; the original location is not clear.	No material change in ecological risk assuming consented layby in equivalent habitat.		No photo
27	Realignment of junction northeast of T15, less than permitted	Existing track and forestry plantation, mid-aged trees. Bunadaowen catchment	Trees already removed to create a larger junction. Whilst junction is currently less than permitted it may be expanded at a later date to somewhere between current and consented extent.	No material change to ecological risk.		 Retained vegetation.

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
28	Realignment of road leading to T19 and revised hard standing base. Slight widening and curve realignment to increase horizontal bend radius for blade delivery. Minor deviation at hardstanding.	Existing track and forestry plantation, mid-aged trees. Bunadaowen catchment	The road alignment has been altered slightly. The hard standing base for the turbine is incomplete and to be completed.	No material change to ecological risk.		
29	Alteration on road leading to T9, the road was constructed along the existing forest track alignment, in accordance with planning. The intent was clear, but a slight inaccuracy in the planning alignment could be misinterpreted as a deviation.	Existing track and forestry plantation, mid-aged trees. Shruhangerve catchment, less than 50m from the Shruhangerve stream.	The road was built to the slightly to the east of the consented alignment however the 'as built' road was apparently on the alignment of the existing forest track.	No material change to ecological risk. Possible improvement if the consented track was not exactly aligned with the existing forest track.		

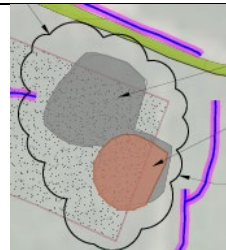
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
30	No turning head at T9, as project is incomplete	Existing track and forestry plantation, mid-aged trees. Shruhangerve catchment	Standard turning head which has not been constructed; however, it is intended to do so should the project progress.	No material change in ecological risk.		No photo
31	Realignment of junction at T11, within planning footprint.	Existing track and forestry plantation, mid-aged trees. Deep peat. Bunadaowen catchment	The junction has been built without requiring the full land take allowed in the consent. The as built layout is adequate and there is no need to expand the junction at a later stage.	No material change in ecological risk. Some ecological benefit as trees have been removed and wet heath type habitat has effectively been reinstated.	 NB map indicates a different location, which seems to be an error.	No photo
32	Additional storage area north of wall 3 leading to T7	Existing track and forestry plantation, mid-aged trees. Shruhangerve catchment, less than 50m from Shruhangerve stream.	Rather than being an additional storage area, it is the stub of the original alignment of the track which was truncated after the event, with the new alignment for the track now on top of the wall which was built to arrest further peat	No material change in ecological risk.		 'Storage area' in middle distance beyond raised part of the road.

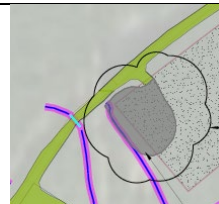
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			slippage. In effect, it is not a deviation as it is along the alignment of the consented track.			
33	Realignment of junction southwest of T5, leading to T3.	Forestry, young trees, with degraded wet heath/bog vegetation. Bunadaowen catchment	Trackway not built to the full extent permitted, reduced land take.	No material change in ecological risk.		No photo.
34	Realignment of junction north of T1,	Forestry, recently cleared, now supporting degraded wet heath/blanket bog vegetation. Deep peat, Glendergan catchment	The constructed junction is less than consented however it is proposed to enlarge the junction to somewhere between as built and consented. It is a 'floating' road construction, built on a timber base over deep peat. The existing road may be showing signs	No material change in ecological risk.		

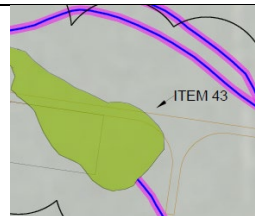
Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			of movement as it is uneven.			
35	Realignment of junction northwest of T2	<i>Molinia</i> and young conifer trees growing on deep peat. Recently cleared of more mature conifer trees and replanted. Glendergan catchment.	Road realigned by 1m to the north side of the T-junction. The constructed junction is less than consented however it is proposed to enlarge the junction to somewhere between as built and consented.	No material change in ecological risk.		
36	Realignment of road leading to T16 and revised hard standing base. Hard standing not completed (40% constructed).	Turning head and track lie within forestry while the turbine base is on bog/wet heath, on deep, spongy peat. Bunadaowen catchment	The turning head has not been constructed and it is not intended to do so. The turbine base is partially constructed; it is intended to complete it. Evidence of collapsing peat at the edges of the	Incomplete construction of turbine base may be resulting in peat instability around it; this is affecting areas within the intended footprint of the turbine.		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			construction area below newly cut drain around the turbine base location.			
37	Additional low level roadside berms, both side of access road, settlement ponds/silt fencing along roadside and within roadside drains/river courses northeast of T15 and silt fencing in water course west of T16.	Existing track and forestry plantation, mid-aged trees. Bunadaowen catchment	Settlement ponds have been created alongside the forestry tracks.	Potential reduction in ecological risk provided by surface water management provisions and the ponds are a potential enhancement. However, additional habitat may have been lost to facilitate the construction of these features.		No photo.

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
38	Assessment of water management/ runoff and stability of all peat storage cell is required.: Not assessed in this document. See Section 2.3.5 below.	Applies to all peat storage cells	See Refs 3, 5, 15, 18, 19	See Refs 3, 5, 15, 18, 19	See peat cell maps in Refs 3, 5, 15, 18, 19	See peat cell photos in Refs 3, 5, 15, 18, 19
39	Assessment of the overall stability of T16, which is an isolated turbine located outside the cover of adjoining forestry and down gradient of bog slip area is required.: No Deviation from original planning drawings– Not assessed in this document. Stability of T16 is assessed in the Ionic Consulting	As for Ref. 36	Not a deviation from the consented development.	As for Ref. 36	As for Ref. 36	As for Ref. 36

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
	Site Stability Report attached as Appendix 1 to this report.					
40	Assessment of additional excavated borrow pit [BP3] and peat storage cell at T13	Forestry plantation, was mid-aged trees, now cleared to make way for borrow pit. Bunadaowen catchment	A new and consented borrow pit, may not be any bigger which was always intended as a peat cell and therefore the peat cell is also consented. Will be 2 to 3 cells eventually, with one cell now full, a second constructed and half full and the potential third cell still to be constructed. The rock in the base of the cell is fissured and water therefore seeps into the ground. There is water seeping from the cell walls. Not a deviation from the	N/A		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			consented development.			
41	Assessment of additional storage container at T11.	Forestry plantation, was mid-aged conifer trees, now hard standing. Bunadaowen catchment	An additional storage container was placed on the completed hard standing for T11. No vegetation clearance was undertaken, and the container has now been removed.	No material change in ecological risk.		No photo.
42	Assessment of excavated borrow pit [BP1] and peat storage cell at T5.	Forestry plantation, previously cleared, and now supporting <i>Molinia</i> and <i>Juncus</i> . Bunadaowen catchment	The borrow pit was not used for stone extraction and the peat storage cell was therefore not created or used. However, trees were removed from the area in anticipation and a peat slide occurred below the cleared area at about the same time	The removal of trees has provided an ecological benefit as it has been replaced by (species poor) wet heath or similar but may also have resulted in a peat slide and therefore damaged adjoining habitats. This is not a construction deviation however		

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
			that the trees were removed.	assurances were provided in the planning application documents that peat slides would not occur and the planning consent was issued on this understanding. The peat slide could therefore be described as a deviation from the planning consent.		
43	Assessment of water management/ control of discharge of flooded base at T2 required.: No Deviation from original planning drawings.	Glendergan catchment	Surface water management measures.	Not a deviation and therefore no material change in ecological risk.		No photo.

Ref	Brief Description (from MKO)	Location/Habitat	Description and notes	Ecological Risks of Deviation	Map Extract	Photo
44	Evidence of tree movement northeast of T10 below T8 where peat movement event occurred in June 2020.: No Deviation from original planning.	Bunadaowen catchment	Tree movement, as a result of peat movement, rather than a constructed deviation from the consented development; however the documents submitted with the planning application gave assurances that such movement would not happen. See Ref 42.	Clear ecological risk if this is indicative of peat movement; association with the wind farm development is unclear and needs to be ascertained.		
45	Planning status of meteorological mast on site: No Deviation from original planning drawings.	Bunadaowen catchment, less than 50m from the Bunadaowen River	Temporary meteorological mast which was dismantled in February 2021.	Not a deviation and therefore no material change in ecological risk.		No photo.

APPENDIX 2

Review of AA Screening Report

General and Background

1. The consultant refers to the Habitats Directive however does not make clear the other statutory provisions with which the assessment is aligned.
2. The intended statutory provisions could be Regulations 42 (1) and 42 (2) of the European Communities (Birds and Natural Habitats) Regulations, 2011, as amended. As set out in these Regulations, the screening assessment should have been completed by the public authority before the occurrence of the deviations which go beyond the original planning consent. The public authorities screening assessment should have been based on information provided to it by the wind farm developer prior to the occurrence of the deviations. The Directive and Regulations do not allow for retrospective assessments. An assessment under this legislation could therefore be based on the ongoing existence of the deviations as 'the project'.
3. Alternatively, the AA screening report may have been submitted pursuant to S.34 (12) of the Planning and Development Act 2000, as inserted in 2011 by the Planning and Development (Amendment) Act 2010 (30/2010), s. 23(a)(i)-(iii) and (c), S.I. No. 132 of 2011. This would be a retrospective assessment based on scenario that the deviations had not yet occurred but were about to be the subject of an application to the planning authority. An assessment under this legislation would include assessment of the construction impacts of the deviations.
4. Both of the two alternatives above are likely to be required and it may be that the AA screening report is seeking to cover both, as in column four of Table 3.1, comment is provided on whether the deviations may result (i.e. ongoing) or have resulted in (i.e. retrospective) direct or indirect impacts on a European site.
5. Given the project's location, the statutory provisions may include those of Northern Ireland, and there may be requirements for cross-border consultation and assessment. There is no evidence of consultation with the prescribed bodies/statutory agencies on either side of the border.
6. The consultant states that the method is based on EC guidance from 2001 (EC, 2001), however, it also lists the most recent guidance available for the screening assessment (EC, 2021) and (EC, 2018). This is an update on the 2001 guidance. The updated version forms the basis of my review of the methodology and it is recommended that the more recent guidance is used by the competent authority in making its assessment.
7. As acknowledged by the consultant, the purpose of the AA screening document is to inform an AA screening to be undertaken by the competent (public) authority. Therefore, I will consider whether there is adequate information in the document to enable such an exercise to be completed by the competent authority. Any conclusion in the AA screening report is simply the opinion of the consultant.
8. Background, Paragraph 4 appears to pre-judge the outcome of the assessment. The document repeats the same assertions throughout that (i) the deviations are minor (many times), (ii) the deviations are commensurate with the consented development (repeated eight times) and (iii) the deviations do not need additional mitigation measures (also repeated eight times), all without providing much supporting evidence. The assessment should be sufficient, objective and scientifically based or evidenced, or in the words of the Regulations '*in view of best scientific knowledge*'.
9. The Appendices include a Peat Stability Report which is nearly 100 pages long and includes detailed technical assessment, suggesting that this work was a necessary part of the AA screening assessment. NPWS/ DEHLG guidance (NPWS, 2010) is that "*if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA).*" However, it is not clear how much the AA screening report relies on the peat stability report.

10. The Peat Stability Report appears to suggest that some mitigation is required to ensure peat stability to the T10 access road; in the peat stability report this mitigation is not directly linked to protection of an SAC but there is at least a potential link. The AA screening report suggests this work will bring the access road back into line with the consented development but does not explain why this is necessary. Moreover, there was some evidence of additional measures on site that are associated with at least one of the deviations (silt curtains and settlement ponds).
11. As this AA screening deals with the already constructed, there should be data from monitoring work undertaken during the construction of the wind farm (to date) which would also therefore encompass the deviations. This data has the potential to demonstrate no LSE during construction but none is provided in the AA screening report (expect an assessment of current peat stability which pertains to ongoing risks, or the lack of them).
12. The AA screening assessment should be related to the original NIS submitted with the original application for the wind farm development, including the influence of the deviation(s) on any 'conditions, restrictions or requirements' that were relied upon in reaching the conclusions within the original NIS. The influence of the current project, i.e. the deviations, on these conditions should be examined, i.e. it should be determined whether the deviations undermine the conclusion within the original NIS.

Step 1: Ascertain whether the project is directly connected with, or necessary to, the management of a Natura 2000 site.

13. The applicant is required to clarify, and the public authority must confirm, if the planned works are 'directly connected with or necessary to the management of the Natura 2000 site. Step 1 is completed in section 1.1 and it makes clear that the project is not directly connected with, or necessary to, the management of a Natura 2000 site. However, the status of the emergency works should be clarified.

Step 2 Description of the plan or project and its impact factors.

14. The site location is described in 2.1 and a description of the deviations is provided in 2.2. The term 'the project' is used throughout to refer to the whole wind farm development however the description in 2.2. pertains to the deviations only. Defining the project for assessment is an important procedural point. It is clear that the author intends that the project is the deviations, collectively and individually, and my review will continue on this basis, noting that the windfarm project excluding deviations has already been subject to an AA screening and was screened in for Appropriate Assessment by An Bord Pleanála, the competent authority making the assessment. It is essential that the project which is being assessed is defined precisely. Treating the deviations, collectively and individually, as the project is an acceptable approach, noting that these will also have to be assessed 'in combination' with other plans or projects, i.e. including the consented wind farm, and the need to assess the project as if the deviations were not constructed yet and their ongoing existence.
15. The deviations are mapped and described over 7 pages. Five deviations, No. 38, 39, 43, 44 and 45 are not assessed. Deviations No. 10, 3, 15, 18 and 19 are given individual descriptions, while the rest are described collectively but grouped in to four categories.
16. The description for deviation 10 is a description of proposed future changes to the approach road to T4. It is unclear but perhaps this work is intended to be included as part of the project subject to AA screening, as well as the existing deviations. This would appear to be an unnecessary complication now however it will need to be considered later.

17. Overall, the description of the deviations as presented in the AA screening report are considered inadequate. For each deviation, expected information would include location, timing, duration, dimensions, materials, topography, any environmental mitigation, distance from the nearest Natura 2000 sites and potential links to such sites (including to their interest features and conservation objectives). The descriptions should be systematic, quantified, and factual, without efforts to diminish their significance. For example, assessing LSE for the changes to the road network requires information on the location of changes (and distance from the Natura 200 sites and their interest features) as well as the changes in the length of the road. And for another example, there is more description provided about the consented borrow pits than the unconsented borrow pit. Some of this information is provided in Appendix 2 however the description of the project, i.e. the deviations, should be provided in the AA screening report for clarity.
18. Two of the unassessed deviations relate to unstable peat, which the consultants say are not deviations from the consented development. I can agree that these not normally be considered a part of project for the purposes of AA screening. However, assurances may have been provided that the peat was stable and the peat would not move in the way described. They are therefore material to the assessment and could be classed as a deviation from the consent.
19. At Step 2, there is no attempt to describe impact factors that may or could potentially have arisen as result of each deviation. If the deviations are the project, potential impact factors should be described for the deviations in their own right and independently of the consented wind farm. The potential impact factors could include site run-off, other water pollution, noise, emissions to air, removal of trees, effects on supporting habitats and populations of species, and peat movement.
20. The impact factors should be related to the European sites, and their qualifying interest features, explaining the potential impact pathways. In this case, potential indirect effects, such as suspended solid pollution, are relevant and matters such as the development footprint, which is mentioned several times in the AA screening report, are much less relevant, since the deviations occurred outside any Natura 2000 site.
21. In summary, Step 2 has not been adequately completed and further information is required to inform an updated assessment.

Step 3: Identify which Natura 2000 sites may be affected by the plan or project

22. Fifteen Natura 2000 sites are identified which lie within 15km of the wind farm site. The use of 15km is standard practice as a starting point for a screening assessment and is appropriate here. The 15km search area is not the same as the Zone of Influence/Impact since this can only be known after an impact assessment is completed. In this case, there is the possibility of effects occurring downstream at greater distances than 15km, although this would normally only be the case if effects are identified closer to the project site.
23. The report provides the name and list of qualifying interest and a link to the conservation objectives. It says that the COs were considered in the assessment however there is no evidence provided to show how. For example, there is no information provided on the conservation condition of the qualifying interest, whether it requires maintenance or restoration, where it occurs in relation to the project site or how any of its specific conservation objectives could be affected without mitigation.
24. An assessment in the fourth column of the table. is provided of potential pathways and effects arising from the deviations on the Natura 2000 sites. However, this is really a set of assertions, more or less copied and pasted from row to row, and provides no evidence of proper consideration of the potential effects of the deviations on the Natura 2000 sites. To exclude an effect and therefore a particular designated site from AA, the evidence needs to be unequivocal, backed up with scientific evidence and

(ideally) obvious without the need for detailed assessment or mitigation. Furthermore, there is no evidence that an understanding of site pressures or threats, which are available on the standard data form, has been applied to the consideration of risks to the conservation objectives arising from the project.

25. The assessment denies the existence of a pathway for impact which was acknowledged in the AA screening report for the wind farm project and does not mention the risk of peat movements, which have obviously occurred on the site and demonstrated the existence of this pathway. The risks from the deviations may be small but they are real and it is important to acknowledge this for the next stage of the assessment. Only sites with no pathway at all can be ruled out prior to the consideration of in combination effects.
26. The conclusion in 3.2 on the sites potentially affected is just an assertion; there is no scientific evidence provided to demonstrate that Likely Significant Effects can be excluded without further assessment and mitigation.
27. Section 3.3 refers to emergency works, which have not been described previously. The works have the potential to constitute part of the 'plan or project' within the scope of the screening and the relationship of the emergency works to the project described here should be clearly set out in earlier sections.
28. In summary, this step is unclear/incomplete and requires the submission of further information. Specifically, the assertions in Table 3.1 of the absence of potential pathways needs further explanation for example it needs to be explained whether there is a potential ground water or surface water connection with an SAC. The relationship of the emergency works with the description of works within this document should also be clarified.

Step 4: Assess whether likely significant effects can be ruled out in view of the site's conservation objectives

29. In combination effects must be considered. In this case, the deviations must be considered in combination with the consented wind farm development (which was previously screened in for AA). This means assessing all the deviations, the consented wind farm and any other relevant plans and projects together. Furthermore, it must include the emergency works undertaken to contain the bog burst and associated remedial works, since these should also be considered a project.
30. In combination effects must be assessed based on all identified pathways, whether these are significant for the project alone or not. There are clearly pathways between the windfarm site which includes the deviations and several Natura 2000 sites.
31. No assessment against the conservation objectives is apparent to determine if LSE can be excluded.
32. In summary, Step 4 is unclear/incomplete and requires the submission of further information or evidence that supports the conclusions derived.

Conclusion

33. The evidence presented in the AA Screening Report is incomplete and insufficient to support the presented conclusions. On that basis it is reasonable to request further information or to conclude either uncertainty or precautionary Likely Significant Effects.

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