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Prepared for;

Jennings O' Donovan

Ballykett Windfarm (BWF)

Site Investigation by Peat Probing and Peat Stability Risk Assessment Report

JENNINGS O'DONOVAN & PARTNERS LIMITED
CONSULTING ENGINEERS

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1. Introduction

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1.1 Background

RSK Ireland was commissioned by Jennings O'Donovan & Partners (JOD) on behalf of Ballykett Green Energy Limited to assess the geological site characteristics in relation to the planning application for the Ballykett Wind Farm (BWF, the development) in Co. Clare.

1.2 Purpose

Site Investigations were undertaken for the purposes of assessing ground conditions at EIA design phase of a proposed wind farm development, Ballykett Wind Farm in Co. Clare. The assessments focused on peat and slope stability risk as well as subsoil and geological characterisation and classification.

1.3 Scope of Works

The scope of works for ground investigations included peat depth probing and a Peat and Slope Stability Risk Assessment. The scope of works was developed based on observations made by desk study, site walk overs and assessments. The work was carried out to inform the EIAR for the proposed development and it includes a Peat Stability risk assessment and Site Investigations. The results of both studies have been merged into this Site Investigation report..

1.4 Statement of Authority

RSK (Ireland) Ltd. (RSK), part of RSK Group, is a consultancy providing environmental services in the hydrological, hydrogeological and other environmental disciplines. The company and group provide consultancy to clients in both the public & private sectors. More information can be found at www.rskgroup.com. The principal members of the RSK EIA team involved in this assessment include:

- Sven Klinkenbergh – B.Sc. (Environmental Science), P.G.Dip. (Environmental Protection) – Associate, Project Manager and EIA Lead Author with c. 10 years industry experience in the preparation of hydrological and hydrogeological reports..
- Project Scientist: Lissa Colleen McClung - B.Sc. (Hons.) Environmental Studies, M.Sc. (Hons.) Environmental Science. Current Role: Graduate Project Scientist
- Project Scientist: Mairéad Duffy – B.Sc. (Environmental Science), M.Sc. (Climate Change). Current Role: Graduate Project Scientist
- Project Scientist: Deirdre Walsh – B.Sc. (Geology), M.Sc. (Geoscience), PhD (Geomodelling). Current Role: Environmental Consultant

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2. Site Investigation Works & Methods

2.1 Scope of Works

The completed scope of works included:

- Peat depth probing, 159 no. sampling locations (Phase 1, August and December 2022)
- Peat depth probing, 155 no. sampling locations (Phase 2, November 2023)

2.2 Peat & Slope Stability Risk Assessment Methodology

2.2.1 Peat Depth Probing & Topography Assessments

Peat depth probing was undertaken at the site of each proposed turbine location and at proposed locations for other infrastructure including access tracks to turbines, a temporary construction compound, and the on-site substation.

Peat depth probing was conducted using a fiberglass depth probe and, at each survey point, the depth of peat, local incline (incline within a c. 5-10 m radius of the survey point) and grid reference (Irish Grid) were recorded. Notes on observations and photographs were taken.

A gouge core was taken at the proposed T3 location using a handheld gouge core to extract a peat core in order observe the peat profile. A peat log, *Von Post Scale* qualification, colour, and moisture content were recorded for the core sample, in addition to a number of in-situ shear strength readings.

2.2.2 Peat Stability Numerical Assessment

This peat stability assessment was undertaken using an infinite slope stability approach (Boylan and Long, 2012), derived from Bromhead's formula (Scottish Gov., 2017) and it will be referred to as the *FoS Formula* herein.

$$FoS = \frac{Cu}{yz \sin\alpha \cos\alpha}$$

The peat stability was qualified at all peat survey points using the parameters outlined in **Table 1**.

Table 1: Factor of Safety (FoS) formula parameters and symbols

Symbol	Description	Unit
FoS	Factor of Safety	FoS
c_u	Effective cohesion or Undrained Shear Strength	kPa
y	Bulk Unit Weight of Peat	kN/m^3
z	Depth to failure plain	m
α	Slope Angle	Degrees

The Factor of Safety (FoS) result will range from 0 to infinity, with FoS values of one or greater are considered acceptable in terms of peat stability (**Table 2**; Scottish Gov., 2017).

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Table 2: Factor of Safety (FoS) Classifications (Scottish Gov., 2017)

Description	FoS Value Range	Classification
Stable	>1.3	Acceptable
Marginally Stable	1.0 > < 1.3	Acceptable
Unstable	<1.0	Unacceptable

The assessment has been completed on the basis of two scenarios, as follows:

1. **Scenario A** – No surcharge loading, peat stability calculated using the depth of peat observed and recorded during site surveys.

2. **Scenario B** – Surcharge of 3m for depth to failure plane to account for heavy plant machinery. This is considered the worst case scenario.

Undrained shear strength (effective cohesion) (c_u) was derived by assessing the moisture content results, i.e., there is a correlation between peat moisture content and shear strength (effective cohesion). Shear vane testing was carried out on the site. The following graph presents conceptual shear strength values for peat (Boylan et al., 2008).

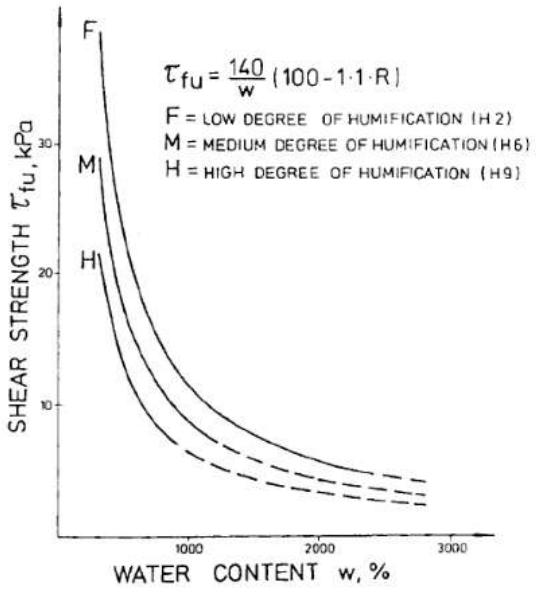


Plate 1: Correlation Between Moisture Content and Shear Strength of Peat (Boylan et al., 2008)

The following table (**Table 3**) presents the typical minimum, average and maximum moisture content which have been used to determine indicative shear strength values for the Site.

Table 3: Peat Moisture Content Range & Indicative Shear Strength

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Category	Moisture Content (%)	Indicative Shear Strength (kPa)
Minimum	200	>20
Average	750	10-20
Maximum	1500	<10

For the purpose of assessing peat stability for the Site a conservative undrained shear strength (effective cohesion) value will be used in numerical assessments, i.e. 3.5 kPa.

In situ bulk density (kg/m^3), or bulk unit weight (kN/m^3) of peat (y) is typically within the range of 900-1100 kg/m^3 (Munro, 2004), or 8.8-10.8kN/m^3. For the purpose of assessing peat stability for the Site, a conservative bulk unit weight value will be used in numerical assessments i.e. 11kN/m^3.

The depth to failure plane (z) is presumed to be thickness or depth of peat at any given sampling point being assessed. However, it should be noted that the failure plane can potentially be within peat (peat on peat movement), or the substrate i.e. weathered rock or underlying soils.

Slope angle (α) relates to the failure plane angle, which is presumed to be the peat and substrate interface, and which is presumed to be parallel to the surface when using FoS Formula (Infinite Slope Formula). In reality the underlying substrate is unlikely to be parallel to the surface topology.

It should be noted that FoS Formula does not account for forces related to the toe and head of an area or mass of soil with the potential for mass movement and in reality, the Infinite Slope formula will likely exaggerate stability conditions negatively.

The following table lists parameter values, including inferred conservative parameter values used in numerical assessments.

Table 4: Formula Parameters, symbols & Inferred Conservative Values

Symbol	Description	Value	Unit
c_u	Effective cohesion	3.5	kPa
y	Bulk Unit Weight of Peat	11	kN/m^3
z	Depth to failure plain	Depth of Peat	m
α	Slope Angle	Surface Topography	Degrees

2.2.3 Risk Matrices & Ranking

The slope stability risk assessment considers the following parameters, which are assessed by means of a series of risk matrices (**Table 5,** Scottish Gov., 2017).

Table 5: Parameters included and Assessed in the Risk Matrices

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Category	Description
Landslide History	Considers the likelihood of landslide events occurring based on the history of the site, including the current site use.
Factor of Safety	As described above, includes the following; • Peat depth • Peat quality / condition • Moisture content • Incline (surface topography) • Shear strength • Bulk unit weight of peat
Substrate Topology	Identifying and qualifying variance in substrate topology and qualifying variance from theory underlining the stability formula used i.e., Infinite Slope (Parallel and no foot and head forces)
Significance of Receptor	Qualifying potential receptors in terms of significance.
Distance to Receptor	Qualifying localised proposed development areas in terms of distance to nearest receptor.

Considering the above parameters, the stability assessment follows the following steps;

1. FoS_{RAW} - Assess the site in terms of soil stability using the FoS Formula and calculate a Factor of Safety (FoS) using the *raw* data. This step is considered as preparation of the data obtained for the site i.e. translating the data to a value related to stability and is not considered the final output of the stability assessment.
2. $FoS_{ADJUSTED}$ - Assess the FoS_{RAW} values in terms of suitability of the application of FoS Formula by considering the history of landslides in relation to the proposed site, and the topology of the substrate compared to the surface topology of the site. This is done by means of a risk matrix which qualifies the point, and also applies a coefficient for the next risk assessment step.
3. Risk Ranking RR_{SF} - The $FoS_{ADJUSTED}$ data is assessed in terms of significance of associated receptor. This is done by means of a risk matrix which qualifies the point, and also applies a coefficient for the next risk assessment step.
4. Risk Ranking RR_D – The RR_{SF} data is assessed in terms of distance to associated receptor. This is done by means of a risk matrix which qualifies the point.

The results and conclusions made by means of the above risk assessment are viewed as two tiered:

1. The likelihood of a stability issue or landslide while considering the significance of the receptor (RR_{SF}).
2. The consequence of a stability issue or landslide while considering the distance to the receptor (RR_D).

Risk Matrices are presented in **.**

2.2.4 Interpretation of Results.

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Results of the numerical stability risk assessment are modelled / mapped and interrogated in the context of site topography, site conditions, the proposed development and receptor sensitivity and susceptibility and presented in Section 4.

Consideration of groups of data and site-specific dynamics at a particular location are an important consideration for interpretation the stability risk. For example; data might indicate a single point of unacceptable FoS / stability, however this needs to be considered in context of neighboring data and actual site conditions, such as the presence of deep peat within a localised basin confined by shallow bedrock at the surface at neighboring points. This may not equate to an elevated risk of a catastrophic landslide event occurring, but does equate to potential localised stability issues arising if excavating at that particular location with deep peat.

Potential stability hazard and proximity to sensitive receptors must also be considered. For example, an area may have low risk in terms of stability, but a potential significant effect due to its proximity to a sensitive receptor (e.g. surface water).

The need for further investigation or specification of mitigation and or monitoring is related to the risk level present following the assessment (**Table 4**). Should the risk level for a particular area be high, mitigation by avoidance will be required. In areas with a medium risk level only if mitigation can reduce the risk ranking should development proceed in this area.

Table 6: Risk ranking and suggested actions from (Scottish Gov., 2017).

Risk Level	Action suggested for each zone
High	Avoid project development at these locations
Medium / Moderate	Project should not proceed unless risk can be avoided or mitigated at these locations without significant environmental impact, in order to reduce risk ranking to low or negligible.
Low	Project may proceed pending further investigation to refine assessment and mitigate hazard through relocation or re-design at these locations
Negligible / Very low	Project should proceed with monitoring and mitigation of peat landslide hazards at these locations as appropriate.

3. Baseline Conditions

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3.1 Site Description and History

There are no recorded landslide events in close proximity to the Site (GSI, accessed November 2023). The closest mapped Landslide Event recorded is c. 21km to the southeast which occurred in 1997. There were no indications of stability issues or mass movement observed on the Site during site surveys. There is an anecdotal report of a peat slide in this area (c. 27 years ago and assumed to be at or close to the site) with associated pollution into the Moyasta River. This anecdotal report is based off of a submission made by a local resident during the public consultation process, received 13/07/2023.

The Geological Survey of Ireland (GSI) has developed a Landslide Susceptibility map (GSI, accessed November 2023). The site is mapped as 'Low Risk'. A small portion to the south, at the proposed borrow pit and spoil storage area, is mapped as having 'Moderately Low' to 'Moderately High' Risk.

3.2 Site Geology

Consultation with Geological Survey Ireland Spatial Resources (GSI, accessed November 2023) indicates that the bedrock at 1:1,000,000 scale the Site is underlain by;

- The Central Clare Group (CCG) - Sandstone, siltstone & mudstone; The group comprises five cyclothems (I to V), of mudstone, siltstone, and sandstone. The basal mudstone is 7-18m thick and laminated. In general, the mudstones are overlain by laminated to massive grey siltstones. This formation underlies the location of T1.

- The Gull Island Formation (CNGULL) - Grey siltstone & sandstone; The formation is dominated by grey siltstones with up to 20% sandstones at the base of the succession, decreasing towards the top. The sandstones are usually graded and exhibit flute casts at their base and ripple marks at the top. This formation underlies the location of T2, T3, T4.

There are no mapped faults or other significant features within the two geological formations underlying the area of the Site.

Rocky outcrops were observed within the wind farm site Boundary to the south, close to the Borrow Pit. A disused quarry adjacent to the southwest of the Site shows underlying bedrock of interbedded sandstone, siltstone and mudstones of variable thicknesses, with several beds laminated.

3.3 Site Soils and Subsoils

A review of available maps (GSI, EPA assessed November 2023) indicate that the soil type across the site is 'cutover peat'. At the location for the proposed borrow pit and spoil storage area, the soil is identified as 'Acid Shallow Poorly Drained Mineral (AminSP)' and 'Acid Deep Poorly Drained Mineral (AminPD)'.

Consultation with available subsoil maps (GSI, EPA assessed November 2023) indicate that the subsoil type across the Site is 'cutover peat'. At the Borrow Pit and spoil storage area the subsoil is 'Bedrock at Surface' and 'Shales and sandstones till (Namurian)'.

Peat depths observed on the Site are generally 'Shallow' to 'Moderately Deep' with isolated pockets of deep peat. Depths at most sampling points are within the range of 0.5-4.0m and areas with deeper peat

have been avoided in terms of the Development footprint. Peat depths are mapped, and the peat database are presented in **Appendix 8.1 App A and App B(a)** respectively.

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The gouge core taken at turbine T3 indicated a high Von Post value (H7-8) see **Appendix 8.1 App B(c)**.

3.4 Topography and Substrate Topology

The topography within and in the immediate area surrounding the Site is relatively flat lying or comprising of very low magnitude inclines (<5º).

The substrate topology is observed to be moderately variable i.e. variable peat depth. Notably, peat depth becomes shallower nearer the mapped river on site (**Appendix 8.1 App A**)

3.5 Hydrology and Climate

A mapped river [MOYASTA_010] and several drainage channels run through, and directly adjacent to the Site. Extensive constructed drainage channels associated with forestry, agriculture and peat cutting activities exist at the site.

3.6 Receptors

Receptors associated with the Project footprint are generally limited to non-critical infrastructure and water bodies or drainage channels related to forestry. For the purposes of this risk assessment, receptors are limited to mapped rivers. Drainage channels will be considered as potential pathways to receptors.

Receptors associated with the proposed development (e.g. streams, rivers), are considered highly sensitive receptors considering:

- 2016-2021 Water Framework Directive (WFD) status and Objectives.
- Current moderate WFD status and objective to restore to at least ‘good’ status by 2027.
- The downgradient designations (sensitive protected areas) associated with the Kilrush catchment and the sensitive habitats and species, i.e. the Lower River Shannon SAC and the River Shannon and River Fergus SPA.
- Groundwater bodies as sources of drinking water are protected nationally.

Ultimately, all surface water and groundwater associated with the Site is considered sensitive and must be protected.

Risk to receptors must consider both the hazard and likelihood of adversely impacting on any given sensitive receptor. Therefore, parameters such as distance from potential source of hazard to receptor, pathway directness and/or connectivity, and assimilative capacity of the receiving water body should also be considered.

4. Site Investigation Results

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4.1 Peat Depth Data

Peat depth probes were undertaken at 314 locations at the proposed wind farm site. A log of Geo-referenced and categorized peat depth locations are presented in **Appendix 8.1 – App A**. Peat depth data is presented in **Appendix 8.1 – App B(a)**. The number of probe locations by Depth Category are presented in **Table 7**.

Table 7: Peat depth probe points by depth category

Peat Depth Category	No.	Percentage of probe points
A – Rock (0.00-0.01 m)	7	2%
B – Very Shallow (0.01-0.5 m)	33	11%
C – Shallow (0.5-2.0 m)	134	43%
D – Moderately Deep (2.0-3.5m)	108	34%
E – Deep (3.5-5.0 m)	32	10%
F – Very Deep (>5.0 m)	0	0%
TOTAL	314	100%

4.2 Peat Stability Risk Assessment Results

A review of peat stability assessment result data and maps as presented in **Appendix 10.1 – App C** indicates that the Factor of Safety (FoS) is acceptable, and very low to low stability risk across the site with some moderate areas in close proximity to the mapped surface water. A summary of risks at the site under varying conditions and scenarios are presented in in **Table 8** and **Table 9**.

There are three marginally stable points, two of these points are to the east of proposed turbine T3 where there is moderately deep peat with a gentle slope (c. 2.5°) which is outside of the development area and therefore the risk to the development is considered low. There is one point at the borrow pit where there is a moderate slope (c. 5.3°), the surrounding points are acceptable and therefore the risk of a landslide is interpreted as low.

Table 8: Factor of safety (adjusted) at peat probe locations.

FoS (Adj.)	Acceptable	Marginally Stable	Unstable
Scenario A	314	0	0
Scenario B	311	3	0

The risk ranking distance across the wind farm site is generally very low. There are areas which are low to moderate where the peat probe locations are closer to sensitive surface water receptors (T1) and access tracks from the site entrance to proposed turbine T2.

Table 9: Risk ranking (distance) at peat probe locations

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RR (Dist.)	Very Low	Low	Moderate	High
Scenario A	247	48	19	0
Scenario B	244	51	19	0

Areas of elevated stability risk, even at a localised scale, are considered geo-hazards requiring mitigation.

4.3 Peat Stability Risk Assessment Interpretation

The following table presents the interpretation of stability risk assessment data in the context of stability, or factor of safety (FoS) (Adjusted, Scenario B) at each significant development infrastructure unit.

Table 10 : Peat Stability Risk Assessment – Factor of Safety (Adjusted)(Scenario B) at Main Infrastructure Units and portions of track

Turbine No. / Unit	Peat depth (m)	Slope (°)	FoS_{ADJ} (Factor of Safety adjusted according considering site specific conditions)	Geo-Hazard / Comment (To consider at detailed design / preconstruction planning)
T1	1.4 – 2.9	0.5 - 0.9	Acceptable	-
T2	0.5 – 3.2	0.7 – 2.8	Acceptable	-
T3	0.5 – 4.7	0.1 – 1.0	Acceptable	Variable peat, with some isolated pockets of deep peat.
T4	3.0 – 3.4	0.1 – 0.8	Acceptable	-
Met Mast	1.2 – 2.4	0.9 – 1.0	Acceptable	-
Temporary Construction Compound	3.1 – 3.9	0.2 – 0.4	Acceptable	Deep peat
On-Site Substation	1.0 - 3.8	0.4 – 0.5	Acceptable	Variable peat, with deep pockets of peat
Borrow Pit	0.1 – 0.2	1.4 – 5.4	Generally Acceptable	One moderate stability point however the surrounding points suggest the risk is low.
Entrance to T1	0.6 – 3.8	0.4 – 1.1	Acceptable	-
T1 to T2	0.1 - 3	0.5 – 1.8	Acceptable	-
T2 to T3	0.4 – 4.5	0.6 – 1.8	Acceptable	Variable peat, with some isolated pockets of deep peat.
T3 to T4	0.4 – 1.8	0.6 – 0.8	Acceptable	-
Track to Borrow Pit	1.5 – 2.9	1.8 – 2.0	Acceptable	-

The borrow pit factor of safety is generally acceptable with one moderate stability point. However, the surrounding points in the same field are found to be acceptable. Due to the lack of peat, shallow bedrock at the borrow pit and the surrounding points the Factor of Safety for the borrow pit is interpreted to be acceptable and the stability risk low.

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The following table presents distance to and sensitivity of receptor.

Table 11: Peat Stability Risk Assessment – Assessment of Receptor Sensitivity and Distance to Receptor

Turbine No. / Unit	Distance to Sensitive Receptor	Receptor / Comment
T1	<150m	MOYASTA_010, surface water receptor
T2	>150m	MOYASTA_010, surface water receptor
T3	>150m	MOYASTA_010, surface water receptor
T4	<150m	MOYASTA_010, surface water receptor
Temporary Construction Compound	>150m	MOYASTA_010, surface water receptor
On-Site Substation	>150m	MOYASTA_010, surface water receptor
Clear-Span Bridge	<50m	MOYASTA_010, surface water receptor; works will be carried out in SW buffer zone

The following table presents the interpretation of stability risk assessment data in the context of stability, or factor of safety (FoS) (Adjusted, Scenario B) at each significant development infrastructure unit.

Table 12: Peat Stability Risk Assessment – Risk Ranking (Distance)(Scenario B) at Main Infrastructure Units and portions of track

Turbine No. / Unit	RR_D (Risk to nearby receptors)	Geo-Hazard / Comment
T1	Low	Close proximity to surface water feature. Includes access track within SW buffer.
T2	Very Low	-
T3	Very Low	Variable peat, with some isolated pockets of deep peat.
T4	Very Low / Low	Close proximity to surface water feature.
Met Mast	Very Low	-
Temporary Construction Compound	Very Low	Deep peat
On-Site Substation	Very Low	Variable peat, with deep pockets of peat
Borrow pit	Very Low / Low	Gentle to Moderate slope.

Turbine No. / Unit	RR_D (Risk to nearby receptors)	Geo-Hazard / Comment
Clear-Span Bridge	Moderate	Close proximity to surface water feature. Works within 50m SW Buffer. However, the area is flat.
Entrance to T1	Very Low / Moderate	Track crosses surface water feature. Works within 50m SW Buffer.
T1 to T2	Very Low / Low	Close proximity to surface water feature.
T2 to T3	Very Low	Variable peat, with some isolated pockets of deep peat.
T3 to T4	Very Low / Low	Close proximity to surface water feature.
Track to Borrow Pit	Very Low	-

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Both the clear-span bridge and access track on either side of the bridge are works with the 50m SW buffer and therefore the ranked risk is moderate. While the risk is ranked as moderate due to proximity to a sensitive receptor the topography is flat (<1°) and therefore the risk of large scale movement is interpreted as low, but the risk of a localized stability issue remains.

As per actions outlined in **Table 6**, a risk value of moderate requires mitigation to reduce the risk ranking at these locations. Considering the mitigation measures outlined in both **Chapter 8** and **Chapter 9** of the EIAR there are a number of mitigation measures to reduce the risk of peat stability issues and the potential effects to sensitive receptors.

Table 13 below summarized the peat stability risk assessment results and the residual risk associated with each infrastructure unit considering the results of the stability assessment, site topology and mitigation measures. The mitigation measures to reduce or offset potential risk includes:

A. Supervision by a competent person (civil / geotechnical engineer).
B. Limiting works to the development footprint as far as practical (vehicle movements, personnel movements, temporary storage, etc).
C. Stockpile management: no temporary stockpiles will be positioned or placed on areas of peat which have not been assessed or are indicated as being geo-hazards, particularly in areas of unacceptable factor of safety / stability.
D. Earthworks will be limited to seasonally dry periods and will not occur during sustained or intense rainfall events.
E. Excavation works in close proximity to surface water features (drains or rivers) will require special consideration in terms of managing movements, spoil arising from excavations, and entrainment of solids and contaminants in surface water runoff.

Table 13: Summary of residual risk at each infrastructure unit / proportion of track

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Turbine No. / Unit	FoS_{ADJ}	RR_D	Geo-Hazard / Comment	Mitigation					Residual Risk following mitigation
				A	B	C	D	E	
T1	Acceptable	Low	Close proximity to surface water feature. Includes access track within SW buffer.	x	x	x	x	x	Low
T2	Acceptable	Very Low	-	x	x	x	x	x	Very Low
T3	Acceptable	Very Low	Variable peat, with some isolated pockets of deep peat.	x	x	x	x	x	Very Low
T4	Acceptable	Very Low / Low	Close proximity to surface water feature	x	x	x	x	x	Low
Met Mast	Acceptable	Very Low	-	x	x	x	x	x	Very Low
Temporary Construction Compound	Acceptable	Very Low	Deep peat	x	x	x	x	x	Very Low
On-Site Substation	Acceptable	Very Low	Variable peat, with deep pockets of peat	x	x	x	x	x	Very Low
Borrow Pit	Generally Acceptable	Very Low / Low	One moderate stability point however the surrounding points suggest the risk is low.	x	x	x	x	x	Low
Clear-Span Bridge	Acceptable	Moderate	Close proximity to surface water feature. Works within 50m SW Buffer. However, the area is flat.	x	x	x	x	x	Low
Entrance to T1	Acceptable	Very Low / Moderate	Close proximity to surface water feature. Works within 50m SW Buffer. However, the area is flat.	x	x	x	x	x	Low
T1 to T2	Acceptable	Very Low / Low	Close proximity to surface water feature	x	x	x	x	x	Low

Turbine No. / Unit	FoS_{ADJ}	RR_D	Geo-Hazard / Comment	Mitigation					Residual Risk following mitigation
				A	B	C	D	E	
T2 to T3	Acceptable	Very Low	Variable peat, with some isolated pockets of deep peat.	x	x	x	x	x	Very Low
T3 to T4	Acceptable	Very Low / Low	Close proximity to surface water feature	x	x	x	x	x	Low
Track to Borrow Pit	Acceptable	Very Low	-	x	x	x	x	x	Very Low

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5. Data Gap Analysis

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Peat probing was carried out only at the wind farm site. Peat probing was not carried out along the grid connection route as all works will be undertaken along existing roads.

Three shear vane readings were taken at turbine location T3, and recorded as c. 10kPa.

The Scenario B with a 3m surcharge used in this risk assessment gives indicative values only. A Geotechnical Clerk of Works will be employed during the construction phase in order to continuously monitor areas of peat. Ongoing physical stability checks and calculations will be undertaken in order to verify that safety standards are being met.

6. Conclusions

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Peat and Slope Stability

Peat depth across the site is generally shallow to moderately deep with isolated pockets of deep peat. There was no very deep peat observed during peat probing.

The Factor of Safety (Adjusted) (Scenario B, i.e. 3m surcharge) at peat probe locations is generally 'Acceptable'.

The Risk Ranking (Distance) Scenario B i.e. 3m surcharge) at peat probe locations is generally 'Very Low', however the following points summarise elevated risk at the site;

- T1 – Peat stability is 'Acceptable' (FoS >1.2), however it is located within 150m of a sensitive surface water receptor. In the unlikley event of a peat stability issue at this site the consequences are rated as moderate.
- T4 – Peat stability is 'Acceptable' (FoS >1.2), however portions of the turbine footprint is within 150m of a sensitive surface water receptor. In the unlikley event of a peat stability issue at this site the consequences are rated as moderate.
- Clear Span Bridge – Peat stability is 'Acceptable' (FoS >1.2). In the unlikley event of a peat stability issue at this location the consequences are rated as significant.
- There are pockets of deep peat recorded close to the site entrance inluding at the temporary compound and onsite substation. Also, there is deeper peat identified north of the track between T2 and T3, at T3 and to the west of T4 which may contribute to localised stability issues if not mitigated appropriately.

The risk of a stability issue is very low or low provided all appropriate mitigation measures, monitoring and best practices are followed.

Geo-Hazards

There is no record of slope stability issues on site; however there is an anecdotal report of a historical peat slide close to the site, the exact location is unknown however it cause a pollution event into the Moyasta_010 river.

7. Caveats and Recommendations

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The risk of landslides occurring on the proposed site under worst case scenario conditions (conservative values and Scenario B (+3m)) has been determined to be generally **very low to low**. However, the following points should be noted:

- The assessment/s reported here are limited to sampling point locations which have been executed to assess the proposed locations for new infrastructure.

- Considering the variability of subsoil, bedrock depths and rock strength, intrusive ground investigation must be carried out during the detailed design phase. This will assess the specific ground conditions in line with infrastructure manufacturer specification.

- There is a low-risk of peat stability issues due to the generally flat lying topography and consistent peat depths at the proposed turbine locations, and by the undulating nature of the substrate topology. Nevertheless, there remains risk during construction of collapse of side walls in excavations, and subsidence. Such potential issues give rise to the need for vigilance during and after the construction phase of the proposed project and it is recommended that all works are supervised and monitored by a competent person (Civil or Geotechnical Engineer) throughout the construction phase.

7.1 Mitigation and monitoring measures

- As a result of the EIA process, constraint identification and mitigation by design applied to the site layout, the development footprint avoids areas of unacceptable risk (i.e. high risk in terms of landslide susceptibility or to hydrogeological areas).

- The mitigation measures include limiting all vehicle movements to established tracks and hardstands as far as practical, limiting temporary storage to the development footprint and avoiding areas of elevated risk or close to sensitive receptors.

- No temporary stockpiles will be positioned or placed on areas of peat which have not been assessed or are indicated as being geo-hazards, particularly in areas of unacceptable factor of safety / stability.

- Earthworks will be limited to seasonally dry periods and will not occur during sustained or intense rainfall events.

- Excavation and dewatering methodologies will be carefully considered, planned and managed during the Development phase. Site supervision will be undertaken by competent personnel (Civil or Geotechnical Engineer (excavations/ stability) and Environmental Clerk of Works (water quality)) who will ensure that the mitigation objectives are achieved and /or emergency responses will be escalated where necessary. Relevant statutory agenices will be consulted including Inland Fisheries and Clare County Council.

- The frequency of monitoring during operation should be high (e.g. weekly) during the initial months. This can be reduced (e.g. monthly) gradually over the following year, or until site conditions are observed to be stable.

8. References

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Appendix 8.1 - App A - Peat Map

Legend

Project data

Survey Result

Peat Data 2022-2023

- A – Rock (0.00-0.01 m)
- B – Very Shallow (0.01-0.5 m)
- C – Shallow (0.5-2.0 m)
- D – Moderately Deep (2.0-3.5m)
- E – Deep (3.5-5.0 m)

Site data

Wind Farm Layout

- Turbine Locations
- Borrow Pit Location
- Borrow Pit
- Temporary Construction Compound Location
- Temporary Construction Compound
- Substation Compound Location
- On-Site Substation
- Spoil Areas
- Site Entrance
- Access Road and Hardstands
- Proposed Met Mast
- Enhancement Area
- Blade Set Down Area
- Redline Wf and Rd Surfacing

Topography

- 2m Elevation Contours

Base layers

Google satelite

OpenStreetMap

Project ID	604008
Project Name	Ballykett Wind Farm, Co. Clare
Projection	ITM
Drawn by	CCa
Reviwed by	SK
Version	23/11/2023

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
Global Digital Elevation Model (GDEM)

RSK

501001E

502001E

659001N

658001N

Site Entrance

Temporary Construction Compound

On-Site Substation

T1

T2

T3

T4

Met Mast

Borrow Pit

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0 250 500 m

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Appendix 8.1 App B(a) - Peat Database

Ballykett WF, Co. Clare

604008

Date: 28/11/2023
Prepared by: DW
RSK File Ref.: 604008-Geo-R03-App8.1 - App B(a)-(02)-Peat Database.xls

RECEIVED: 29/03/2024

Sample / Test Date	Sample / Test Category	Associated Infrastructure unit	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Slope (Extracted from GDEM)	Parameter Values: Undrained Shear Strength (Conservative Value)	Parameter Values: Bulk Unit weight of Peat (Conservative Value)	Scenario A: Depth to failure plane i.e. Peat Depth	Scenario B: Surcharge Equivalent Placed Fill Depth i.e. +3m	Scenario A: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	Scenario A: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	Scenario A: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Scenario B: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	Scenario A: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	Scenario B: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
									c'	y	z	z	$FoS = \frac{c_u}{yz \sin \alpha \cos \alpha}$						$FoS = \frac{c_u}{yz \sin \alpha \cos \alpha}$ + Adjustment Value				μ_{SF}						$\mu_{Dist.}$		
dd/mm/yy						m		Degrees	kPa	kN/m3	m	m	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
05/07/2022	Depth Probe		DP001	501229.63	657908.97	3.1	D - Moderately Deep (2.0-3.5m)	1.68	3.5	11	3.10	6.10	3.51	1.0	1.78	1.0	2.0	0.0	3.51	1.0	1.78	1.0	2.0	2.0	1.0	2.0	1.0	429.0	1.0	1.0	1.0
25/10/2022	Depth Probe	Track T2 to T3	DP002	501597.35	658008.27	4.5	E - Deep (3.5-5.0m)	0.99	3.5	11	4.50	7.50	4.11	1.0	2.46	1.0	2.0	0.0	4.11	1.0	2.46	1.0	2.0	2.0	1.0	2.0	1.0	553.4	1.0	1.0	1.0
05/07/2022	Depth Probe		DP003	501384.83	657934.85	1.5	C - Shallow (0.5-2.0m)	1.72	3.5	11	1.50	4.50	7.05	1.0	2.35	1.0	2.0	0.0	7.05	1.0	2.35	1.0	2.0	2.0	1.0	2.0	1.0	[illegible]	1.0	1.0	1.0
25/10/2022	Depth Probe	Track T2 to T3	DP004	501633.45	658007.12	3.8	E - Deep (3.5-5.0m)	0.56	3.5	11	3.80	6.80	8.56	1.0	4.78	1.0	2.0	0.0	8.56	1.0	4.78	1.0	2.0	2.0	1.0	2.0	1.0	[illegible]	1.0	1.0	1.0
05/07/2022	Depth Probe		DP005	501468.12	657962.51	3.1	D - Moderately Deep (2.0-3.5m)	1.71	3.5	11	3.10	6.10	3.45	1.0	1.75	1.0	2.0	0.0	3.45	1.0	1.75	1.0	2.0	2.0	1.0	2.0	1.0	[illegible]	1.0	1.0	1.0
25/10/2022	Depth Probe		DP006	501678.21	658021.68	3.8	E - Deep (3.5-5.0m)	0.69	3.5	11	3.80	6.80	6.97	1.0	3.90	1.0	2.0	0.0	6.97	1.0	3.90	1.0	2.0	2.0	1.0	2.0	1.0	504.9	1.0	1.0	1.0
05/07/2022	Depth Probe		DP007	501542.28	658009.29	2	C - Shallow (0.5-2.0m)	2.35	3.5	11	2.00	5.00	3.88	1.0	1.55	1.0	2.0	0.0	3.88	1.0	1.55	1.0	2.0	2.0	1.0	2.0	1.0	[illegible]	1.0	1.0	1.0
25/10/2022	Depth Probe		DP008	501723.01	658040.66	3.9	E - Deep (3.5-5.0m)	0.27	3.5	11	3.90	6.90	17.28	1.0	9.77	1.0	2.0	0.0	17.28	1.0	9.77	1.0	2.0	2.0	1.0	2.0	1.0	456.4	1.0	1.0	1.0
05/07/2022	Depth Probe	Track T2 to T3	DP009	501601.42	658014.61	4.5	E - Deep (3.5-5.0m)	0.93	3.5	11	4.50	7.50	4.36	1.0	2.62	1.0	2.0	0.0	4.36	1.0	2.62	1.0	2.0	2.0	1.0	2.0	1.0	552.7	1.0	1.0	1.0
25/10/2022	Depth Probe	Track T2 to T3	DP010	501549.28	658064.06	0.6	C - Shallow (0.5-2.0m)	1.45	3.5	11	0.60	3.60	21.02	1.0	3.50	1.0	2.0	0.0	21.02	1.0	3.50	1.0	2.0	2.0	1.0	2.0	1.0	481.3	1.0	1.0	1.0
05/07/2022	Depth Probe	Track T2 to T3	DP011	501635.26	658005.83	3.8	E - Deep (3.5-5.0m)	0.60	3.5	11	3.80	6.80	8.06	1.0	4.50	1.0	2.0	0.0	8.06	1.0	4.50	1.0	2.0	2.0	1.0	2.0	1.0	550.7	1.0	1.0	1.0
25/10/2022	Depth Probe	T2	DP012	501554.32	658116.57	3.2	D - Moderately Deep (2.0-3.5m)	1.21	3.5	11	3.20	6.20	4.70	1.0	2.43	1.0	2.0	0.0	4.70	1.0	2.43	1.0	2.0	2.0	1.0	2.0	1.0	443.4	1.0	1.0	1.0
05/07/2022	Depth Probe		DP013	501678.43	658021.70	3.7	E - Deep (3.5-5.0m)	0.69	3.5	11	3.70	6.70	7.16	1.0	3.95	1.0	2.0	0.0	7.16	1.0	3.95	1.0	2.0	2.0	1.0	2.0	1.0	504.7	1.0	1.0	1.0
25/10/2022	Depth Probe	T2	DP014	501505.01	658154.88	3	D - Moderately Deep (2.0-3.5m)	1.10	3.5	11	3.00	6.00	5.53	1.0	2.76	1.0	2.0	0.0	5.53	1.0	2.76	1.0	2.0	2.0	1.0	2.0	1.0	393.8	1.0	1.0	1.0
05/07/2022	Depth Probe		DP015	501718.56	658037.36	3.9	E - Deep (3.5-5.0m)	0.26	3.5	11	3.90	6.90	17.87	1.0	10.10	1.0	2.0	0.0	17.87	1.0	10.10	1.0	2.0	2.0	1.0	2.0	1.0	461.7	1.0	1.0	1.0
25/10/2022	Depth Probe	T2	DP016	501475.14	658210.76	2.9	D - Moderately Deep (2.0-3.5m)	1.35	3.5	11	2.90	5.90	4.67	1.0	2.29	1.0	2.0	0.0	4.67	1.0	2.29	1.0	2.0	2.0	1.0	2.0	1.0	334.9	1.0	1.0	1.0
05/07/2022	Depth Probe	T2	DP017	501547.28	658112.95	3.2	D - Moderately Deep (2.0-3.5m)	1.18	3.5	11	3.20	6.20	4.81	1.0	2.48	1.0	2.0	0.0	4.81	1.0	2.48	1.0	2.0	2.0	1.0	2.0	1.0	445.4	1.0	1.0	1.0
25/10/2022	Depth Probe	Track T1 to T2	DP018	501477.84	658288.22	3	D - Moderately Deep (2.0-3.5m)	1.01	3.5	11	3.00	6.00	6.00	1.0	3.00	1.0	2.0	0.0	6.00	1.0	3.00	1.0	2.0	2.0	1.0	2.0	1.0	259.3	1.0	1.0	1.0
05/07/2022	Depth Probe	Track T2 to T3	DP019	501554.36	658064.21	0.6	C - Shallow (0.5-2.0m)	1.40	3.5	11	0.60	3.60	21.71	1.0	3.62	1.0	2.0	0.0	21.71	1.0	3.62	1.0	2.0	2.0	1.0	2.0	1.0	485.2	1.0	1.0	1.0
25/10/2022	Depth Probe		DP020	501525.27	658360.03	2.4	D - Moderately Deep (2.0-3.5m)	0.41	3.5	11	2.40	5.40	18.38	1.0	8.17	1.0	2.0	0.0	18.38	1.0	8.17	1.0	2.0	2.0	1.0	2.0	1.0	200.4	1.0	1.0	1.0
05/07/2022	Depth Probe	T2	DP021	501515.15	658150.96	3	D - Moderately Deep (2.0-3.5m)	1.02	3.5	11	3.00	6.00	5.95	1.0	2.97	1.0	2.0	0.0	5.95	1.0	2.97	1.0	2.0	2.0	1.0	2.0	1.0	401.3	1.0	1.0	1.0
25/10/2022	Depth Probe		DP022	501605.81	658375.81	2.8	D - Moderately Deep (2.0-3.5m)	0.21	3.5	11	2.80	5.80	31.22	1.0	15.07	1.0	2.0	0.0	31.22	1.0	15.07	1.0	2.0	2.0	1.0	2.0	1.0	205.1	1.0	1.0	1.0
05/07/2022	Depth Probe	T2	DP023	501483.99	658226.76	2.9	D - Moderately Deep (2.0-3.5m)	1.00	3.5	11	2.90	5.90	6.29	1.0	3.09	1.0	2.0	0.0	6.29	1.0	3.09	1.0	2.0	2.0	1.0	2.0	1.0	320.7	1.0	1.0	1.0
25/10/2022	Depth Probe		DP024	501843.09	658364.63	4.6	E - Deep (3.5-5.0m)	0.22	3.5	11	4.60	7.60	17.67	1.0	10.70	1.0	2.0	0.0	17.67	1.0	10.70	1.0	2.0	2.0	1.0	2.0	1.0	261.8	1.0	1.0	1.0
05/07/2022	Depth Probe	Track T1 to T2	DP025	501481.32	658286.72	3	D - Moderately Deep (2.0-3.5m)	0.87	3.5	11	3.00	6.00	7.00	1.0	3.50	1.0	2.0	0.0	7.00	1.0	3.50	1.0	2.0	2.0	1.0	2.0	1.0	261.5	1.0	1.0	1.0
25/10/2022	Depth Probe	T4	DP026	501899.58	658364.77	3.4	D - Moderately Deep (2.0-3.5m)	0.10	3.5	11	3.40	6.40	51.07	1.0	27.13	1.0	2.0	0.0	51.07	1.0	27.13	1.0	2.0	2.0	1.0	2.0	1.0	237.5	1.0	1.0	1.0
05/07/2022	Depth Probe		DP027	501523.22	658352.89	2.4	D - Moderately Deep (2.0-3.5m)	0.40	3.5	11	2.40	5.40	18.92	1.0	8.41	1.0	2.0	0.0	18.92	1.0	8.41	1.0	2.0	2.0	1.0	2.0	1.0	206.6	1.0	1.0	1.0
25/10/2022	Depth Probe	T4	DP028	501947.85	658372.13	3.3	D - Moderately Deep (2.0-3.5m)	0.04	3.5	11	3.30	6.30	141.85	1.0	74.30	1.0	2.0	0.0	141.85	1.0	74.30	1.0	2.0	2.0	1.0	2.0	1.0	188.9	1.0	1.0	1.0
05/07/2022	Depth Probe		DP029	501603.65	658370.53	2.8	D - Moderately Deep (2.0-3.5m)	0.28	3.5	11	2.80	5.80	23.55	1.0	11.37	1.0	2.0	0.0	23.55	1.0	11.37	1.0	2.0	2.0	1.0	2.0	1.0	209.4	1.0	1.0	1.0
25/10/2022	Depth Probe	T4	DP030	502000.46	658383.82	3	D - Moderately Deep (2.0-3.5m)	0.74	3.5	11	3.00	6.00	8.18	1.0	4.09	1.0	2.0	0.0	8.18	1.0	4.09	1.0	2.0	2.0	1.0	2.0	1.0	136.0	2.0	2.0	2.0
05/07/2022	Depth Probe		DP031	501807.04	658357.95	4.5	E - Deep (3.5-5.0m)	0.41	3.5	11	4.50	7.50	9.99	1.0	5.99	1.0	2.0	0.0	9.99	1.0	5.99	1.0	2.0	2.0	1.0	2.0	1.0	275.8	1.0	1.0	1.0
25/10/2022	Depth Probe		DP032	501967.15	658086.41	0.00001	A - Rock (0.0m)	0.39	3.5	11	0.00	3.00	4701644.26	1.0	15.67	1.0	2.0	0.0	4701644.26	1.0	15.67	1.0	2.0	2.0	1.0	2.0	1.0	210.5	1.0	1.0	1.0
05/07/2022	Depth Probe		DP033	501843.59	658361.83	4.6	E - Deep (3.5-5.0m)	0.25	3.5	11	4.60	7.60	15.91	1.0	9.63	1.0	2.0	0.0	15.91	1.0	9.63	1.0	2.0	2.0	1.0	2.0	1.0	264.5	1.0	1.0	1.0
25/10/2022	Depth Probe	T4	DP034	502032.77	658312.47	3	D - Moderately Deep (2.0-3.5m)	0.62	3.5	11	3.00	6.00	9.86	1.0	4.93	1.0	2.0	0.0	9.86	1.0	4.93	1.0	2.0	2.0	1.0	2.0	1.0	110.2	2.0	2.0	2.0
05/07/2022	Depth Probe	T4	DP035	501899.03	658362.58	3.4	D - Moderately Deep (2.0-3.5m)	0.13	3.5	11	3.40	6.40	40.79	1.0	21.67	1.0	2.0	0.0	40.79	1.0	21.67	1.0	2.0	2.0	1.0	2.0	1.0	238.2	1.0	1.0	1.0
25/10/2022	Depth Probe	T4	DP036	501972.28	658350.89	3	D - Moderately Deep (2.0-3.5m)	0.21	3.5	11	3.00	6.00	28.88	1.0	14.44	1.0	2.0	0.0	28.88	1.0	14.44	1.0	2.0	2.0	1.0	2.0	1.0	166.3	1.0	1.0	1.0
05/07/2022	Depth Probe	T4	DP037	501948.53	658370.42	3.3	D - Moderately Deep (2.0-3.5m)	0.04	3.5	11	3.30	6.30	141.85	1.0	74.30	1.0	2.0	0.0	141.85	1.0	74.30	1.0	2.0	2.0	1.0	2.0	1.0	188.3	1.0	1.0	1.0
25/10/2022	Depth Probe		DP038	501978.66	658458.29	2.2	D - Moderately Deep (2.0-3.5m)	0.24	3.5	11	2.20	5.20	34.62	1.0	14.65	1.0	2.0	0.0	34.62	1.0	14.65	1.0	2.0	2.0	1.0	2.0	1.0	126.3	2.0	2.0	2.0
05/07/2022	Depth Probe	T4	DP039	502005.44	658386.85	3	D - Moderately Deep (2.0-3.5m)	0.80	3.5	11	3.00	6.00	7.63	1.0	3.82	1.0	2.0	0.0	7.63	1.0	3.82	1.0	2.0	2.0	1.0	2.0	1.0	131.0	2.0	2.0	2.0
25/10/2022	Depth Probe		DP040	501940.39	658512.36	2.2	D - Moderately Deep (2.0-3.5m)	0.19	3.5	11	2.20	5.20	44.21	1.0	18.71	1.0	2.0	0.0	44.21	1.0	18.71	1.0	2.0	2.0	1.0	2.0	1.0	106.8	2.0	2.0	2.0
05/07/2022	Depth Probe		DP041	502031.77	658309.84	0.00001	A - Rock (0.0m)	0.62	3.5	11	0.00	3.00	2956701.59	1.0	9.86	1.0	2.0	0.0	2956701.59	1.0	9.86	1.0	2.0	2.0	1.0	2.0	1.0	111.5	2.0	2.0	2.0
25/10/2022	Depth Probe	T4	DP042	501928.75	658428.60	3.2	D - Moderately Deep (2.0-3.5m)	0.00	3.5	11	3.20	6.20	1224.78	1.0	632.15	1.0	2.0	0.0	1224.78	1.0	632.15	1.0	2.0	2.0	1.0	2.0	1.0	183.9	1.0	1.0	1.0
05/07/2022	Depth Probe	T4	DP043	502031.77	658309.84	3	D - Moderately Deep (2.0-3.5m)	0.62	3.5	11	3.00	6.00	9.86	1.0	4.93	1.0	2.0	0.0	9.86	1.0	4.93	1.0	2.0	2.0	1.0	2.0	1.0	111.5	2.0	2.0	2.0
25/10/2022	Depth Probe	T4	DP044	501872.89	658404.74	3.3	D - Moderately Deep (2.0-3.5m)	0.03	3.5	11	3.30	6.30	167.13	1.0	87.54	1.0	2.0	0.0	167.13	1.0	87.54	1.0	2.0	2.0	1.0	2.0	1.0	218.8	1.0	1.0	1.0
05/07/2022	Depth Probe	T4	DP045	501975.21	658348.21	3	D - Moderately Deep (2.0-3.5m)	0.28	3.5	11	3.00	6.00	21.36	1.0	10.68	1.0	2.0	0.0	21.36	1.0	10.68	1.0	2.0	2.0	1.0	2.0	1.0	163.7	1.0	1.0	1.0
25/10/2022	Depth Probe		DP046	501898.44	658296.81	4	E - Deep (3.5-5.0m)	0.57	3.5	11	4.00	7.00	7.94	1.0	4.54	1.0	2.0	0.0	7.94	1.0	4.54	1.0	2.0	2.0	1.0	2.0	1.0	245.5	1.0	1.0	1.0
05/07/2022	Depth Probe		DP047	501981.82	658459.46	2.2	D - Moderately Deep (2.0-3.5m)	0.29	3.5	11	2.200	5.20	28.13	1.0	11.90	1.0	2.0	0.0	28.13	1.0	11.90	1.0	2.0	2.0	1.0	2.0	1.0	123.2	2.0	2.0	2.0
25/10/2022	Depth Probe		DP048	501897.45	658260.88	3	D - Moderately Deep (2.0-3.5m)	0.56	3.5	11	3.00	6.00	10.83	1.0	5.42	1.0	2.0	0.0	10.83	1.0	5.42	1.0	2.0	2.0	1.0	2.0	1.0	250.9	1.0	1.0	1.0
05/07/2022	Depth Probe		DP049	501941.59	658512.05	2.2	D - Moderately Deep (2.0-3.5m)	0.19	3.5	11	2.20	5.20	44.21	1.0	18.71	1.0	2.0	0.0	44.21	1.0	18.71	1.0	2.0	2.0	1.0	2.0	1.0	107.2	2.0	2.0	2.0
25/10/2022	Depth Probe		DP050	501885.89	658460.27	2.8	D - Moderately Deep (2.0-3.5m)	0.01	3.5	11	2.80	5.80	435.79	1.0	210.38	1.0	2.0	0.0	435.79	1.0	210.38	1.0	2.0	2.0	1.0	2.0	1.0	162.3	1.0	1.0	1.0
05/07/2022	Depth Probe	T4	DP051	501927.78	658433.45	3.2	D - Moderately Deep (2.0-3.5m)	0.00	3.5	11	3.20	6.20	1586.70	1.0	818.94	1.0	2.0	0.0	1586.70	1.0	818.94	1.0	2.0	2.0	1.0	2.0	1.0	181.6	1.0	1.0	1.0
06/12/2022	Depth Probe	Track T3 to T4	DP052	502035.84	658153.14	1.8	C - Shallow (0.5-2.0m)	0.81	3.5	11	1.80	4.80	12.50	1.0	4.69	1.0	2.0	0.0	12.50	1.0	4.69	1.0	2.0	2.0	1.0	2.0	1.0	124.3	2.0	2.0	2.0
05/07/2022	Depth Probe	T4	DP053	501867.83	658405.93	3.3	D - Moderately Deep (2.0-3.5m)	0.05	3.5	11	3.30	6.30	113.94	1.0	59.68	1.0	2.0	0.0	113.94	1.0	59.68	1.0	2.0	2.0	1.0	2.0	1.0	218.1	1.0	1.0	1.0
25/10/2022	Depth Probe	Track T3 to T4	DP054	502004.28	658078.96	1	C - Shallow (0.5-2.0m)	0.63	3.5	11	1.00	4.00	28.77	1.0	7.19	1.0	2.0	0.0	28.77	1.0	7.19	1.0	2.0	2.0	1.0	2.0	1.0	179.6	1.0	1.0	1.0
05/07/2022	Depth Probe		DP055	501817.71	658384.97	3	D - Moderately Deep (2.0-3.5m)	0.32	3.5	11	3.00	6.00	18.94	1.0	9.47	1.0	2.0	0.0	18.94	1.0	9.47	1.0	2.0	2.0	1.0	2.0	1.0	246.9	1.0	1.0	1.0
25/10/2022	Depth Probe		DP056	501994.96	657985.56	2	C - Shallow (0.5-2.0m)	1.12	3.5	11	2.00	5.00	8.18	1.0	3.27	1.0	2.0	0.0	8.18	1.0	3.27	1.0	2.0	2.0	1.0	2.0	1.0	243.7	1.0	1.0	1.0
05/07/2022	Depth Probe		DP057	501887.50	658456.02	2.8	D - Moderately Deep (2.0-3.5m)	0.01	3.5	11	2.80	5.80	516.20	1.0	249.20	1.0	2.0	0.0	516.20	1.0	249.20	1.0	2.0	2.0	1.0	2.0	1.0	166.4	1.0	1.0	1.0
25/10/2022	Depth Probe		DP058	502011.44	657903.44	3.5	D - Moderately Deep (2.0-3.5m)	2.31	3.5	11	3.50	6.50	2.26	1.0	1.22	2.0	2.0	0.0	2.26	1.0	1.22	2.0	2.0	2.0	1.0	4.0	2.0	293.5	1.0	1.0	2.0
05/07/2022	Depth Probe	Track T3 to T4	DP059	502038.60	658154.89	1.8	C - Shallow (0.5-2.0m)	0.85	3.5	11	1.80	4.80	11.98	1.0	4.49	1.0	2.0	0.0	11.98	1.0	4.49	1.0	2.0	2.0	1.0	2.0	1.0	121.2	2.0	2.0	2.0
25/10/2022	Depth Probe		DP060	501469.92	658824.60	0.9	C - Shallow (0.5-2.0m)	0.41	3.5	11	0.90	3.90	49.33	1.0	11.38	1.0	2.0	0.0	49.33	1.0	11.38	1.0	2.0	2.0	1.0	2.0	1.0	144.3	2.0	2.0	2.0
05/07/2022	Depth Probe	Track T3 to T4	DP061	502000.13	658082.87	1	C - Shallow (0.5-2.0m)	0.66	3.5	11	1.00	4.00	27.83	1.0	6.96	1.0	2.0	0.0	27.83	1.0	6.96	1.0	2.0	2.0	1.0	2.0	1.0	181.6	1.0	1.0	1.0
25/10/2022	Depth Probe		DP062	501447.30	658780.87	1.1	C - Shallow (0.5-2.0m)	0.37	3.5	11	1.10	4.10	44.82	1.0	12.02	1.0	2.0	0.0	44.82	1.0	12.02	1.0	2.0	2.0	1.0	2.0	1.0	153.8	1.0	1.0	1.0
05/07/2022	Depth Probe		DP063	501994.39	657986.13	2	C - Shallow (0.5-2.0m)	1.12	3.5	11	2.00	5.00	8.18	1.0	3.27	1.0	2.0	0.0	8.18	1.0	3.27	1.0	2.0	2.0	1.0	2.0	1.0	243.7	1.0	1.0	1.0
25/10/2022	Depth Probe		DP064	501436.94	658766.61	2.8	D - Moderately Deep (2.0-3.5m)	0.27	3.5	11	2.80	5.80	24.48	1.0	11.82	1.0	2.0	0.0	24.48	1.0	11.82	1.0	2.0	2.0	1.0	2.0	1.0	161.0	1.0	1.0	1.0
05/07/2022	Depth Probe		DP065	502012.33	657897.49	3.5	D - Moderately Deep (2.0-3.5m)	2.49	3.5	11	3.50	6.50	2.10	1.0	1.13	2.0	2.0	0.0	2.10	1.0	1.13	2.0	2.0	2.0	1.0	4.0	2.0	297.4	1.0	1.0	2.0
25/10/2022	Depth Probe		DP066	501438.50	658758.71	3.7	E - Deep (3.5-5.0m)	0.28	3.5	11	3.70	6.70	17.54	1.0	9.69	1.0	2.0	0.0	17.54	1.0	9.69	1.0	2.0	2.0	1.0	2.0	1.0	158.4	1.0	1.0	1.0
05/07/2022	Depth Probe		DP067	501483.99	658345.82	2.5	D - Moderately Deep (2.0-3.5m)	0.56	3.5	11	2.50	5.50	13.10	1.0	5.95	1.0	2.0	0.0	13.10	1.0	5.95	1.0	2.0	2.0	1.0	2.0	1.0	204.3	1.0	1.0	1.0
25/10/2022	Depth Probe		DP068	501466.22	658746.83	1.2	C - Shallow (0.5-2.0m)	0.62	3.5	11	1.20	4.20	24.63	1.0	7.04	1.0	2.0	0.0	24.63	1.0	7.04	1.0	2.0	2.0	1.0	2.0	1.0	129.9	2.0	2.0	2.0
05/07/2022	Depth Probe		DP069	501478.29	658372.61	1.2	C - Shallow (0.5-2.0m)	0.60	3.5	11	1.200	4.20	25.51	1.0	7.29	1.0	2.0	0.0	25.51	1.0	7.29	1.0	2.0	2.0	1.0	2.0	1.0	176.9	1.0	1.0	1.0
25/10/2022	Depth Probe		DP070	501460.25	658746.91	1.2	C - Shallow (0.5-2.0m)	0.57	3.5	11	1.20	4.20	26.47	1.0	7.56	1.0	2.0	0.0	26.47	1.0	7.56	1.0	2.0	2.0	1.0	2.0	1.0	135.8	2.0	2.0	2.0
05/07/2022	Depth Probe		DP071	501473.37	658386.19	2.7	D - Moderately Deep (2.0-3.5m)	0.59	3.5	11	2.70	5.70	11.46	1.0	5.43	1.0	2.0	0.0	11.46	1.0	5.43	1.0	2.0	2.0	1.0	2.0	1.0	162.6	1.0	1.0	1.0
25/10/2022	Depth Probe		DP072	501454.11	658747.21	1.4	C - Shallow (0.5-2.0m)	0.53	3.5	11	1.40	4.40	24.54	1.0	7.81	1.0	2.0	0.0	24.54	1.0	7.81	1.0	2.0	2.0	1.0	2.0	1.0	142.0	2.0	2.0	2.0
05/07/2022	Depth Probe		DP073	501463.58	658412.91	2.6	D - Moderately Deep (2.0-3.5m)	0.57	3.5	11	2.60	5.60	12.31	1.0	5.72	1.0	2.0	0.0	12.31	1.0	5.72	1.0	2.0	2.0	1.0	2.0	1.0	134.4	2.0	2.0	2.0
25/10/2022	Depth Probe		DP074	501454.01	658746.82	3.5	D - Moderately Deep (2.0-3.5m)	0.53	3.5	11	3.50	6.50	9.82	1.0	5.29	1.0	2.0	0.0	9.82	1.0	5.29	1.0	2.0	2.0	1.0	2.0	1.0	142.1	2.0	2.0	2.0
05/07/2022	Depth Probe	Track T1 to T2	DP075	501450.13	658426.01	2.6	D - Moderately Deep (2.0-3.5m)	0.57	3.5	11	2.60	5.60	12.32	1.0	5.72	1.0	2.0	0.0	12.32	1.0	5.72	1.0	2.0	2.0	1.0	2.0	1.0	118.7	2.0	2.0	2.0
25/10/2022	Depth Probe		DP076	501437.80	658754.28	0.00001	A - Rock (0.0m)	0.31	3.5	11	0.00	3.00	5972045.09	1.0	19.91	1.0	2.0	0.0	5972045.09	1.0	19.91	1.0	2.0	2.0	1.0	2.0	1.0	158.7	1.0	1.0	1.0
05/07/2022	Depth Probe	Track T1 to T2	DP077	501433.63	658443.84	2	C - Shallow (0.5-2.0m)	0.58	3.5	11	2.00	5.00	15.66	1.0	6.26	1.0	2.0	0.0	15.66	1.0	6.26	1.0	2.0	2.0	1.0	2.0	1.0	98.2	2.0	2.0	2.0
25/10/2022	Depth Probe		DP078	501483.62	658725.84	1.2	C - Shallow (0.5-2.0m)	0.76	3.5	11	1.20	4.20	19.95	1.0	5.70	1.0	2.0	0.0	19.95	1.0	5.70	1.0	2.0	2.0	1.0	2.0	1.0	112.4	2.0	2.0	2.0
05/07/2022	Depth Probe	Track T1 to T2	DP079	501434.23	658448.47	1.5	C - Shallow (0.5-2.0m)	0.51	3.5	11	1.50	4.50	23.92	1.0	7.97	1.0	2.0	0.0	23.92	1.0	7.97	1.0	2.0	2.0	1.0	2.0	1.0	93.7	2.0	2.0	2.0
25/10/2022	Depth Probe		DP080	501513.82	658698.89	3	D - Moderately Deep (2.0-3.5m)	0.72	3.5	11	3.00	6.00	8.48	1.0	4.24	1.0	2.0	0.0	8.48	1.0	4.24	1.0	2.0	2.0	1.0	2.0	1.0	82.2	2.0	2.0	2.0
05/07/2022	Depth Probe	Track T1 to T2	DP081	501431.85	658464.56	0.00001	A - Rock (0.0m)	0.48	3.5	11	0.00	3.00	3760722.51	1.0	12.54	1.0	2.0	0.0	3760722.51	1.0	12.54	1.0	2.0	2.0	1.0	2.0	1.0	77.5	2.0	2.0	2.0
25/10/2022	Depth Probe		DP082	501487.09	658744.06	1	C - Shallow (0.5-2.0m)	0.76	3.5	11	1.00	4.00	24.00	1.0	6.00	1.0	2.0	0.0	24.00	1.0	6.00	1.0	2.0	2.0	1.0	2.0	1.0	108.9	2.0	2.0	2.0
05/07/2022	Depth Probe	Track T1 to T2	DP083	501425.06	658481.68	1.5	C - Shallow (0.5-2.0m)	0.52	3.5	11	1.50	4.50	23.36	1.0	7.79	1.0	2.0	0.0	23.36	1.0	7.79	1.0	2.0	2.0	1.0	2.0	1.0	59.6	2.0	2.0	2.0
25/10/2022	Depth Probe		DP084	501492.14	658775.34	2.3	D - Moderately Deep (2.0-3.5m)	0.71	3.5	11	2.30	5.30	11.16	1.0	4.84	1.0	2.0	0.0	11.16	1.0	4.84	1.0	2.0	2.0	1.0	2.0	1.0	108.9	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP085	501431.82	658505.72	1	C - Shallow (0.5-2.0m)	0.62	3.5	11	1.00	4.00	29.53	1.0	7.38	1.0	2.0	0.0	29.53	1.0	7.38	1.0	2.0	2.0	1.0	2.0	1.0	36.9	4.0	4.0	4.0
25/10/2022	Depth Probe		DP086	501486.58	658793.94	3.6	E - Deep (3.5-5.0m)	0.56	3.5	11	3.60	6.60	9.08	1.0	4.95	1.0	2.0	0.0	9.08	1.0	4.95	1.0	2.0	2.0	1.0	2.0	1.0	119.9	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP087	501420.27	658525.09	2	C - Shallow (0.5-2.0m)	0.60	3.5	11	2.00	5.00	15.26	1.0	6.11	1.0	2.0	0.0	15.26	1.0	6.11	1.0	2.0	2.0	1.0	2.0	1.0	16.0	4.0	4.0	4.0
25/10/2022	Depth Probe		DP088	501486.26	658816.08	1.7	C - Shallow (0.5-2.0m)	0.38	3.5	11	1.70	4.70	27.93	1.0	10.10	1.0	2.0	0.0	27.93	1.0	10.10	1.0	2.0	2.0	1.0	2.0	1.0	126.4	2.0	2.0	2.0

Appendix 8.1 App B(a) - Peat Database

Ballykett WF, Co. Clare
604008

Date: 28/11/2023
Prepared by: DW
RSK File Ref.: 604008-Geo-R03-App8.1 - App B(a)-(02)-Peat Database.xls

RECEIVED: 29/03/2024

Sample / Test Date	Sample / Test Category	Associated Infrastructure unit	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Slope (Extracted from GDEM)	Parameter Values: Undrained Shear Strength (Conservative Value)	Parameter Values: Bulk Unit weight of Peat (Conservative Value)	Scenario A: Depth to failure plane i.e. Peat Depth	Scenario B: Surcharge Equivalent Placed Fill Depth i.e. +3m	Scenario A: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	Scenario A: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	Scenario A: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Scenario B: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	Scenario A: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	Scenario B: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
									c'	y	z	z	$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$						$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$ + Adjustment Value				μ_{SF}						$\mu_{Dist.}$		
dd/mm/yy						m		Degrees	kPa	kN/m3	m	m	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
05/07/2022	Depth Probe	Substation to T1	DP089	501426.48	658547.14	1	C - Shallow (0.5-2.0m)	0.59	3.5	11	1.00	4.00	30.71	1.0	7.68	1.0	2.0	0.0	30.71	1.0	7.68	1.0	2.0	2.0	1.0	2.0	1.0	5.2	4.0	4.0	4.0
25/10/2022	Depth Probe		DP090	501501.37	658840.78	1.3	C - Shallow (0.5-2.0m)	0.38	3.5	11	1.30	4.30	36.85	1.0	11.14	1.0	2.0	0.0	36.85	1.0	11.14	1.0	2.0	2.0	1.0	2.0	1.0	115.0	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP091	501413.55	658547.64	1	C - Shallow (0.5-2.0m)	0.57	3.5	11	1.00	4.00	31.80	1.0	7.95	1.0	2.0	0.0	31.80	1.0	7.95	1.0	2.0	2.0	1.0	2.0	1.0	7.3	4.0	4.0	4.0
25/10/2022	Depth Probe		DP092	501579.46	658851.45	1.7	C - Shallow (0.5-2.0m)	0.63	3.5	11	1.70	4.70	16.98	1.0	6.14	1.0	2.0	0.0	16.98	1.0	6.14	1.0	2.0	2.0	1.0	2.0	1.0	46.3	4.0	4.0	4.0
05/07/2022	Depth Probe	Substation to T1	DP093	501440.81	658537.37	2	C - Shallow (0.5-2.0m)	0.60	3.5	11	2.00	5.00	15.18	1.0	6.07	1.0	2.0	0.0	15.18	1.0	6.07	1.0	2.0	2.0	1.0	2.0	1.0	8.[illegible]	4.0	4.0	4.0
25/10/2022	Depth Probe		DP094	501596.76	658816.94	2	C - Shallow (0.5-2.0m)	0.41	3.5	11	2.00	5.00	22.28	1.0	8.91	1.0	2.0	0.0	22.28	1.0	8.91	1.0	2.0	2.0	1.0	2.0	1.0	17.6	4.0	4.0	4.0
05/07/2022	Depth Probe		DP095	501456.12	658535.39	0.9	C - Shallow (0.5-2.0m)	0.59	3.5	11	0.90	3.90	34.15	1.0	7.88	1.0	2.0	0.0	34.15	1.0	7.88	1.0	2.0	2.0	1.0	2.0	1.0	13.3	4.0	4.0	4.0
25/10/2022	Depth Probe		DP096	501596.72	658785.06	2	C - Shallow (0.5-2.0m)	0.35	3.5	11	2.00	5.00	26.20	1.0	10.48	1.0	2.0	0.0	26.20	1.0	10.48	1.0	2.0	2.0	1.0	2.0	1.0	12.0	4.0	4.0	4.0
05/07/2022	Depth Probe		DP097	501484.69	658549.44	1	C - Shallow (0.5-2.0m)	0.60	3.5	11	1.00	4.00	30.49	1.0	7.62	1.0	2.0	0.0	30.49	1.0	7.62	1.0	2.0	2.0	1.0	2.0	1.0	7.8	4.0	4.0	4.0
25/10/2022	Depth Probe		DP098	501588.11	658745.65	1	C - Shallow (0.5-2.0m)	0.56	3.5	11	1.00	4.00	32.47	1.0	8.12	1.0	2.0	0.0	32.47	1.0	8.12	1.0	2.0	2.0	1.0	2.0	1.0	8.9	4.0	4.0	4.0
05/07/2022	Depth Probe		DP099	501500.04	658553.31	1.1	C - Shallow (0.5-2.0m)	0.53	3.5	11	1.10	4.10	31.12	1.0	8.35	1.0	2.0	0.0	31.12	1.0	8.35	1.0	2.0	2.0	1.0	2.0	1.0	8.2	4.0	4.0	4.0
25/10/2022	Depth Probe		DP100	501577.55	658708.27	0.00001	A - Rock (0.0m)	0.92	3.5	11	0.00	3.00	1987923.75	1.0	6.63	1.0	2.0	0.0	1987923.75	1.0	6.63	1.0	2.0	2.0	1.0	2.0	1.0	18.5	4.0	4.0	4.0
05/07/2022	Depth Probe		DP101	501505.81	658534.08	1.5	C - Shallow (0.5-2.0m)	0.46	3.5	11	1.50	4.50	26.33	1.0	8.78	1.0	2.0	0.0	26.33	1.0	8.78	1.0	2.0	2.0	1.0	2.0	1.0	28.1	4.0	4.0	4.0
25/10/2022	Depth Probe		DP102	501582.40	658679.15	1.4	C - Shallow (0.5-2.0m)	0.97	3.5	11	1.40	4.40	13.44	1.0	4.28	1.0	2.0	0.0	13.44	1.0	4.28	1.0	2.0	2.0	1.0	2.0	1.0	13.8	4.0	4.0	4.0
05/07/2022	Depth Probe	T1	DP103	501514.76	658512.62	1.9	C - Shallow (0.5-2.0m)	0.55	3.5	11	1.90	4.90	17.37	1.0	6.73	1.0	2.0	0.0	17.37	1.0	6.73	1.0	2.0	2.0	1.0	2.0	1.0	50.9	2.0	2.0	2.0
25/10/2022	Depth Probe		DP104	501577.19	658644.87	1.6	C - Shallow (0.5-2.0m)	0.87	3.5	11	1.60	4.60	13.15	1.0	4.58	1.0	2.0	0.0	13.15	1.0	4.58	1.0	2.0	2.0	1.0	2.0	1.0	18.9	4.0	4.0	4.0
05/07/2022	Depth Probe	T1	DP105	501522.97	658496.23	2.1	D - Moderately Deep (2.0-3.5m)	0.58	3.5	11	2.10	5.10	14.93	1.0	6.15	1.0	2.0	0.0	14.93	1.0	6.15	1.0	2.0	2.0	1.0	2.0	1.0	68.6	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP106	501534.04	658495.32	2	C - Shallow (0.5-2.0m)	0.76	3.5	11	2.00	5.00	12.03	1.0	4.81	1.0	2.0	0.0	12.03	1.0	4.81	1.0	2.0	2.0	1.0	2.0	1.0	71.6	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP107	501543.39	658496.54	1.4	C - Shallow (0.5-2.0m)	0.80	3.5	11	1.40	4.40	16.29	1.0	5.18	1.0	2.0	0.0	16.29	1.0	5.18	1.0	2.0	2.0	1.0	2.0	1.0	72.3	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP108	501542.28	658510.92	1.8	C - Shallow (0.5-2.0m)	0.85	3.5	11	1.80	4.80	11.96	1.0	4.49	1.0	2.0	0.0	11.96	1.0	4.49	1.0	2.0	2.0	1.0	2.0	1.0	57.9	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP109	501550.32	658478.54	2.5	D - Moderately Deep (2.0-3.5m)	0.77	3.5	11	2.50	5.50	9.49	1.0	4.31	1.0	2.0	0.0	9.49	1.0	4.31	1.0	2.0	2.0	1.0	2.0	1.0	91.3	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP110	501556.15	658459.96	2.3	D - Moderately Deep (2.0-3.5m)	0.75	3.5	11	2.30	5.30	10.59	1.0	4.59	1.0	2.0	0.0	10.59	1.0	4.59	1.0	2.0	2.0	1.0	2.0	1.0	110.7	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP111	501559.23	658450.50	2.9	D - Moderately Deep (2.0-3.5m)	0.76	3.5	11	2.90	5.90	8.24	1.0	4.05	1.0	2.0	0.0	8.24	1.0	4.05	1.0	2.0	2.0	1.0	2.0	1.0	120.5	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP112	501567.46	658475.26	2.5	D - Moderately Deep (2.0-3.5m)	0.70	3.5	11	2.50	5.50	10.39	1.0	4.72	1.0	2.0	0.0	10.39	1.0	4.72	1.0	2.0	2.0	1.0	2.0	1.0	98.6	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP113	501586.62	658487.20	2	C - Shallow (0.5-2.0m)	0.58	3.5	11	2.00	5.00	15.85	1.0	6.34	1.0	2.0	0.0	15.85	1.0	6.34	1.0	2.0	2.0	1.0	2.0	1.0	95.8	2.0	2.0	2.0
05/07/2022	Depth Probe	T1	DP114	501604.94	658487.61	1.5	C - Shallow (0.5-2.0m)	0.52	3.5	11	1.50	4.50	23.28	1.0	7.76	1.0	2.0	0.0	23.28	1.0	7.76	1.0	2.0	2.0	1.0	2.0	1.0	105.2	2.0	2.0	2.0
05/07/2022	Depth Probe		DP115	501652.85	658492.81	1	C - Shallow (0.5-2.0m)	0.97	3.5	11	1.00	4.00	18.82	1.0	4.71	1.0	2.0	0.0	18.82	1.0	4.71	1.0	2.0	2.0	1.0	2.0	1.0	127.5	2.0	2.0	2.0
05/07/2022	Depth Probe		DP116	501710.56	658428.29	2	C - Shallow (0.5-2.0m)	0.59	3.5	11	2.000	5.00	15.45	1.0	6.18	1.0	2.0	0.0	15.45	1.0	6.18	1.0	2.0	2.0	1.0	2.0	1.0	205.2	1.0	1.0	1.0
05/07/2022	Depth Probe		DP117	501728.93	658407.19	2.5	D - Moderately Deep (2.0-3.5m)	0.63	3.5	11	2.50	5.50	11.54	1.0	5.24	1.0	2.0	0.0	11.54	1.0	5.24	1.0	2.0	2.0	1.0	2.0	1.0	230.3	1.0	1.0	1.0
05/07/2022	Depth Probe		DP118	501579.26	658373.22	2.5	D - Moderately Deep (2.0-3.5m)	0.65	3.5	11	2.50	5.50	11.19	1.0	5.09	1.0	2.0	0.0	11.19	1.0	5.09	1.0	2.0	2.0	1.0	2.0	1.0	200.3	1.0	1.0	1.0
05/07/2022	Depth Probe		DP119	501741.45	658022.01	3.6	E - Deep (3.5-5.0m)	0.31	3.5	11	3.60	6.60	16.34	1.0	8.91	1.0	2.0	0.0	16.34	1.0	8.91	1.0	2.0	2.0	1.0	2.0	1.0	444.8	1.0	1.0	1.0
05/07/2022	Depth Probe		DP120	501752.62	658006.47	3.8	E - Deep (3.5-5.0m)	0.45	3.5	11	3.80	6.80	10.55	1.0	5.89	1.0	2.0	0.0	10.55	1.0	5.89	1.0	2.0	2.0	1.0	2.0	1.0	439.4	1.0	1.0	1.0
05/07/2022	Depth Probe		DP121	501770.07	658009.62	3.7	E - Deep (3.5-5.0m)	0.74	3.5	11	3.70	6.70	6.70	1.0	3.70	1.0	2.0	0.0	6.70	1.0	3.70	1.0	2.0	2.0	1.0	2.0	1.0	422.0	1.0	1.0	1.0
05/07/2022	Depth Probe		DP122	501795.62	658006.01	2.3	D - Moderately Deep (2.0-3.5m)	0.60	3.5	11	2.30	5.30	13.18	1.0	5.72	1.0	2.0	0.0	13.18	1.0	5.72	1.0	2.0	2.0	1.0	2.0	1.0	399.7	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP123	501802.08	657980.58	0.6	C - Shallow (0.5-2.0m)	0.54	3.5	11	0.60	3.60	56.66	1.0	9.44	1.0	2.0	0.0	56.66	1.0	9.44	1.0	2.0	2.0	1.0	2.0	1.0	404.4	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP124	501824.33	657960.23	3	D - Moderately Deep (2.0-3.5m)	0.20	3.5	11	3.00	6.00	29.84	1.0	14.92	1.0	2.0	0.0	29.84	1.0	14.92	1.0	2.0	2.0	1.0	2.0	1.0	394.6	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP125	501833.65	657962.19	1.6	C - Shallow (0.5-2.0m)	0.17	3.5	11	1.60	4.60	65.91	1.0	22.93	1.0	2.0	0.0	65.91	1.0	22.93	1.0	2.0	2.0	1.0	2.0	1.0	385.6	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP126	501860.64	657970.78	2.9	D - Moderately Deep (2.0-3.5m)	0.12	3.5	11	2.90	5.90	53.71	1.0	26.40	1.0	2.0	0.0	53.71	1.0	26.40	1.0	2.0	2.0	1.0	2.0	1.0	358.1	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP127	501887.94	657978.07	2	C - Shallow (0.5-2.0m)	0.20	3.5	11	2.00	5.00	46.00	1.0	18.40	1.0	2.0	0.0	46.00	1.0	18.40	1.0	2.0	2.0	1.0	2.0	1.0	331.2	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP128	501879.90	657992.93	3.8	E - Deep (3.5-5.0m)	0.13	3.5	11	3.80	6.80	38.01	1.0	21.24	1.0	2.0	0.0	38.01	1.0	21.24	1.0	2.0	2.0	1.0	2.0	1.0	330.2	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP129	501909.23	657985.71	4.7	E - Deep (3.5-5.0m)	0.26	3.5	11	4.70	7.70	14.93	1.0	9.11	1.0	2.0	0.0	14.93	1.0	9.11	1.0	2.0	2.0	1.0	2.0	1.0	309.3	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP130	501901.51	658001.79	1.9	C - Shallow (0.5-2.0m)	0.15	3.5	11	1.90	4.90	65.07	1.0	25.23	1.0	2.0	0.0	65.07	1.0	25.23	1.0	2.0	2.0	1.0	2.0	1.0	307.1	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP131	501937.58	657995.72	2	C - Shallow (0.5-2.0m)	0.56	3.5	11	2.00	5.00	16.29	1.0	6.52	1.0	2.0	0.0	16.29	1.0	6.52	1.0	2.0	2.0	1.0	2.0	1.0	280.4	1.0	1.0	1.0
05/07/2022	Depth Probe	T3	DP132	501960.32	657981.08	2.8	D - Moderately Deep (2.0-3.5m)	0.96	3.5	11	2.80	5.80	6.81	1.0	3.29	1.0	2.0	0.0	6.81	1.0	3.29	1.0	2.0	2.0	1.0	2.0	1.0	271.9	1.0	1.0	1.0
05/07/2022	Depth Probe		DP133	501981.45	657994.30	0.8	C - Shallow (0.5-2.0m)	1.09	3.5	11	0.80	3.80	20.87	1.0	4.39	1.0	2.0	0.0	20.87	1.0	4.39	1.0	2.0	2.0	1.0	2.0	1.0	247.3	1.0	1.0	1.0
05/07/2022	Depth Probe	Substation to T1	DP134	501373.46	658758.49	0.6	C - Shallow (0.5-2.0m)	0.52	3.5	11	0.60	3.60	57.98	1.0	9.66	1.0	2.0	0.0	57.98	1.0	9.66	1.0	2.0	2.0	1.0	2.0	1.0	221.5	1.0	1.0	1.0
05/07/2022	Depth Probe		DP135	501362.18	658735.74	1	C - Shallow (0.5-2.0m)	0.80	3.5	11	1.00	4.00	22.93	1.0	5.73	1.0	2.0	0.0	22.93	1.0	5.73	1.0	2.0	2.0	1.0	2.0	1.0	200.3	1.0	1.0	1.0
05/07/2022	Depth Probe		DP136	501357.88	658706.41	3.4	D - Moderately Deep (2.0-3.5m)	1.10	3.5	11	3.40	6.40	4.87	1.0	2.59	1.0	2.0	0.0	4.87	1.0	2.59	1.0	2.0	2.0	1.0	2.0	1.0	171.9	1.0	1.0	1.0
05/07/2022	Depth Probe		DP137	501352.60	658677.39	2.5	D - Moderately Deep (2.0-3.5m)	1.41	3.5	11	2.50	5.50	5.17	1.0	2.35	1.0	2.0	0.0	5.17	1.0	2.35	1.0	2.0	2.0	1.0	2.0	1.0	144.4	2.0	2.0	2.0
05/07/2022	Depth Probe		DP138	501373.84	658654.67	0.00001	A - Rock (0.0m)	1.27	3.5	11	0.00	3.00	1433964.56	1.0	4.78	1.0	2.0	0.0	1433964.56	1.0	4.78	1.0	2.0	2.0	1.0	2.0	1.0	118.4	2.0	2.0	2.0
05/07/2022	Depth Probe		DP139	501373.84	658654.67	2.6	D - Moderately Deep (2.0-3.5m)	1.27	3.5	11	2.60	5.60	5.52	1.0	2.56	1.0	2.0	0.0	5.52	1.0	2.56	1.0	2.0	2.0	1.0	2.0	1.0	118.4	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP140	501391.55	658638.72	2.8	D - Moderately Deep (2.0-3.5m)	0.92	3.5	11	2.80	5.80	7.09	1.0	3.42	1.0	2.0	0.0	7.09	1.0	3.42	1.0	2.0	2.0	1.0	2.0	1.0	100.4	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP141	501411.11	658616.60	2.5	D - Moderately Deep (2.0-3.5m)	0.51	3.5	11	2.50	5.50	14.41	1.0	6.55	1.0	2.0	0.0	14.41	1.0	6.55	1.0	2.0	2.0	1.0	2.0	1.0	75.9	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP142	501425.66	658598.54	2.4	D - Moderately Deep (2.0-3.5m)	0.61	3.5	11	2.40	5.40	12.52	1.0	5.56	1.0	2.0	0.0	12.52	1.0	5.56	1.0	2.0	2.0	1.0	2.0	1.0	55.1	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP143	501437.31	658583.42	1.6	C - Shallow (0.5-2.0m)	0.77	3.5	11	1.60	4.60	14.81	1.0	5.15	1.0	2.0	0.0	14.81	1.0	5.15	1.0	2.0	2.0	1.0	2.0	1.0	37.8	4.0	4.0	4.0
05/07/2022	Depth Probe	Substation to T1	DP144	501416.62	658564.34	1.6	C - Shallow (0.5-2.0m)	0.65	3.5	11	1.60	4.60	17.57	1.0	6.11	1.0	2.0	0.0	17.57	1.0	6.11	1.0	2.0	2.0	1.0	2.0	1.0	23.5	4.0	4.0	4.0
05/07/2022	Depth Probe	Substation to T1	DP145	501402.97	658583.57	2.4	D - Moderately Deep (2.0-3.5m)	0.54	3.5	11	2.40	5.40	14.02	1.0	6.23	1.0	2.0	0.0	14.02	1.0	6.23	1.0	2.0	2.0	1.0	2.0	1.0	44.3	4.0	4.0	4.0
05/07/2022	Depth Probe	Substation to T1	DP146	501411.53	658663.50	2.9	D - Moderately Deep (2.0-3.5m)	1.11	3.5	11	2.90	5.90	5.67	1.0	2.78	1.0	2.0	0.0	5.67	1.0	2.78	1.0	2.0	2.0	1.0	2.0	1.0	121.5	2.0	2.0	2.0
05/07/2022	Depth Probe	Substation to T1	DP147	501390.27	658690.98	2.8	D - Moderately Deep (2.0-3.5m)	1.11	3.5	11	2.80	5.80	5.87	1.0	2.83	1.0	2.0	0.0	5.87	1.0	2.83	1.0	2.0	2.0	1.0	2.0	1.0	152.4	1.0	1.0	1.0
05/07/2022	Depth Probe	Substation to T1	DP148	501380.81	658777.64	0.9	C - Shallow (0.5-2.0m)	0.37	3.5	11	0.90	3.90	54.77	1.0	12.64	1.0	2.0	0.0	54.77	1.0	12.64	1.0	2.0	2.0	1.0	2.0	1.0	218.2	1.0	1.0	1.0
05/07/2022	Depth Probe	Substation to T1	DP149	501376.96	658801.55	1	C - Shallow (0.5-2.0m)	0.44	3.5	11	1.00	4.00	41.20	1.0	10.30	1.0	2.0	0.0	41.20	1.0	10.30	1.0	2.0	2.0	1.0	2.0	1.0	227.0	1.0	1.0	1.0
05/07/2022	Depth Probe	Substation to T1	DP150	501366.27	658816.21	3.8	E - Deep (3.5-5.0m)	0.53	3.5	11	3.80	6.80	9.06	1.0	5.06	1.0	2.0	0.0	9.06	1.0	5.06	1.0	2.0	2.0	1.0	2.0	1.0	241.2	1.0	1.0	1.0
05/07/2022	Depth Probe	Substation	DP151	501385.25	658823.68	3.6	E - Deep (3.5-5.0m)	0.41	3.5	11	3.60	6.60	12.41	1.0	6.77	1.0	2.0	0.0	12.41	1.0	6.77	1.0	2.0	2.0	1.0	2.0	1.0	225.5	1.0	1.0	1.0
05/07/2022	Depth Probe	Compound	DP152	501388.75	658855.40	3.9	E - Deep (3.5-5.0m)	0.41	3.5	11	3.90	6.90	11.53	1.0	6.52	1.0	2.0	0.0	11.53	1.0	6.52	1.0	2.0	2.0	1.0	2.0	1.0	228.5	1.0	1.0	1.0
05/07/2022	Depth Probe	Compound	DP153	501403.08	658878.34	3.8	E - Deep (3.5-5.0m)	0.29	3.5	11	3.80	6.80	16.44	1.0	9.19	1.0	2.0	0.0	16.44	1.0	9.19	1.0	2.0	2.0	1.0	2.0	1.0	219.4	1.0	1.0	1.0
05/07/2023	Depth Probe	Compound	DP154	501414.74	658896.91	3.1	D - Moderately Deep (2.0-3.5m)	0.15	3.5	11	3.10	6.10	38.77	1.0	19.71	1.0	2.0	0.0	38.77	1.0	19.71	1.0	2.0	2.0	1.0	2.0	1.0	214.3	1.0	1.0	1.0
05/07/2022	Depth Probe	Blade Set Down	DP155	501420.20	658951.43	4	E - Deep (3.5-5.0m)	0.23	3.5	11	4.00	7.00	20.24	1.0	11.56	1.0	2.0	0.0	20.24	1.0	11.56	1.0	2.0	2.0	1.0	2.0	1.0	234.2	1.0	1.0	1.0
05/07/2022	Depth Probe	Blade Set Down	DP156	501392.67	658980.92	5	E - Deep (3.5-5.0m)	0.65	3.5	11	5.00	8.00	5.61	1.0	3.51	1.0	2.0	0.0	5.61	1.0	3.51	1.0	2.0	2.0	1.0	2.0	1.0	273.6	1.0	1.0	1.0
05/07/2023	Depth Probe	Blade Set Down	DP157	501373.89	658990.45	0.00001	A - Rock (0.0m)	0.90	3.5	11	0.00	3.00	2018695.76	1.0	6.73	1.0	2.0	0.0	2018695.76	1.0	6.73	1.0	2.0	2.0	1.0	2.0	1.0	294.4	1.0	1.0	1.0
05/07/2023	Depth Probe	Blade Set Down	DP158	501373.89	658990.45	4.9	E - Deep (3.5-5.0m)	0.90	3.5	11	4.90	7.90	4.12	1.0	2.56	1.0	2.0	0.0	4.12	1.0	2.56	1.0	2.0	2.0	1.0	2.0	1.0	294.4	1.0	1.0	1.0
05/07/2023	Depth Probe	Blade Set Down	DP159	501357.19	659026.06	3.9	E - Deep (3.5-5.0m)	0.94	3.5	11	3.90	6.90	4.99	1.0	2.82	1.0	2.0	0.0	4.99	1.0	2.82	1.0	2.0	2.0	1.0	2.0	1.0	328.9	1.0	1.0	1.0
22/11/2023	Depth Probe		DP160	502008.65	657973.45	0.8	C - Shallow (0.5-2.0m)	1.03	3.5	11	0.80	3.80	22.18	1.0	4.67	1.0	2.0	0.0	22.18	1.0	4.67	1.0	2.0	2.0	1.0	2.0	1.0	242.6	1.0	1.0	1.0
22/11/2023	Depth Probe		DP161	501981.82	657968.59	0.9	C - Shallow (0.5-2.0m)	1.11	3.5	11	0.90	3.90	18.19	1.0	4.20	1.0	2.0	0.0	18.19	1.0	4.20	1.0	2.0	2.0	1.0	2.0	1.0	265.0	1.0	1.0	1.0
22/11/2023	Depth Probe		DP162	501962.85	657967.37	2	C - Shallow (0.5-2.0m)	1.01	3.5	11	2.00	5.00	9.05	1.0	3.62	1.0	2.0	0.0	9.05	1.0	3.62	1.0	2.0	2.0	1.0	2.0	1.0	279.4	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP163	501936.63	657970.12	2.4	D - Moderately Deep (2.0-3.5m)	0.64	3.5	11	2.40	5.40	11.78	1.0	5.24	1.0	2.0	0.0	11.78	1.0	5.24	1.0	2.0	2.0	1.0	2.0	1.0	297.0	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP164	501922.06	657969.32	1.4	C - Shallow (0.5-2.0m)	0.41	3.5	11	1.40	4.40	31.96	1.0	10.17	1.0	2.0	0.0	31.96	1.0	10.17	1.0	2.0	2.0	1.0	2.0	1.0	308.8	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP165	501927.94	657975.63	1.2	C - Shallow (0.5-2.0m)	0.46	3.5	11	1.20	4.20	33.21	1.0	9.49	1.0	2.0	0.0	33.21	1.0	9.49	1.0	2.0	2.0	1.0	2.0	1.0	300.3	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP166	501930.18	657974.73	0.5	B - Very Shallow (0.01-0.5m)	0.54	3.5	11	0.50	3.50	67.38	1.0	9.63	1.0	2.0	0.0	67.38	1.0	9.63	1.0	2.0	2.0	1.0	2.0	1.0	299.1	1.0	1.0	1.0
22/11/2023	Depth Probe		DP167	501957.64	657921.36	2.1	D - Moderately Deep (2.0-3.5m)	1.42	3.5	11	2.10	5.10	6.10	1.0	2.51	1.0	2.0	0.0	6.10	1.0	2.51	1.0	2.0	2.0	1.0	2.0	1.0	315.5	1.0	1.0	1.0
22/11/2023	Depth Probe		DP168	501926.74	657876.64	1.2	C - Shallow (0.5-2.0m)	2.20	3.5	11	1.20	4.20	6.90	1.0	1.97	1.0	2.0	0.0	6.90	1.0	1.97	1.0	2.0	2.0	1.0	2.0	1.0	369.2	1.0	1.0	1.0
22/11/2023	Depth Probe		DP169	501910.75	657883.64	1.5	C - Shallow (0.5-2.0m)	2.10	3.5	11	1.50	4.50	5.80	1.0	1.93	1.0	2.0	0.0	5.80	1.0	1.93	1.0	2.0	2.0	1.0	2.0	1.0	375.3	1.0	1.0	1.0
22/11/2023	Depth Probe		DP170	501905.57	657900.85	1.6	C - Shallow (0.5-2.0m)	1.59	3.5	11	1.60	4.60	7.18	1.0	2.50	1.0	2.0	0.0	7.18	1.0	2.50	1.0	2.0	2.0	1.0	2.0	1.0	366.8	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP171	501901.84	657950.64	2.6	D - Moderately Deep (2.0-3.5m)	0.39	3.5	11	2.60	5.60	18.04	1.0	8.38	1.0	2.0	0.0	18.04	1.0	8.38	1.0	2.0	2.0	1.0	2.0	1.0	336.2	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP172	501900.16	658024.13	2.2	D - Moderately Deep (2.0-3.5m)	0.10	3.5	11	2.20	5.20	81.88	1.0	34.64	1.0	2.0	0.0	81.88	1.0	34.64	1.0	2.0	2.0	1.0	2.0	1.0	297.3	1.0	1.0	1.0
22/11/2023	Depth Probe		DP173	501905.16	658043.13	0.9	C - Shallow (0.5-2.0m)	0.12	3.5	11	0.90	3.90	163.27	1.0	37.68	1.0	2.0	0.0	163.27	1.0	37.68	1.0	2.0	2.0	1.0	2.0	1.0	284.4	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP174	501908.62	658030.08	3.6	E - Deep (3.5-5.0m)	0.11	3.5	11	3.60	6.60	44.44	1.0	24.24	1.0	2.0	0.0	44.44	1.0	24.24	1.0	2.0	2.0	1.0	2.0	1.0	287.0	1.0	1.0	1.0
22/11/2023	Depth Probe		DP175	501917.28	658039.74	2.4	D - Moderately Deep (2.0-3.5m)	0.15	3.5	11	2.40	5.40	51.01	1.0	22.67	1.0	2.0	0.0	51.01	1.0	22.67	1.0	2.0	2.0	1.0	2.0	1.0	274.9	1.0	1.0	1.0

Appendix 8.1 App B(a) - Peat Database

Ballykett WF, Co. Clare

604008

Date: 28/11/2023
Prepared by: DW
RSK File Ref.: 604008-Geo-R03-App8.1 - App B(a)-(02)-Peat Database.xls

RSK

RECEIVED: 29/03/2024

Sample / Test Date	Sample / Test Category	Associated Infrastructure unit	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Slope (Extracted from GDEM)	Parameter Values: Undrained Shear Strength (Conservative Value)	Parameter Values: Bulk Unit weight of Peat (Conservative Value)	Scenario A: Depth to failure plane i.e. Peat Depth	Scenario B: Surcharge Equivalent Placed Fill Depth i.e. +3m	Scenario A: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	Scenario A: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Scenario B: FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	Scenario A: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Scenario B: RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	Scenario A: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	Scenario B: RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
									c'	y	z	z	$FoS = \frac{c_u}{yz \sin \alpha \cos \alpha}$						$FoS = \frac{c_u}{yz \sin \alpha \cos \alpha}$ + Adjustment Value				μ_{SF}						$\mu_{Dist.}$		
dd/mm/yy						m		Degrees	kPa	kN/m3	m	m	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
22/11/2023	Depth Probe		DP176	501864.23	658127.25	3.6	E - Deep (3.5-5.0m)	0.47	3.5	11	3.60	6.60	10.69	1.0	5.83	1.0	2.0	0.0	10.69	1.0	5.83	1.0	2.0	2.0	1.0	2.0	1.0	297.2	1.0	1.0	1.0
22/11/2023	Depth Probe		DP177	501850.56	658092.65	3.5	D - Moderately Deep (2.0-3.5m)	0.47	3.5	11	3.50	6.50	11.06	1.0	5.95	1.0	2.0	0.0	11.06	1.0	5.95	1.0	2.0	2.0	1.0	2.0	1.0	319.1	1.0	1.0	1.0
22/11/2023	Depth Probe		DP178	501854.74	658081.81	2.3	D - Moderately Deep (2.0-3.5m)	0.40	3.5	11	2.30	5.30	19.95	1.0	8.66	1.0	2.0	0.0	19.95	1.0	8.66	1.0	2.0	2.0	1.0	2.0	1.0	318.4	1.0	1.0	1.0
22/11/2023	Depth Probe		DP179	501893.82	658039.65	0.5	B - Very Shallow (0.01-0.5m)	0.11	3.5	11	0.50	3.50	320.67	1.0	45.81	1.0	2.0	0.0	320.67	1.0	45.81	1.0	2.0	2.0	1.0	2.0	1.0	296.2	1.0	1.0	1.0
22/11/2023	Depth Probe		DP180	501874.92	658036.70	0.8	C - Shallow (0.5-2.0m)	0.10	3.5	11	0.80	3.80	232.84	1.0	49.02	1.0	2.0	0.0	232.84	1.0	49.02	1.0	2.0	2.0	1.0	2.0	1.0	314.[illegible]	1.0	1.0	1.0
23/11/2023	Depth Probe		DP181	502030.82	657713.40	0.1	B - Very Shallow (0.01-0.5m)	1.83	3.5	11	0.10	3.10	99.55	1.0	3.21	1.0	2.0	0.0	99.55	1.0	3.21	1.0	2.0	2.0	1.0	2.0	1.0	420.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP182	502024.16	657752.11	0.1	B - Very Shallow (0.01-0.5m)	2.06	3.5	11	0.10	3.10	88.63	1.0	2.86	1.0	2.0	0.0	88.63	1.0	2.86	1.0	2.0	2.0	1.0	2.0	1.0	395.0	1.0	1.0	1.0
23/11/2023	Depth Probe		DP183	502012.89	657797.42	0.1	B - Very Shallow (0.01-0.5m)	3.40	3.5	11	0.10	3.10	53.72	1.0	1.73	1.0	2.0	0.0	53.72	1.0	1.73	1.0	2.0	2.0	1.0	2.0	1.0	371.3	1.0	1.0	1.0
23/11/2023	Depth Probe	Spoil area South	DP184	501971.65	657793.79	0.2	B - Very Shallow (0.01-0.5m)	3.94	3.5	11	0.20	3.20	23.18	1.0	1.45	1.0	2.0	0.0	23.18	1.0	1.45	1.0	2.0	2.0	1.0	2.0	1.0	403.8	1.0	1.0	1.0
23/11/2023	Depth Probe	Spoil area South	DP185	501961.77	657835.36	0.1	B - Very Shallow (0.01-0.5m)	2.66	3.5	11	0.10	3.10	68.60	1.0	2.21	1.0	2.0	0.0	68.60	1.0	2.21	1.0	2.0	2.0	1.0	2.0	1.0	377.5	1.0	1.0	1.0
23/11/2023	Depth Probe	Spoil area South	DP186	501995.85	657842.09	0.1	B - Very Shallow (0.01-0.5m)	3.19	3.5	11	0.10	3.10	57.34	1.0	1.85	1.0	2.0	0.0	57.34	1.0	1.85	1.0	2.0	2.0	1.0	2.0	1.0	350.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP187	501898.48	657856.66	0.3	B - Very Shallow (0.01-0.5m)	2.54	3.5	11	0.30	3.30	23.92	1.0	2.17	1.0	2.0	0.0	23.92	1.0	2.17	1.0	2.0	2.0	1.0	2.0	1.0	403.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP188	501871.65	657857.39	1.6	C - Shallow (0.5-2.0m)	2.37	3.5	11	1.60	4.60	4.81	1.0	1.67	1.0	2.0	0.0	4.81	1.0	1.67	1.0	2.0	2.0	1.0	2.0	1.0	421.5	1.0	1.0	1.0
23/11/2023	Depth Probe		DP189	501853.70	657850.70	1	C - Shallow (0.5-2.0m)	2.35	3.5	11	1.00	4.00	7.76	1.0	1.94	1.0	2.0	0.0	7.76	1.0	1.94	1.0	2.0	2.0	1.0	2.0	1.0	438.9	1.0	1.0	1.0
23/11/2023	Depth Probe		DP190	501840.17	657873.42	0.9	C - Shallow (0.5-2.0m)	1.86	3.5	11	0.90	3.90	10.90	1.0	2.52	1.0	2.0	0.0	10.90	1.0	2.52	1.0	2.0	2.0	1.0	2.0	1.0	433.2	1.0	1.0	1.0
23/11/2023	Depth Probe		DP191	501816.83	657923.97	2.4	D - Moderately Deep (2.0-3.5m)	0.37	3.5	11	2.40	5.40	20.69	1.0	9.20	1.0	2.0	0.0	20.69	1.0	9.20	1.0	2.0	2.0	1.0	2.0	1.0	420.5	1.0	1.0	1.0
23/11/2023	Depth Probe		DP192	501832.89	657920.68	1.4	C - Shallow (0.5-2.0m)	0.44	3.5	11	1.40	4.40	29.38	1.0	9.35	1.0	2.0	0.0	29.38	1.0	9.35	1.0	2.0	2.0	1.0	2.0	1.0	409.2	1.0	1.0	1.0
23/11/2023	Depth Probe	T3	DP193	501801.66	657960.63	2	C - Shallow (0.5-2.0m)	0.47	3.5	11	2.00	5.00	19.56	1.0	7.82	1.0	2.0	0.0	19.56	1.0	7.82	1.0	2.0	2.0	1.0	2.0	1.0	414.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP194	501795.39	658018.63	1.9	C - Shallow (0.5-2.0m)	0.55	3.5	11	1.90	4.90	17.33	1.0	6.72	1.0	2.0	0.0	17.33	1.0	6.72	1.0	2.0	2.0	1.0	2.0	1.0	395.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP195	501779.86	658126.35	1.9	C - Shallow (0.5-2.0m)	0.32	3.5	11	1.90	4.90	30.02	1.0	11.64	1.0	2.0	0.0	30.02	1.0	11.64	1.0	2.0	2.0	1.0	2.0	1.0	380.2	1.0	1.0	1.0
23/11/2023	Depth Probe		DP196	501770.66	658134.51	1.4	C - Shallow (0.5-2.0m)	0.34	3.5	11	1.40	4.40	38.42	1.0	12.23	1.0	2.0	0.0	38.42	1.0	12.23	1.0	2.0	2.0	1.0	2.0	1.0	388.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP197	501755.28	658160.42	3	D - Moderately Deep (2.0-3.5m)	0.33	3.5	11	3.00	6.00	18.33	1.0	9.16	1.0	2.0	0.0	18.33	1.0	9.16	1.0	2.0	2.0	1.0	2.0	1.0	400.6	1.0	1.0	1.0
23/11/2023	Depth Probe		DP198	501746.71	658182.66	2.1	D - Moderately Deep (2.0-3.5m)	0.25	3.5	11	2.10	5.10	34.18	1.0	14.07	1.0	2.0	0.0	34.18	1.0	14.07	1.0	2.0	2.0	1.0	2.0	1.0	408.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP199	501716.72	658222.41	2.8	D - Moderately Deep (2.0-3.5m)	0.35	3.5	11	2.80	5.80	18.46	1.0	8.91	1.0	2.0	0.0	18.46	1.0	8.91	1.0	2.0	2.0	1.0	2.0	1.0	390.5	1.0	1.0	1.0
23/11/2023	Depth Probe		DP200	501666.64	658216.37	1.5	C - Shallow (0.5-2.0m)	0.69	3.5	11	1.50	4.50	17.51	1.0	5.84	1.0	2.0	0.0	17.51	1.0	5.84	1.0	2.0	2.0	1.0	2.0	1.0	375.8	1.0	1.0	1.0
23/11/2023	Depth Probe		DP201	501602.77	658203.01	3.2	D - Moderately Deep (2.0-3.5m)	0.30	3.5	11	3.20	6.20	18.80	1.0	9.70	1.0	2.0	0.0	18.80	1.0	9.70	1.0	2.0	2.0	1.0	2.0	1.0	371.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP202	501553.58	658201.96	1.5	C - Shallow (0.5-2.0m)	0.75	3.5	11	1.50	4.50	16.25	1.0	5.42	1.0	2.0	0.0	16.25	1.0	5.42	1.0	2.0	2.0	1.0	2.0	1.0	360.2	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP203	501454.09	658211.76	2.2	D - Moderately Deep (2.0-3.5m)	2.19	3.5	11	2.20	5.20	3.78	1.0	1.60	1.0	2.0	0.0	3.78	1.0	1.60	1.0	2.0	2.0	1.0	2.0	1.0	321.9	1.0	1.0	1.0
23/11/2023	Depth Probe		DP204	501415.35	658197.70	1.7	C - Shallow (0.5-2.0m)	2.59	3.5	11	1.70	4.70	4.15	1.0	1.50	1.0	2.0	0.0	4.15	1.0	1.50	1.0	2.0	2.0	1.0	2.0	1.0	294.9	1.0	1.0	1.0
23/11/2023	Depth Probe		DP205	501401.22	658229.71	0.7	C - Shallow (0.5-2.0m)	2.45	3.5	11	0.70	3.70	10.63	1.0	2.01	1.0	2.0	0.0	10.63	1.0	2.01	1.0	2.0	2.0	1.0	2.0	1.0	266.6	1.0	1.0	1.0
23/11/2023	Depth Probe		DP206	501387.47	658263.56	0.4	B - Very Shallow (0.01-0.5m)	2.56	3.5	11	0.40	3.40	17.85	1.0	2.10	1.0	2.0	0.0	17.85	1.0	2.10	1.0	2.0	2.0	1.0	2.0	1.0	239.8	1.0	1.0	1.0
23/11/2023	Depth Probe		DP207	501409.08	658272.58	0.9	C - Shallow (0.5-2.0m)	2.17	3.5	11	0.90	3.90	9.32	1.0	2.15	1.0	2.0	0.0	9.32	1.0	2.15	1.0	2.0	2.0	1.0	2.0	1.0	254.2	1.0	1.0	1.0
23/11/2023	Depth Probe		DP208	501431.18	658278.07	2.5	D - Moderately Deep (2.0-3.5m)	2.36	3.5	11	2.50	5.50	3.09	1.0	1.40	1.0	2.0	0.0	3.09	1.0	1.40	1.0	2.0	2.0	1.0	2.0	1.0	257.2	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T1 to T2	DP209	501465.08	658303.54	0.9	C - Shallow (0.5-2.0m)	1.22	3.5	11	0.90	3.90	16.55	1.0	3.82	1.0	2.0	0.0	16.55	1.0	3.82	1.0	2.0	2.0	1.0	2.0	1.0	241.8	1.0	1.0	1.0
23/11/2023	Depth Probe		DP210	501500.14	658269.82	2.6	D - Moderately Deep (2.0-3.5m)	0.64	3.5	11	2.60	5.60	10.91	1.0	5.06	1.0	2.0	0.0	10.91	1.0	5.06	1.0	2.0	2.0	1.0	2.0	1.0	282.0	1.0	1.0	1.0
23/11/2023	Depth Probe		DP211	501556.78	658287.78	0.9	C - Shallow (0.5-2.0m)	0.54	3.5	11	0.90	3.90	37.30	1.0	8.61	1.0	2.0	0.0	37.30	1.0	8.61	1.0	2.0	2.0	1.0	2.0	1.0	278.9	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP212	501492.27	658142.54	0.9	C - Shallow (0.5-2.0m)	1.90	3.5	11	0.90	3.90	10.65	1.0	2.46	1.0	2.0	0.0	10.65	1.0	2.46	1.0	2.0	2.0	1.0	2.0	1.0	389.4	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP213	501454.65	658122.34	0.8	C - Shallow (0.5-2.0m)	2.81	3.5	11	0.80	3.80	8.12	1.0	1.71	1.0	2.0	0.0	8.12	1.0	1.71	1.0	2.0	2.0	1.0	2.0	1.0	370.7	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP214	501473.46	658088.02	0.7	C - Shallow (0.5-2.0m)	2.67	3.5	11	0.70	3.70	9.76	1.0	1.85	1.0	2.0	0.0	9.76	1.0	1.85	1.0	2.0	2.0	1.0	2.0	1.0	407.0	1.0	1.0	1.0
23/11/2023	Depth Probe		DP215	501494.05	658051.98	1.6	C - Shallow (0.5-2.0m)	2.61	3.5	11	1.60	4.60	4.36	1.0	1.52	1.0	2.0	0.0	4.36	1.0	1.52	1.0	2.0	2.0	1.0	2.0	1.0	446.2	1.0	1.0	1.0
23/11/2023	Depth Probe		DP216	501512.39	658038.81	0.7	C - Shallow (0.5-2.0m)	2.47	3.5	11	0.70	3.70	10.54	1.0	1.99	1.0	2.0	0.0	10.54	1.0	1.99	1.0	2.0	2.0	1.0	2.0	1.0	468.7	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP217	501537.93	658058.15	2.6	D - Moderately Deep (2.0-3.5m)	1.83	3.5	11	2.60	5.60	3.84	1.0	1.78	1.0	2.0	0.0	3.84	1.0	1.78	1.0	2.0	2.0	1.0	2.0	1.0	475.9	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP218	501531.90	658105.94	2.4	D - Moderately Deep (2.0-3.5m)	1.39	3.5	11	2.40	5.40	5.45	1.0	2.42	1.0	2.0	0.0	5.45	1.0	2.42	1.0	2.0	2.0	1.0	2.0	1.0	442.7	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP219	501505.87	658095.71	0.9	C - Shallow (0.5-2.0m)	2.25	3.5	11	0.90	3.90	9.00	1.0	2.08	1.0	2.0	0.0	9.00	1.0	2.08	1.0	2.0	2.0	1.0	2.0	1.0	427.5	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP220	501604.18	658010.62	0.4	B - Very Shallow (0.01-0.5m)	0.82	3.5	11	0.40	3.40	55.72	1.0	6.56	1.0	2.0	0.0	55.72	1.0	6.56	1.0	2.0	2.0	1.0	2.0	1.0	557.4	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP221	501610.87	658012.34	0.9	C - Shallow (0.5-2.0m)	0.72	3.5	11	0.90	3.90	28.14	1.0	6.49	1.0	2.0	0.0	28.14	1.0	6.49	1.0	2.0	2.0	1.0	2.0	1.0	558.1	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP222	501620.65	658004.91	1.1	C - Shallow (0.5-2.0m)	0.58	3.5	11	1.10	4.10	28.36	1.0	7.61	1.0	2.0	0.0	28.36	1.0	7.61	1.0	2.0	2.0	1.0	2.0	1.0	564.8	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP223	501628.82	658012.91	0.8	C - Shallow (0.5-2.0m)	0.56	3.5	11	0.80	3.80	40.88	1.0	8.61	1.0	2.0	0.0	40.88	1.0	8.61	1.0	2.0	2.0	1.0	2.0	1.0	554.6	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP224	501631.50	658000.61	0.9	C - Shallow (0.5-2.0m)	0.57	3.5	11	0.90	3.90	35.77	1.0	8.26	1.0	2.0	0.0	35.77	1.0	8.26	1.0	2.0	2.0	1.0	2.0	1.0	555.9	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP225	501644.26	658001.46	1.5	C - Shallow (0.5-2.0m)	0.73	3.5	11	1.50	4.50	16.63	1.0	5.54	1.0	2.0	0.0	16.63	1.0	5.54	1.0	2.0	2.0	1.0	2.0	1.0	543.5	1.0	1.0	1.0
23/11/2023	Depth Probe		DP226	501667.09	658020.82	1.5	C - Shallow (0.5-2.0m)	0.80	3.5	11	1.50	4.50	15.11	1.0	5.04	1.0	2.0	0.0	15.11	1.0	5.04	1.0	2.0	2.0	1.0	2.0	1.0	515.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP227	501688.70	658029.88	1.8	C - Shallow (0.5-2.0m)	0.48	3.5	11	1.80	4.80	20.97	1.0	7.86	1.0	2.0	0.0	20.97	1.0	7.86	1.0	2.0	2.0	1.0	2.0	1.0	492.4	1.0	1.0	1.0
23/11/2023	Depth Probe		DP228	501718.51	658037.06	1	C - Shallow (0.5-2.0m)	0.26	3.5	11	1.00	4.00	69.70	1.0	17.42	1.0	2.0	0.0	69.70	1.0	17.42	1.0	2.0	2.0	1.0	2.0	1.0	461.8	1.0	1.0	1.0
23/11/2023	Depth Probe		DP229	501708.97	658005.72	3.1	D - Moderately Deep (2.0-3.5m)	0.26	3.5	11	3.10	6.10	22.91	1.0	11.65	1.0	2.0	0.0	22.91	1.0	11.65	1.0	2.0	2.0	1.0	2.0	1.0	480.8	1.0	1.0	1.0
23/11/2023	Depth Probe	Met Mast	DP230	501678.38	657965.35	1.2	C - Shallow (0.5-2.0m)	0.95	3.5	11	1.20	4.20	15.95	1.0	4.56	1.0	2.0	0.0	15.95	1.0	4.56	1.0	2.0	2.0	1.0	2.0	1.0	523.6	1.0	1.0	1.0
23/11/2023	Depth Probe	Met Mast	DP231	501667.55	657965.01	1.2	C - Shallow (0.5-2.0m)	0.99	3.5	11	1.20	4.20	15.38	1.0	4.40	1.0	2.0	0.0	15.38	1.0	4.40	1.0	2.0	2.0	1.0	2.0	1.0	533.8	1.0	1.0	1.0
23/11/2023	Depth Probe		DP232	501636.55	657932.25	2.2	D - Moderately Deep (2.0-3.5m)	0.94	3.5	11	2.20	5.20	8.86	1.0	3.75	1.0	2.0	0.0	8.86	1.0	3.75	1.0	2.0	2.0	1.0	2.0	1.0	574.9	1.0	1.0	1.0
23/11/2023	Depth Probe		DP233	501625.54	657900.75	1	C - Shallow (0.5-2.0m)	0.80	3.5	11	1.00	4.00	22.88	1.0	5.72	1.0	2.0	0.0	22.88	1.0	5.72	1.0	2.0	2.0	1.0	2.0	1.0	598.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP234	501626.85	657887.37	1.6	C - Shallow (0.5-2.0m)	0.73	3.5	11	1.60	4.60	15.71	1.0	5.46	1.0	2.0	0.0	15.71	1.0	5.46	1.0	2.0	2.0	1.0	2.0	1.0	602.9	1.0	1.0	1.0
23/11/2023	Depth Probe		DP235	501650.07	657853.32	1.9	C - Shallow (0.5-2.0m)	1.42	3.5	11	1.90	4.90	6.76	1.0	2.62	1.0	2.0	0.0	6.76	1.0	2.62	1.0	2.0	2.0	1.0	2.0	1.0	599.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP236	501693.42	657822.03	0.9	C - Shallow (0.5-2.0m)	2.25	3.5	11	0.90	3.90	9.01	1.0	2.08	1.0	2.0	0.0	9.01	1.0	2.08	1.0	2.0	2.0	1.0	2.0	1.0	580.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP237	501713.31	657835.17	1.8	C - Shallow (0.5-2.0m)	1.99	3.5	11	1.80	4.80	5.09	1.0	1.91	1.0	2.0	0.0	5.09	1.0	1.91	1.0	2.0	2.0	1.0	2.0	1.0	556.3	1.0	1.0	1.0
23/11/2023	Depth Probe		DP238	501770.87	657842.91	0.9	C - Shallow (0.5-2.0m)	1.53	3.5	11	0.90	3.90	13.23	1.0	3.05	1.0	2.0	0.0	13.23	1.0	3.05	1.0	2.0	2.0	1.0	2.0	1.0	505.8	1.0	1.0	1.0
23/11/2023	Depth Probe	Track to Borrow Pit	DP239	501800.19	657865.14	2.9	D - Moderately Deep (2.0-3.5m)	1.82	3.5	11	2.90	5.90	3.45	1.0	1.70	1.0	2.0	0.0	3.45	1.0	1.70	1.0	2.0	2.0	1.0	2.0	1.0	469.1	1.0	1.0	1.0
23/11/2023	Depth Probe	Borrow Pit	DP240	501783.66	657816.87	0.2	B - Very Shallow (0.01-0.5m)	1.35	3.5	11	0.20	3.20	67.79	1.0	4.24	1.0	2.0	0.0	67.79	1.0	4.24	1.0	2.0	2.0	1.0	2.0	1.0	513.1	1.0	1.0	1.0
23/11/2023	Depth Probe	Borrow Pit	DP241	501830.70	657784.02	0.2	B - Very Shallow (0.01-0.5m)	4.20	3.5	11	0.20	3.20	21.78	1.0	1.36	1.0	2.0	0.0	21.78	1.0	1.36	1.0	2.0	2.0	1.0	2.0	1.0	502.5	1.0	1.0	1.0
23/11/2023	Depth Probe	Borrow Pit	DP242	501900.19	657751.08	0.1	B - Very Shallow (0.01-0.5m)	4.52	3.5	11	0.10	3.10	40.51	1.0	1.31	1.0	2.0	0.0	40.51	1.0	1.31	1.0	2.0	2.0	1.0	2.0	1.0	474.3	1.0	1.0	1.0
23/11/2023	Depth Probe	Spoil area South	DP243	501949.77	657731.91	0.1	B - Very Shallow (0.01-0.5m)	3.50	3.5	11	0.10	3.10	52.16	1.0	1.68	1.0	2.0	0.0	52.16	1.0	1.68	1.0	2.0	2.0	1.0	2.0	1.0	447.3	1.0	1.0	1.0
22/11/2023	Depth Probe		DP244	502009.52	657931.79	2.4	D - Moderately Deep (2.0-3.5m)	1.65	3.5	11	2.40	5.40	4.60	1.0	2.04	1.0	2.0	0.0	4.60	1.0	2.04	1.0	2.0	2.0	1.0	2.0	1.0	273.2	1.0	1.0	1.0
22/11/2023	Depth Probe		DP245	501996.20	658008.77	1	C - Shallow (0.5-2.0m)	1.11	3.5	11	1.00	4.00	16.36	1.0	4.09	1.0	2.0	0.0	16.36	1.0	4.09	1.0	2.0	2.0	1.0	2.0	1.0	226.7	1.0	1.0	1.0
22/11/2023	Depth Probe	Track T3 to T4	DP246	501982.44	658050.94	0.4	B - Very Shallow (0.01-0.5m)	0.77	3.5	11	0.40	3.40	59.23	1.0	6.97	1.0	2.0	0.0	59.23	1.0	6.97	1.0	2.0	2.0	1.0	2.0	1.0	212.4	1.0	1.0	1.0
22/11/2023	Depth Probe		DP247	501947.06	658062.83	2.4	D - Moderately Deep (2.0-3.5m)	0.26	3.5	11	2.40	5.40	28.81	1.0	12.81	1.0	2.0	0.0	28.81	1.0	12.81	1.0	2.0	2.0	1.0	2.0	1.0	238.1	1.0	1.0	1.0
22/11/2023	Depth Probe		DP248	501942.74	658028.32	0.5	B - Very Shallow (0.01-0.5m)	0.43	3.5	11	0.50	3.50	85.53	1.0	12.22	1.0	2.0	0.0	85.53	1.0	12.22	1.0	2.0	2.0	1.0	2.0	1.0	258.1	1.0	1.0	1.0
22/11/2023	Depth Probe	Track T3 to T4	DP249	501949.27	658009.44	0.5	B - Very Shallow (0.01-0.5m)	0.70	3.5	11	0.50	3.50	52.24	1.0	7.46	1.0	2.0	0.0	52.24	1.0	7.46	1.0	2.0	2.0	1.0	2.0	1.0	262.9	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP250	501956.02	657987.02	0.8	C - Shallow (0.5-2.0m)	0.90	3.5	11	0.80	3.80	25.46	1.0	5.36	1.0	2.0	0.0	25.46	1.0	5.36	1.0	2.0	2.0	1.0	2.0	1.0	271.3	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP251	501959.28	657969.15	0.8	C - Shallow (0.5-2.0m)	0.99	3.5	11	0.80	3.80	23.09	1.0	4.86	1.0	2.0	0.0	23.09	1.0	4.86	1.0	2.0	2.0	1.0	2.0	1.0	280.7	1.0	1.0	1.0
22/11/2023	Depth Probe		DP252	501947.77	657939.52	2.3	D - Moderately Deep (2.0-3.5m)	0.99	3.5	11	2.30	5.30	8.00	1.0	3.47	1.0	2.0	0.0	8.00	1.0	3.47	1.0	2.0	2.0	1.0	2.0	1.0	309.6	1.0	1.0	1.0
22/11/2023	Depth Probe		DP253	501958.74	657891.58	1	C - Shallow (0.5-2.0m)	1.93	3.5	11	1.00	4.00	9.46	1.0	2.37	1.0	2.0	0.0	9.46	1.0	2.37	1.0	2.0	2.0	1.0	2.0	1.0	336.7	1.0	1.0	1.0
22/11/2023	Depth Probe		DP254	501958.75	657872.28	1	C - Shallow (0.5-2.0m)	2.19	3.5	11	1.00	4.00	8.32	1.0	2.08	1.0	2.0	0.0	8.32	1.0	2.08	1.0	2.0	2.0	1.0	2.0	1.0	351.4	1.0	1.0	1.0
22/11/2023	Depth Probe		DP255	501925.16	657872.73	1.1	C - Shallow (0.5-2.0m)	2.24	3.5	11	1.10	4.10	7.40	1.0	1.98	1.0	2.0	0.0	7.40	1.0	1.98	1.0	2.0	2.0	1.0	2.0	1.0	373.2	1.0	1.0	1.0
22/11/2023	Depth Probe		DP256	501904.31	657920.46	1.1	C - Shallow (0.5-2.0m)	0.90	3.5	11	1.10	4.10	18.44	1.0	4.95	1.0	2.0	0.0	18.44	1.0	4.95	1.0	2.0	2.0	1.0	2.0	1.0	354.1	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP257	501897.04	657973.22	1	C - Shallow (0.5-2.0m)	0.26	3.5	11	1.00	4.00	71.23	1.0	17.81	1.0	2.0	0.0	71.23	1.0	17.81	1.0	2.0	2.0	1.0	2.0	1.0	326.5	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP258	501895.77	658015.51	3.5	D - Moderately Deep (2.0-3.5m)	0.10	3.5	11	3.50	6.50	53.55	1.0	28.83	1.0	2.0	0.0	53.55	1.0	28.83	1.0	2.0	2.0	1.0	2.0	1.0	305.2	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP259	501907.95	658020.36	3	D - Moderately Deep (2.0-3.5m)	0.12	3.5	11	3.00	6.00	51.14	1.0	25.57	1.0	2.0	0.0	51.14	1.0	25.57	1.0	2.0	2.0	1.0	2.0	1.0	292.2	1.0	1.0	1.0
22/11/2023	Depth Probe	T3	DP260	501922.76	658022.65	1.7	C - Shallow (0.5-2.0m)	0.21	3.5	11	1.70	4.70	50.66	1.0	18.32	1.0	2.0	0.0	50.66	1.0	18.32	1.0	2.0	2.0	1.0	2.0	1.0	278.1	1.0	1.0	1.0
22/11/2023	Depth Probe		DP261	501887.33	658043.33	0.5	B - Very Shallow (0.01-0.5m)	0.11	3.5	11	0.50	3.50	329.32	1.0	47.05	1.0	2.0	0.0	329.32	1.0	47.05	1.0	2.0	2.0	1.0	2.0	1.0	300.7	1.0	1.0	1.0
22/11/2023	Depth Probe		DP262	501875.30	658069.65	0.9	C - Shallow (0.5-2.0m)	0.27	3.5	11	0.90	3.90	73.87	1.0	17.05	1.0	2.0	0.0	73.87	1.0	17.05	1.0	2.0	2.0	1.0	2.0	1.0	302.7	1.0	1.0	1.0

Appendix 8.1 App B(a) - Peat Database

Ballykett WF, Co. Clare
604008

Date: 28/11/2023
Prepared by: DW
RSK File Ref.: 604008-Geo-R03-App8.1 - App B(a)-(02)-Peat Database.xls

RECEIVED: 19/03/2024

								Parameter Values		Scenario A	Scenario B	Scenario A		Scenario B				Scenario A		Scenario B				Scenario A	Scenario B
Sample / Test Date	Sample / Test Category	Associated Infrastructure unit	Sample / Test Point ID No.	ITM Easting	ITM Northing	Thickness / Depth of peat	Classification of Thickness / Depth of peat	Slope (Extracted from GDEM)	Undrained Shear Strength (Conservative Value)	Bulk Unit weight of Peat (Conservative Value)	Depth to failure plane i.e. Peat Depth	Surcharge Equivalent Placed Fill Depth i.e. +3m	FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS_{RAW} Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS Adjustment Coefficient	FoS Adjustment Value	FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	FoS_{ADJ} Adjusted Factor of Safety (FoS) for Peat Stability	COEFFICIENT	Significant Feature Ranking Cefficient	RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	RR_{SF} Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors	COEFFICIENT	Distance to Sensitive Receptor	Distance to Sensitive Receptor Coefficient	RR_D Risk Ranking Acounting for Distance to Sensitive Receptors	RR_D Risk Ranking Acounting for Distance to Sensitive Receptors
									c'	y	z	z	$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$						$FoS = \frac{c_u}{yz \sin\alpha \cos\alpha}$ + Adjustment Value				μ_{SF}						$\mu_{Dist.}$		
dd/mm/yy						m		Degrees	kPa	kN/m3	m	m	FoS	μ	FoS	μ	μ	#	FoS	μ	FoS	μ	μ	RR-SF	μ	RR-SF	μ	m	μ	RR-D	RR-D
22/11/2023	Depth Probe		DP263	501880.81	658093.39	0.8	C - Shallow (0.5-2.0m)	0.44	3.5	11	0.80	3.80	51.88	1.0	10.92	1.0	2.0	0.0	51.88	1.0	10.92	1.0	2.0	2.0	1.0	2.0	1.0	290.0	1.0	1.0	1.0
22/11/2023	Depth Probe		DP264	501896.80	658113.88	3.4	D - Moderately Deep (2.0-3.5m)	0.52	3.5	11	3.40	6.40	10.40	1.0	5.52	1.0	2.0	0.0	10.40	1.0	5.52	1.0	2.0	2.0	1.0	2.0	1.0	268.7	1.0	1.0	1.0
22/11/2023	Depth Probe		DP265	501861.56	658061.61	1.4	C - Shallow (0.5-2.0m)	0.23	3.5	11	1.40	4.40	55.78	1.0	17.75	1.0	2.0	0.0	55.78	1.0	17.75	1.0	2.0	2.0	1.0	2.0	1.0	218.3	1.0	1.0	1.0
23/11/2023	Depth Probe	Spoil area South	DP266	501950.05	657790.59	0.1	B - Very Shallow (0.01-0.5m)	3.98	3.5	11	0.10	3.10	46.00	1.0	1.48	1.0	2.0	0.0	46.00	1.0	1.48	1.0	2.0	2.0	1.0	2.0	1.0	419.5	1.0	1.0	1.0
23/11/2023	Depth Probe	Spoil area South	DP267	501940.73	657835.58	0.1	B - Very Shallow (0.01-0.5m)	2.49	3.5	11	0.10	3.10	73.34	1.0	2.37	1.0	2.0	0.0	73.34	1.0	2.37	1.0	2.0	2.0	1.0	2.0	1.0	391	1.0	1.0	1.0
23/11/2023	Depth Probe		DP268	501834.44	657900.18	3.9	E - Deep (3.5-5.0m)	1.02	3.5	11	3.90	6.90	4.56	1.0	2.58	1.0	2.0	0.0	4.56	1.0	2.58	1.0	2.0	2.0	1.0	2.0	1.0	420.4	1.0	1.0	1.0
23/11/2023	Depth Probe		DP269	501827.61	657909.89	3.5	D - Moderately Deep (2.0-3.5m)	0.67	3.5	11	3.50	6.50	7.80	1.0	4.20	1.0	2.0	0.0	7.80	1.0	4.20	1.0	2.0	2.0	1.0	2.0	1.0	419.9	1.0	1.0	1.0
23/11/2023	Depth Probe		DP270	501839.51	657909.80	3.5	D - Moderately Deep (2.0-3.5m)	0.72	3.5	11	3.50	6.50	7.22	1.0	3.89	1.0	2.0	0.0	7.22	1.0	3.89	1.0	2.0	2.0	1.0	2.0	1.0	410.5	1.0	1.0	1.0
23/11/2023	Depth Probe		DP271	501811.97	657946.21	1	C - Shallow (0.5-2.0m)	0.31	3.5	11	1.00	4.00	58.98	1.0	14.75	1.0	2.0	0.0	58.98	1.0	14.75	1.0	2.0	2.0	1.0	2.0	1.0	412.5	1.0	1.0	1.0
23/11/2023	Depth Probe		DP272	501804.03	657990.97	0.8	C - Shallow (0.5-2.0m)	0.48	3.5	11	0.80	3.80	47.11	1.0	9.92	1.0	2.0	0.0	47.11	1.0	9.92	1.0	2.0	2.0	1.0	2.0	1.0	398.1	1.0	1.0	1.0
23/11/2023	Depth Probe		DP273	501800.84	658039.31	3.1	D - Moderately Deep (2.0-3.5m)	0.46	3.5	11	3.10	6.10	12.86	1.0	6.53	1.0	2.0	0.0	12.86	1.0	6.53	1.0	2.0	2.0	1.0	2.0	1.0	383.0	1.0	1.0	1.0
23/11/2023	Depth Probe		DP274	501785.42	658064.92	3	D - Moderately Deep (2.0-3.5m)	0.43	3.5	11	3.00	6.00	13.98	1.0	6.99	1.0	2.0	0.0	13.98	1.0	6.99	1.0	2.0	2.0	1.0	2.0	1.0	389.5	1.0	1.0	1.0
23/11/2023	Depth Probe		DP275	501773.09	658107.88	3	D - Moderately Deep (2.0-3.5m)	0.33	3.5	11	3.00	6.00	18.29	1.0	9.15	1.0	2.0	0.0	18.29	1.0	9.15	1.0	2.0	2.0	1.0	2.0	1.0	390.4	1.0	1.0	1.0
23/11/2023	Depth Probe		DP276	501726.60	658192.10	2.5	D - Moderately Deep (2.0-3.5m)	0.26	3.5	11	2.50	5.50	28.28	1.0	12.86	1.0	2.0	0.0	28.28	1.0	12.86	1.0	2.0	2.0	1.0	2.0	1.0	422.0	1.0	1.0	1.0
23/11/2023	Depth Probe		DP277	501693.88	658226.53	2.8	D - Moderately Deep (2.0-3.5m)	0.69	3.5	11	2.80	5.80	9.47	1.0	4.57	1.0	2.0	0.0	9.47	1.0	4.57	1.0	2.0	2.0	1.0	2.0	1.0	376.8	1.0	1.0	1.0
23/11/2023	Depth Probe		DP278	501645.76	658212.04	0.5	B - Very Shallow (0.01-0.5m)	0.33	3.5	11	0.50	3.50	109.31	1.0	15.62	1.0	2.0	0.0	109.31	1.0	15.62	1.0	2.0	2.0	1.0	2.0	1.0	373.2	1.0	1.0	1.0
23/11/2023	Depth Probe		DP279	501623.53	658212.60	1	C - Shallow (0.5-2.0m)	0.17	3.5	11	1.00	4.00	104.67	1.0	26.17	1.0	2.0	0.0	104.67	1.0	26.17	1.0	2.0	2.0	1.0	2.0	1.0	366.8	1.0	1.0	1.0
23/11/2023	Depth Probe		DP280	501572.88	658198.44	3.1	D - Moderately Deep (2.0-3.5m)	0.68	3.5	11	3.10	6.10	8.67	1.0	4.40	1.0	2.0	0.0	8.67	1.0	4.40	1.0	2.0	2.0	1.0	2.0	1.0	368.8	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP281	501535.53	658181.01	0.5	B - Very Shallow (0.01-0.5m)	0.71	3.5	11	0.50	3.50	51.52	1.0	7.36	1.0	2.0	0.0	51.52	1.0	7.36	1.0	2.0	2.0	1.0	2.0	1.0	376.4	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP282	501513.50	658172.54	1	C - Shallow (0.5-2.0m)	0.77	3.5	11	1.00	4.00	23.78	1.0	5.95	1.0	2.0	0.0	23.78	1.0	5.95	1.0	2.0	2.0	1.0	2.0	1.0	379.9	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP283	501476.26	658215.59	1.2	C - Shallow (0.5-2.0m)	1.34	3.5	11	1.20	4.20	11.38	1.0	3.25	1.0	2.0	0.0	11.38	1.0	3.25	1.0	2.0	2.0	1.0	2.0	1.0	330.4	1.0	1.0	1.0
23/11/2023	Depth Probe		DP284	501429.82	658203.87	2.1	D - Moderately Deep (2.0-3.5m)	2.63	3.5	11	2.10	5.10	3.31	1.0	1.36	1.0	2.0	0.0	3.31	1.0	1.36	1.0	2.0	2.0	1.0	2.0	1.0	304.2	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T1 to T2	DP285	501452.47	658290.28	0.5	B - Very Shallow (0.01-0.5m)	1.77	3.5	11	0.50	3.50	20.59	1.0	2.94	1.0	2.0	0.0	20.59	1.0	2.94	1.0	2.0	2.0	1.0	2.0	1.0	252.9	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T1 to T2	DP286	501474.65	658269.87	1.5	C - Shallow (0.5-2.0m)	1.09	3.5	11	1.50	4.50	11.17	1.0	3.72	1.0	2.0	0.0	11.17	1.0	3.72	1.0	2.0	2.0	1.0	2.0	1.0	276.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP287	501528.40	658280.11	2.3	D - Moderately Deep (2.0-3.5m)	0.57	3.5	11	2.30	5.30	14.02	1.0	6.08	1.0	2.0	0.0	14.02	1.0	6.08	1.0	2.0	2.0	1.0	2.0	1.0	278.2	1.0	1.0	1.0
23/11/2023	Depth Probe		DP288	501543.22	658288.22	0.5	B - Very Shallow (0.01-0.5m)	0.56	3.5	11	0.50	3.50	64.95	1.0	9.28	1.0	2.0	0.0	64.95	1.0	9.28	1.0	2.0	2.0	1.0	2.0	1.0	274.3	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP289	501503.84	658157.70	0.5	B - Very Shallow (0.01-0.5m)	1.10	3.5	11	0.50	3.50	33.15	1.0	4.74	1.0	2.0	0.0	33.15	1.0	4.74	1.0	2.0	2.0	1.0	2.0	1.0	391.3	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP290	501466.03	658133.87	1.1	C - Shallow (0.5-2.0m)	2.83	3.5	11	1.10	4.10	5.86	1.0	1.57	1.0	2.0	0.0	5.86	1.0	1.57	1.0	2.0	2.0	1.0	2.0	1.0	372.8	1.0	1.0	1.0
23/11/2023	Depth Probe	T2	DP291	501496.98	658073.55	0.5	B - Very Shallow (0.01-0.5m)	2.72	3.5	11	0.50	3.50	13.42	1.0	1.92	1.0	2.0	0.0	13.42	1.0	1.92	1.0	2.0	2.0	1.0	2.0	1.0	434.3	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP292	501551.51	658052.71	2.7	D - Moderately Deep (2.0-3.5m)	1.64	3.5	11	2.70	5.70	4.13	1.0	1.96	1.0	2.0	0.0	4.13	1.0	1.96	1.0	2.0	2.0	1.0	2.0	1.0	489.9	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP293	501572.25	658021.37	1.5	C - Shallow (0.5-2.0m)	1.48	3.5	11	1.50	4.50	8.21	1.0	2.74	1.0	2.0	0.0	8.21	1.0	2.74	1.0	2.0	2.0	1.0	2.0	1.0	525.6	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP294	501556.97	658031.95	0.5	B - Very Shallow (0.01-0.5m)	1.80	3.5	11	0.50	3.50	20.29	1.0	2.90	1.0	2.0	0.0	20.29	1.0	2.90	1.0	2.0	2.0	1.0	2.0	1.0	507.1	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP295	501585.97	658015.58	3.5	D - Moderately Deep (2.0-3.5m)	1.16	3.5	11	3.50	6.50	4.48	1.0	2.41	1.0	2.0	0.0	4.48	1.0	2.41	1.0	2.0	2.0	1.0	2.0	1.0	540.0	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP296	501602.63	658009.19	1.1	C - Shallow (0.5-2.0m)	0.92	3.5	11	1.10	4.10	18.07	1.0	4.85	1.0	2.0	0.0	18.07	1.0	4.85	1.0	2.0	2.0	1.0	2.0	1.0	557.0	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP297	501600.62	658020.31	1	C - Shallow (0.5-2.0m)	0.94	3.5	11	1.00	4.00	19.44	1.0	4.86	1.0	2.0	0.0	19.44	1.0	4.86	1.0	2.0	2.0	1.0	2.0	1.0	547.8	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP298	501619.27	658004.86	1.5	C - Shallow (0.5-2.0m)	0.58	3.5	11	1.50	4.50	20.80	1.0	6.93	1.0	2.0	0.0	20.80	1.0	6.93	1.0	2.0	2.0	1.0	2.0	1.0	566.1	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP299	501639.64	658014.03	0.5	B - Very Shallow (0.01-0.5m)	0.65	3.5	11	0.50	3.50	55.74	1.0	7.96	1.0	2.0	0.0	55.74	1.0	7.96	1.0	2.0	2.0	1.0	2.0	1.0	543.9	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP300	501663.76	658008.12	0.5	B - Very Shallow (0.01-0.5m)	0.86	3.5	11	0.50	3.50	42.33	1.0	6.05	1.0	2.0	0.0	42.33	1.0	6.05	1.0	2.0	2.0	1.0	2.0	1.0	522.9	1.0	1.0	1.0
23/11/2023	Depth Probe		DP301	501681.11	658024.52	1.2	C - Shallow (0.5-2.0m)	0.58	3.5	11	1.20	4.20	26.11	1.0	7.46	1.0	2.0	0.0	26.11	1.0	7.46	1.0	2.0	2.0	1.0	2.0	1.0	501.3	1.0	1.0	1.0
23/11/2023	Depth Probe		DP302	501701.15	658026.36	3.8	E - Deep (3.5-5.0m)	0.32	3.5	11	3.80	6.80	14.91	1.0	8.33	1.0	2.0	0.0	14.91	1.0	8.33	1.0	2.0	2.0	1.0	2.0	1.0	481.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP303	501713.94	658027.38	3.7	E - Deep (3.5-5.0m)	0.24	3.5	11	3.70	6.70	20.65	1.0	11.40	1.0	2.0	0.0	20.65	1.0	11.40	1.0	2.0	2.0	1.0	2.0	1.0	469.2	1.0	1.0	1.0
23/11/2023	Depth Probe	Track T2 to T3	DP304	501693.49	657987.99	3.2	D - Moderately Deep (2.0-3.5m)	0.61	3.5	11	3.20	6.20	9.40	1.0	4.85	1.0	2.0	0.0	9.40	1.0	4.85	1.0	2.0	2.0	1.0	2.0	1.0	501.3	1.0	1.0	1.0
23/11/2023	Depth Probe	Met Mast	DP305	501653.33	657952.35	2.4	D - Moderately Deep (2.0-3.5m)	0.97	3.5	11	2.40	5.40	7.84	1.0	3.48	1.0	2.0	0.0	7.84	1.0	3.48	1.0	2.0	2.0	1.0	2.0	1.0	551.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP306	501622.32	657923.07	1.2	C - Shallow (0.5-2.0m)	0.82	3.5	11	1.20	4.20	18.57	1.0	5.31	1.0	2.0	0.0	18.57	1.0	5.31	1.0	2.0	2.0	1.0	2.0	1.0	591.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP307	501622.57	657850.84	2	C - Shallow (0.5-2.0m)	0.93	3.5	11	2.00	5.00	9.81	1.0	3.92	1.0	2.0	0.0	9.81	1.0	3.92	1.0	2.0	2.0	1.0	2.0	1.0	624.0	1.0	1.0	1.0
23/11/2023	Depth Probe		DP308	501668.31	657838.59	2.1	D - Moderately Deep (2.0-3.5m)	1.93	3.5	11	2.10	5.10	4.49	1.0	1.85	1.0	2.0	0.0	4.49	1.0	1.85	1.0	2.0	2.0	1.0	2.0	1.0	591.4	1.0	1.0	1.0
23/11/2023	Depth Probe		DP309	501740.58	657839.46	1.5	C - Shallow (0.5-2.0m)	1.61	3.5	11	1.50	4.50	7.57	1.0	2.52	1.0	2.0	0.0	7.57	1.0	2.52	1.0	2.0	2.0	1.0	2.0	1.0	531.8	1.0	1.0	1.0
23/11/2023	Depth Probe	Track to Borrow Pit	DP310	501804.46	657845.10	1.5	C - Shallow (0.5-2.0m)	1.95	3.5	11	1.50	4.50	6.23	1.0	2.08	1.0	2.0	0.0	6.23	1.0	2.08	1.0	2.0	2.0	1.0	2.0	1.0	478.7	1.0	1.0	1.0
23/11/2023	Depth Probe		DP311	501830.23	657848.55	1.2	C - Shallow (0.5-2.0m)	2.27	3.5	11	1.20	4.20	6.69	1.0	1.91	1.0	2.0	0.0	6.69	1.0	1.91	1.0	2.0	2.0	1.0	2.0	1.0	457.4	1.0	1.0	1.0
23/11/2023	Depth Probe	Borrow Pit	DP312	501816.98	657791.16	0.2	B - Very Shallow (0.01-0.5m)	3.32	3.5	11	0.20	3.20	27.48	1.0	1.72	1.0	2.0	0.0	27.48	1.0	1.72	1.0	2.0	2.0	1.0	2.0	1.0	507.0	1.0	1.0	1.0
23/11/2023	Depth Probe	Borrow Pit	DP313	501866.23	657761.44	0.2	B - Very Shallow (0.01-0.5m)	5.36	3.5	11	0.20	3.20	17.12	1.0	1.07	2.0	2.0	0.0	17.12	1.0	1.07	2.0	2.0	2.0	1.0	4.0	2.0	492.6	1.0	1.0	2.0
23/11/2023	Depth Probe		DP314	501918.95	657730.91	0.3	B - Very Shallow (0.01-0.5m)	3.82	3.5	11	0.30	3.30	15.95	1.0	1.45	1.0	2.0	0.0	15.95	1.0	1.45	1.0	2.0	2.0	1.0	2.0	1.0	450.8	1.0	1.0	1.0

Stability Risk Matrices and Ratings

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Accounting for Landslide History and Substrate Topology with a view to adjusting calculated FoS ($\mu_{STop} * \mu_{His}$)		Landslide History (μ_{His})		
		No History of Landslides in the vicinity of site.	Some instances of landslides in the vicinity of site	Recorded landslides occerences within the site
Substrate Topology Characteristics (μ_{Topo})	μ	1	2	4
Substrate is parallel to surface topology.	4	FoS -0.25	FoS - 0.5	FoS - 0.5
Substrate varies from surface topology to a minor extent.	2	FoS + 0.0	FoS -0.25	FoS - 0.5
Substrate varies from surface topology to a significant extent.	1	FoS + 0.25	FoS + 0.0	FoS -0.25

FoS Adjustment Coefficient (μ)			
4	8	16	
2	4	8	
1	2	4	

Ranking Risk re Potential for Adverse Consequences on Sensitive Receptors ($RR_{SF} = \mu_{FoS} * \mu_{SF}$)		FoS re Slope Stability (μ_{FoS})		
		Acceptable (FoS = >1.3)	Marginally Stable (Acceptable) (FoS = 1-1.3)	Unstable (FoS = <1)
Significant Feature (μ_{SF})	μ	1	2	4
Non-critical infrastructure.	1	Extreme Low	Very Low	Low
Sensitive receptors e.g. surface water feature	2	Very Low	Low	Moderate
Community, dwellings and buildings.	4	Low	Moderate	High

RR_{SF} Coefficient (μ)		
1	2	4
2	4	8
4	8	16

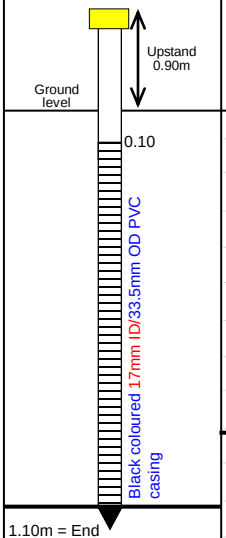
Acounting for distance to Sensitive Receptors ($RR_D = \mu_{RRSF} * \mu_{Dist.}$)		Distance to Sig. Feature ($\mu_{Dist.}$)		
		>150m	50-150m	<50m
Risk Ranking re Significant Feature (μ_{RRSF})	μ	1	2	4
Neg. (RR_{SF} = 1-2)	1	Very Low	Low	Moderate
Low (RR_{SF} = 4)	2	Low	Moderate	High
Mod. (RR_{SF} = 8)	4	Moderate	High	Very High
High (RR_{SF} = 16)	8	High	Very High	Extreme High

RR_D Coefficient (μ)		
1	2	4
2	4	8
4	8	16
8	16	32

INVESTIGATION POINT LOG NUMBER	**T3, Sample 1**
Client, Project, Location	JOD, Ballykett WF, Co. Clare
Project No.	604008
Page No.	Page 1 of 1
Date & time drilled / formed:	22/11/23
Logged by (drawn by) [checked by]:	DW [SK]
Drilling / Trial pitting co. & equipment	Gouge core
Doc. Ref.	604008-Geo-R03-App8.1 - App B(c)-(00)-Peat log
Irish Grid (IG)	501926.57, 659974.99

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Borehole/ Standpipe Design & Completion



Soil (S) / Water (W) / Vapour (V) Sampling			Depth in metres below ground level & [Thickness]	Geology (graphical log)	Geological description			
Sample number & interval (mbGL) *(Sample 10 kg minimum)* Red line = Single channel sample (from field) Blue line = Composite sample (generated in office or lab) Green line = Grab sample (acquired on site)	Shear Vane Testing values (shear strength in kilopascals (kPa))	Groundwater occurrence (See legend for symbols used for dry, damp and wet)			VON POST VALUE	PEAT DESCRIPTION	COLOUR	STIFFNESS
	10KPa	Wet ▼ Saturated	0.5		H-7/8	Fibrous ie moderate root content	Medium brown	
			0.9		**Obstruction / Rock**			
			1.0					
			1.5					
			2.0					
			2.5					
			3.0					
			3.5					
			4.0					

General notes / Well Head Protection / Plan & Section Sketches

Appendix 8.1 - App C (a) - Factor of Safety Map (FOS)

Legend

Project data

Survey Result

FOS_B

- FoS >1.3 (Acceptable)
- FoS 1.0-1.3 (Marginally Stable)

Site data

Wind Farm Layout

- Turbine Locations
- Borrow Pit Location
- Borrow Pit
- Temporary Construction Compound Location
- Temporary Construction Compound
- Substation Compound Location
- On-Site Substation
- Spoil Areas
- Site Entrance
- Access Road and Hardstands
- Proposed Met Mast
- Enhancement Area
- Blade Set Down Area
- Redline Wf and Rd Surfacing

Topography

- 2m Elevation Contours

Base layers

Google satelite

OpenStreetMap

Project ID	604008
Project Name	Ballykett Wind Farm, Co. Clare
Projection	ITM
Drawn by	CCa
Reviwed by	SK
Version	29/11/2023

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
Global Digital Elevation Model (GDEM)

RSK

501001E

502001E

659001N

658001N

Site Entrance

Temporary Construction Compound

On-Site Substation

T1

T2

T3

T4

Met Mast

Borrow Pit

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N

0 250 500 m

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Appendix 8.1 - App C (b) - Risk Ranking Map (RRD)

Legend

Project data

Survey Result

RRD_B

- Negligible
- Low
- Moderate

Site data

Wind Farm Layout

- Turbine Locations
- Borrow Pit Location
- Borrow Pit
- Temporary Construction Compound Location
- Temporary Construction Compound
- Substation Compound Location
- On-Site Substation
- Spoil Areas
- Site Entrance
- Access Road and Hardstands
- Proposed Met Mast
- Enhancement Area
- Blade Set Down Area
- Redline Wf and Rd Surfacing

Constraints

Hydrology

- WFD_RiverWaterbodiesActive_Cycle3
- Surface Water 50m Buffer

Topography

- 2m Elevation Contours

Base layers

Google satelite

OpenStreetMap

Project ID	604008
Project Name	Ballykett Wind Farm, Co. Clare
Projection	ITM
Drawn by	CCa
Reviwed by	SK
Version	29/11/2023

References/Sources:
Environmental Protection Agency (EPA)
Geological Services Ireland (GSI)
Bing Aerial / GeoHive / Open Street Map / Google Roads
Global Digital Elevation Model (GDEM)

RSK

501001E

502001E

659001N

658001N

Site Entrance

Temporary Construction Compound

On-Site Substation

T1

T2

T3

T4

Met Mast

Borrow Pit

MOYASTA_010

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0 250 500 m

Note: Data points presented are georeferenced using open source data and/or a handheld GPS. This drawing / map is considered a conceptual model with reasonable accuracy for the purposes of environmental assessment. This drawing should not be relied upon for detailed design puporses.

Appendix 8.2-Baseline Database - Grid Connections Route (GCR) Option 1
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.2-(00)-Baseline Database - Grid Connections Route

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	GCR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas				Assessment Graphics / Comment	
Row No.	Grid Connection Route (GCR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mBGL	50m										250m							
1	Grid Connection Route 1	Clare	0	GCR 25m intervals	501412.54	658551.83	Shallow Excavation	1.22	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26467.75	No	No	No	No	No		ELEVATED RISK Works will be carried out within SW Buffer Zone
2	Grid Connection Route 1	Clare	25	GCR 25m intervals	501410.04	658576.70	Shallow Excavation	1.22	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26475.52	No	No	No	No	No		ELEVATED RISK Works will be carried out within SW Buffer Zone
3	Grid Connection Route 1	Clare	50	GCR 25m intervals	501407.54	658601.58	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26483.32	No	No	No	No	No		NA
4	Grid Connection Route 1	Clare	75	GCR 25m intervals	501405.04	658626.45	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26491.13	No	No	No	No	No		NA
5	Grid Connection Route 1	Clare	100	GCR 25m intervals	501402.53	658651.32	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26498.96	No	No	No	No	No		NA
6	Grid Connection Route 1	Clare	125	GCR 25m intervals	501400.03	658676.20	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26506.82	No	No	No	No	No		NA
7	Grid Connection Route 1	Clare	150	GCR 25m intervals	501397.53	658701.07	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26514.70	No	No	No	No	No		NA
8	Grid Connection Route 1	Clare	175	GCR 25m intervals	501395.03	658725.95	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26522.60	No	No	No	No	No		NA
9	Grid Connection Route 1	Clare	200	GCR 25m intervals	501394.13	658750.46	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26528.88	No	No	No	No	No		NA
10	Grid Connection Route 1	Clare	225	GCR 25m intervals	501407.15	658771.80	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26520.90	No	No	No	No	No		NA
11	Grid Connection Route 1	Clare	250	GCR 25m intervals	501420.18	658793.14	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26512.94	No	No	No	No	No		NA
12	Grid Connection Route 1	Clare	275	GCR 25m intervals	501433.20	658814.48	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26505.00	No	No	No	No	No		NA
13	Grid Connection Route 1	Clare	300	GCR 25m intervals	501446.22	658835.82	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26497.09	No	No	No	No	No		NA
14	Grid Connection Route 1	Clare	325	GCR 25m intervals	501459.24	658857.16	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26489.19	No	No	No	No	No		NA
15	Grid Connection Route 1	Clare	350	GCR 25m intervals	501472.26	658878.50	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26481.32	No	No	No	No	No		NA
16	Grid Connection Route 1	Clare	375	GCR 25m intervals	501485.28	658899.85	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26473.47	No	No	No	No	No		NA
17	Grid Connection Route 1	Clare	400	GCR 25m intervals	501498.30	658921.19	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26465.64	No	No	No	No	No		NA
18	Grid Connection Route 1	Clare	425	GCR 25m intervals	501501.00	658942.28	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26467.83	No	No	No	No	No		NA
19	Grid Connection Route 1	Clare	450	GCR 25m intervals	501486.98	658962.98	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26486.21	No	No	No	No	No		NA
20	Grid Connection Route 1	Clare	475	GCR 25m intervals	501472.96	658983.68	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26504.61	No	No	No	No	No		NA
21	Grid Connection Route 1	Clare	500	GCR 25m intervals	501458.94	659004.39	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26523.01	No	No	No	No	No		NA
22	Grid Connection Route 1	Clare	525	GCR 25m intervals	501444.93	659025.09	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26541.43	No	No	No	No	No		NA
23	Grid Connection Route 1	Clare	550	GCR 25m intervals	501430.91	659045.79	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26559.86	No	No	No	No	No		NA
24	Grid Connection Route 1	Clare	575	GCR 25m intervals	501417.26	659066.73	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26577.99	No	No	No	No	No		NA
25	Grid Connection Route 1	Clare	600	GCR 25m intervals	501398.76	659074.45	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26597.78	No	No	No	No	No		NA
26	Grid Connection Route 1	Clare	625	GCR 25m intervals	501374.64	659067.85	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26619.71	No	No	No	No	No		NA
27	Grid Connection Route 1	Clare	650	GCR 25m intervals	501350.53	659061.25	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26641.64	No	No	No	No	No		NA
28	Grid Connection Route 1	Clare	675	GCR 25m intervals	501326.42	659054.66	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26663.57	No	No	No	No	No		NA
29	Grid Connection Route 1	Clare	700	GCR 25m intervals	501302.30	659048.06	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26685.51	No	No	No	No	No		NA
30	Grid Connection Route 1	Clare	725	GCR 25m intervals	501278.19	659041.46	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26707.46	No	No	No	No	No		NA
31	Grid Connection Route 1	Clare	750	GCR 25m intervals	501254.08	659034.86	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26729.41	No	No	No	No	No		NA
32	Grid Connection Route 1	Clare	775	GCR 25m intervals	501229.96	659028.26	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26751.37	No	No	No	No	No		NA
33	Grid Connection Route 1	Clare	800	GCR 25m intervals	501205.83	659021.74	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26773.36	No	No	No	No	No		NA
34	Grid Connection Route 1	Clare	825	GCR 25m intervals	501181.69	659015.21	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26795.37	No	No	No	No	No		NA
35	Grid Connection Route 1	Clare	850	GCR 25m intervals	501157.56	659008.69	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26817.38	No	No	No	No	No		NA
36	Grid Connection Route 1	Clare	875	GCR 25m intervals	501133.43	659002.17	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26839.39	No	No	No	No	No		NA
37	Grid Connection Route 1	Clare	900	GCR 25m intervals	501109.29	658995.65	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26861.41	No	No	No	No	No		NA
38	Grid Connection Route 1	Clare	925	GCR 25m intervals	501085.16	658989.12	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26883.44	No	No	No	No	No		NA
39	Grid Connection Route 1	Clare	950	GCR 25m intervals	501061.02	658982.60	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26905.47	No	No	No	No	No		NA
40	Grid Connection Route 1	Clare	975	GCR 25m intervals	501036.89	658976.08	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26927.51	No	No	No	No	No		NA
41	Grid Connection Route 1	Clare	1000	GCR 25m intervals	501012.76	658969.56	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26949.55	No	No	No	No	No		NA
42	Grid Connection Route 1	Clare	1025	GCR 25m intervals	500988.62	658963.03	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26971.59	No	No	No	No	No		NA
43	Grid Connection Route 1	Clare	1050	GCR 25m intervals	500963.85	658960.32	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	26995.12	No	No	No	No	No		NA
44	Grid Connection Route 1	Clare	1075	GCR 25m intervals	500942.26	658968.26	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27017.95	No	No	No	No	No		NA
45	Grid Connection Route 1	Clare	1100	GCR 25m intervals	500923.77	658985.09	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27039.75	No	No	No	No	No		NA
46	Grid Connection Route 1	Clare	1125	GCR 25m intervals	500905.28	659001.91	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27061.56	No	No	No	No	No		NA
47	Grid Connection Route 1	Clare	1150	GCR 25m intervals	500886.78	659018.73	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27083.38	No	No	No	No	No		NA
48	Grid Connection Route 1	Clare	1175	GCR 25m intervals	500868.29	659035.56	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27105.20	No	No	No	No	No		NA
49	Grid Connection Route 1	Clare	1200	GCR 25m intervals	500849.80	659052.38	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27127.03	No	No	No	No	No		NA
50	Grid Connection Route 1	Clare	1225	GCR 25m intervals	500831.31	659069.20	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27148.86	No	No	No	No	No		NA
51	Grid Connection Route 1	Clare	1250	GCR 25m intervals	500812.81	659086.03	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27170.70	No	No	No	No	No		NA
52	Grid Connection Route 1	Clare	1275	GCR 25m intervals	500794.32	659102.85	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27192.54	No	No	No	No	No		NA
53	Grid Connection Route 1	Clare	1300	GCR 25m intervals	500775.83	659119.67	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27214.39	No	No	No	No	No		NA
54	Grid Connection Route 1	Clare	1325	GCR 25m intervals	500757.34	659136.50	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27236.25	No	No	No	No	No		NA
55	Grid Connection Route 1	Clare	1350	GCR 25m intervals	500738.84	659153.32	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27258.11	No	No	No	No	No		NA
56	Grid Connection Route 1	Clare	1375	GCR 25m intervals	500720.35	659170.14	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27279.97	No	No	No	No	No		NA
56	Grid Connection Route 1	Clare		Proposed Joint Bay			Joint Bay	2.3	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27279.97	No	No	No	No	No		NA
57	Grid Connection Route 1	Clare	1400	GCR 25m intervals	500701.86	659186.97	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27301.84	No	No	No	No	No		NA
58	Grid Connection Route 1	Clare	1425	GCR 25m intervals	500683.37	659203.79	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27323.72	No	No	No	No	No		NA
59	Grid Connection Route 1	Clare	1450	GCR 25m intervals	500664.87	659220.61	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27345.60	No	No	No	No	No		NA
60	Grid Connection Route 1	Clare	1475	GCR 25m intervals	500646.75	659237.83	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27367.22	No	No	No	No	No		NA
61	Grid Connection Route 1	Clare	1500	GCR 25m intervals	500628.63	659255.06	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27388.85	No	No	No	No	No		NA
62	Grid Connection Route 1	Clare	1525	GCR 25m intervals	500610.51	659272.28	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27410.47	No	No	No	No	No		NA
63	Grid Connection Route 1	Clare	1550	GCR 25m intervals	500592.39	659289.51	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27432.11	No	No	No	No	No		NA
64	Grid Connection Route 1	Clare	1575	GCR 25m intervals	500574.19	659306.65	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27453.80	No	No	No	No	No		NA
65	Grid Connection Route 1	Clare	1600	GCR 25m intervals	500555.91	659323.70	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27475.57	No	No	No	No	No		NA
66	Grid Connection Route 1	Clare	1625	GCR 25m intervals	500537.63	659340.75	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27497.34	No	No	No	No	No		NA
67	Grid Connection Route 1	Clare	1650	GCR 25m intervals	500519.35	659357.81	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27519.11	No	No	No	No	No		NA
68	Grid Connection Route 1	Clare	1675	GCR 25m intervals	500501.07	659374.86	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27540.89	No	No	No	No	No		NA
69	Grid Connection Route 1	Clare	1700	GCR 25m intervals	500481.20	659389.68	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27563.69	No	No	No	No	No		NA
70	Grid Connection Route 1	Clare	1725	GCR 25m intervals	500456.53	659393.72	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27588.62	No	No	No	No	No		NA
71	Grid Connection Route 1	Clare	1750	GCR 25m intervals	500431.86	659397.76	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27613.55	No	No	No	No	No		NA
72	Grid Connection Route 1	Clare	1775	GCR 25m intervals	500407.06	659396.87	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27637.44	No	No	No	No	No		NA
73	Grid Connection Route 1	Clare	1800	GCR 25m intervals	500383.55	659389.05	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27658.45	No	No	No	No	No		NA
74	Grid Connection Route 1	Clare	1825	GCR 25m intervals	500361.80	659376.79	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27676.73	No	No	No	No	No		NA

Appendix 8.2-Baseline Database - Grid Connections Route (GCR) Option 1
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.2-(00)-Baseline Database - Grid Connections Route

RECEIVED: 29/03/2024

	GCR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas				Assessment Graphics / Comment	
Row No.	Grid Connection Route (GCR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	*ITM*		*mbGL*	*50m*										*250m*							
75	Grid Connection Route 1	Clare	1850	GCR 25m intervals	500340.30	659364.03	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27694.64	No	No	No	No	No		NA
76	Grid Connection Route 1	Clare	1875	GCR 25m intervals	500318.80	659351.27	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27712.57	No	No	No	No	No		NA
77	Grid Connection Route 1	Clare	1900	GCR 25m intervals	500297.19	659338.70	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27730.66	No	No	No	No	No		NA
78	Grid Connection Route 1	Clare	1925	GCR 25m intervals	500275.56	659326.18	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27748.81	No	No	No	No	No		NA
79	Grid Connection Route 1	Clare	1950	GCR 25m intervals	500253.92	659313.66	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27766.96	No	No	No	No	No		NA
80	Grid Connection Route 1	Clare	1975	GCR 25m intervals	500232.28	659301.14	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27785.13	No	No	No	No	No		NA
81	Grid Connection Route 1	Clare	2000	GCR 25m intervals	500210.64	659288.62	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27803.30	No	No	No	No	No		NA
82	Grid Connection Route 1	Clare	2025	GCR 25m intervals	500189.00	659276.10	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27821.49	No	No	No	No	No		NA
83	Grid Connection Route 1	Clare	2050	GCR 25m intervals	500167.04	659264.16	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27840.13	No	No	No	No	No		NA
84	Grid Connection Route 1	Clare	2075	GCR 25m intervals	500145.12	659252.13	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27858.72	No	No	No	No	No		NA
85	Grid Connection Route 1	Clare	2100	GCR 25m intervals	500123.39	659239.76	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27877.05	No	No	No	No	No		NA
86	Grid Connection Route 1	Clare	2125	GCR 25m intervals	500101.67	659227.39	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27895.40	No	No	No	No	No		NA
87	Grid Connection Route 1	Clare	2150	GCR 25m intervals	500079.94	659215.02	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27913.76	No	No	No	No	No		NA
88	Grid Connection Route 1	Clare	2175	GCR 25m intervals	500058.22	659202.65	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27932.12	No	No	No	No	No		NA
89	Grid Connection Route 1	Clare	2200	GCR 25m intervals	500036.49	659190.28	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27950.50	No	No	No	No	No		NA
90	Grid Connection Route 1	Clare	2225	GCR 25m intervals	500014.77	659177.91	Shallow Excavation	1.22	NA	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27968.89	No	No	No	No	No		NA
91	Grid Connection Route 1	Clare	2250	GCR 25m intervals	499993.04	659165.55	Shallow Excavation	1.22	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	Not likely	NA	27987.28	No	No	No	No	No		ELEVATED RISK Works will be carried out within SW Buffer Zone

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
1	Turbine Delivery Route	Clare	100300	TDR 25m intervals	507387.93	659777.88	NA	NA	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	20972.11	No	No	No	No	No		NA
2	Turbine Delivery Route	Clare	100325	TDR 25m intervals	507368.44	659762.22	NA	NA	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	20985.30	No	No	No	No	No		NA
3	Turbine Delivery Route	Clare	100350	TDR 25m intervals	507343.75	659762.26	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	20998.52	No	No	No	No	No		NA
4	Turbine Delivery Route	Clare	100375	TDR 25m intervals	507318.77	659763.18	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21011.75	No	No	No	No	No		NA
5	Turbine Delivery Route	Clare	100400	TDR 25m intervals	507293.78	659764.10	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21025.01	No	No	No	No	No		NA
6	Turbine Delivery Route	Clare	100425	TDR 25m intervals	507268.80	659765.01	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21038.29	No	No	No	No	No		NA
7	Turbine Delivery Route	Clare	100450	TDR 25m intervals	507243.84	659766.33	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21051.59	No	No	No	No	No		NA
8	Turbine Delivery Route	Clare	100475	TDR 25m intervals	507218.87	659767.67	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21074.95	No	No	No	No	No		NA
9	Turbine Delivery Route	Clare	100500	TDR 25m intervals	507193.91	659769.00	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21098.87	No	No	No	No	No		NA
10	Turbine Delivery Route	Clare	100525	TDR 25m intervals	507168.94	659770.34	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21122.80	No	No	No	No	No		NA
11	Turbine Delivery Route	Clare	100550	TDR 25m intervals	507143.98	659771.67	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21146.72	No	No	No	No	No		NA
12	Turbine Delivery Route	Clare	100575	TDR 25m intervals	507119.10	659774.13	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21170.76	No	No	No	No	No		NA
13	Turbine Delivery Route	Clare	100600	TDR 25m intervals	507094.22	659776.62	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21194.81	No	No	No	No	No		NA
14	Turbine Delivery Route	Clare	100625	TDR 25m intervals	507069.35	659779.10	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21218.86	No	No	No	No	No		NA
15	Turbine Delivery Route	Clare	100650	TDR 25m intervals	507044.47	659781.59	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21242.92	No	No	No	No	No		NA
16	Turbine Delivery Route	Clare	100675	TDR 25m intervals	507019.60	659784.08	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21266.97	No	No	No	No	No		NA
17	Turbine Delivery Route	Clare	100700	TDR 25m intervals	506994.72	659786.57	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21291.31	No	No	No	No	No		NA
18	Turbine Delivery Route	Clare	100725	TDR 25m intervals	506969.84	659789.06	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21315.66	No	No	No	No	No		NA
19	Turbine Delivery Route	Clare	100750	TDR 25m intervals	506944.97	659791.55	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21340.01	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
20	Turbine Delivery Route	Clare	100775	TDR 25m intervals	506920.09	659794.04	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21364.36	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
21	Turbine Delivery Route	Clare	100800	TDR 25m intervals	506895.22	659796.53	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21388.71	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
22	Turbine Delivery Route	Clare		TDR_WCC63	506873.44	659798.70	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21388.71	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
23	Turbine Delivery Route	Clare	100825	TDR 25m intervals	506870.34	659799.01	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21413.07	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
24	Turbine Delivery Route	Clare	100850	TDR 25m intervals	506845.47	659801.50	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21437.42	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
25	Turbine Delivery Route	Clare	100875	TDR 25m intervals	506820.59	659803.99	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21461.78	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
26	Turbine Delivery Route	Clare	100900	TDR 25m intervals	506795.71	659806.48	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21486.14	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
27	Turbine Delivery Route	Clare	100925	TDR 25m intervals	506770.84	659808.97	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21510.50	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
28	Turbine Delivery Route	Clare	100950	TDR 25m intervals	506745.96	659811.46	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21534.86	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
29	Turbine Delivery Route	Clare	100975	TDR 25m intervals	506721.09	659813.95	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21559.22	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
30	Turbine Delivery Route	Clare	101000	TDR 25m intervals	506696.19	659815.78	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21583.58	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
31	Turbine Delivery Route	Clare	101025	TDR 25m intervals	506671.21	659814.72	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21607.95	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
32	Turbine Delivery Route	Clare	101050	TDR 25m intervals	506646.24	659813.65	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21632.32	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
33	Turbine Delivery Route	Clare	101075	TDR 25m intervals	506621.26	659812.59	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21656.69	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
34	Turbine Delivery Route	Clare	101100	TDR 25m intervals	506596.28	659811.54	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21681.06	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
35	Turbine Delivery Route	Clare	101125	TDR 25m intervals	506571.30	659810.58	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21705.24	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
36	Turbine Delivery Route	Clare	101150	TDR 25m intervals	506546.32	659809.63	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21728.57	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
37	Turbine Delivery Route	Clare	101175	TDR 25m intervals	506521.34	659808.67	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21751.92	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
38	Turbine Delivery Route	Clare	101200	TDR 25m intervals	506496.36	659807.72	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21775.26	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
39	Turbine Delivery Route	Clare	101225	TDR 25m intervals	506471.37	659806.76	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21798.61	No	No	No	No	No		NA
40	Turbine Delivery Route	Clare	101250	TDR 25m intervals	506446.39	659805.81	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21822.00	No	No	No	No	No		NA
41	Turbine Delivery Route	Clare	101275	TDR 25m intervals	506421.41	659804.86	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21845.40	No	No	No	No	No		NA
42	Turbine Delivery Route	Clare	101300	TDR 25m intervals	506396.43	659803.90	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21868.80	No	No	No	No	No		NA
43	Turbine Delivery Route	Clare	101325	TDR 25m intervals	506371.45	659802.95	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21892.20	No	No	No	No	No		NA
44	Turbine Delivery Route	Clare	101350	TDR 25m intervals	506346.46	659801.99	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21915.60	No	No	No	No	No		NA
45	Turbine Delivery Route	Clare	101375	TDR 25m intervals	506321.48	659801.04	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21939.01	No	No	No	No	No		NA
46	Turbine Delivery Route	Clare	101400	TDR 25m intervals	506296.50	659800.08	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21962.43	No	No	No	No	No		NA
47	Turbine Delivery Route	Clare	101425	TDR 25m intervals	506271.52	659799.13	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	21985.84	No	No	No	No	No		NA
48	Turbine Delivery Route	Clare	101450	TDR 25m intervals	506246.54	659798.17	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22009.26	No	No	No	No	No		NA
49	Turbine Delivery Route	Clare	101475	TDR 25m intervals	506221.56	659797.22	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22032.68	No	No	No	No	No		NA
50	Turbine Delivery Route	Clare	101500	TDR 25m intervals	506196.57	659796.26	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22056.11	No	No	No	No	No		NA
51	Turbine Delivery Route	Clare	101525	TDR 25m intervals	506171.59	659795.31	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22079.54	No	No	No	No	No		NA
52	Turbine Delivery Route	Clare	101550	TDR 25m intervals	506146.61	659794.35	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22102.97	No	No	No	No	No		NA
53	Turbine Delivery Route	Clare	101575	TDR 25m intervals	506121.63	659793.40	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22126.41	No	No	No	No	No		NA
54	Turbine Delivery Route	Clare	101600	TDR 25m intervals	506096.65	659792.45	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22149.85	No	No	No	No	No		NA
55	Turbine Delivery Route	Clare	101625	TDR 25m intervals	506071.67	659791.49	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22173.29	No	No	No	No	No		NA
56	Turbine Delivery Route	Clare	101650	TDR 25m intervals	506046.68	659790.54	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22196.74	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
57	Turbine Delivery Route	Clare	101675	TDR 25m intervals	506021.70	659789.58	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22220.19	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
58	Turbine Delivery Route	Clare	101700	TDR 25m intervals	505996.72	659788.63	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22243.64	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
59	Turbine Delivery Route	Clare	101725	TDR 25m intervals	505971.74	659787.67	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22267.10	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
60	Turbine Delivery Route	Clare	101750	TDR 25m intervals	505946.76	659786.72	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22290.56	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
61	Turbine Delivery Route	Clare	101775	TDR 25m intervals	505921.77	659785.76	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22314.02	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
62	Turbine Delivery Route	Clare	101800	TDR 25m intervals	505896.79	659784.81	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22337.49	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
63	Turbine Delivery Route	Clare	101825	TDR 25m intervals	505871.81	659783.85	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22360.96	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
64	Turbine Delivery Route	Clare	101850	TDR 25m intervals	505846.83	659782.90	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22384.43	No	No	No	No	No		NA
65	Turbine Delivery Route	Clare	101875	TDR 25m intervals	505821.85	659781.94	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22407.91	No	No	No	No	No		NA
66	Turbine Delivery Route	Clare	101900	TDR 25m intervals	505796.87	659780.99	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22431.39	No	No	No	No	No		NA
67	Turbine Delivery Route	Clare	101925	TDR 25m intervals	505771.88	659780.04	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22454.87	No	No	No	No	No		NA
68	Turbine Delivery Route	Clare	101950	TDR 25m intervals	505746.90	659779.08	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22478.36	No	No	No	No	No		NA
69	Turbine Delivery Route	Clare	101975	TDR 25m intervals	505721.92	659778.13	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22501.85	No	No	No	No	No		NA
70	Turbine Delivery Route	Clare	102000	TDR 25m intervals	505696.94	659777.17	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22525.34	No	No	No	No	No		NA

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
71	Turbine Delivery Route	Clare	102025	TDR 25m intervals	505671.96	659776.22	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22548.84	No	No	No	No	No		NA
72	Turbine Delivery Route	Clare	102050	TDR 25m intervals	505646.98	659775.26	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22572.34	No	No	No	No	No		NA
73	Turbine Delivery Route	Clare	102075	TDR 25m intervals	505621.99	659774.31	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22595.84	No	No	No	No	No		NA
74	Turbine Delivery Route	Clare	102100	TDR 25m intervals	505597.01	659773.35	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22619.35	No	No	No	No	No		NA
75	Turbine Delivery Route	Clare	102125	TDR 25m intervals	505572.03	659772.40	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22642.86	No	No	No	No	No		NA
76	Turbine Delivery Route	Clare	102150	TDR 25m intervals	505547.05	659771.44	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22666.37	No	No	No	No	No		NA
77	Turbine Delivery Route	Clare	102175	TDR 25m intervals	505522.07	659770.49	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22689.89	No	No	No	No	No		NA
78	Turbine Delivery Route	Clare	102200	TDR 25m intervals	505497.08	659769.53	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22713.41	No	No	No	No	No		NA
79	Turbine Delivery Route	Clare	102225	TDR 25m intervals	505472.10	659768.58	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22736.93	No	No	No	No	No		NA
80	Turbine Delivery Route	Clare	102250	TDR 25m intervals	505447.12	659767.63	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22760.45	No	No	No	No	No		NA
81	Turbine Delivery Route	Clare	102275	TDR 25m intervals	505422.14	659766.67	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22783.98	No	No	No	No	No		NA
82	Turbine Delivery Route	Clare	102300	TDR 25m intervals	505397.16	659765.72	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22807.51	No	No	No	No	No		NA
83	Turbine Delivery Route	Clare	102325	TDR 25m intervals	505372.18	659764.76	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22831.05	No	No	No	No	No		NA
84	Turbine Delivery Route	Clare	102350	TDR 25m intervals	505347.19	659763.81	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22854.59	No	No	No	No	No		NA
85	Turbine Delivery Route	Clare	102375	TDR 25m intervals	505322.21	659762.85	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22878.13	No	No	No	No	No		NA
86	Turbine Delivery Route	Clare	102400	TDR 25m intervals	505297.23	659761.90	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22901.67	No	No	No	No	No		NA
87	Turbine Delivery Route	Clare	102425	TDR 25m intervals	505272.25	659760.94	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22925.22	No	No	No	No	No		NA
88	Turbine Delivery Route	Clare	102450	TDR 25m intervals	505247.27	659759.99	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22948.77	No	No	No	No	No		NA
89	Turbine Delivery Route	Clare	102475	TDR 25m intervals	505222.29	659759.03	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22972.32	No	No	No	No	No		NA
90	Turbine Delivery Route	Clare	102500	TDR 25m intervals	505197.30	659758.08	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	22995.88	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
91	Turbine Delivery Route	Clare	102525	TDR 25m intervals	505172.38	659756.51	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23019.44	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
92	Turbine Delivery Route	Clare		TDR_WCC64	505159.66	659754.69	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23019.44	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
93	Turbine Delivery Route	Clare	102550	TDR 25m intervals	505147.63	659752.97	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23043.00	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
94	Turbine Delivery Route	Clare	102575	TDR 25m intervals	505122.88	659749.43	Road widening / verge strengthening / vertical realignment	0.15	Yes	DOONBEG_030	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23066.56	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
95	Turbine Delivery Route	Clare	102600	TDR 25m intervals	505098.13	659745.90	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23090.13	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
96	Turbine Delivery Route	Clare	102625	TDR 25m intervals	505073.38	659742.36	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23113.70	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
97	Turbine Delivery Route	Clare	102650	TDR 25m intervals	505048.63	659738.83	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23137.04	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
98	Turbine Delivery Route	Clare	102675	TDR 25m intervals	505023.89	659735.29	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23159.63	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
99	Turbine Delivery Route	Clare	102700	TDR 25m intervals	504999.14	659731.76	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23182.23	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
100	Turbine Delivery Route	Clare	102725	TDR 25m intervals	504974.39	659728.22	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23204.83	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
101	Turbine Delivery Route	Clare	102750	TDR 25m intervals	504949.64	659724.69	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23227.43	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
102	Turbine Delivery Route	Clare	102775	TDR 25m intervals	504924.89	659721.15	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23250.04	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
103	Turbine Delivery Route	Clare	102800	TDR 25m intervals	504900.14	659717.61	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Rock near surface or karst (X)	<1m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23272.66	No	No	No	No	No		ELEVATED RISK Road widening / verge stengthening / vertical realignment works could potentially encounter bedrock
104	Turbine Delivery Route	Clare	102825	TDR 25m intervals	504875.39	659714.08	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23295.28	No	No	No	No	No		NA
105	Turbine Delivery Route	Clare	102850	TDR 25m intervals	504850.64	659710.54	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23317.90	No	No	No	No	No		NA

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
106	Turbine Delivery Route	Clare	102875	TDR 25m intervals	504825.90	659707.01	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23340.53	No	No	No	No	No		NA
107	Turbine Delivery Route	Clare	102900	TDR 25m intervals	504801.15	659703.47	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23363.17	No	No	No	No	No		NA
108	Turbine Delivery Route	Clare	102925	TDR 25m intervals	504776.40	659699.94	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23385.81	No	No	No	No	No		NA
109	Turbine Delivery Route	Clare	102950	TDR 25m intervals	504751.65	659696.40	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23408.45	No	No	No	No	No		NA
110	Turbine Delivery Route	Clare	102975	TDR 25m intervals	504726.90	659692.87	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23431.10	No	No	No	No	No		NA
111	Turbine Delivery Route	Clare	103000	TDR 25m intervals	504702.15	659689.33	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23453.75	No	No	No	No	No		NA
112	Turbine Delivery Route	Clare	103025	TDR 25m intervals	504677.40	659685.79	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23476.41	No	No	No	No	No		NA
113	Turbine Delivery Route	Clare	103050	TDR 25m intervals	504652.65	659682.26	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23499.07	No	No	No	No	No		NA
114	Turbine Delivery Route	Clare	103075	TDR 25m intervals	504627.91	659678.72	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23521.74	No	No	No	No	No		NA
115	Turbine Delivery Route	Clare	103100	TDR 25m intervals	504603.16	659675.19	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23544.42	No	No	No	No	No		NA
116	Turbine Delivery Route	Clare	103125	TDR 25m intervals	504578.41	659671.65	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23567.09	No	No	No	No	No		NA
117	Turbine Delivery Route	Clare	103150	TDR 25m intervals	504553.66	659668.12	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Extreme (E)	1 to 3m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23589.77	No	No	No	No	No		NA
118	Turbine Delivery Route	Clare	103175	TDR 25m intervals	504528.91	659664.58	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23612.46	No	No	No	No	No		NA
119	Turbine Delivery Route	Clare	103200	TDR 25m intervals	504504.16	659661.05	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23635.15	No	No	No	No	No		NA
120	Turbine Delivery Route	Clare	103225	TDR 25m intervals	504479.41	659657.51	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23657.85	No	No	No	No	No		NA
121	Turbine Delivery Route	Clare	103250	TDR 25m intervals	504454.66	659653.97	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23680.55	No	No	No	No	No		NA
122	Turbine Delivery Route	Clare	103275	TDR 25m intervals	504429.92	659650.44	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23703.26	No	No	No	No	No		NA
123	Turbine Delivery Route	Clare	103300	TDR 25m intervals	504405.17	659646.90	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23725.97	No	No	No	No	No		NA
124	Turbine Delivery Route	Clare	103325	TDR 25m intervals	504380.42	659643.37	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23748.68	No	No	No	No	No		NA
125	Turbine Delivery Route	Clare	103350	TDR 25m intervals	504355.67	659639.83	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23771.40	No	No	No	No	No		NA
126	Turbine Delivery Route	Clare	103375	TDR 25m intervals	504330.92	659636.30	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23794.12	No	No	No	No	No		NA
127	Turbine Delivery Route	Clare	103400	TDR 25m intervals	504306.17	659632.76	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23816.85	No	No	No	No	No		NA
128	Turbine Delivery Route	Clare	103425	TDR 25m intervals	504281.42	659629.23	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23839.58	No	No	No	No	No		NA
129	Turbine Delivery Route	Clare	103450	TDR 25m intervals	504256.67	659625.69	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23862.32	No	No	No	No	No		NA
130	Turbine Delivery Route	Clare	103475	TDR 25m intervals	504231.93	659622.15	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23885.06	No	No	No	No	No		NA
131	Turbine Delivery Route	Clare	103500	TDR 25m intervals	504207.18	659618.62	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23907.81	No	No	No	No	No		NA
132	Turbine Delivery Route	Clare	103525	TDR 25m intervals	504182.43	659615.08	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23930.56	No	No	No	No	No		NA
133	Turbine Delivery Route	Clare	103550	TDR 25m intervals	504157.68	659611.55	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23953.32	No	No	No	No	No		NA
134	Turbine Delivery Route	Clare	103575	TDR 25m intervals	504132.93	659608.01	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23976.08	No	No	No	No	No		NA
135	Turbine Delivery Route	Clare	103600	TDR 25m intervals	504108.18	659604.48	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	23998.84	No	No	No	No	No		NA
136	Turbine Delivery Route	Clare	103625	TDR 25m intervals	504083.43	659600.94	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24021.61	No	No	No	No	No		NA
137	Turbine Delivery Route	Clare	103650	TDR 25m intervals	504058.68	659597.41	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24044.38	No	No	No	No	No		NA
138	Turbine Delivery Route	Clare	103675	TDR 25m intervals	504033.94	659593.87	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24067.16	No	No	No	No	No		NA
139	Turbine Delivery Route	Clare	103700	TDR 25m intervals	504009.19	659590.33	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24089.94	No	No	No	No	No		NA
140	Turbine Delivery Route	Clare	103725	TDR 25m intervals	503984.44	659586.80	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24112.73	No	No	No	No	No		NA

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
141	Turbine Delivery Route	Clare	103750	TDR 25m intervals	503959.69	659583.26	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24135.52	No	No	No	No	No		NA
142	Turbine Delivery Route	Clare	103775	TDR 25m intervals	503934.94	659579.73	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24158.31	No	No	No	No	No		NA
143	Turbine Delivery Route	Clare	103800	TDR 25m intervals	503910.19	659576.19	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24181.11	No	No	No	No	No		NA
144	Turbine Delivery Route	Clare	103825	TDR 25m intervals	503885.44	659572.66	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24203.92	No	No	No	No	No		NA
145	Turbine Delivery Route	Clare	103850	TDR 25m intervals	503860.69	659569.12	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24226.73	No	No	No	No	No		NA
146	Turbine Delivery Route	Clare	103875	TDR 25m intervals	503835.95	659565.59	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24249.54	No	No	No	No	No		NA
147	Turbine Delivery Route	Clare	103900	TDR 25m intervals	503811.20	659562.05	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24272.36	No	No	No	No	No		NA
148	Turbine Delivery Route	Clare	103925	TDR 25m intervals	503786.45	659558.52	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24295.18	No	No	No	No	No		NA
149	Turbine Delivery Route	Clare	103950	TDR 25m intervals	503761.70	659554.98	Road widening / verge strengthening / vertical realignment	0.15	No	NA	DOONBEG_030	Doonbeg_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24318.00	No	No	No	No	No		NA
150	Turbine Delivery Route	Clare	103975	TDR 25m intervals	503736.75	659553.39	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24340.83	No	No	No	No	No		NA
151	Turbine Delivery Route	Clare	104000	TDR 25m intervals	503711.80	659551.83	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24363.67	No	No	No	No	No		NA
152	Turbine Delivery Route	Clare	104025	TDR 25m intervals	503686.85	659550.27	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24386.50	No	No	No	No	No		NA
153	Turbine Delivery Route	Clare	104050	TDR 25m intervals	503661.90	659548.71	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24409.35	No	No	No	No	No		NA
154	Turbine Delivery Route	Clare	104075	TDR 25m intervals	503636.95	659547.15	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24432.19	No	No	No	No	No		NA
155	Turbine Delivery Route	Clare	104100	TDR 25m intervals	503612.00	659545.59	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24455.76	No	No	No	No	No		NA
156	Turbine Delivery Route	Clare	104125	TDR 25m intervals	503587.04	659544.03	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24479.35	No	No	No	No	No		NA
157	Turbine Delivery Route	Clare	104150	TDR 25m intervals	503562.09	659542.47	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24502.94	No	No	No	No	No		NA
158	Turbine Delivery Route	Clare	104175	TDR 25m intervals	503537.14	659540.91	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24526.53	No	No	No	No	No		NA
159	Turbine Delivery Route	Clare	104200	TDR 25m intervals	503512.33	659537.95	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24550.13	No	No	No	No	No		NA
160	Turbine Delivery Route	Clare	104225	TDR 25m intervals	503487.58	659534.41	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24573.73	No	No	No	No	No		NA
161	Turbine Delivery Route	Clare	104250	TDR 25m intervals	503462.84	659530.88	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24597.33	No	No	No	No	No		NA
162	Turbine Delivery Route	Clare	104275	TDR 25m intervals	503438.09	659527.34	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24620.93	No	No	No	No	No		NA
163	Turbine Delivery Route	Clare	104300	TDR 25m intervals	503413.34	659523.80	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24644.54	No	No	No	No	No		NA
164	Turbine Delivery Route	Clare	104325	TDR 25m intervals	503388.59	659520.27	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24667.63	No	No	No	No	No		NA
165	Turbine Delivery Route	Clare	104350	TDR 25m intervals	503363.84	659516.73	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24690.51	No	No	No	No	No		NA
166	Turbine Delivery Route	Clare	104375	TDR 25m intervals	503339.09	659513.20	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24713.40	No	No	No	No	No		NA
167	Turbine Delivery Route	Clare	104400	TDR 25m intervals	503314.34	659509.66	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24736.30	No	No	No	No	No		NA
168	Turbine Delivery Route	Clare	104425	TDR 25m intervals	503289.60	659506.13	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24759.19	No	No	No	No	No		NA
169	Turbine Delivery Route	Clare	104450	TDR 25m intervals	503264.85	659502.59	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24782.10	No	No	No	No	No		NA
170	Turbine Delivery Route	Clare	104475	TDR 25m intervals	503240.10	659499.06	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24805.00	No	No	No	No	No		NA
171	Turbine Delivery Route	Clare	104500	TDR 25m intervals	503215.35	659495.52	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24827.91	No	No	No	No	No		NA
172	Turbine Delivery Route	Clare	104525	TDR 25m intervals	503190.60	659491.99	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24850.83	No	No	No	No	No		NA
173	Turbine Delivery Route	Clare	104550	TDR 25m intervals	503165.85	659488.45	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24873.74	No	No	No	No	No		NA
174	Turbine Delivery Route	Clare	104575	TDR 25m intervals	503141.10	659484.91	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24896.67	No	No	No	No	No		NA
175	Turbine Delivery Route	Clare	104600	TDR 25m intervals	503116.35	659481.38	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(Ll) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24919.59	No	No	No	No	No		NA

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
176	Turbine Delivery Route	Clare	104625	TDR 25m intervals	503091.61	659477.84	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24942.52	No	No	No	No	No		NA
177	Turbine Delivery Route	Clare	104650	TDR 25m intervals	503066.86	659474.31	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24965.46	No	No	No	No	No		NA
178	Turbine Delivery Route	Clare	104675	TDR 25m intervals	503042.11	659470.77	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	24988.39	No	No	No	No	No		NA
179	Turbine Delivery Route	Clare	104700	TDR 25m intervals	503017.36	659467.24	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25011.34	No	No	No	No	No		NA
180	Turbine Delivery Route	Clare	104725	TDR 25m intervals	502992.61	659463.70	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25034.28	No	No	No	No	No		NA
181	Turbine Delivery Route	Clare	104750	TDR 25m intervals	502967.86	659460.17	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25057.23	No	No	No	No	No		NA
182	Turbine Delivery Route	Clare	104775	TDR 25m intervals	502943.11	659456.63	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25080.18	No	No	No	No	No		NA
183	Turbine Delivery Route	Clare	104800	TDR 25m intervals	502918.36	659453.09	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25103.14	No	No	No	No	No		NA
184	Turbine Delivery Route	Clare	104825	TDR 25m intervals	502893.62	659449.56	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25126.10	No	No	No	No	No		NA
185	Turbine Delivery Route	Clare	104850	TDR 25m intervals	502870.38	659440.72	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25149.07	No	No	No	No	No		NA
186	Turbine Delivery Route	Clare	104875	TDR 25m intervals	502847.51	659430.63	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25172.04	No	No	No	No	No		NA
187	Turbine Delivery Route	Clare	104900	TDR 25m intervals	502824.64	659420.54	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25195.01	No	No	No	No	No		NA
188	Turbine Delivery Route	Clare	104925	TDR 25m intervals	502801.76	659410.45	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25217.99	No	No	No	No	No		NA
189	Turbine Delivery Route	Clare	104950	TDR 25m intervals	502778.89	659400.36	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25240.97	No	No	No	No	No		NA
190	Turbine Delivery Route	Clare	104975	TDR 25m intervals	502756.02	659390.27	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25261.12	No	No	No	No	No		NA
191	Turbine Delivery Route	Clare	105000	TDR 25m intervals	502733.15	659380.18	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25280.60	No	No	No	No	No		NA
192	Turbine Delivery Route	Clare	105025	TDR 25m intervals	502709.19	659373.54	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25300.09	No	No	No	No	No		NA
193	Turbine Delivery Route	Clare	105050	TDR 25m intervals	502684.64	659368.82	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25319.59	No	No	No	No	No		NA
194	Turbine Delivery Route	Clare	105075	TDR 25m intervals	502660.09	659364.10	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25339.10	No	No	No	No	No		NA
195	Turbine Delivery Route	Clare	105100	TDR 25m intervals	502635.54	659359.38	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25358.62	No	No	No	No	No		NA
196	Turbine Delivery Route	Clare	105125	TDR 25m intervals	502610.99	659354.66	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25378.15	No	No	No	No	No		NA
197	Turbine Delivery Route	Clare	105150	TDR 25m intervals	502586.44	659349.94	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25399.62	No	No	No	No	No		NA
198	Turbine Delivery Route	Clare	105175	TDR 25m intervals	502561.89	659345.22	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25422.16	No	No	No	No	No		NA
199	Turbine Delivery Route	Clare	105200	TDR 25m intervals	502537.34	659340.50	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25444.70	No	No	No	No	No		NA
200	Turbine Delivery Route	Clare	105225	TDR 25m intervals	502512.79	659335.77	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25467.25	No	No	No	No	No		NA
201	Turbine Delivery Route	Clare	105250	TDR 25m intervals	502488.24	659331.05	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25489.80	No	No	No	No	No		NA
202	Turbine Delivery Route	Clare	105275	TDR 25m intervals	502463.69	659326.33	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25512.35	No	No	No	No	No		NA
203	Turbine Delivery Route	Clare	105300	TDR 25m intervals	502439.14	659321.61	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25534.91	No	No	No	No	No		NA
204	Turbine Delivery Route	Clare	105325	TDR 25m intervals	502414.59	659316.89	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25557.48	No	No	No	No	No		NA
205	Turbine Delivery Route	Clare	105350	TDR 25m intervals	502390.04	659312.17	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25580.05	No	No	No	No	No		NA
206	Turbine Delivery Route	Clare	105375	TDR 25m intervals	502365.49	659307.45	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25602.62	No	No	No	No	No		NA
207	Turbine Delivery Route	Clare	105400	TDR 25m intervals	502340.94	659302.73	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25625.20	No	No	No	No	No		NA
208	Turbine Delivery Route	Clare	105425	TDR 25m intervals	502316.39	659298.00	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25647.78	No	No	No	No	No		NA
209	Turbine Delivery Route	Clare	105450	TDR 25m intervals	502291.84	659293.28	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25670.37	No	No	No	No	No		NA
210	Turbine Delivery Route	Clare	105475	TDR 25m intervals	502267.29	659288.56	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25692.96	No	No	No	No	No		NA

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
211	Turbine Delivery Route	Clare	105500	TDR 25m intervals	502242.74	659283.84	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25715.56	No	No	No	No	No		NA
212	Turbine Delivery Route	Clare	105525	TDR 25m intervals	502218.19	659279.12	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25738.16	No	No	No	No	No		NA
213	Turbine Delivery Route	Clare	105550	TDR 25m intervals	502193.64	659274.40	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25760.76	No	No	No	No	No		NA
214	Turbine Delivery Route	Clare	105575	TDR 25m intervals	502169.09	659269.68	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25783.37	No	No	No	No	No		NA
215	Turbine Delivery Route	Clare	105600	TDR 25m intervals	502144.54	659264.96	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25805.98	No	No	No	No	No		NA
216	Turbine Delivery Route	Clare	105625	TDR 25m intervals	502119.99	659260.24	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25828.60	No	No	No	No	No		NA
217	Turbine Delivery Route	Clare	105650	TDR 25m intervals	502095.44	659255.51	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25851.23	No	No	No	No	No		NA
218	Turbine Delivery Route	Clare	105675	TDR 25m intervals	502070.89	659250.79	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25873.85	No	No	No	No	No		NA
219	Turbine Delivery Route	Clare	105700	TDR 25m intervals	502046.34	659246.07	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25896.48	No	No	No	No	No		NA
220	Turbine Delivery Route	Clare	105725	TDR 25m intervals	502021.79	659241.35	Road widening / verge strengthening / vertical realignment	0.15	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25919.12	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
221	Turbine Delivery Route	Clare	105750	TDR 25m intervals	501997.24	659236.63	Road widening / verge strengthening / vertical realignment	0.15	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25941.76	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
222	Turbine Delivery Route	Clare	105775	TDR 25m intervals	501972.69	659231.91	Road widening / verge strengthening / vertical realignment	0.15	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25964.40	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
223	Turbine Delivery Route	Clare		TDR_WCC65	501972.70	659231.91	Road widening / verge strengthening / vertical realignment	0.15	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25964.40	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
224	Turbine Delivery Route	Clare	105800	TDR 25m intervals	501948.14	659227.19	Road widening / verge strengthening / vertical realignment	0.15	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	25987.05	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
225	Turbine Delivery Route	Clare	105825	TDR 25m intervals	501923.59	659222.47	Road widening / verge strengthening / vertical realignment	0.15	Yes	MOYASTA_010	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26009.71	No	No	No	No	No		ELEVATED RISK Within SW Buffer Zone
226	Turbine Delivery Route	Clare	105850	TDR 25m intervals	501899.04	659217.74	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26032.36	No	No	No	No	No		NA
227	Turbine Delivery Route	Clare	105875	TDR 25m intervals	501874.49	659213.02	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	High (H)	3 to 5m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26055.03	No	No	No	No	No		NA
228	Turbine Delivery Route	Clare	105900	TDR 25m intervals	501849.94	659208.30	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26077.69	No	No	No	No	No		NA
229	Turbine Delivery Route	Clare	105925	TDR 25m intervals	501847.77	659207.86	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26100.36	No	No	No	No	No		NA
230	Turbine Delivery Route	Clare	105950	TDR 25m intervals	501823.79	659200.78	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26123.04	No	No	No	No	No		NA
231	Turbine Delivery Route	Clare	105975	TDR 25m intervals	501799.81	659193.71	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26145.71	No	No	No	No	No		NA
232	Turbine Delivery Route	Clare	106000	TDR 25m intervals	501775.83	659186.63	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26168.40	No	No	No	No	No		NA
233	Turbine Delivery Route	Clare	106025	TDR 25m intervals	501751.86	659179.56	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26191.08	No	No	No	No	No		NA
234	Turbine Delivery Route	Clare	106050	TDR 25m intervals	501727.88	659172.48	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26193.08	No	No	No	No	No		NA
235	Turbine Delivery Route	Clare	106075	TDR 25m intervals	501703.90	659165.40	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26214.65	No	No	No	No	No		NA
236	Turbine Delivery Route	Clare	106100	TDR 25m intervals	501679.92	659158.33	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26236.23	No	No	No	No	No		NA
237	Turbine Delivery Route	Clare	106125	TDR 25m intervals	501655.94	659151.25	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26257.81	No	No	No	No	No		NA
238	Turbine Delivery Route	Clare	106150	TDR 25m intervals	501631.97	659144.18	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26279.40	No	No	No	No	No		NA
239	Turbine Delivery Route	Clare	106175	TDR 25m intervals	501607.99	659137.10	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26300.99	No	No	No	No	No		NA
240	Turbine Delivery Route	Clare	106200	TDR 25m intervals	501584.01	659130.03	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26322.59	No	No	No	No	No		NA
241	Turbine Delivery Route	Clare	106225	TDR 25m intervals	501560.03	659122.95	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26344.20	No	No	No	No	No		NA
242	Turbine Delivery Route	Clare	106250	TDR 25m intervals	501536.05	659115.88	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26365.81	No	No	No	No	No		NA
243	Turbine Delivery Route	Clare	106275	TDR 25m intervals	501512.08	659108.80	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26387.43	No	No	No	No	No		NA
244	Turbine Delivery Route	Clare	106300	TDR 25m intervals	501488.10	659101.72	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26409.05	No	No	No	No	No		NA
245	Turbine Delivery Route	Clare	106325	TDR 25m intervals	501464.12	659094.65	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(LI) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26430.68	No	No	No	No	No		NA

Appendix 8.3 - Baseline Database -Turbine Delivery Route
Ballykett WF, Co. Clare

Project Ref. 604008
Prepared by: DW
Date: 29/11/2023
File Ref: 604008-Geo-R03-App8.3-(00)-Baseline Database -Turbine Delivery Route

RECEIVED: 29/03/2024

	TDR		Assessment Location		Grid Coordinates (ITM)		Construction Details		Surface Water				Groundwater / Bedrock Aquifer						Groundwater / Wells / Abstraction		Designated Areas			Assessment Graphics / Comment	
Row No.	Turbine Delivery Route (TDR)	County	Location ID	Assessment Location Category	Easting	Northing	Type of Water Crossing / Construction Activity	Approximate Construction Depth (Excavation / Drilling) Depth Relative to Ground Level)	SW 50m Buffer	Receptor Category (Mapped river = EPA / WFD mapped)	River basins	Subcatchments	Aquifer Vulnerability	Potential Depth to Bedrock (acc. To GSI categories)	GW Aquifer Type	Excavation in or near Bedrock (In line with GSI mapped Aquifer Vulnerability)	Karst 25m buffer	Distance to Karst Feature	GW Abstraction 250m Buffer	Groundwater Source Protection Area NFGWS	SAC 50m Buffer	SPA 50m Buffer	Within SAC / SPA / NHA ?	Map Tile Number	Comments & MITIGATION MEASURES
					ITM	ITM		mbGL	50m										250m						
246	Turbine Delivery Route	Clare	106350	TDR 25m intervals	501440.14	659087.57	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26452.32	No	No	No	No	No		NA
247	Turbine Delivery Route	Clare	106375	TDR 25m intervals	501416.17	659080.50	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26473.96	No	No	No	No	No		NA
248	Turbine Delivery Route	Clare	106400	TDR 25m intervals	501392.19	659073.42	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26495.61	No	No	No	No	No		NA
249	Turbine Delivery Route	Clare	106425	TDR 25m intervals	501368.21	659066.35	Road widening / verge strengthening / vertical realignment	0.15	No	NA	MOYASTA_010	Wood_SC_010	Moderate (M)	5 to 10m	(Li) Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones	NA	NA	26517.26	No	No	No	No	No		NA