Date

LDG - 081479 - 25

D, gH €70

An Coimisiún Pleanála

Planning Appeal Online Observation

Online Reference
NPA-OBS-004835

Online Observation Details

Contact Name	Lodgement Date	Case Number / Description
Conor Long	15/07/2025 12:15:56	322787

Payment Details

Payment Method	Cardholder Name	Payment Amount
Online Payment	Eavan Long	€50.00

Processing Section

S.131 Consideration Required

☑ Yes — See attached 131 Form ☐ N/A — Invalid

Signed _____ **Date** 22/7/25

EO

Fee Refund Requisition

Please Arrange a Refund of Fee of €

Lodgement No LDG—

Reason for Refund

Documents Returned to Observer ☐ Yes ☐ No

Request Emailed to Senior Executive Officer for Approval ☐ Yes ☐ No

Signed _____ **Date** _____

EO

Finance Section

Payment Reference ch_3Rl6pzB1CW0EN5FC0F3wVp6u

Checked Against Fee Income Online _____

EO/AA (Accounts Section)

Amount €

Refund Date _____

Authorised By (1) _____

SEO (Finance)

Authorised By (2) _____

Chief Officer/Director of Corporate Affairs/SAO/Board Member

Date _____

Date _____

S.37

File With

SECTION 131 FORM

Appeal No: ABP— 322707

Defer Re O/H: ☐

Having considered the contents of the submission ~~dated~~/received 15/7/25 from Conor Long I recommend that section 131 of the Planning and Development Act, 2000 be/~~not~~ be invoked at this stage for the following reason(s):

no new material information.

Section 131 not to be invoked at this stage. ☑

Section 131 to be invoked — allow 2/4 weeks for reply. ☐

Signed: Deirdre LAA acm — Date: 06/08/25

EO

Signed: — Date:

SEO/SAO

M

Please prepare BP — Section 131 notice enclosing a copy of the attached submission.

To: — Task No: — Allow 2/3/4 weeks: BP

Signed: — Date:

EO

Signed: — Date:

AA

Laoiseach 24/07/25

APPEAL SUBMISSION TO AN BORD PLEANÁLA

Appellant Details: Conor Long, Boherascrub, Buttevant, Co. Cork P51 WF68
conor.long@longdistributors.com

Planning Authority: Cork County Council

Planning Register Reference Number: 24/5503

An Bord Pleanála Appeal No. PL04.322787

Applicant: Tullacondra Green Energy Limited

Planning address: Polnareagha, Ardskeagh, Tullacondra, Croughta Kilmaclenine, Ballyclough, Knockaunavaddreen, Copestown, Ballybeg, Baltydaniel East Twopothouse, Caurraghakerry, Co. Cork

Subject of Appeal: Appeal to Overturn Planning Permission for Proposed 9No. 175m Wind Turbine Wind Farm

July 14th, 2025

Dear Secretary,

I wish to appeal to An Bord Pleanála to overturn the planning application 24/5503 granted to Tullacondra Green Energy Limited, Appeal No.PL04.322787 for the proposed wind energy facility at Tullacondra, County Cork.

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1. Noise Regulation and Impact - SoundSim360 Noise Assessment

Professor Ben Mattsson – Calculating Noise with Precision 2024.06.04
Uppsala University, Sweden

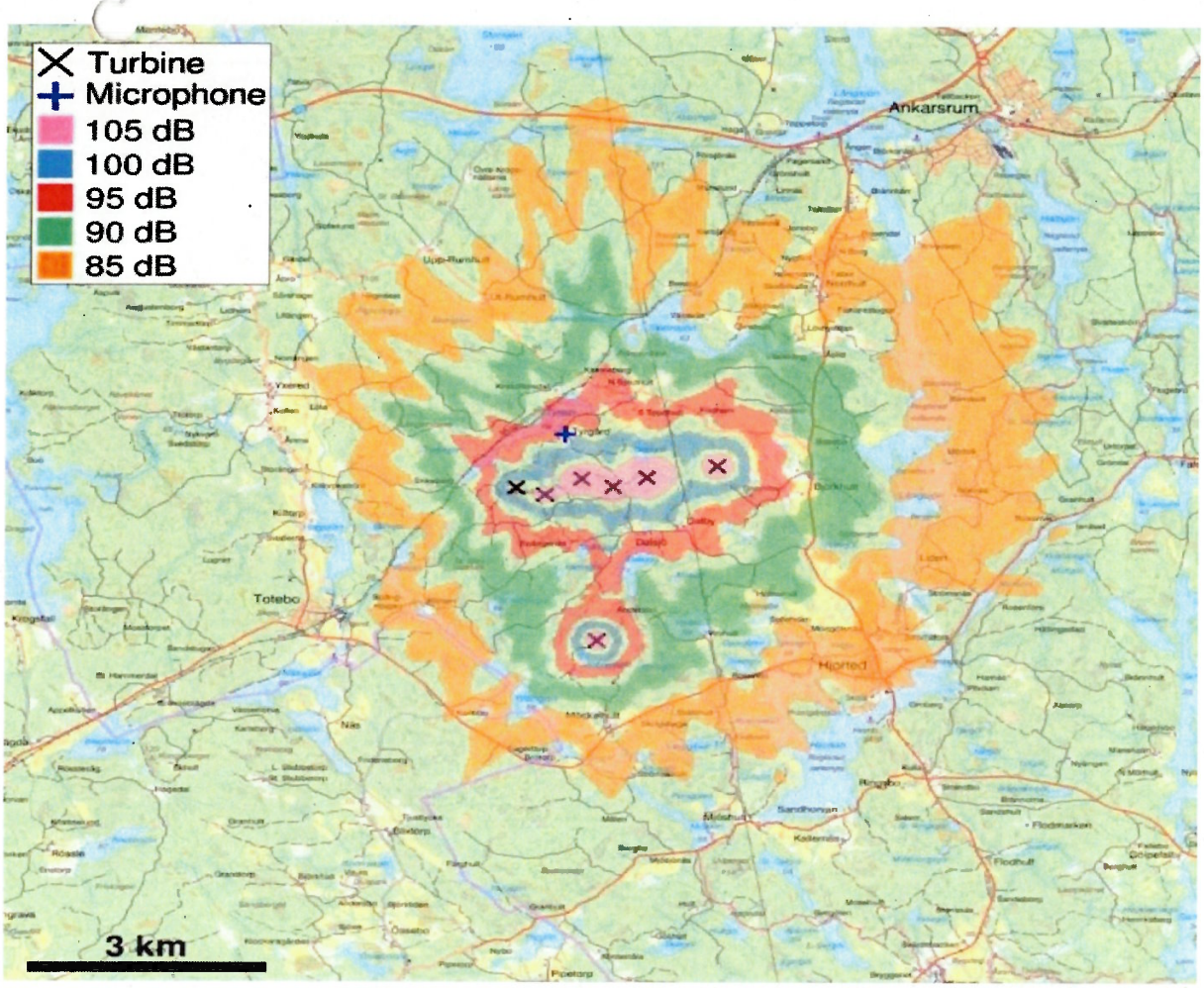
- *"What we are now developing is a calculation model that will be able to accurately simulate how sound propagates in large areas, and to do that we need to take physics into account," says Ken Mattsson, Professor of Scientific Computing at the Department of Information Technology.*
- *It is a matter of taking careful account of conditions in the atmosphere, the terrain and, not least, low-frequency sounds, including infrasound.*
- *"If you're interested in how sound propagates over a large area of several square kilometres, only low-frequency sound, particularly infrasound, will remain. It passes through walls and noise barriers, and can be felt without being heard. High-frequency sound, on the other hand, is effectively attenuated in the atmosphere," he says.*
- *The calculation programs used today are very simplified and take almost* ***no account at all of the low-frequency sounds,*** *according to Ken Mattsson. The fact that the calculations can therefore be wildly inaccurate is something that he and several colleagues had demonstrated in their research as far back as ten years ago.*
- *And as today's wind turbines get bigger, they make more noise, especially in the low frequencies.*

- ***Depen dence on good measurements***
- *"To calculate wind power noise levels, we therefore need to start by measuring how much noise a wind turbine actually makes. It's not enough to simply rely on specifications from the wind turbine supplier, in part because they tend to exclude most of the low-frequency sound," says Ken Mattsson.*
- So, to make their calculation model as accurate as possible, he and his colleague Gustav Eriksson are incorporating on-site measurements from wind farms. Together with measurement experts, they recently visited the Lervik Wind Farm in Västervik to take measurements. They then feed this measurement data into their model, along with information about the weather, wind and terrain conditions.
- Ken Mattsson explains that sound is greatly influenced by conditions in the atmosphere.
- "So you need to know in detail what the weather is like on the day you're measuring, and what the land is like at and around the site. This enables us to find out how high the sound levels will be, whether it's a cold day in January or a windy early summer day in June."
- The team has already been able to optimise good positions for wind turbines – good in the sense of minimising the actual sound level, including low-frequency sound, in areas where people live, for example.
- "We can simply do something that current methods can't handle, and the measurements in Lervik help us demonstrate that. If you've measured correctly on one occasion, with all relevant noise sources, that's enough to be able to make accurate predictions with our model in other cases," says Ken Mattsson.

It is important to note that this Noise Assessment Technology is not in place to stop Wind Turbine Development but to assist in the impact and better selecting the location of wind turbines to reduce the impact on communities and to better plan Wind Turbine Farm locations. We as a community are not against wind farm developments or any other forms of renewable energy developments, we just simple do not want to be tortured by them in our homes.

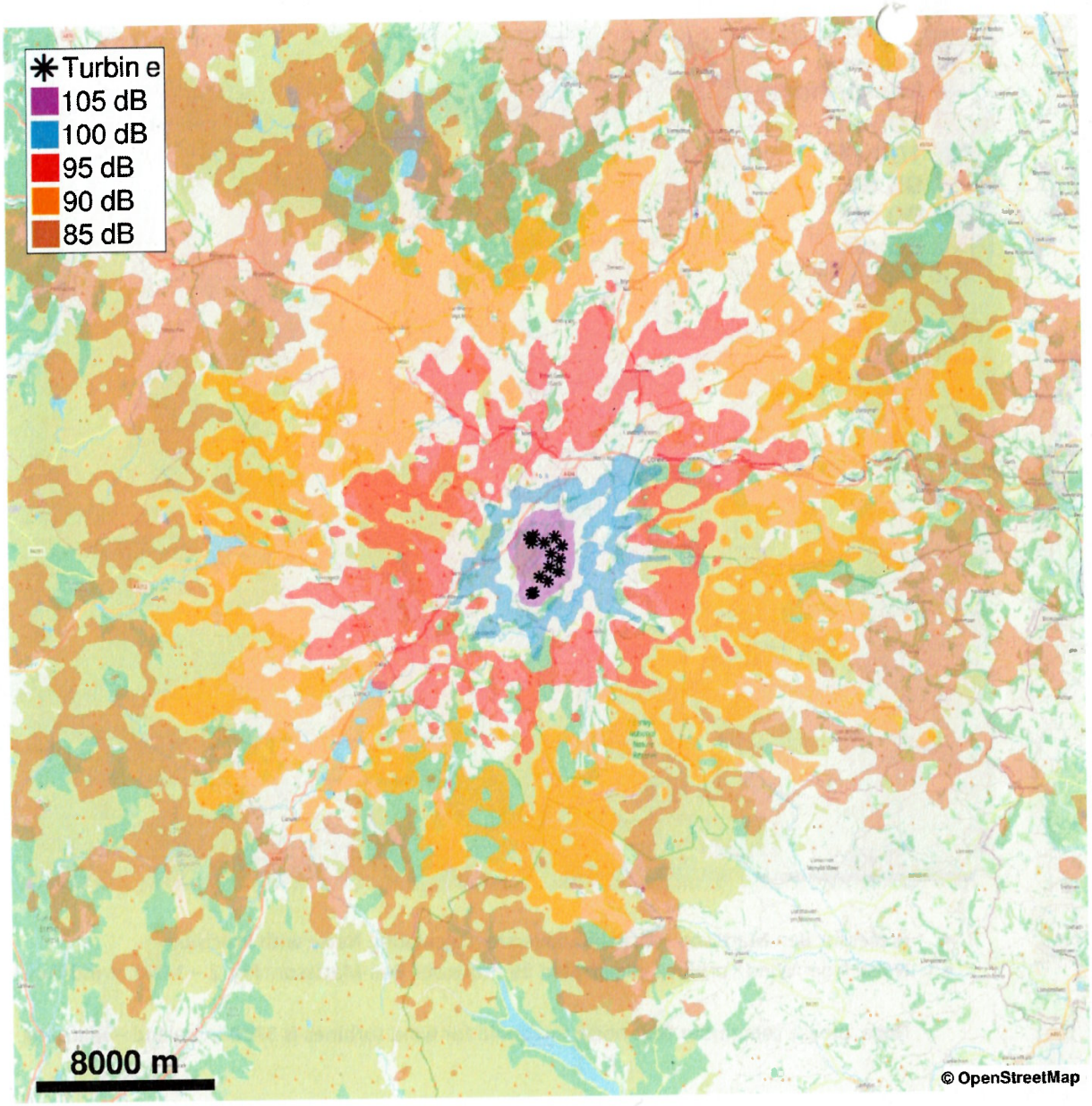
We are here first and due consideration should be taken to ensure t hat we as a community are not harmed by these industrial machines and at present we will be.

- Professor Ben Mattsson – Upsalla University Calculating Noise with Precision.
- Noise from Wind Turbines - illustrated by Professor Ben Mattsson: Fig. 1 – 7No. Wind Turbines Note: please remember that noise threshold for wind turbines is 37dB in Ireland – completely unacceptable.



- Professor Ben Mattsson – Upsalla University Calculating Noise with Precision.
- Noise from Wind Turbines - illustrated by Professor Ben Mattsson: Fig. 2 – 14No. Wind Turbines

Note: please remember that noise threshold for wind turbines is 37dB in Ireland – Alarming

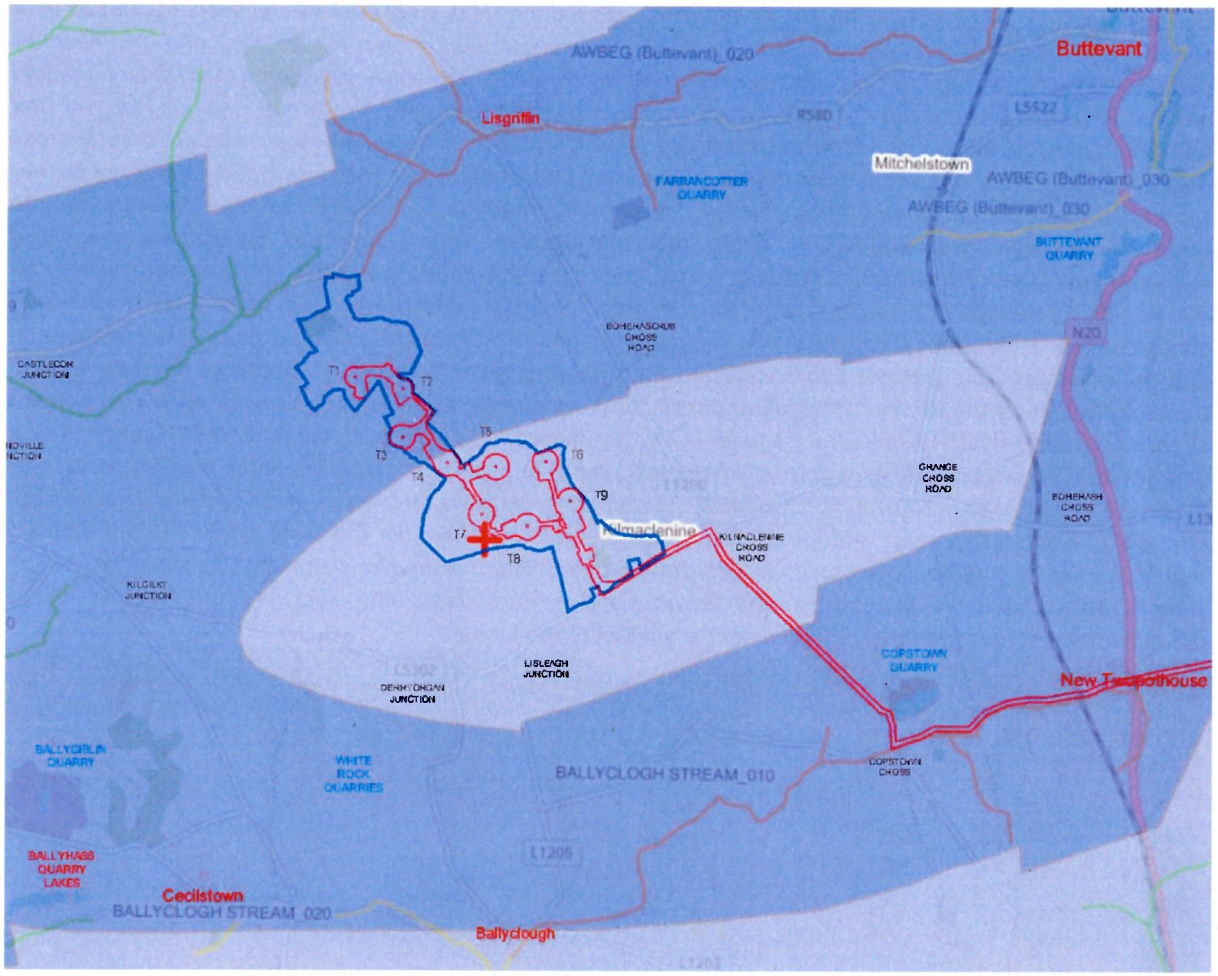


The configuration of this particular wind farm in Scandanavia shows the dramatic effect that noise gets amplified and the distance and impact it travels which far excess anything that submitted reports from the wind farm company advises.

3.1 Ground Waterbodies - Cycle 3 - Karstic

*"**Abstract:** The EU Water Framework Directive (2000/60/EC) (WFD) establishes a framework for the protection, improvement and management of surface water and groundwater. All Groundwater Waterbodies (GWB) are*

represented as polygons. They are validated by scientists in the Geological Survey of Ireland and the EPA Scientists as meeting the criteria for a WFD GWB."



www.cathchment.ie – Map & Information Source – Not to scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

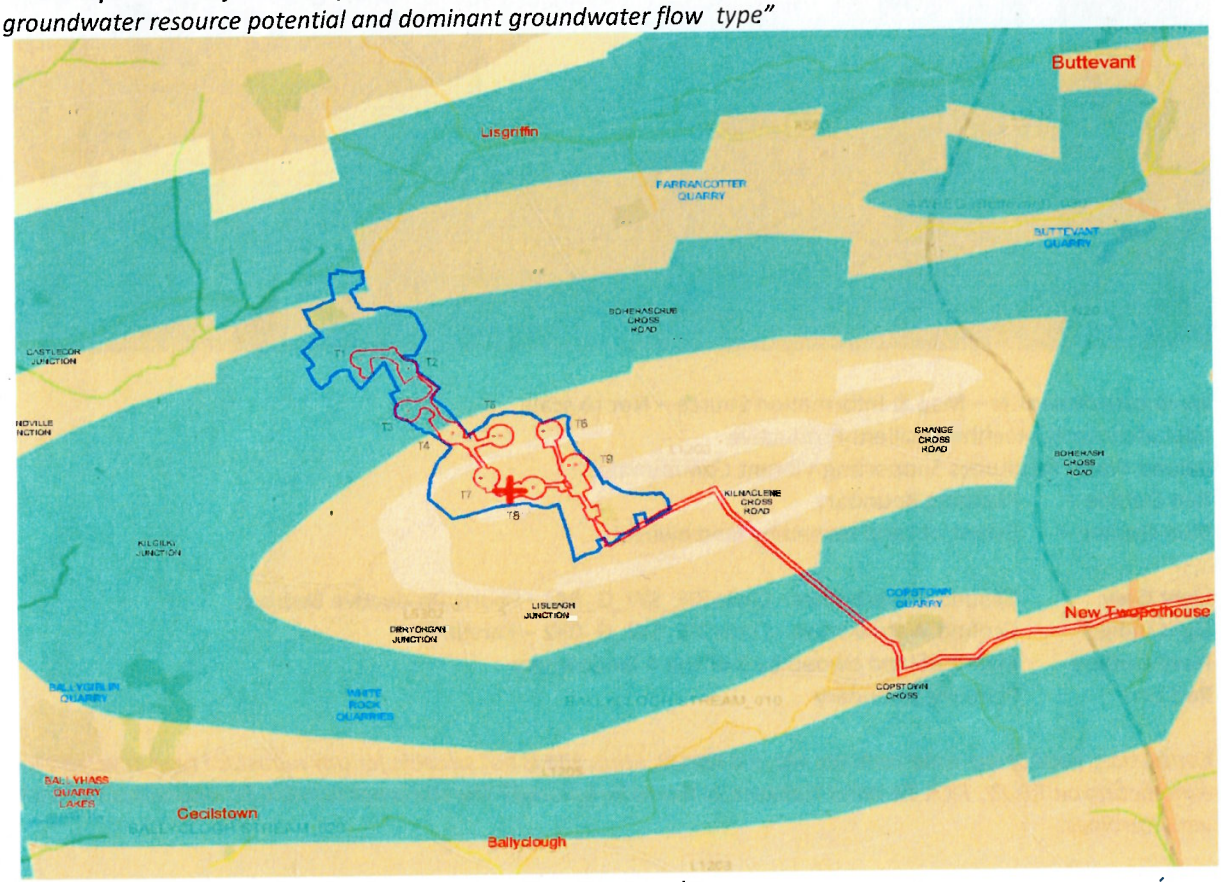
Light Grey Ground Waterbodies - Cycle 3IE_SW_G_044 - Poorly Productive Bedrock
Light Indigo Ground Waterbodies - Cycle 3IE_SW_G_082 – Karstic
Navy Outline Extent of land owned by 3 of the 4 landowners
Red Line Planning Boundary

Conclusion: Four of the wind turbines are in a Karstic Area. Site is not suitable for any industrial type development – impacting on T1, T2, T3 & T4 Wind Turbines. Is this to be ignored? The site is not suitable for enormous industrial wind turbines.

3.2 GSI Bedrock Aquifer

*"**Abstract:** An aquifer is an underground body of water-bearing rock or unconsolidated materials (gravel or sand) from which groundwater can be extracted in useful amounts. GSIs Aquifer classes are divided into three main*

groups based on their resource potential, and further subdivided based on the type of openings through which groundwater flows. There are nine aquifer categories in total. In the Groundwater Protection Schemes (GWPSs), these are also referred to as Resource Protection Zones. 1) Regionally Important Aquifers: Regionally important aquifers are capable of supplying regionally important abstractions (e.g. large public water supplies), or excellent yields (>400 m3/d). Bedrock aquifer units generally have a continuous area of >25 km2 and groundwater predominantly flows through fractures, fissures, joints or conduits. Regionally important sand/gravel aquifers are >10 km2, and groundwater flows between the sand and gravel grains. This group is subdivided into the following types: Rk Regionally Important Karstified Bedrock Aquifer Rf Regionally Important Fissured Bedrock Aquifer Rg Regionally Important Sand/Gravel Aquifer Regionally important karstified aquifers may be further subdivided based on the whether groundwater flows mainly through conduits (Rkc) or more diffusely through solutionally-enlarged fissures (Rkd). 2) Locally Important Aquifers: Locally important aquifers are capable of supplying locally important abstractions (e.g. smaller public water supplies, group schemes), or good yields (100-400 m3/d). In the bedrock aquifers, groundwater predominantly flows through fractures, fissures, joints or conduits. Locally important sand/gravel aquifers are typically >1 km2, and groundwater flows between the sand and gravel grains. This group is subdivided into the following types: Lm Locally Important Bedrock Aquifer, Generally Moderately Productive Ll Locally Important Bedrock Aquifer, Moderately Productive only in Local Zones Lk Locally Important Karstified Bedrock Aquifer Lg Locally Important Sand/Gravel Aquifer 3) Poor Aquifers: These bedrock aquifers are capable of supplying small abstractions (e.g. domestic supplies, small group schemes), or moderate to low yields (<100 m3/d). Groundwater predominantly flows through a limited and poorly-connected network of fractures, fissures and joints. This group is subdivided into the following types: Pl Poor Bedrock Aquifer, Generally Unproductive except in Local Zones Pu Poor Bedrock Aquifer, Generally Unproductive
***Data Purpose:** Classifies subsurface deposits (bedrock and unconsolidated materials) in terms of their groundwater resource potential and dominant groundwater flow type"*



www.cathchment.ie – Map & Information Source – Not to scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

Light Grey GSI Bedrock Aquifer Pl
Grey GSI Bedrock Aquifer Ll

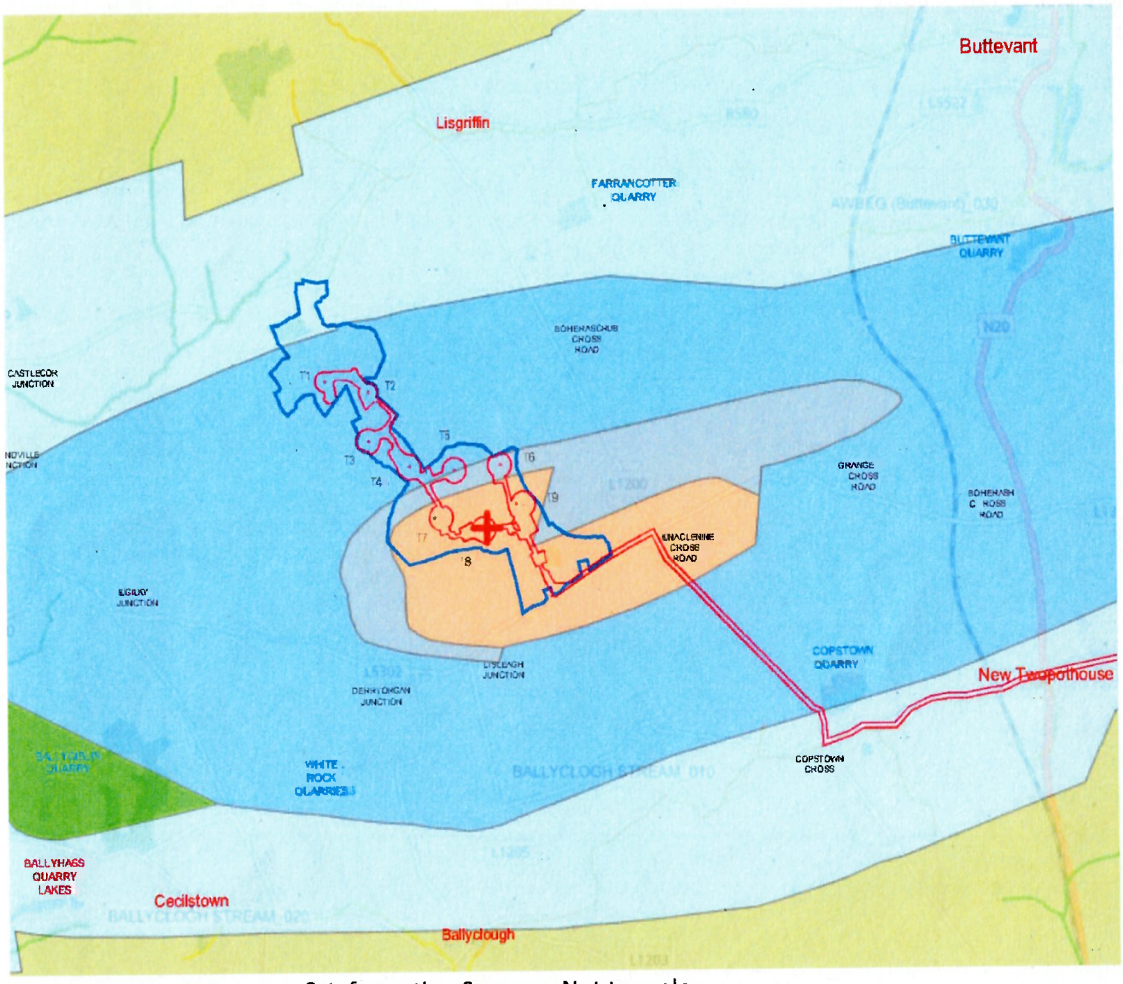
Cyan	GSI Bedrock Aquifer RKD
Navy Outline	Extent of land owned by 3 of the 4 landowners
Red Line	Planning Boundary

Conclusion: Site is not suitable for any industrial type development – impacting on T1, T2, T6, T8 & T9 Wind Turbines.

3.3 GSI Bedrock Geology 1 Million

*"**Abstract:** This map shows the bedrock geology of the island of Ireland, at a scale of 1:1,000,000. This data represents a seamless bedrock geological dataset encompassing Rep of Ireland and parts of Northern Ireland derived from 1:500,000 scale data. It is published by Geological Survey Ireland (GSI) and the Geological Survey of*

Northern Ireland (GSNI). There are two parts to the data Bedrock Geology & Bedrock Geology Faults. . geology presents the bedrock data from the OneGeology-Europe map project coloured to an Irish lithostratigraphical scheme. It is derived from the GSI 1:500,000 Bedrock Geological map of Ireland and 1:100,000 Bedrock Map Series and the GSNI 1:250,000 Geological Map of Northern Ireland."



www.cathchment.ie – Map & Information Source – Not to scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

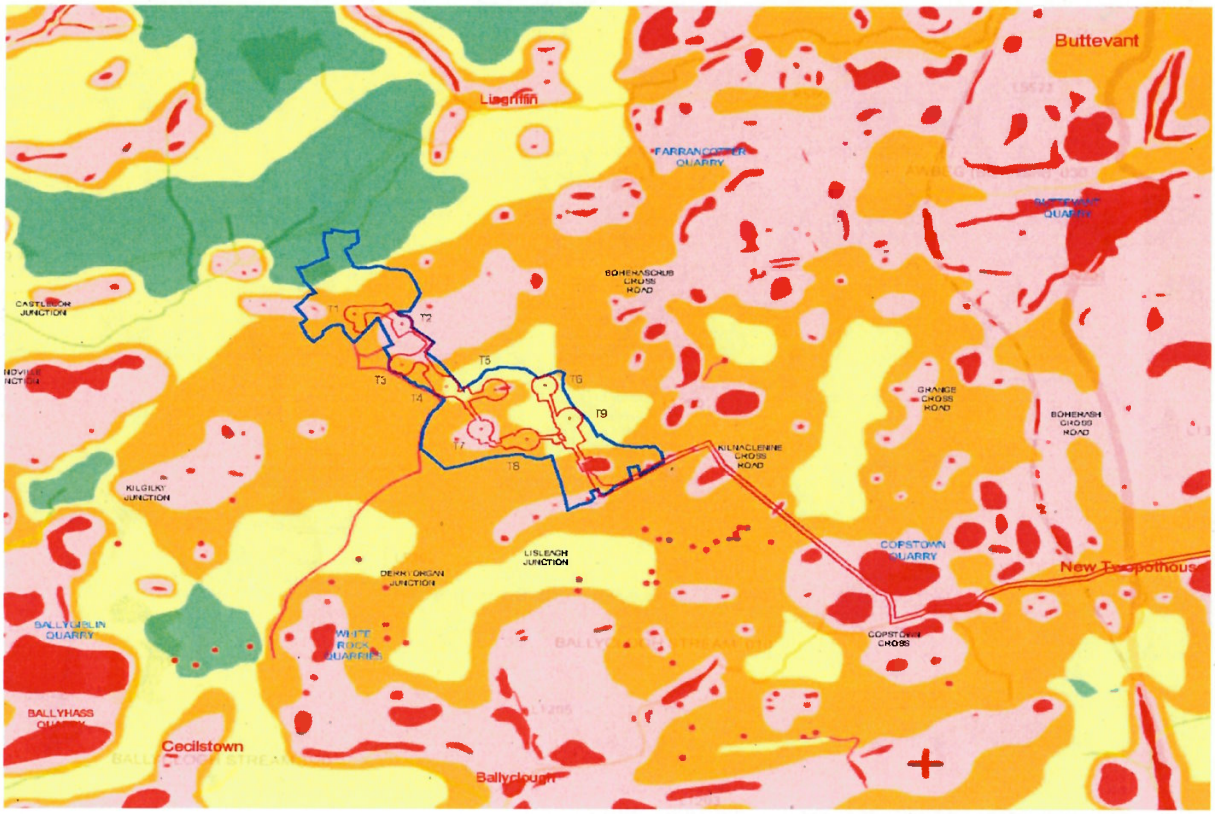
Orange	ORS, sandstone, conglomerate & mudstone
Grey	Tournaisian sandstone, mudstone, limestone
Blue	Tournaisian limestone – Karst Stone & Karstic Aquifer Area
Luminous Yellow	Carboniferous volcanic rocks
Light Blue	Visean limestone & calcareous shale
Yellow	Namurian shale, sandstone, siltstone & coal

Conclusion: Site is not suitable for any massive industrial type development – impacting on T1, T2, T3, T4 & T5 Wind Turbine s.

3.4 GSI Vulnerability

*"**Abstract:** Groundwater Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities. Groundwater vulnerability maps are based on the type and thicknesses of subsoils (sands, gravels, glacial tills (or boulder clays), peat, lake and alluvial silts and clays), and the presence of karst features. Groundwater is most at*

risk where the subsoils are absent or thin and, in areas of karstic limestone, where surface streams sink underground at swallow holes. All land area is assigned one of the following groundwater vulnerability categories: Rock near surface or karst (X) Extreme (E) High (H) Moderate (M) Low (L). Indicates the likelihood of groundwater contamination. Aids land-use management. Helps in the choice of preventative measures and enables developments, which have a significant potential to contaminate, to be located in areas of lower vulnerability. Helps to ensure that a groundwater protection scheme is not unnecessarily restrictive on human economic activity."



www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
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Blue Outline – Extent of Land owned by land owners

MAP KEY:

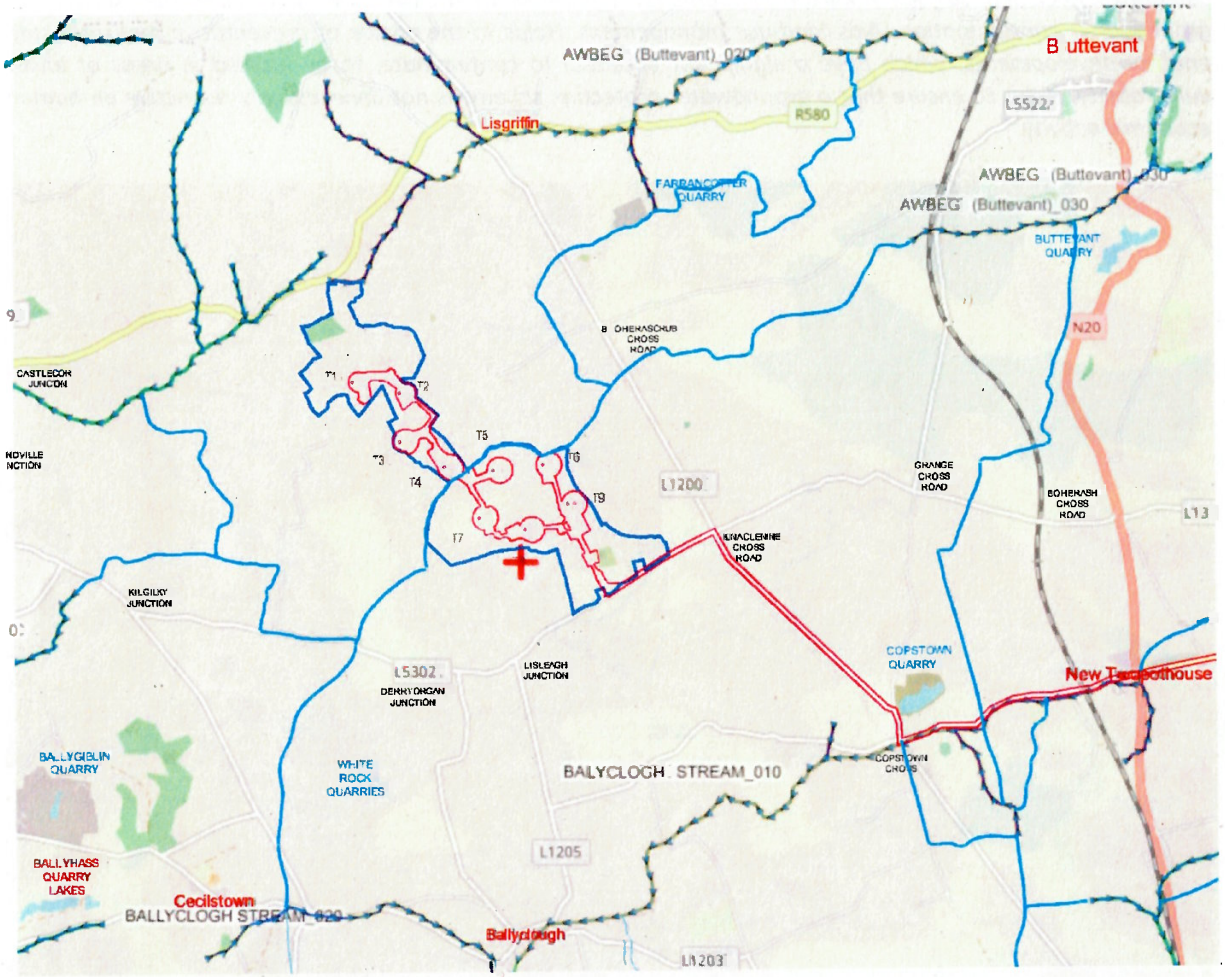
Yellow	(M) Moderate Vulnerability – Effecting T4, T6 & T9 Wind Turbines
Orange	(H) High Vulnerability – Effecting T1, T3, T5 & T8 Wind Turbines
Red	(E) Extreme Vulnerability – Rock Near Surface – Effecting T5 Wind Turbine
Pink	(EX) Extreme Vulnerability – Effecting T2, T3 & T7 Wind Turbines

Conclusion: None of the 9No. Turbines are located in a Lower Vulnerability Area. They are located in Moderate, High, & Extreme Vulnerability Areas. Site is not suitable for any industrial type development – Moderate to Extreme Contamination Vulnerability impacting on T1, T2, T3, T4, T5, T6, T8 & T9 Wind Turbines.

3.5 Flow Network & Rover Flow Direction

*"**Abstract:** This water flow network dataset is a route feature class rather than a simple polyline. The geometry is generated by merging the river lines of individual geometric network datasets. This layer contains an integrated flow network that includes known flow connections through rivers, lakes and groundwater aquifers. In places where the network is depicted flowing through lakes or through underground channels, the flow channels are*

schematic only, and do not represent the precise location of these flow channels. The appropria te .ological Survey Ireland data sets should be consulted where underground flows or connections are known or suspected."



www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

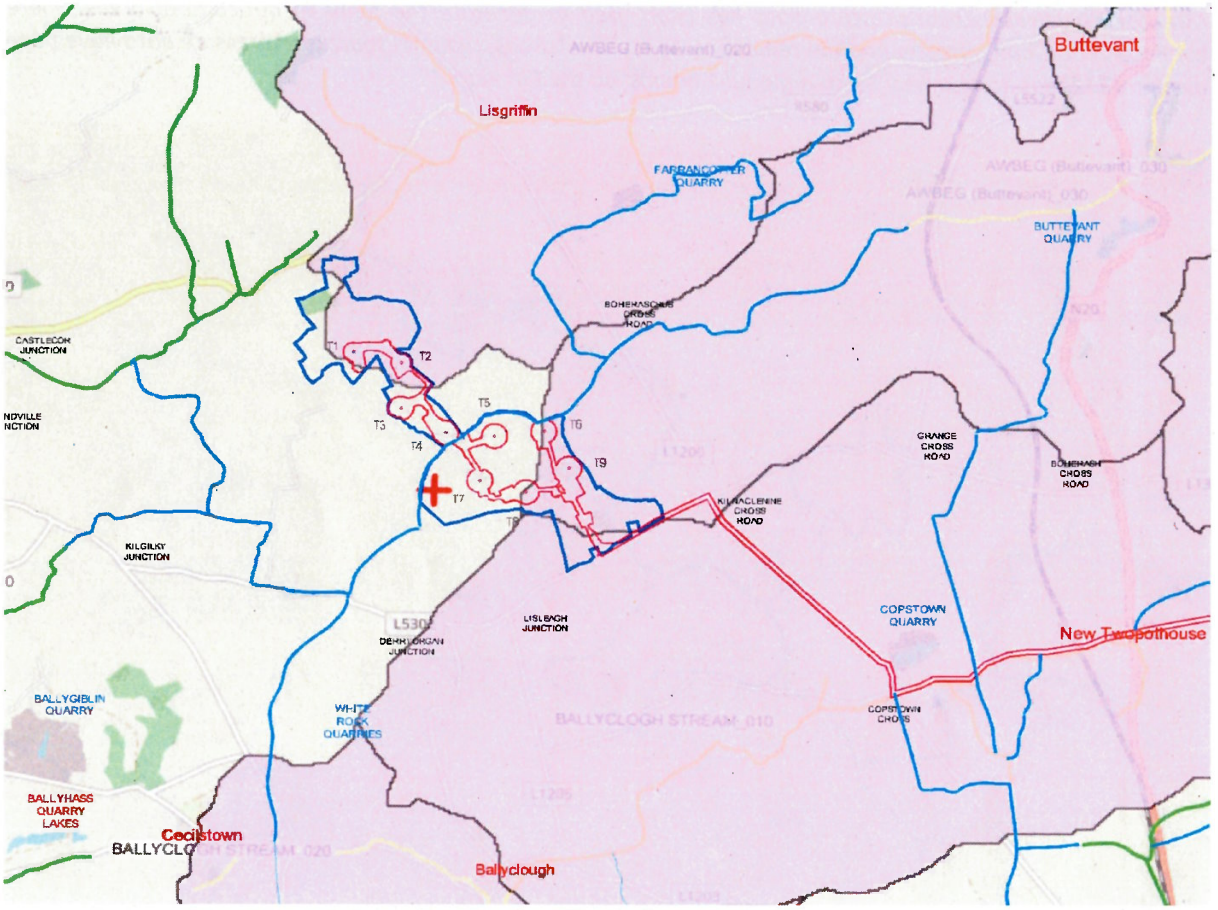
Water Network and flow direction.
Green Line with Flow Direction –
Dark Green Line with flow Direction –
Light Blue Line - Streams running within and under the site and surrounding farms

Conclusion: Site is not suitable for any industrial type development – impacting immediate on T4, T5 & T6 Wind Turbines. Is this to be ignored? Any disturbance here gets carried into protected water ways and rivers.

3.6 WFD Areas For Action

*"**Abstract:** This dataset was developed for the River Basin Management Plan for Ireland 2018 – 2021 (second cycle River Basin Management Plan). The Areas for Action are areas where action will be carried out in the second cycle. The data consists of polygon geometry representing the location and extent of the Areas for Action (waterbodies) and tabular attribute data describing the waterbody. The Areas for Action were selected based on*

the priorities in the draft river basin management plan, the evidence from the Water Framework Directive characterisation process, and the expertise, data and knowledge of public body staff with responsibilities for water and the different pressure types. Following the selection process, the Local Authorities Water and Communities Office (LAWCO) undertook public engagement and feedback sessions on the Areas for Action. These were considered in the drafting of the final River Basin Management Plan, which was published on April 17th 2018. The Action Plan Start Year is the year the Local Authority Waters Programme (LAWPRO) plan to begin assessment work within the Area for Action. This is not a final dataset and will likely change over the lifecycle of the River Basin Management Plan."



www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

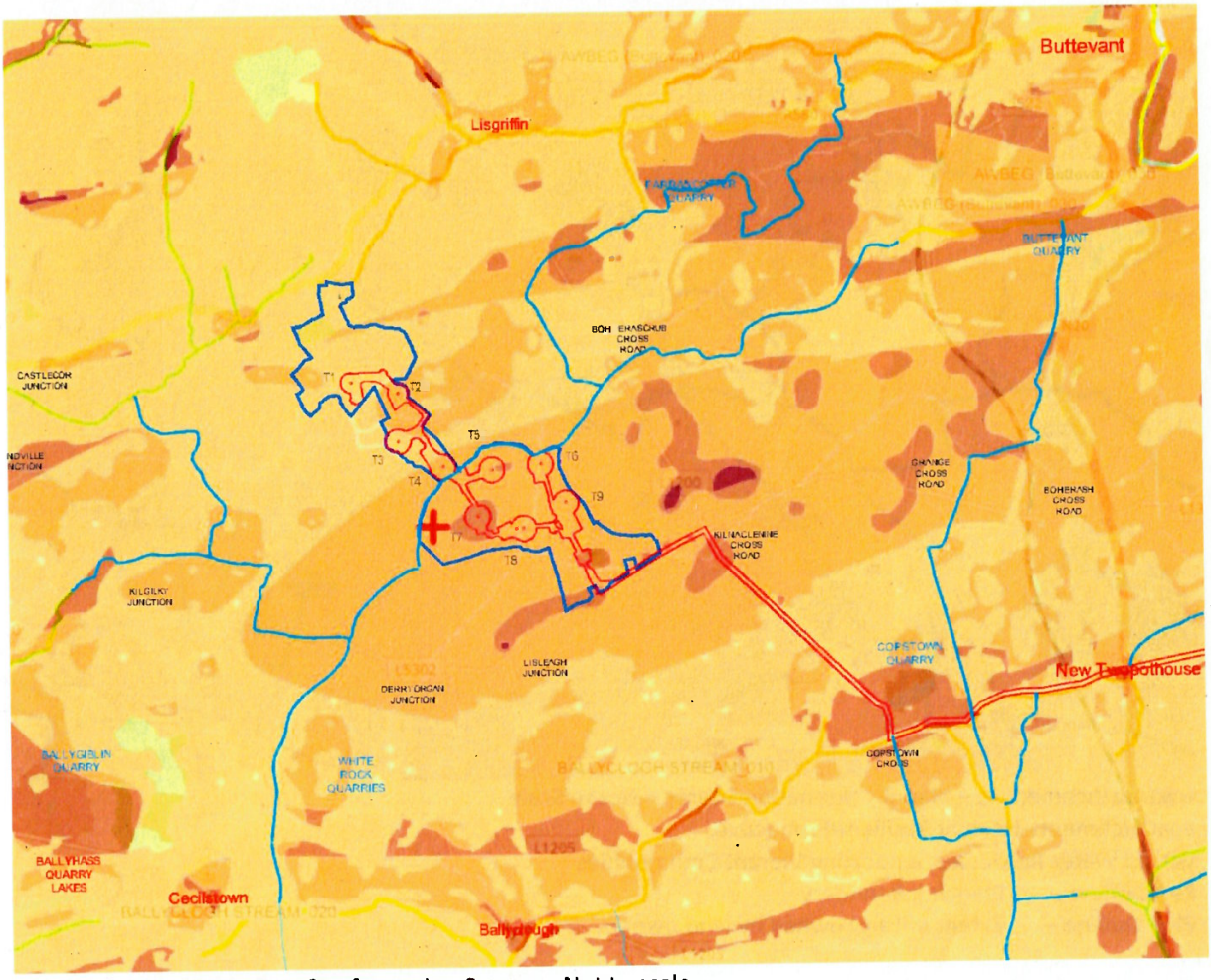
Pink – Ballyclough Stream for restoration – SAC Area
Light Blue Line - Streams running within the site and surrounding farms

Conclusion: A Large portion of the site where wind turbines are located are in the SAC Area. This is farming country and is only suitable for good farming practices. Site is not suitable for any industrial type Wind Farm Development in a SAC area – impacting on 5No. Wind Turbines T1, T2, T6, T8 & T9 Wind Turbines. How can this be allowed?

3.7 Near Surface Nitrate Susceptibility

*"**Abstract:** This dataset shows Near Surface Nitrate Susceptibility. Pollution Impact Potential (PIP) maps were generated separately for nitrate and phosphate to rank critical source areas (CSAs) relative to one another from diffuse agriculture for both the groundwater and surface water receptor. The PIP maps are generated by the EPA Catchment Characterisation Tool (CCT). The CCT delineates the CSAs displayed in the PIP maps by overlaying the*

hydro(geo)logically susceptible areas (the likelihood of nutrient transfer due to soil and geolog ica operties along the near surface and/or subsurface pathway) with nitrate or phosphate loadings. The nitrate and phosphate PIP maps for the surface water receptor combine the contribution from both the subsurface pathway and the near surface pathway while the groundwater receptor maps only consider the contribution from the groundwater pathway. Surface Water Receptor Nitrate PIP map shows the relative pollution impact potential to surface water along the subsurface and near surface pathways due to nitrate loading. This map should be used to evaluate nutrient impact at the waterbody, sub-catchment or catchment scale (at a resolution of less than 1:20,000). Pollution impact potential (PIP) maps rank the CSAs in descending order of risk (where Rank 1 is the highest risk) and are available for the surface water receptor for nitrate and phosphate, and the groundwater receptor for nitrate. Local pressure data has been used to generate the maps in agricultural areas where available. For urban, forestry and the remaining agricultural areas, regional sources of pressure data have been used; these areas are marked 'using regional loadings' on the PIP maps."



www.cathchment.ie – Map & Information Source – Not to scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

Orange	Near Surface Nitrate Susceptibility - IE_SW_18B080300 – T2, T4, T5, T6 & T8
Brown	Near Surface Nitrate Susceptibility - IE_SW_18A050900 – T5 & T7
Cream	Near Surface Nitrate Susceptibility - IE_SW_18A050700 – T1 & T3

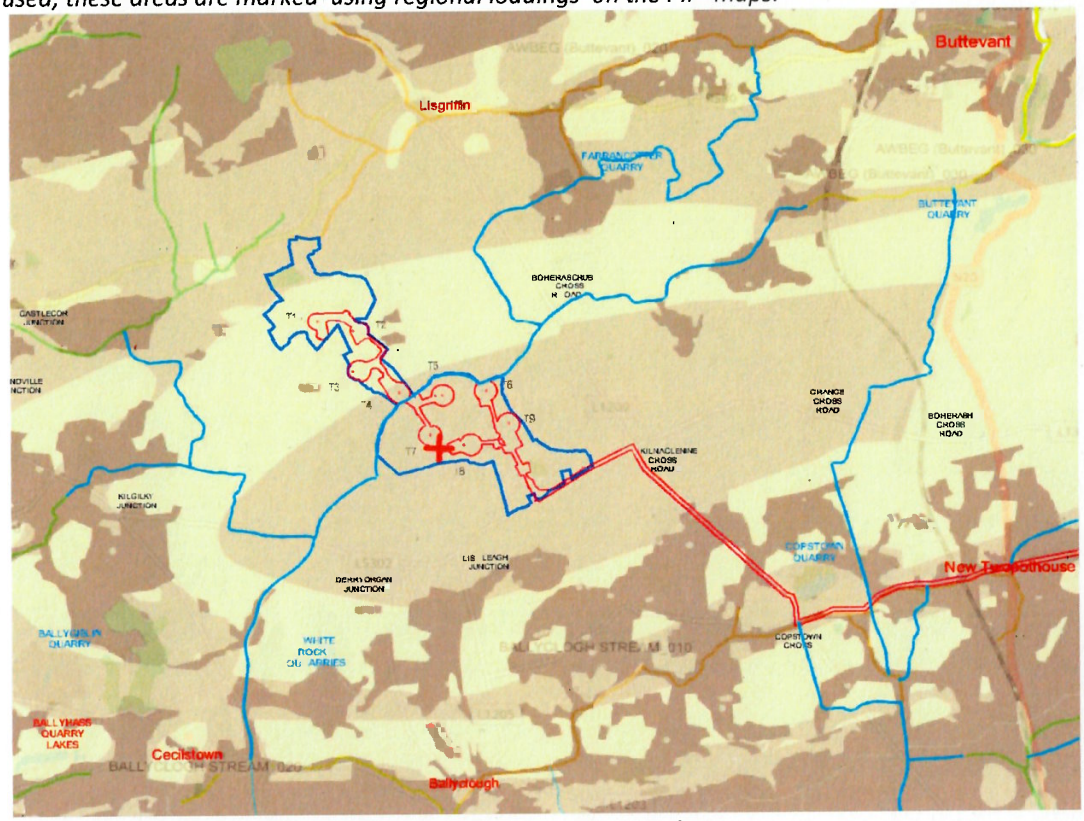
Conclusion: – Disturbing the soils where the wind turbines are planned for has an impact on all the wind turbines and the release of near surface nitrates into the water ways. There simple cannot be one rule for

good fa...ng practice and break it to put Wind Turbines in place and an ecological fall out for generations. Ground regarded for drink water, Farms with wells to provide drinking water for their animals drink this water. That then enters the food chain and consume by everyone. Site is not suitable for any industrial type development. Is this to be ignored?

3.8 Near Surface Phosphate Susceptibility

*"**Abstract:** This dataset shows Near Surface Phosphate Susceptibility. Pollution Impact Potential (PIP) maps were generated separately for nitrate and phosphate to rank critical source areas (CSAs) relative to one another from diffuse agriculture for both the groundwater and surface water receptor. The PIP maps are generated by the EPA Catchment Characterisation Tool (CCT). The CCT delineates the CSAs displayed in the PIP maps by overlaying the*

hydro(geo)logically susceptible areas (the likelihood of nutrient transfer due to soil and geo logical properties along the near surface and/or subsurface pathway) with nitrate or phosphate loadings. The nitrate and phosphate PIP maps for the surface water receptor combine the contribution from both the subsurface pathway and the near surface pathway while the groundwater receptor maps only consider the contribution from the groundwater pathway. Surface Water Receptor Nitrate PIP map shows the relative pollution impact potential to surface water along the subsurface and near surface pathways due to nitrate loading. This map should be used to evaluate nutrient impact at the waterbody, subcatchment or catchment scale (at a resolution of less than 1:20,000). Pollution impact potential (PIP) maps rank the CSAs in descending order of risk (where Rank 1 is the highest risk) and are available for the surface water receptor for nitrate and phosphate, and the groundwater receptor for nitrate. Local pressure data has been used to generate the maps in agricultural areas where available. For urban, forestry and the remaining agricultural areas, regional sources of pressure data have been used; these areas are marked 'using regional loadings' on the PIP maps."



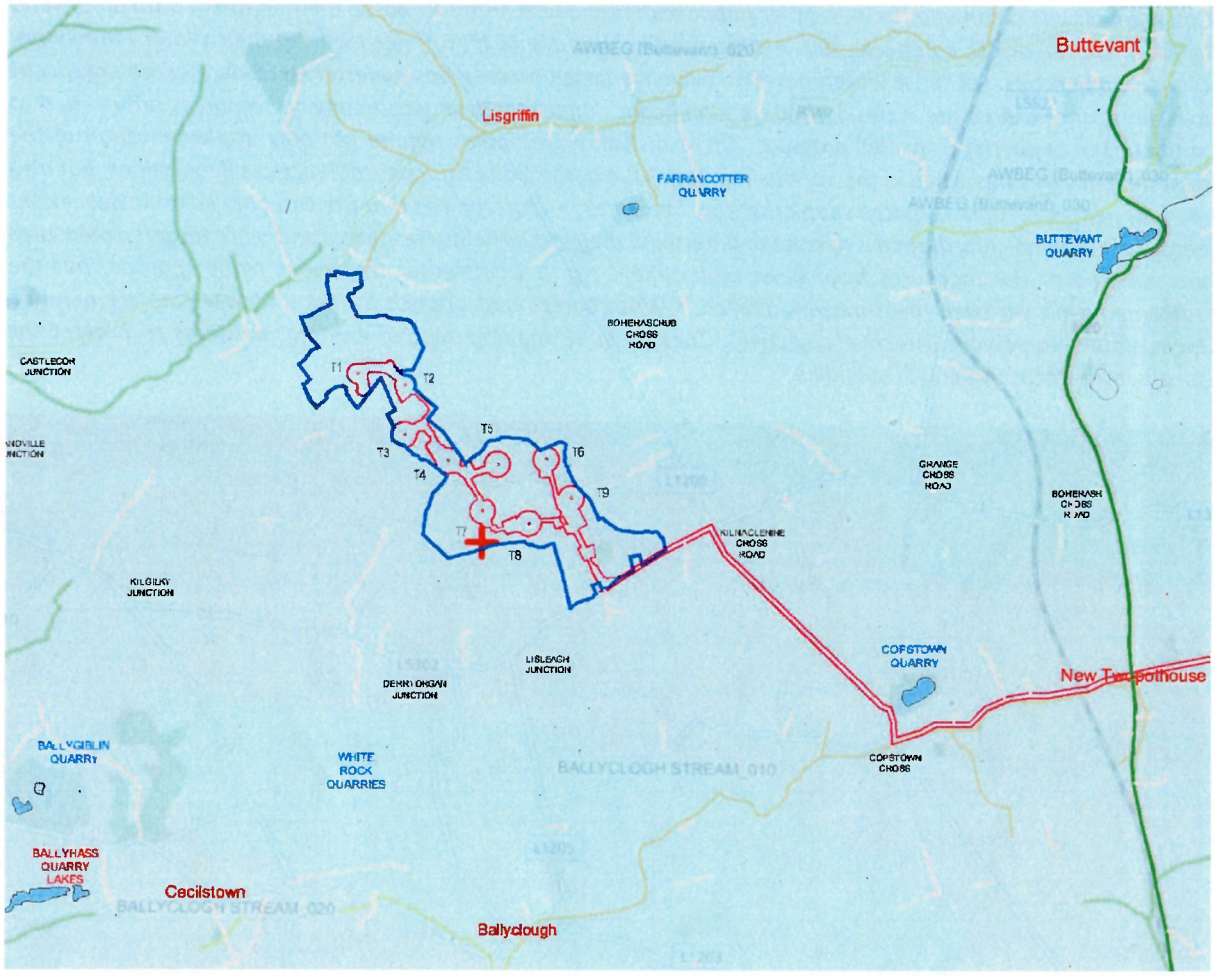
www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

Brown	Near Surface Phosphate Susceptibility - IE_SW_18L450760 T4, T5, T6, T7, T8 & T9
Cream	Near Surface Phosphate Susceptibility - IE_SW_18A050700 T1, T2, T3
Dark Brown	Near Surface Phosphate Susceptibility - IE_SW_18B080300

Conclusion: Site is not suitable for any industrial type development – impacting on Turbines. Is this to be ignored?

3.9 WFD Catchments

*"**Abstract:** The EU Water Framework Directive (2000/60/EC) (WFD) establishes a framework for the protection, improvement and management of surface water and groundwater. The Catchment dataset is built on clusters of sub catchments (derived from river waterbody polygons). All Catchments are represented as polygons."*



www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

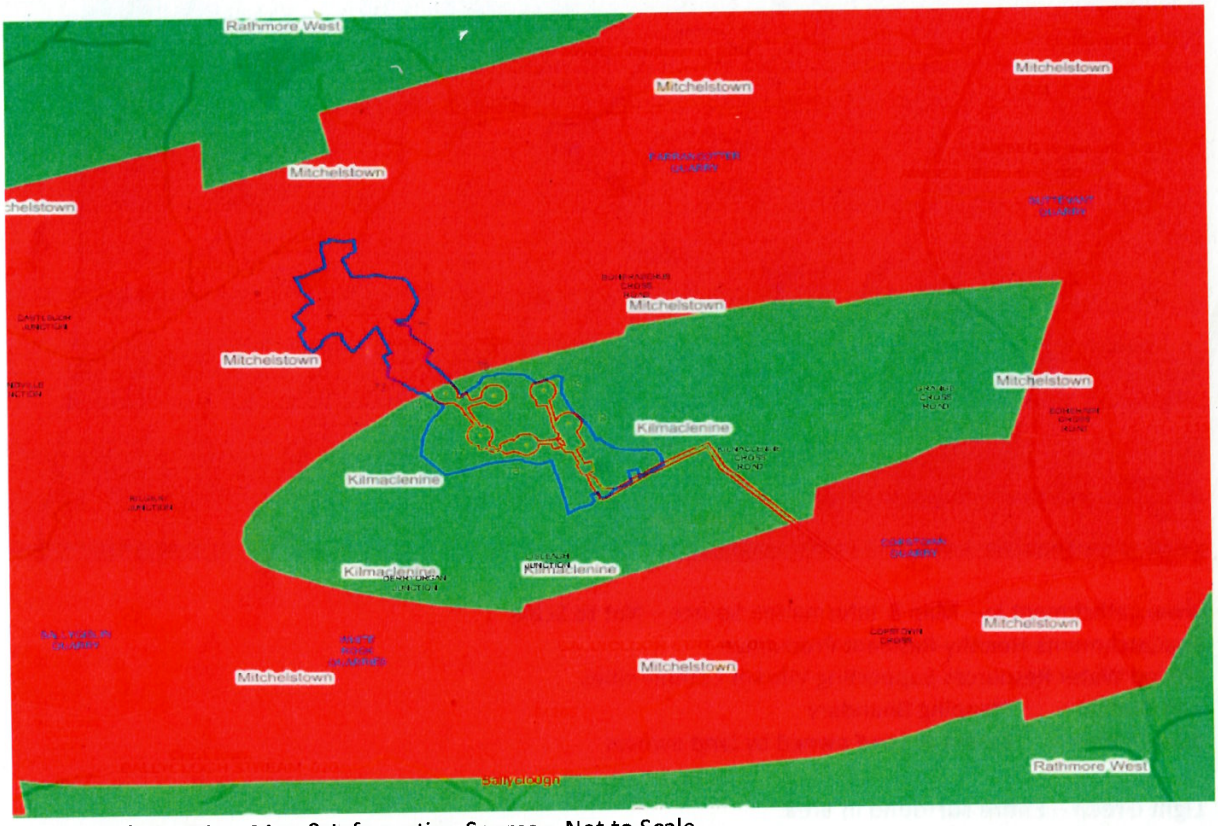
Light Green – Entire surround in area.

Conclusion: Site is not suitable for any industrial type development – impacting on T1, T2, T3, T4, T5, T6, T7, T8 & T9 Wind Turbines. This site and the surrounding area is a protected site.

3.10 Ground Waterbodies Risk

***"Abstract:** This layer represents the risk for each waterbody of failing to meet their Water Framework Directive (WFD) objectives by 2027. The risk of not meeting WFD objectives was determined by assessment of monitoring data, data on the pressures and data on the measures that have been implemented. Waterbodies that are At*

Risk are prioritised for implementation of measures. This assessment was completed in 2020 the EPA Catchments Unit in conjunction with other public bodies and was primarily based on monitoring data up the end of 2018. The three risk categories are: • Waterbodies that are At Risk of not meeting their Water Framework Directive objectives. For these waterbodies an evidence-based process was undertaken to identify the significant pressures; once a pressure is designated as 'significant', measures and accompanying resources are needed to mitigate the impact(s) from this pressure. These at Risk waterbodies require not only implementation of the existing measures described in the various regulations, e.g. the Good Agricultural Practices Regulations, but also in many instances more targeted supplementary measures. • Waterbodies that are categorised as Review either because additional information is needed to determine their status before resources and more targeted measures are initiated or the measures have been undertaken, e.g. a wastewater treatment plant upgrade, but the outcome hasn't yet been measured/monitored. • Waterbodies that are Not at Risk and therefore are meeting their Water Framework Directive objectives. These require maintenance of existing measures to protect the satisfactory status of the water bodies."



www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
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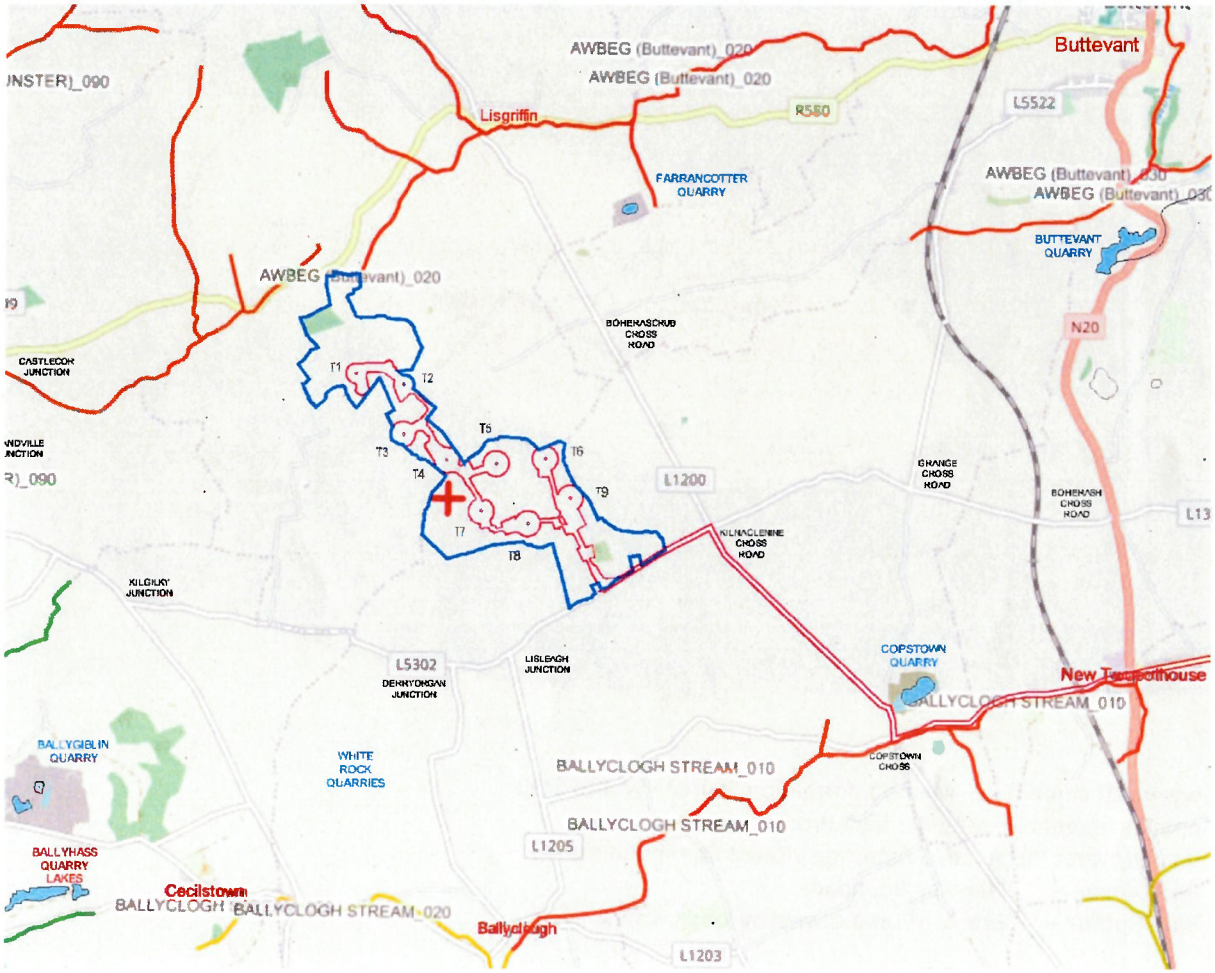
Green Ground Waterbodies RiskIE_SW_G_044 – Kilmaclenine affecting T4, T5, T6, T7, T8 & T9
Red Ground Waterbodies RiskIE_SW_G_082 – Mitchelstown affecting T1, T2, T3, T4

Conclusion: Site is not suitable for any industrial type development – impacting on T1, T2, T6, T8 & T9 Wind Turb ines. Is this to be ignored?

3.11 River Waterbodies

*"**Abstract:** Water Framework Directive (WFD) River Waterbodies (RWB) are the management and reporting units for the WFD. WFD RWB is a polyline shapefile dataset which is formed from a water flow routes dataset. Waterbodies are assigned types depending on their likely WFD status classification and physical and biological characteristics (typology). This is in line with European Commission CIS guidance on delineation of waterbodies.*

Since each RWB is attributed with a unique identifier (EU_CD), this dataset can be linked directly to other WFD data sources such as physical characteristics, risk, classification and other objectives. In some karst areas, this layer contains indicative underground flow connections between surface rivers. Such lines are indicative only and should not be taken to infer the presence of an underground river at a particular location. The appropriate Geological Survey Ireland data sets should be consulted where underground flows or connections are known or suspected."

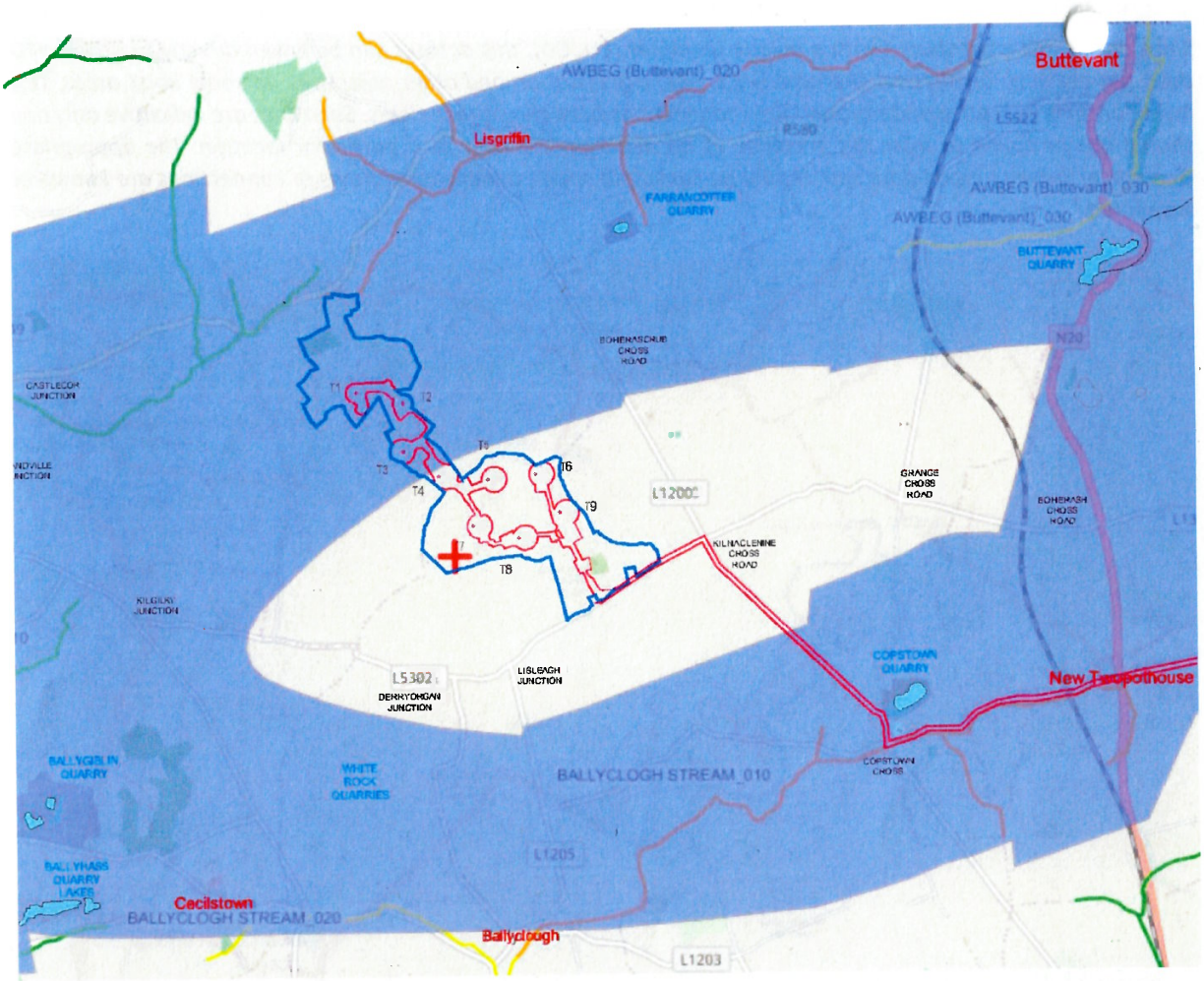


www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

River Waterbodies – Green – Brown - Red

3.12 Groundwater in Nutrient Sensitive Areas

*"**Abstract:** WFD Ground Waterbodies intersecting with designated Nutrient Sensitive Areas waterbodies in accordance with the Urban Waste Water Treatment (UWWT) Directive 91/271/EEC on Urban Waste Water Treatment and S.I. 254 / 2001, S.I. 440/2004 and S.I. 48/2010."*



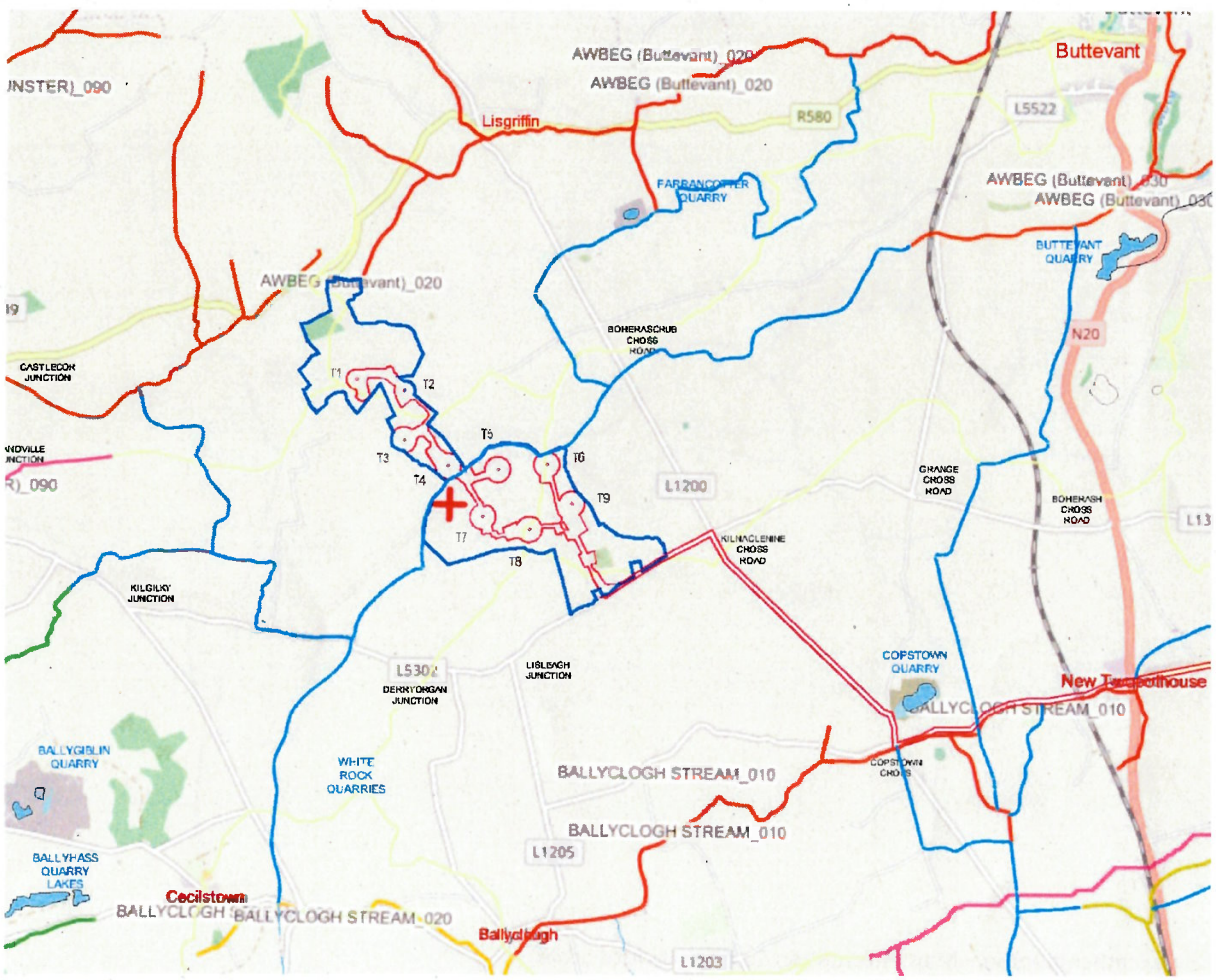
www.cathchment.ie – Map & Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

Light Indigo - Groundwater in Nutrient Sensitive Areas IE_SW_G_082

Conclusion: Site is not suitable for any industrial type development – impacting on T1, T2, T3, T4 Wind Turbin es.Is this to be ignored?

3.13 WFD River Sub Basins

*"**Abstract:** Water Framework Directive (WFD) River Waterbodies (RWB) are the management and reporting units for the WFD. The RWB polygons are associated watershed areas delineated using ArcHydro and the EPA 20m hydrologically corrected DTM. Each RWB polygon is attributed with a unique identifier (EU_CD) which is common to the RWB lines. This dataset can be linked directly to other WFD data sources such as physical characteristics, risk, classification and other objectives."*



www.cathchment.ie – Map Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

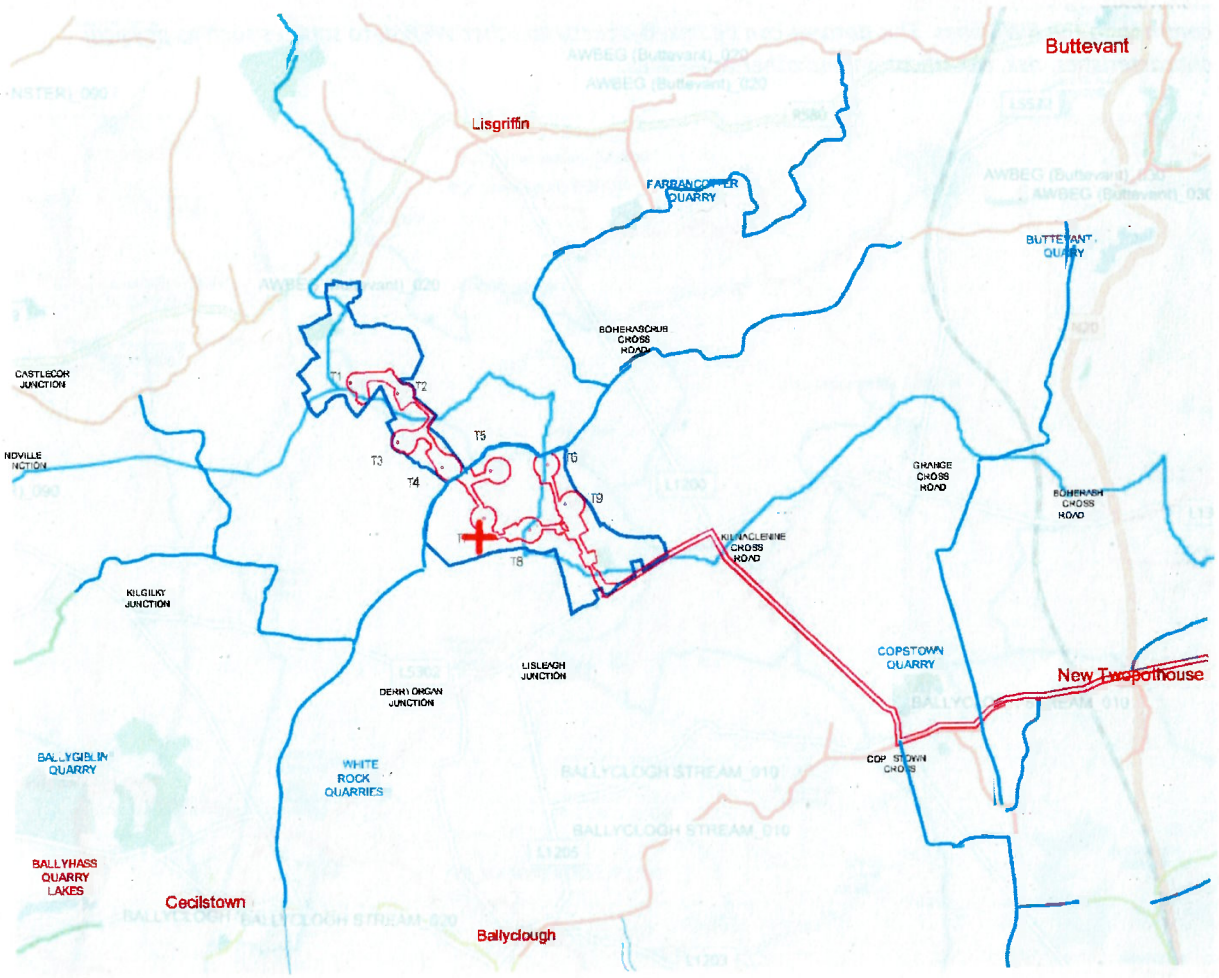
MAP KEY:
Yellow – River Sub Basins – Pink & Yellow
Cyan – Over ground streams

Conclusion: Site is not suitable for any industrial type development – impacting on T1, T2, T3, T4 Wind Turbines. Is this to be ignored?

3.14 WFD Sub Catchments

*"**Abstract:** The EU Water Framework Directive (2000/60/EC) (WFD) establishes a framework for the protection, improvement and management of surface waters and groundwaters. The Sub catchment dataset is built on*

clusters of river water body polygons and are entirely contained within the Catchment polygons da t . All Sub catchments are represented as polygons."



www.cathchment.ie – Map Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities

WFD Sub Catchments Awbeg [Buttevant]_SC_020 – Light Blue North & East Polygons
WFD Sub Catchments Blackwater [Munster]_SC_090 – Light Blue South & West Polygons
Navy Outline Extent of land owned by 3 of the 4 landowners
Red Outline Planning Boundary

Conclusion: The site sits in a SAC area with protected water. There are too many vulnerabilities here to be controlled and obvious failure to do so will be of devastati ngeffect.

---

4. Distance Requirements from Dwellings

- Falls short of Wind Energy Development Guidelines 2019 recommending 1000m setbacks.
- Violates ECHR Article 8 and European Court of Human Rights standards.

- Breaches Irish Planning and Development Act 2000 health protection standards.

Illustrations: Setback mapping, receptor diagrams.

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5. Wind Turbine Regulations Being Ignored

- Non-compliance with multiple sections of Planning and Development Regulations.
- Inadequate Environmental Impact Assessment (EIA).
- Contravenes Aarhus Convention: failure to inform and consult public adequately.

Documents Attached: Non-compliance matrix.

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6. Height Impact on Landscape

Expert Report Attached: Landscape Visual Impact Assessment (LVIA)

- Proposed 185m turbines dominate Cork's rolling lowland landscape.
- Site lacks any visual backdrop.
- Scenic views, including the Kerry Mountains, will be lost.

---

7. Ecology Risks (Waterways, Pearl Mussel, Salmon, Natura 2000)

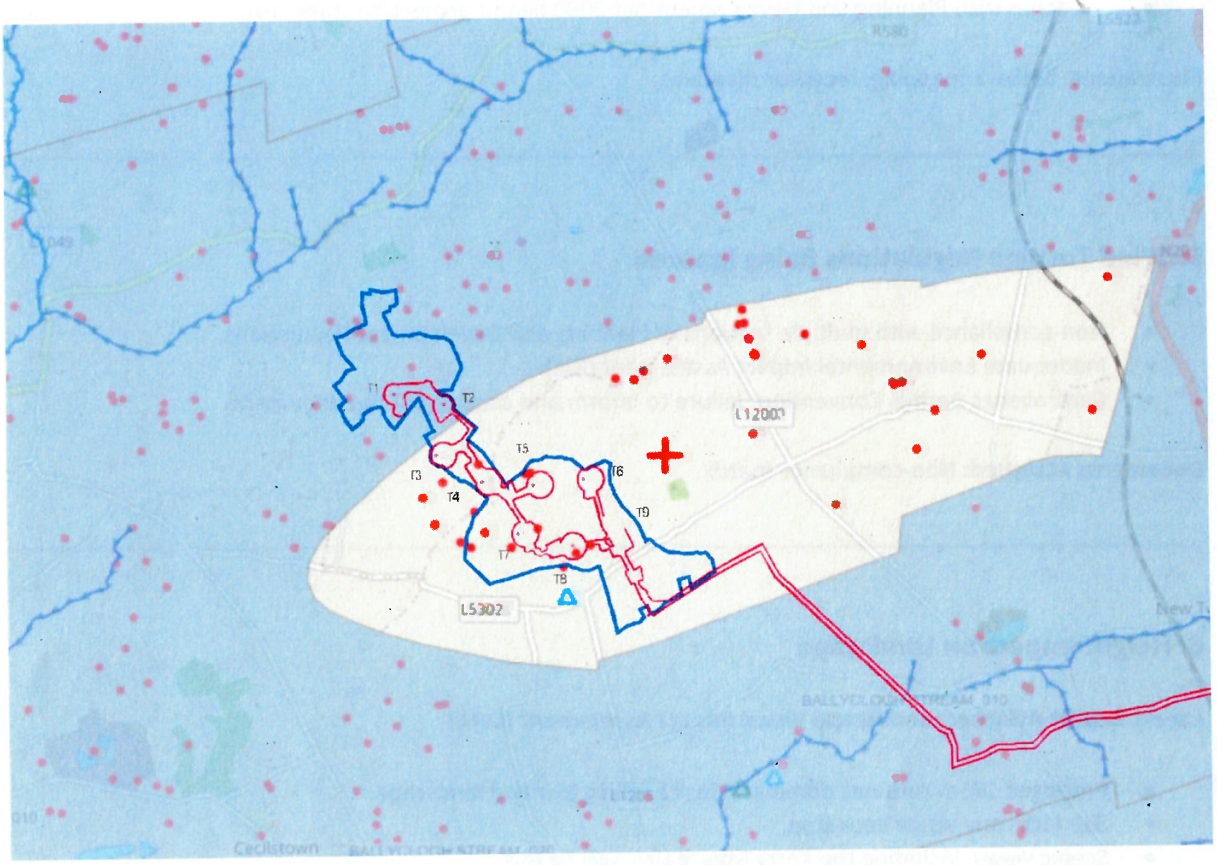
Expert Report Attached: Ecological Impact Assessment

- Proximity to Blackwater River SAC (Site Code: 2170), Kilcolman Bog SPA & Blackwater Callows SPA.
- Threats to Freshwater Pearl Mussel, Salmon, Otter, Kingfisher, and other protected species.
- Phosphorus runoff threatens WFD Q-Values and water status under EU Water Framework Directive.

Illustrations: Hydrological maps, species habitat overlays.

8. Groundwater in Salmonid Regs

*"**Abstract:** WFD Ground Water Bodies intersecting with WFD Designated Salmonid Waters under S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations 1988, 14th August 1988"*



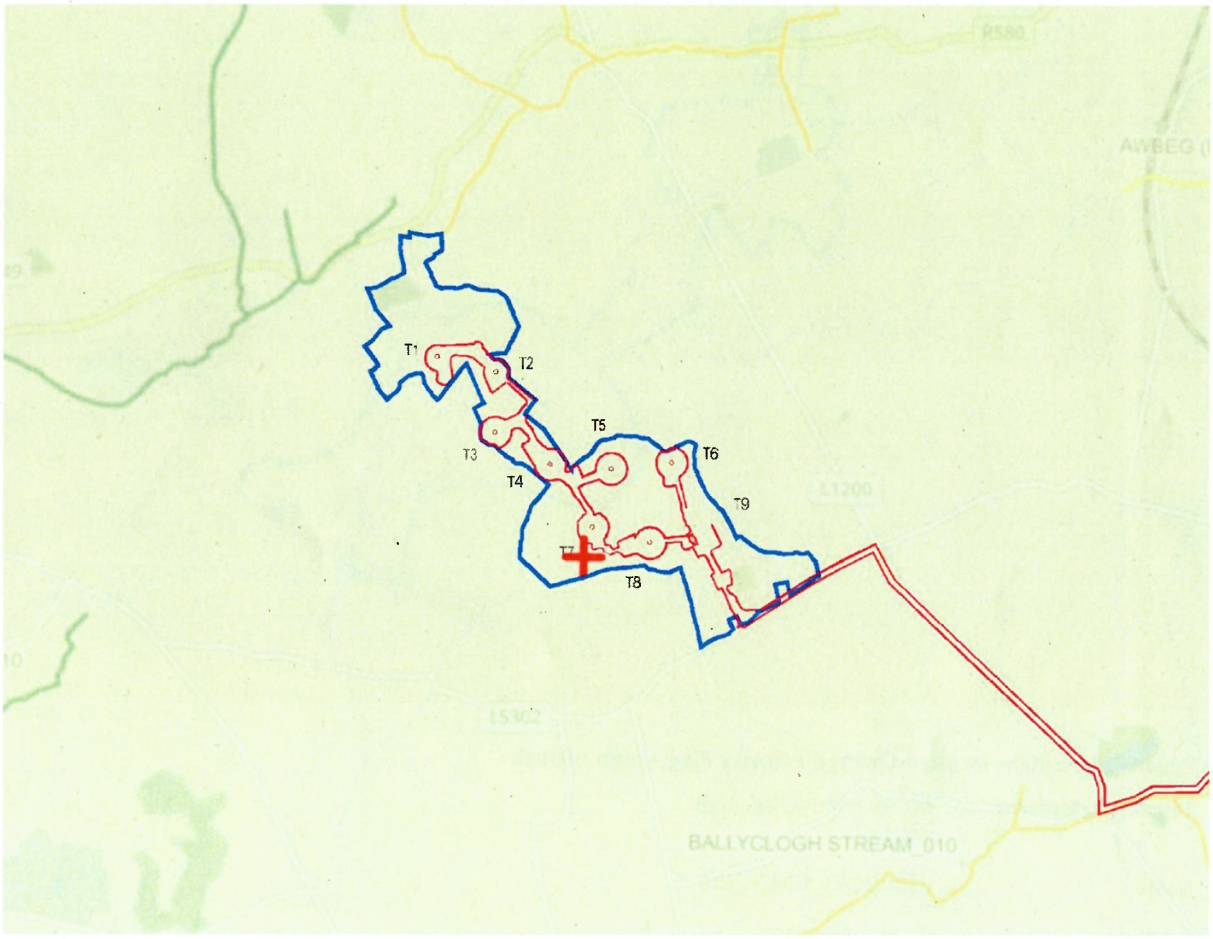
www.cathchment.ie – Map Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities
Red Outline – Planning Boundary
Blue Outline – Extent of Land owned by land owners

Groundwater in Salmonid Regs - IE_SW_G_082
Red Dot – Signifies an Archaeological Site.

9. Margaritifera SAC Catchment

*"**Abstract:** These 26 mussel populations are within Special Areas of Conservation (SAC) designated for the protection of the species. Site-specific conservation objectives for the restoration of these populations and their habitats are being developed by the NPWS (see http://www.npws.ie/protectedsites/ and*

http://www.npws.ie/protectedsites/conservationmanagementplanning/). Under S.I. 296 of 2009, 27 draft Sub-basin Management Plans have been developed to provide the programmes of measures necessary to achieve these objectives (see http://www.wfdireland.ie/docs/5_FreshwaterPearlMusselPlans/). Any plans or potentially damaging developments and activities in or overlapping with the catchments must be screened for Appropriate Assessment (Article 6 (3), Habitats Directive). The NPWS holds very detailed information on the distribution and abundance of freshwater pearl mussels in many of these catchments, and this is available on request to bona fide applicants (see: http://www.npws.ie/mapsanddata/requestdata/).”



www.cathchment.ie – Map Information Source – Not to Scale
epaCatchments-Healthy-Resilient-Productive
Valued Water Resources Supporting Vibrant Communities

Margaritifera SAC Catchment Munster Blackwater – SAC – Entire Site and surroundings

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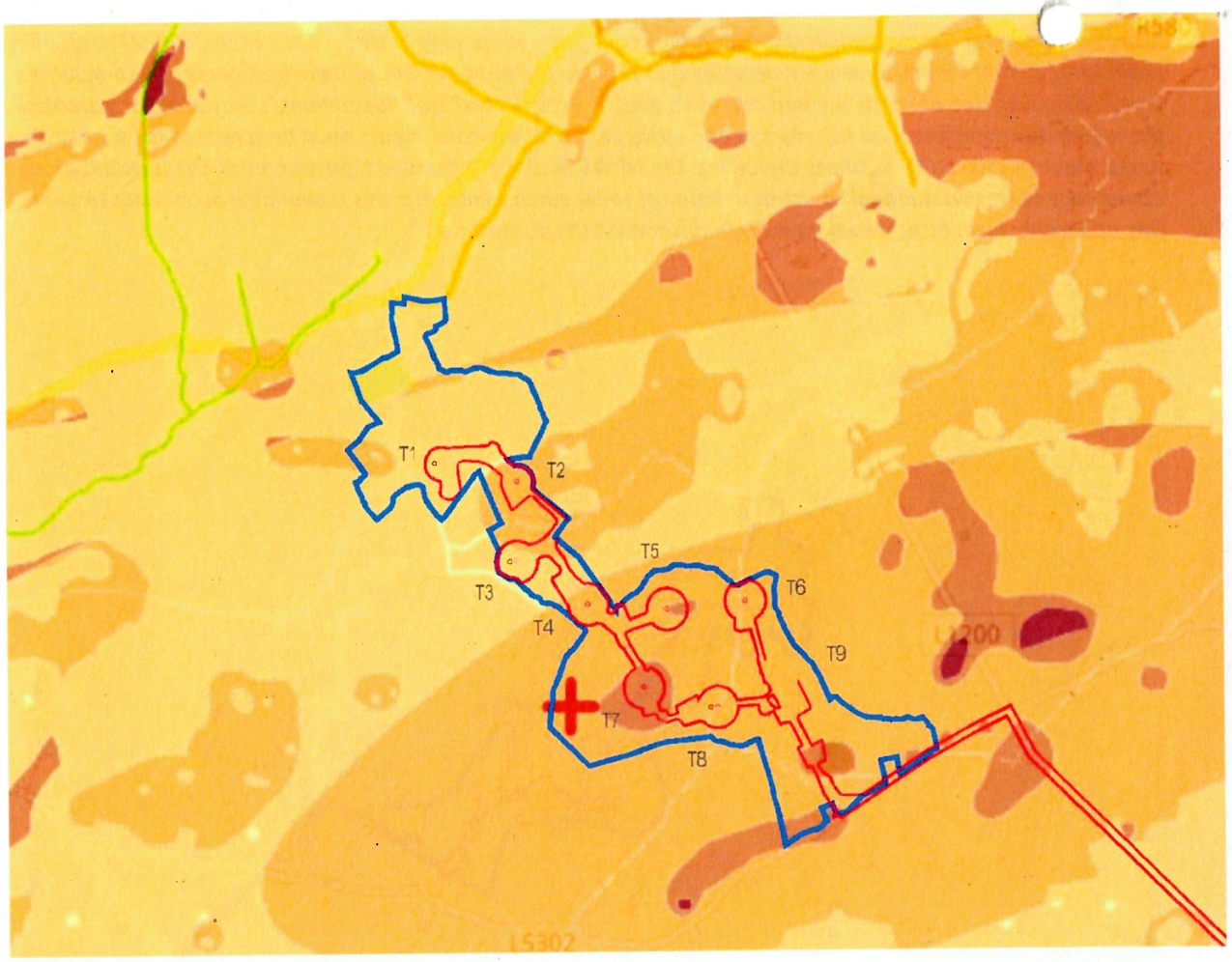
10. Orange Priority Flag – High Nitrate



Targeting Agricult ua l M easures Orange Priority Flag- high nitrate

TargetingAgMeasures	Orange Priority Flag - high nitrate
Name	LISDUGGAN_NORTH_010
SubBasin	IE_SW_18L450760
Local Authority	Cork County Council
NavyFlag	
RedFlag	
OrangeFlag	OrangePriorityFlag
WhiteFlag	
Receptor	Rivers in Subbasin and Downstream Estuary/Coast

Targeting Agricultural Measures **Navy & Orange Flags - phosphorus/sediment and nitrate losses**

TargetingAgMeasures	Navy & Orange Flags - phosphorus/sediment and nitrate losses
Name	BLACKWATER (MUNSTER)_090
SubBasin	IE_SW_18B021200
Local Authority	Cork County Council
NavyFlag	NavyFlag
RedFlag	
OrangeFlag	OrangeFlag
WhiteFlag	
Receptor	Rivers in Subbasin and Downstream Estuary/Coast

11. Road Requirements

Expert Report Attached: Transport Infrastructure Ireland Submission

- Entire cable route requires road excavation.
- Permanent loss of recreational country roads used for walking, cycling, and horse riding.

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12. Emergency Services Impact

- Delays from turbine access routes will cost lives.
- No assessment of emergency response times provided.
- Infringes Article 2 ECHR (right to life).

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13. Turbine Efficiency Considering Downtime

- Noise curtailment, flicker shutdowns, bird migration avoidance leaves only 6.75% true efficiency.
- Economically non-viable.
- It takes a wind turbine 20 years to replace and to be carbon neutral against the carbon used to make them – these are not "Green" energy for the first 20 years of their existance.

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14. Special Conservation Area Threats

- Natura 2000 SAC & SPA assessments non-compliant with Article 6(3) Habitats Directive 92/43/EEC.
- Mitigation proposals insufficient.

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15. Rebuilding Ireland National Policy Impact

- Violates National Planning Framework Objective 19 protecting generational farming families.
- 6-generation families' rural right to livelihood destroyed.

RFI 9. Derelict Houses as Sensitive Receptors - (Objective RP 5-30)

Under Rebuilding Ireland any derelict house roofed or not are regarded as a viable home inhabited or not.

"We are here first" We the people of the community have lived here for over 250 years.

Five Pillars of Rebuilding Ireland: S.I. No.25/2018

- Address Homlessness
- Accelerating Social Housing
- Building More Homes
- Improving the Rental Sector
- Making Better use of existing housing.

Conclusion: There has been a complete disregard for the redevelopment of viable structures under S.I. No.25/2018. Notably the closeness of Turbine T9 to a house under redevelopment is absurd and only 500m from that dwelling. We are here first .

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16. T.B. Risk and Impact

Expert Report Attached: Veterinary Consultant Submission

- Disturbance to badgers (Meles meles) and deer also present in the area will destabilize TB.
- Increased risk of bovine TB outbreaks.
- Risk to human TB resurgence.

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17. Planning Governance & Environmental Law Breaches

- Planning and Development Act 2000
- Directive 2011/92/EU (EIA Directive)
- Directive 2001/42/EC (SEA Directive)
- Directive 92/43/EEC (Habitats Directive)
- Directive 2009/147/EC (Birds Directive)

Documents Attached: Legal compliance report.

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18. Emergency Helicopter Flight Path Risks

Expert Report Attached: Irish Aviation Authority Submission

- Site conflicts with medical helicopters from Tramore, Shannon, Kerry, Cork.
- Turbines (574.1 ft) exceed safe minimum heights. (500ft)
- Rotor turbulence within 60m vertical drafts jeopardizes helicopter stability.

- Frequent fog worsens flight risks.
- Locations Tramore – Waterford Airport – Faranfore – Cork – Shannon
- A rather serious over sight is the impact that the wind turbines will have on the flight path of emergency helicopter that can only fly at 500 ft above ground when on an emergency flight for spotting injured persons. No one can say where an emergency will occur but it will more than likely not oblige a flight path and these turbines in this vastness over 1km on the site will cause a problem and an accident.

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19. Health Impact (Mental, Psychological, Physical)

- Noise, flicker, and stress impact ADHD, Autism, and sensory conditions.
- WHO 2018 Guidelines: Environmental Noise Exposure directly linked to cardiovascular and psychological diseases.
- Area classified as RED ZONE for radon exposure.

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20. Bird Impact (Whooper Swan, Peregrine, Owls)

- Migratory pathways disrupted.
- High collision risk for Whooper Swan, Peregrine Falcon, Barn Owl, and Long-Eared Owl.
- Regional population decline projected.

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20. Bat Habitat Impact (Cable Route and Rotor Sweeps)

- Threat to Brown Long-Eared Bats, Leisler's Bats, Pipistrelles.
- Echolocation disrupted by turbine noise.
- Hedgerow removal fragments vital habitat.

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21. Destruction of Archaeological Sites

- Tullacondra, Ardskeagh, Boherascrub & Grange contain Castle, Moat / Monastery, Fulacht Fiadh, ringforts, dolmens, and prehistoric dwellings.
- Nearby Grange dolmen indicates area's significance.
- Violation of National Monuments Acts 1930 to 2014.

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22. Destruction of Undisturbed Countryside

- Apex hilltop site dominates entire visual basin.
- Flat surrounding land offers no natural backdrop.
- Scenic views toward Kerry Mountains will be obliterated

23. Phosphorus/Nitrate Contamination of Corrin Site

- Site qualifies as Corrin site under EU Nitrates Directive context.
- Phosphorus/nitrate runoff will contaminate aquifers and springs

Appendix A: Definitions and Legal Context of Relevant EU Directive.

24. Archaeology

The Proposed Tullacondra Site has 14No. Archaeological sites.

Sites and Monuments CO024-037----

Code	CO024-037----
Class	Fulacht fia
County	CORK
Townland	ARDSKEAGH (Orrery and Kilmore By.)
Latitude	52.201516
Longitude	-8.739492

Sites and Monuments CO 024-031----

Code	CO024-031----
Class	Fulacht fia
County	CORK
Townland	DREENAGH WEST
Latitude	52.210386
Longitude	-8.75689

Sites and Monuments C O024056002-

Code	CO024-056002-
Class	Megalithic tomb - wedge tomb
County	CORK
Townland	KILMACLENINE
Latitude	52.201118
Longitude	-8.70771

Sites and Monuments C O024-091001-

Code	CO024-091001-
Class	Fulacht fia
County	CORK
Townland	TULLACONDRA
Latitude	52.195062
Longitude	-8.749492

Fulacht Fia – Definition – was the ancient field kitchen of the Fianna, the legendary soldiers of the High King of Ireland. The Irish word "Fulacht" denotes a pit used for cooking. "Fiadh" meaning "of the deer" or "of the wind" is derived from the early word "fian" – "of the Fiana or Fionn Mac Cumhail". Most commonly used in the bronze age between 3500 and 3000 years ago (C 1500 - 500 BC). They pre date the Pyramids in Egypt.
Fulacht Fiadh's were made:

A. By digging a rectangular hole in low lying land where it was sure to fill with water.
B. This was clad on the four sides with wooden sections
C. Large Stones were roasted over a fire and then placed in the water.
D. A joint of venison or boar was then wrapped in straw and put into the boiling water and cooked for a set period.

Fulacht Fia were always placed on or near wells or aquifers – water sources. I know this only too well as there is a fullacht fia on our family farm farmer by my brother Eoin.

The proposed site has 5No. Fulacht Fia – five sources of fresh water which makes since considering the previous outlined Points. There is an intrinsic connection from the Archaeology and the water that runs in these lands. Our water is precious to us. Only 1.2% of water on our planet is drinkable. Our oceans have salt and micro plastics most of our river and streams have contaminants. We have no excuse as a race knowing what we know to turn a blind eye. We all have to be responsible. Most of the world drinking water is locked up in glaciers, ice caps and permafrost or buried deep in the ground. Most of our drinking water comes from rivers and streams are we to pollute them beyond being a resource.

Conclusion

The planning approval granted by Cork County Council under file 24/5503 is in clear conflict with these binding European legal instruments. As outlined, the applicant has not provided sufficient safeguards to prevent catastrophic damage to the environment and water ways and this is a SAC Special Area of Conservation area or legal compliance to satisfy the minimum thresholds established by EU law and relevant case precedents. We respectfully request that An Bord Pleanála give full legal weight to these Directives in its adjudication of this appeal. We are a regulated country and there are no regulations or guidelines for the wind turbines in this case. Where by the site is Zoned "To be considered for Wind Energy" it is clear is it **not** suitable for Wind Turbines.

Yours Sincerely

Conor Long

Conor Long

Boherascrub, Buttevant, Co. Cork.
Email: conor.long@longdistributors.com
087 6794063

Appendix

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1. Directive 2011/92/EU (as amended by 2014/52/EU) – Environmental Impact Assessment (EIA Directive)
Definition: Ensures that projects likely to have significant effects on the environment are subject to an assessment prior to development consent.
Legal Cross-Reference:

- **C-411/17 Inter-Environnement Wallonie**: Reinforced the obligation for authorities to perform effective and transparent environmental assessments.

Relevance to Appeal:

- Inadequate EIA submitted by applicant.
- Violations in screening and public consultation process.
- Omissions include impacts on hydrology, public health, aviation safety, and ecology.

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2. Directive 2001/42/EC – Strategic Environmental Assessment (SEA Directive)
Definition: Requires environmental considerations to be integrated into plans and programmes, particularly in energy infrastructure.
Legal Cross-Reference:

- **C-295/10 Valciukiene and Others**: Established need for cumulative impact assessments in spatial planning.

Relevance to Appeal:

- Renewable energy zoning policy in County Development Plan lacks comprehensive SEA.
- Project fails cumulative impact test within a broader wind energy corridor.

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3. Directive 92/43/EEC – Habitats Directive
Definition: Protects natural habitats and species across Europe through the Natura 2000 network and mandates Appropriate Assessments under Article 6(3).
Legal Cross-Reference:

- **C-127/02 Waddenzee**: Any plan/project likely to have significant effects must undergo Appropriate Assessment.
- **C-258/11 Sweetman**: Reaffirmed "no reasonable scientific doubt" standard for project approvals.

Relevance to Appeal:

- The project site borders the Blackwater River SAC.
- Mitigation measures are speculative and do not satisfy legal thresholds.

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4. Directive 2009/147/EC – Birds Directive
Definition: Obliges Member States to protect all wild birds and their habitats, especially in SPAs.
Legal Cross-Reference:

- **C-418/04 Commission v Ireland**: Ireland failed to designate sufficient SPAs and protect bird habitats.

Relevance to Appeal:

- Kilcolman Bog SPA and Blackwater Callows SPA are within affected zones.
- High risk to Whooper Swan, Peregrine Falcon, and Barn Owl populations.

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5. Directive 2006/118/EC – Groundwater Directive
Definition: Focuses on preventing and controlling groundwater pollution, particularly from agricultural and infrastructural development.
Legal Cross-Reference:

- **C-535/18 Commission v Poland**: Mismanagement of groundwater protections deemed a breach of Directive obligations.

Relevance to Appeal:

- Karst terrain with fractured bedrock poses contamination risk.
- No protective measures against nutrient leaching into aquifers.

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6. Aarhus Convention (UN Economic Commission for Europe, 1998)
Definition: Grants rights to the public regarding access to environmental information, participation in decision-making, and access to justice.
Legal Cross-Reference:

- **C-240/09 Lesoochranárske zoskupenie**: Public must be allowed to participate effectively in environmental decisions.

Relevance to Appeal:

- Local communities not properly informed or involved.
- Planning files and EIA details not made accessible during decision window.

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7. Directive 85/337/EEC (superseded but precedential)
Definition: Foundation for the EIA system in Europe; consolidated into Directive 2011/92/EU.
Legal Cross-Reference:

- **C-72/95 Kraaijeveld**: Authorities must ensure that all relevant environmental concerns are addressed.

Relevance to Appeal:

- Historical case law influences interpretation of current EIA rules.
- Sets legal precedent for thorough environmental scrutiny.
-
