

An Coimisiún Pleanála
64 Marlborough Street
Dublin 1
D01 V902

Keith Revels & Jonathan Young
Farnane Wood
Cappagh
Co Waterford
X35 H422

20 November 2025

An Coimisiún Pleanála Case reference: VA93.323791

Development of a 110kV Electrical Substation and Grid Connection

We write to you as owners of part of the north bank of the Farnane River, which is downstream of the proposed wind farm and grid connection development on Scartmountain, Co Waterford.

Land Registry folio numbers: WD4010F, WD12766F, WD3185, WD4009F

Our property consists of:

- A stretch of the Farnane River measuring approximately 1.5km
- Approximately 7 hectares of forest, much of what can be classified as ancient native Irish woodland and further, temperate rain forest
- Approximately 3 hectares of pasture.
- A cottage dating from mid to late 1700s or early 1800s.

Having read the planning application we make the following submission and signal our strong objection to the proposed development.

Our submission highlight issues under the following headings:

1. Adverse impact on the Farnane, Magaha and Glenshelane rivers

These rivers have been identified by various bodies, detailed below, as having high quality water.

They support a diverse variety of invertebrates and other species and contribute greatly to the health of the surrounding environment such as providing insect prey to woodland birds.

The proposed wind farm site and grid connection route feeds into six rivers; Glenshelane, Glennafallia, Moneygorm, Finisk, Farnane and Colligan, all of which are fast-flowing, eroding watercourses that naturally lack fine sediment deposits.

As a result, they are highly vulnerable to sediment pollution, as well as contamination from clear felling and construction-related pollutants such as concrete, hydrocarbons, and drilling lubricants.

Any chemicals or detritus released during construction and ongoing operation of the wind farm are likely to leak in to and cause pollution of the river. This will have an adverse effect on the fauna and flora in the rivers and the environment surrounding them.

While the developers claim that they will install mitigating systems, a single accident, caused by either poor design, construction or maintenance, will destroy the river quality water and have catastrophic impact on the ecosystem of the whole catchment area. We draw your attention to the 2020 bog slide at the Meenbog wind farm development in Co Donegal and the 2003 peat slide at the Derrybrien wind farm development in Co Galway.

The water quality in the Farnane and other rivers is of very high quality. We want to keep it that way for the maintenance of biodiversity in these special ecosystems. The application should be rejected.

2. Adverse impact on Farnane Wood, an ancient temperate rain forest

Farnane Wood is an **ancient native woodland** and further, a **temperate rain forest**.

These rare habitats are dependent on and sensitive to the moisture provided by the rivers for rare species, especially mosses & ferns, and provide insect and other prey for woodland birds and animals.

These internationally important forests comprise 0.1% or less of their original extent and should therefore be protected.

The importance of our native woodlands has been recognised under the EU Habitats Directive, as demonstrated by the inclusion under Annex I of five woodland habitat types of relevance to Ireland, and the designation of numerous woodlands as Special Areas of Conservation (SACs), forming part of the European-wide Natura 2000 network.

Under the Habitats Directive, the entire national resource of Annex I woodlands, **both designated and non-designated**, must be managed and restored to achieve favourable conservation status.

Pollution of the Farnane River will adversely impact the delicate interconnecting ecosystems of this ancient woodland and temperate rain forest. The application should be rejected.

3. Observations regarding adherence to policies and objectives of the Waterford City and County Development Plan 2022-2028

The [Waterford City and County Development Plan 2022-2028](#) came into force in July 2022.

The plan contains development management standards, policies, objectives and references statutory guidelines which will inform decision making over the period of the plan.

The development contravenes specific policies, namely:

- The proposed wind farm is located in an area expressly excluded from such developments. We note that the project being proposed is inside an exclusion zone for Wind Energy was one of the reasons cited by An Coimisiún Pleanála for refusing permission (ABP-317265-23) for the neighbouring Dyrick Hill Windfarm. We believe that An Coimisiún Pleanála should be consistent and refuse the Scartmountain development too.
- Its location is classified in the Landscape and Seascape Character Assessment as ‘most sensitive’ which is defined as a landscape with “very distinctive features with a very low capacity to absorb new development without significant alterations of existing character over an extended area”.

The proposed wind farm clearly breaches key provisions of the Waterford City and County Development Plan 2022-2028. The application should be rejected.

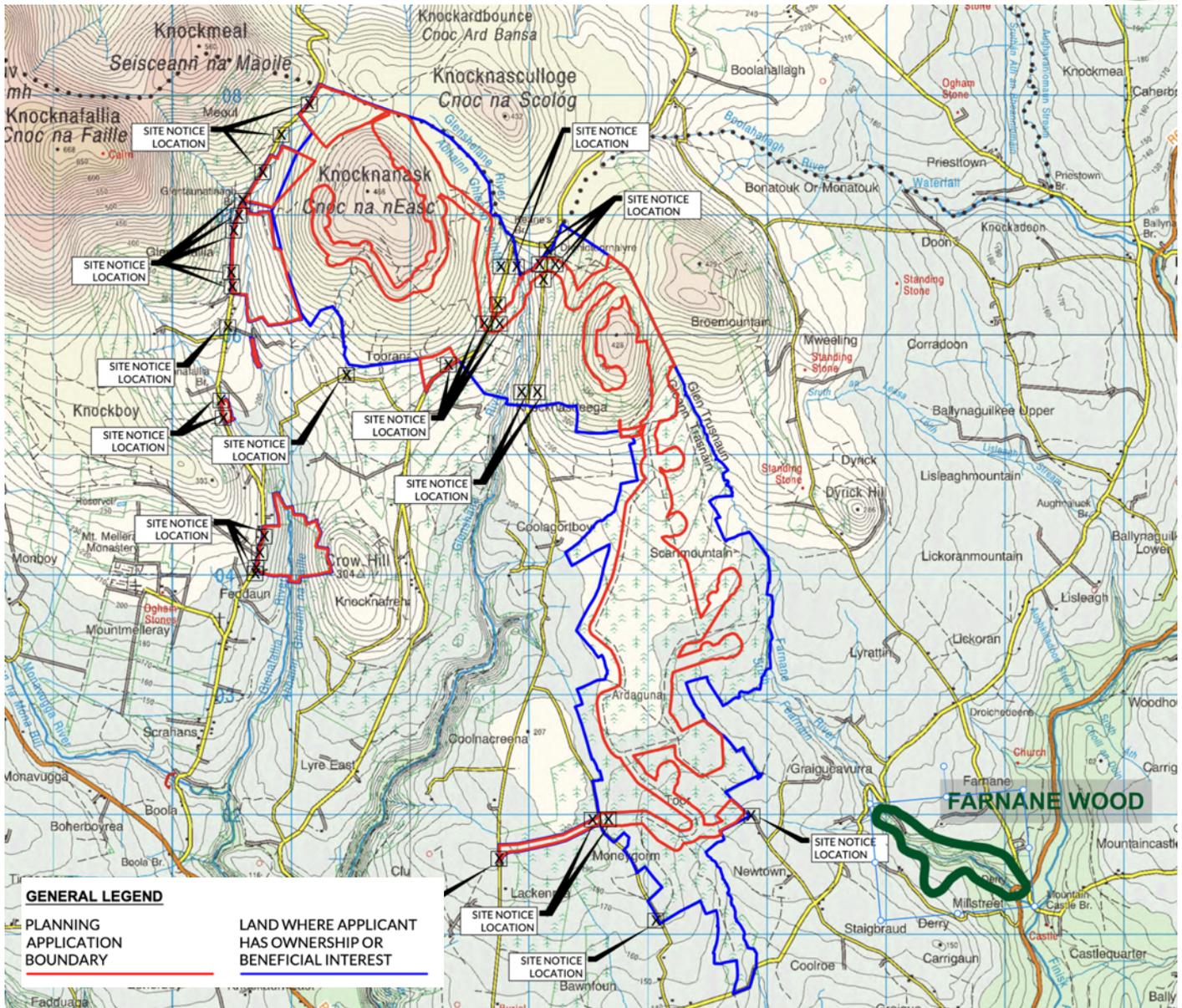
We have included additional supporting information below.

This submission is based on one we sent to you on 27 February 2025 in respect of PA93.321522 because the two proposals are interdependent, the points in the previous one are relevant to this and this submission contains additional points of note (in red).

With best wishes

Keith Revels & Jonathan Young

1. Location of our property



Source: Wind Farm outline from planning application © TOBIN

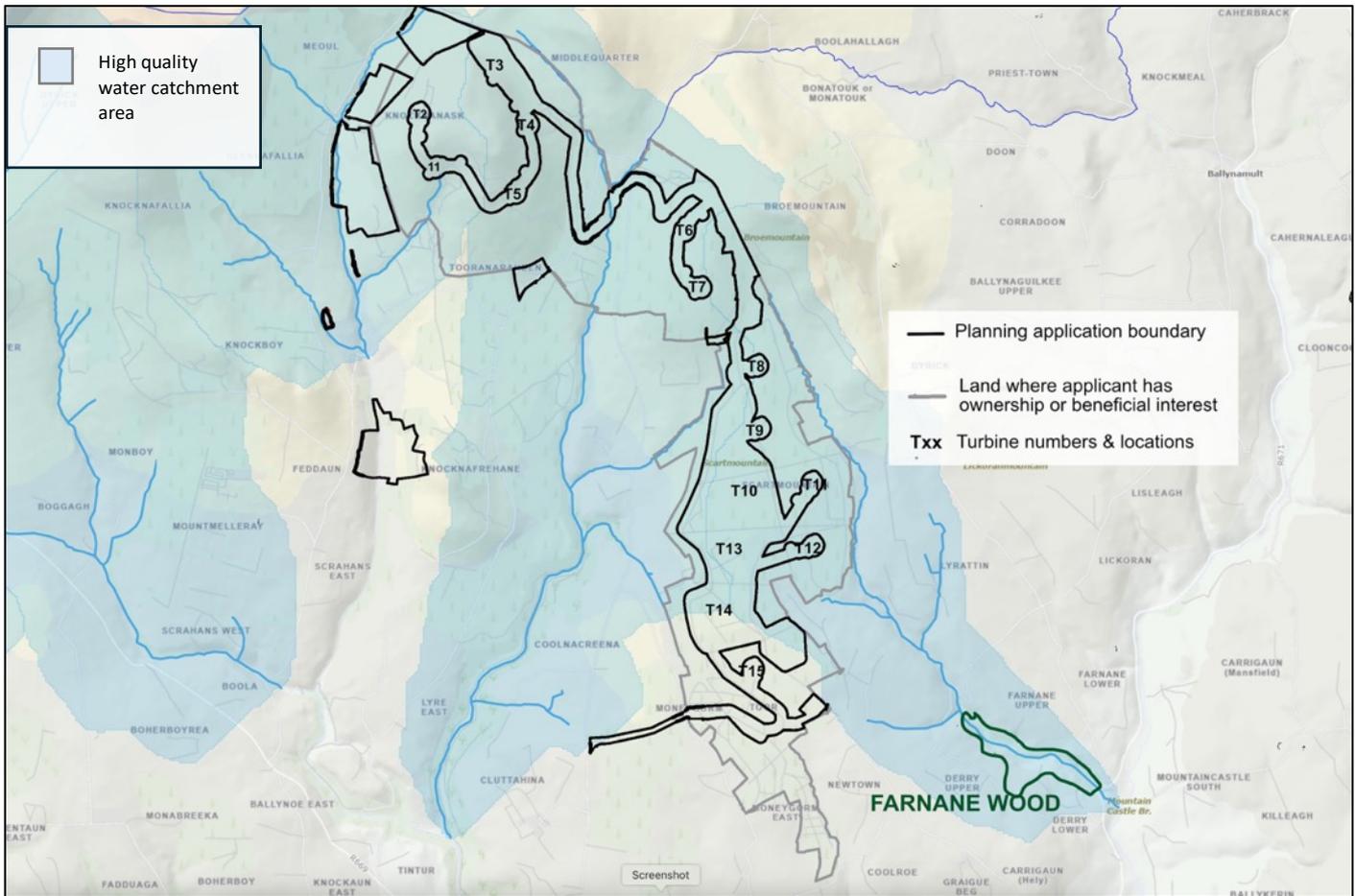
The above image shows the location of the section of the Farnane Wood and River we own relative to the proposed development. It is within 1.5km of the proposed site.

A reason for including this map in our submission is to display that we have taken the utmost care to superimpose the outline of the proposed development on to maps from a variety of agencies.

2. Impact on the Farnane and other rivers



a. Waterford City and County Council High Water Quality River Map



Base map source: [Waterford City and County Council high quality river map](#)

Overlay sources: Wind farm outline from planning application © TOBIN

Waterford is very fortunate to have a number of rivers that retain the highest level of water quality as monitored by the EPA. These high status water bodies are part of the Blue Dot Catchment Network - a Water Quality Monitoring Programme managed by the Local Authority Waters Programme aims to protect and maintain the excellent water quality of these rivers.

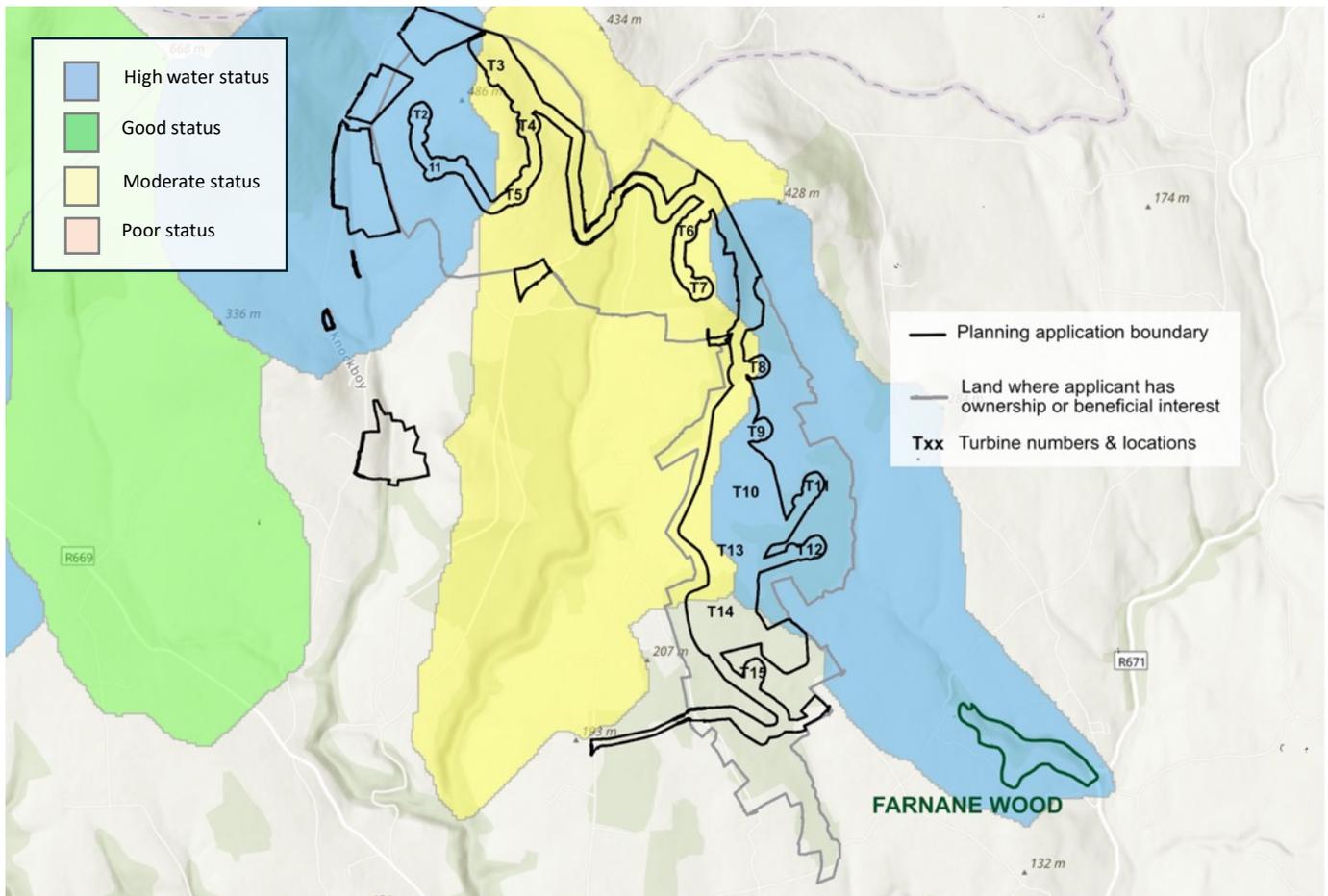
Under the Water Framework Directive, River Basin Management Plans set out objectives to protect these sites and to restore water quality of other waterbodies. **A catchment based approach shall be applied to the assessment of planning applications which may impact on water quality to ensure that development will not result in a reduction of water quality status of a waterbody in that catchment.**

Maintaining our Blue Dot Catchment is essential for wildlife habitats, human health and our tourism industry.

Text source: Waterford City and County Council

The vast majority of the proposed development is in a high quality water catchment area. The application should be rejected.

b. Waters of LIFE



Base map source: [Waters of LIFE project](#)

Overlay sources: Wind farm outline from planning application © TOBIN

[Waters of LIFE](#) is an EU funded LIFE Integrated Project which aims to help reverse the deterioration of Ireland's most pristine waters. Partners include:

- The Department of Agriculture, Food and the Marine
- The Department of Housing, Local Government and Heritage

The project defines high status surface water bodies as “the rivers, lakes, estuarine and coastal waters with the best quality water. **These waters are home to lots of species that are sensitive to pollution and would not survive in lower quality waters.** High status waters have a natural physical form that has not been changed by human activities e.g. humans have not straightened the river channel or built hard structures to support the river banks. These waters have excellent water quality with little or no excess nutrients and healthy river beds, free of excess siltation.

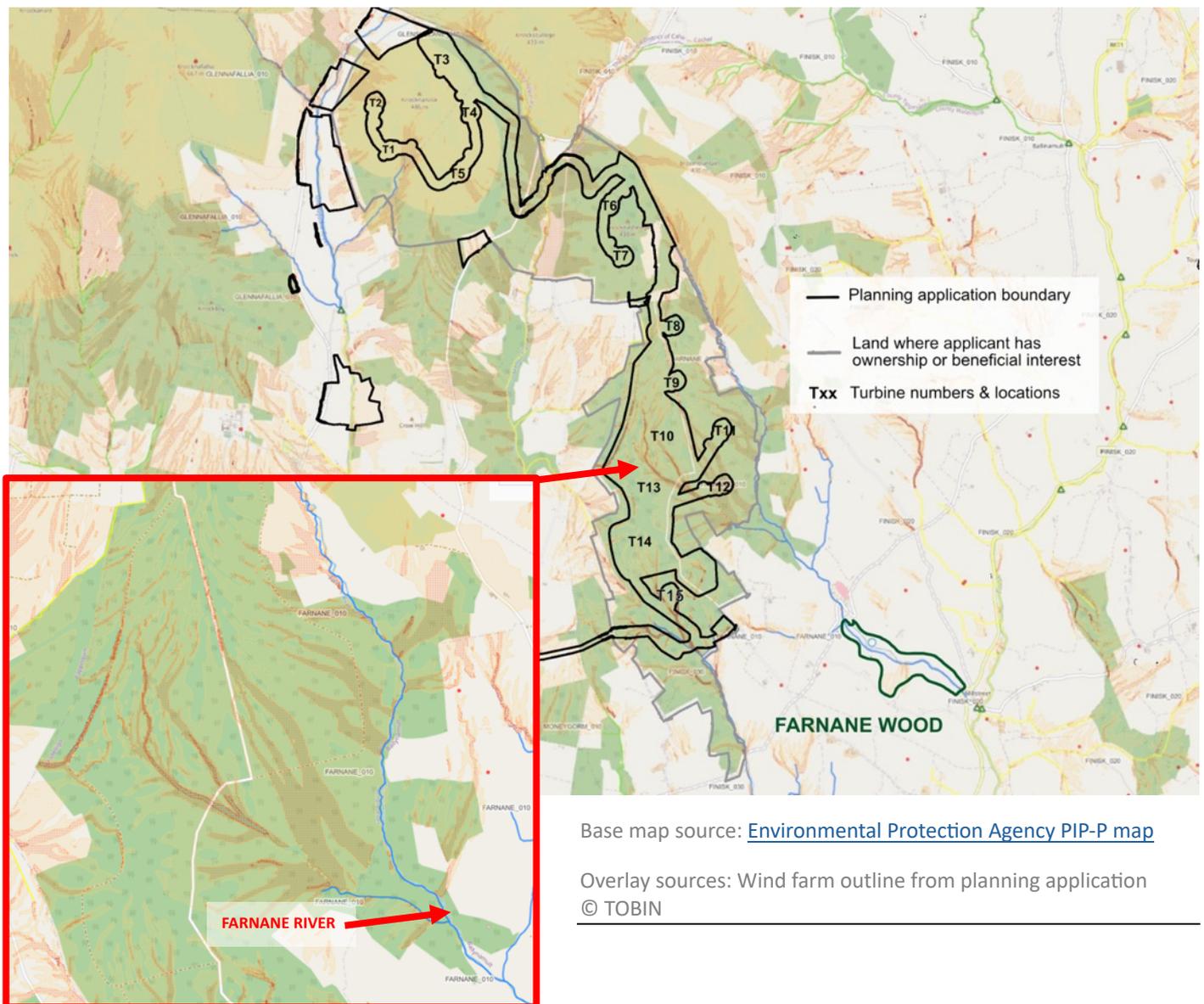
High Status Objective or “blue dot“ water bodies are water bodies which are either currently at high status or have been at high status in the recent past and for which a target of restoring them to high status has been set in the River Basin Management Plan for Ireland 2022 to 2027.

Text source: Waters of LIFE project

Regarding the area of ‘moderate status’, we note that the GLENSHELANE_010 and GLENNAFALLIA_020 water testing stations operated by the Environmental Protection Agency (EPA) are located at the southern tip of the yellow area on the map. The sample we commissioned was much further up the water course and the results indicate that water quality is high.

Waters of LIFE has classified the Farnane River and many of the nearby ones as high status. The application should be rejected.

c. Pollution Impact Potential - Phosphorus Flow Delivery Paths



Focused Delivery Flow Paths are the areas of converging runoff that results in an increasing accumulation of flow.

The red flow paths have the highest surface runoff.

Nitrate and phosphorus help plants grow. Too much of these nutrients in water can result in eutrophication (excessive richness of nutrients which causes a dense growth of plant life). This excessive growth out-competes other plants, uses up dissolved oxygen, and blocks light to deeper waters, leading to imbalances in the ecosystem.

Text source: Environmental Protection Agency

The Environmental Protection Agency has determined that there are Phosphorus Flow Delivery Paths from the proposed development feeding in to the Farnane River.

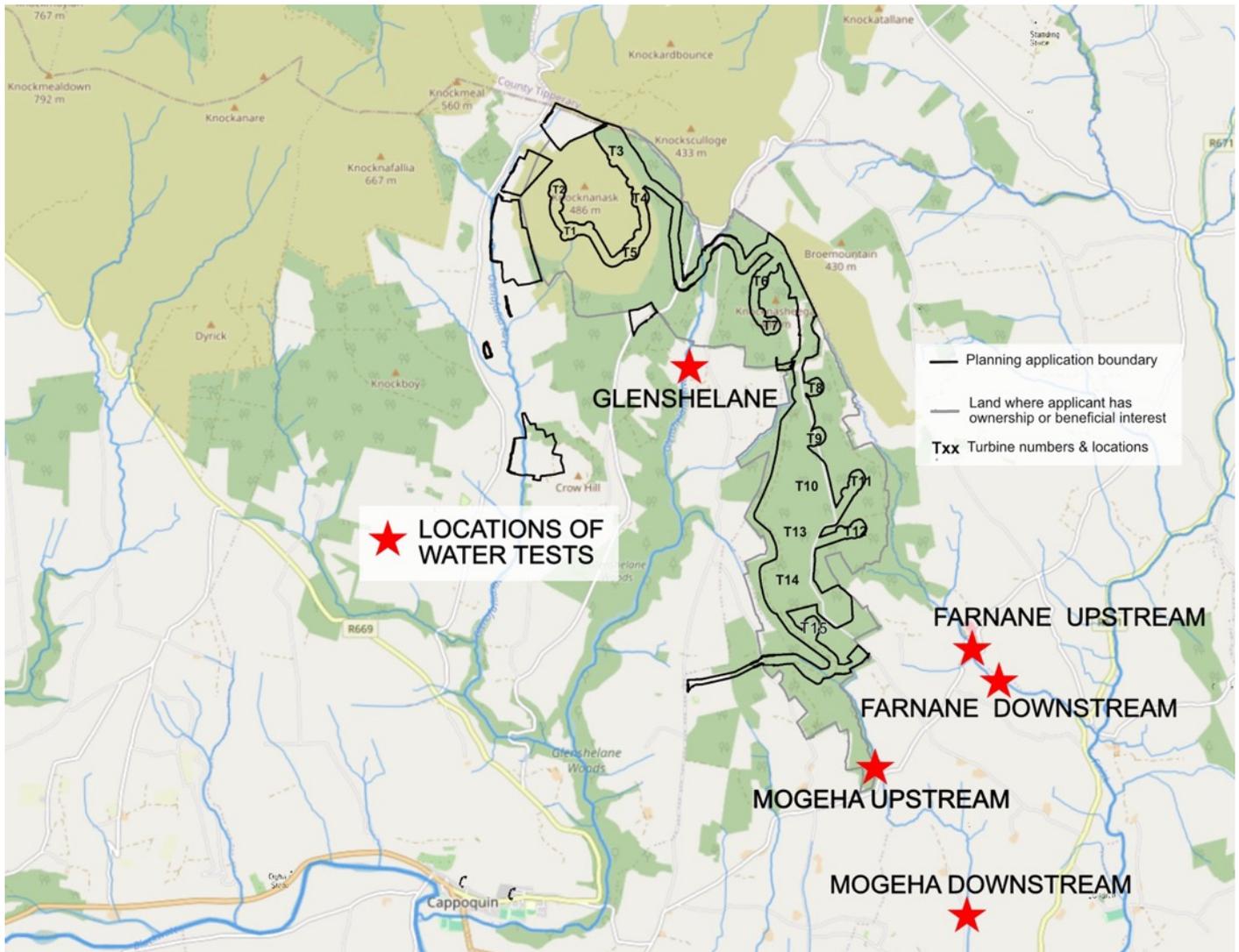
The construction of the site is likely to exacerbate this flow and thus increase the phosphorus levels in the river and leading to eutrophication.

These flows also demonstrate paths where chemicals leaking from the construction, operation and maintenance of wind farm would enter the local water courses.

The map above clearly shows flow delivery paths from the proposed site in to the Farnane River. The application should be rejected.

d. River water samples taken on Friday 14 February 2025

We commissioned [IAS laboratories](#) of Bagnelstown, Co Carlow, to sample the Farnane River and 2 others downstream of the proposed wind farm.



Base map source: [Environmental Protection Agency](#)

Overlay sources: Wind farm outline from planning application © TOBIN

The water testing results

Table 1: Results taken from a range of parameter sources

The Environmental Protection Agency are responsible for testing the water quality of Irish rivers. Unfortunately they do not publish either their methodology or many of the parameters they use. We have thus had to determine these parameters for river surface testing from a variety of sources. We have endeavoured to use authoritative sources.

We believe that using these sources show that the overall quality of the water in the rivers is a very high standard.

These are:

TEST USED	Description and links to sources
EPA	The Environmental Protection Agency <ul style="list-style-type: none"> Water quality monitoring report on nitrogen and phosphorus concentrations in Irish waters 2023
EPA PWQ	The Environmental Protection Agency <ul style="list-style-type: none"> Parameters of Water Quality – Interpretation and Standards, 2001
UK	UK Government <ul style="list-style-type: none"> The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015 Department for Environment Food & Rural Affairs - Water Framework Directive implementation in England and Wales: new and updated standards to protect the water environment
Drinking	IAS Laboratories <ul style="list-style-type: none"> Your Drinking Water Analysis Explained

High	Good	Moderate	Poor
------	------	----------	------

Parameter	Units	TEST USED	Parameters used	FARNANE DOWNSTREAM	FARNANE, UPSTREAM	MOGEHA DOWNSTREAM	MOGEHA UPSTREAM	GLENSHELANE
Biochemical Oxygen Demand	mg/l	UK	High: 3 Good: 4 Moderate: 6 Poor: 7.5 Bad: >7.5	3	2	4	4	1
Chemical Oxygen Demand	mg/l	EPA PWQ	A1: N/A A2: N/A A3: 40	24	23	44	54	21
Conductivity	µS/cm	EPA PWQ	1,000	114.5	80	124.4	102.6	57.4
Dissolved Oxygen	mg/l O2	EPA PWQ	12.2	11.61	11.01	10.62	10.66	10.97
Dissolved Oxygen	%	EPA PWQ	A1: 60% A2: 50% A3: 30%	93.4	90.7	89.3	91.3	91.3
Ammonium	mg/l NH4	EPA PWQ	A1: 0.2 A2: 1.5 A3: 4	0.04	0.03	0.19	0.17	<0.03
Nitrite	mg/l NO2	Drinking	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate	mg/l NO3	EPA	High: <4 Good: 4-8 Poor: 8-11.5 Bad: >11.5	6.16	5.72	10.56 *	5.72	<4.4
Orthophosphate P	mg/l P	EPA	High <0.025 Good: 0.025-0.035 Poor: >0.035	0.03	0.02	0.11 *	0.09 *	<0.01
Total Phosphorus	mg/l P	EPA PWQ	A1: 0.5 A2: 0.7 A3: 0.7	0.06	0.04	0.21	0.19	<0.01
pH	pH units	PWQ	A1: 5.5 - 8.5 A2: 5.5 - 9.0 A3: 5.5 - 9.0	7.3	7.2	7.3	6.9	7
Temperature Site	Degrees Celsius	N/A	N/A	6.7	6.6	7.2	6.6	6.6
Total Nitrogen	mg/l	PWQ	A1: 5 A2: 10 A3: 20	1.7	0.9	3.3	1	<0.5

* These results may have been affected by the visible slurry spreading near the sampling point.

Table 2: Results taken from the experience of IAS Laboratories testing well drinking water

As an alternative way of gauging the quality of the water in these rivers, the table below uses as a base parameter, the figures for drinking water. The parameters are based on many years of experience by IAS Laboratories.

We believe that these results show that the overall quality of the water in the rivers is a very high standard.

Parameter	Units	Parameters used	FARNANE DOWNSTREAM	FARNANE, UPSTREAM	MOGEHA DOWNSTREAM	MOGEHA UPSTREAM	GLEANSHANE
Biochemical Oxygen Demand	mg/l	N/A	3	2	4	4	1
Chemical Oxygen Demand	mg/l	25	24	23	44	54	21
Conductivity	µS/cm	2,500	114.5	80	124.4	102.6	57.4
Dissolved Oxygen	mg/l O2	N/A	11.61	11.01	10.62	10.66	10.97
Dissolved Oxygen	%	80	93.4	90.7	89.3	91.3	91.3
Ammonium	mg/l NH4	0.3	0.04	0.03	0.19	0.17	<0.03
Nitrite	mg/l NO2	0.1	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate	mg/l NO3	50	6.16	5.72	10.56	5.72	<4.4
Orthophosphate P	mg/l P	2	0.03	0.02	0.11	0.09	<0.01
Total Phosphorus	mg/l P	2	0.06	0.04	0.21	0.19	<0.01
pH	pH units	6.5 – 9.5	7.3	7.2	7.3	6.9	7
Temperature Site	Degrees Celsius	N/A	6.7	6.6	7.2	6.6	6.6
Total Nitrogen	mg/l	N/A	1.7	0.9	3.3	1	<0.5

[See Appendix 1 for full water sample results >](#)

The samples taken and analysed by IAS Laboratories confirm other studies that the water in the catchment area adjacent to the proposed wind farm is of very high quality. The application should be rejected.

e. Impact on aquatic species in the catchment area rivers

White-clawed Crayfish (*Austropotamobius pallipes*)

The White-clawed Crayfish is listed on Annex II and Annex V of the Habitats Directive and the species is protected in Ireland under the Wildlife Acts. It is an important species ecologically both as a grazer of plants and as a favoured food item of the Otter. This species is mostly found in pristine water and is especially sensitive to sediment.

National Parks and Wildlife Service (NPWS) confirmed the presence of white-clawed Crayfish in otter scat on the banks of the Farnane River on 28 May 2025.

We do not have confidence that the developer conducted surveys in places where the water quality is high enough to support crayfish populations. The water quality tests we commissioned confirmed that these rivers are suitable for crayfish.

Pearl mussels

While NPWS did not find adult pearl mussels during a survey of the Farnane River on 20 August 2025, they are of the opinion that the aquatic environment is very suitable for mussels.

We disagree with the developer's assertion that no suitable habitat to support these species was recorded within the study area.

In addition, there is no evidence in the developer's submission that they conducted electro-fishing surveys to confirm the presence of pearl mussel larvae on fish gills, which is part of the pearl mussel breeding cycle.

Otters

Otter scat with the remains of crayfish was found by NPWS on the banks of the Farnane River on 28 May 2025.

This confirms the presence of a healthy predator and prey ecosystem.

Invertebrates

The EPA conduct regular surveys of the affected river catchment area and many of the invertebrate species found by these surveys are clearly indicative of high quality water status.

[Data set for the Farnane River](#) > Type 'Farnane' in the search field on the bottom right of the screen.

An example of an uncommon species recorded in the Farnane tests was the *Dinocras cephalotes* (*large stonefly*). These are only found in isolated populations, in only a limited number of upland fast flowing rivers with stable substrata. It is considered a top predator in its riverine habitat, and its presence is an indicator of very good water quality.

[Biodiversity map of *Dinocras cephalotes*](#) >

NPWS carried out kick test sampling in the Farnane River on 28 May 2025. These tests confirmed the presence of Q1 and Q2 invertebrates including multiple species of Stonefly, Caddisfly, Mayfly, Gammarids, Banded Demoiselle Dragonfly, Flatworm and Alderfly. Many were of exceptional size.

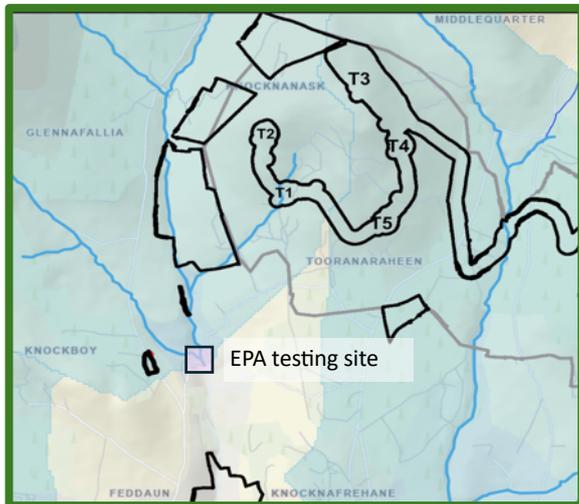
A single accidental discharge of inert material and chemicals is likely to permanently eradicate species such as these from all downstream waterways.

Both the Glennafallia and Farnane EPA testing sites are at the edge of a high quality river water area indicating there is a likelihood of greater invertebrate biodiversity upstream. Further, it should be noted that the EPA sample for the Farnane River was taken at its confluence with the Finisk River, which has lower water quality than the Farnane. The NPWS survey confirms that there is a greater diversity to be found further upstream.

Glennafallia river

Since testing began in 2009, 28 individual taxa of invertebrates have been recorded.

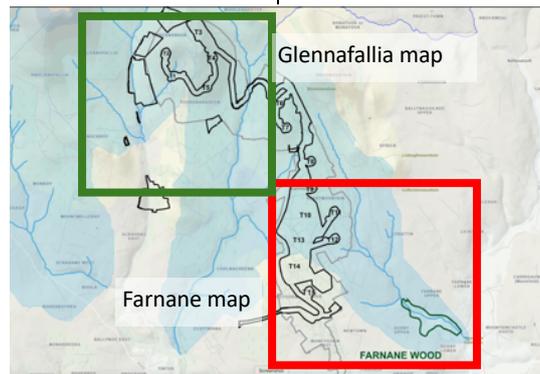
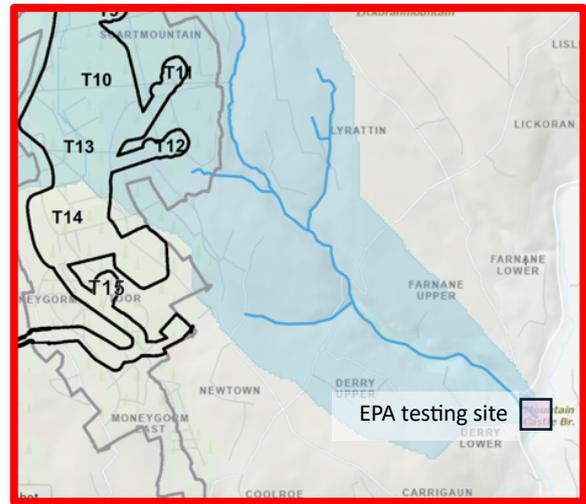
Note: it is less than 2km from Turbine 1 and the water course flows directly from inside the development area meaning that any spillage of chemicals or detritus will greatly impact the invertebrates.



Farnane river

Since testing began in 2009, 34 individual taxa of invertebrates have been recorded.

There is a clear water course path for seepage of sediment and chemicals from the proposed wind farm.



A single accidental discharge of inert material and chemicals is likely to permanently eradicate species such as these from all downstream waterways. The application should be rejected.

3. Impact on Farnane Wood



Ancient woodland is defined in Ireland as “an area assessed as having been under woodland cover since 1660, based on the oldest reliable national records such as estate records and the Down and Civil Surveys”.

“Any woodland that appears on the 1st Edition 6 inch Ordnance Survey (OS) maps produced in the 1830s and 1840s should be considered as possible ancient woodland, unless there is evidence to the contrary.”

Source: [Management Guidelines for Ireland's Native Woodland](#)

Maps of Farnane Wood

1st edition Ordnance Survey 6 Inch map



Source: Tailte Éireann

Farnane Wood is clearly shown on the first edition Ordnance Survey 6 Inch map. The mapping for this edition was surveyed between 1829 and 1834.

This illustrates that Farnane Wood was already well established at this time. NPWS are firmly of the opinion that this is an **ancient native Irish woodland**.

1670 Down survey map



Source: [Trinity College Dublin Down Survey](#)

While woodland is not displayed on the Down Survey of 1670, Farnane is clearly shown.

The Farnane Wood is on steep banks on either side of the Farnane River. This land is not suitable for agriculture and so it is highly likely that it has been there for many centuries.

Further, Farnane Wood is a **temperate rain forest**.

These are very rare habitats in Ireland comprising 0.1% or less of their original extent and should therefore be protected.

Characteristics of temperate rain forests are:

- abundance and lushness of mosses, liverworts (collectively known as *bryophytes*) and ferns.
- plants which grow on other plants are known as *epiphytes*. For example, ferns on trees



Bird monitoring

In addition to relatively common birds such as blackbirds, robins and wrens, and less common ones such as chiffchaff, goldcrest, bullfinch, chaffinch, mistle thrush and song thrush, **acoustic monitoring** by the [Native Woodland Trust](#) of sites along the Farnane River also confirmed the presence of:

- **Lapwing**, a Red-listed bird according to Birds of Conservation Concern in Ireland 2020-2026 and is of high conservation value as a result. The last IUCN Red List assessment, carried out in 2016, notes the Lapwing as a 'Near Threatened' species on a global scale. Additionally, the population was assessed as decreasing.
- **Gadwall**, a species of Duck, rare as a breeding species in Ireland
- **Spotted Flycatcher**, a declining Amber-listed bird of conservation concern.

Any adverse impact on the hydrology or water quality of these river systems could reduce available insect prey below the threshold at which these species can breed in the woodlands.

Red squirrels

The red squirrel (*Sciurus vulgaris*) in Ireland plays a crucial role in the ecosystem, contributing to seed dispersal and influencing forest regeneration. They are protected under the Wildlife Act (1976) and Wildlife (Amendment) Acts (2000 & 2010) and the Bern Convention (Appendix III).

We often see them in Farnane Wood. The photograph shows one gathering nuts in one of the forest paths.



Farnane Wood is an ancient temperate rain forest.

This rare habitat is dependent on the ecological health of the Farnane river so is sensitive to and degradation of the water which could be caused by seepage of sediment or chemicals from poor design, construction and ongoing operation of the proposed wind farm and ancillary grid connection works.

The application should be rejected.

Observations regarding adherence to policies and objectives of the Waterford City and County Development Plan 2022-2028



Summary

The [Waterford City and County Development Plan 2022-2028](#) came into force in July 2022.

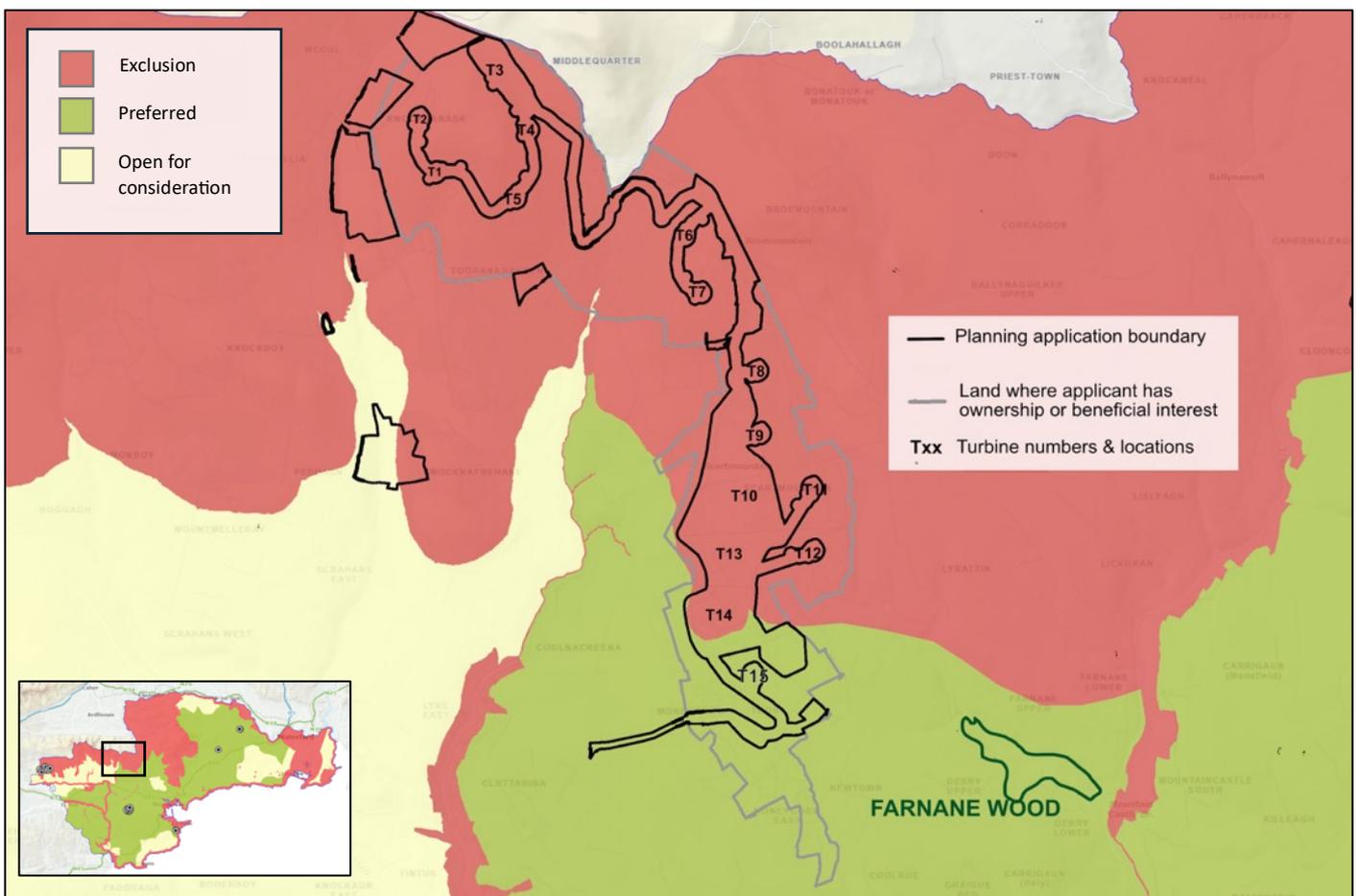
The plan contains development management standards, policies and objectives and references statutory guidelines which will inform decision making over the period of the plan.

The Wind Energy Designation Map and the Landscape and Seascape Character Assessment Map identify different landscape character areas and associated landscape sensitivities.

The proposed wind farm development contravenes specific policies that deal with the location of wind farms and sensitive landscapes. The application should be rejected.

Supporting information

Wind farm exclusion



Base map source: [Waterford City and County Council wind farm exclusion map](#)

Overlay sources: Wind farm outline from planning application © TOBIN

The Wind Energy Policy as per the Waterford City and County Development Plan categorises the County into four areas of suitability for wind farm development:

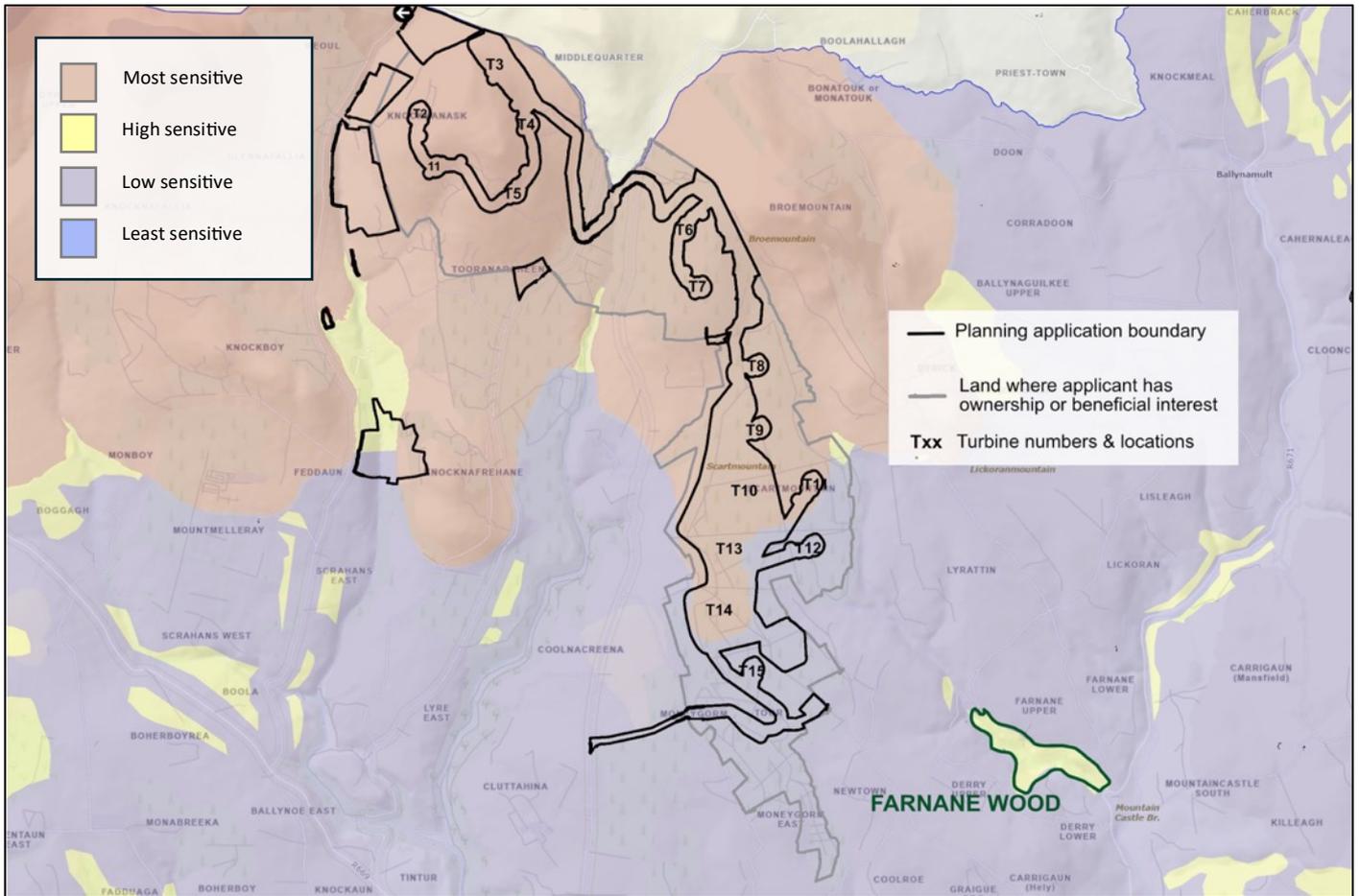
- **Preferred:** Areas which are suitable and should generally be considered for permission unless local circumstances dictate otherwise.
- **Open to consideration:** Proposals for wind farms will be assessed on their merits with responsibility on the developer to demonstrate suitability of the site.
- **Excluded:** Areas which are unsuitable for wind farm development.

Text source: Waterford City and County Council:

The Plan states that the Council will facilitate and encourage renewable energy where appropriate, and that all applications should be compatible with the Waterford Renewable Energy strategy “and in particular, the wind energy designation map contains within the strategy”.

The vast majority of the proposed Scartmountain wind farm is situated in an area that the Development Plan expressly excludes the building of wind farms in. The application should be rejected.

Landscape and Seascape Character Assessment



Base map source: [Waterford City and County Council Landscape and Seascape Character Assessment Map](#)

Overlay sources: Wind farm outline from planning application © TOBIN

The Landscape and Seascape Character Assessment (LSCA) is the process of understanding and documenting the range of factors that contribute to the unique physical identity of a particular geographical area.

The following provides an overview of the various sensitivity classifications displayed on the LSCA Map:

- **Most sensitive:** Very distinctive features with a very low capacity to absorb new development without significant alterations of existing character over an extended area.
- **High sensitive:** Distinctive character with some capacity to absorb a limited range of appropriate new developments while sustaining its existing character
- **Low sensitive:** A common character type with a potential to absorb a wide range of new developments
- **Least sensitive:** Areas of existing development and infrastructure. New development reinforces existing desirable land use patterns.

Text source: Waterford City and County Council

The Council states that they “will protect the landscape and natural assets of the County by ensuring that proposed developments do not detrimentally impact on the character, integrity, distinctiveness or scenic value of their area and ensuring that such proposals are not unduly visually obtrusive in the landscape, in particular, in or adjacent to the uplands, along river corridors, coastal or other distinctive landscape character units.”

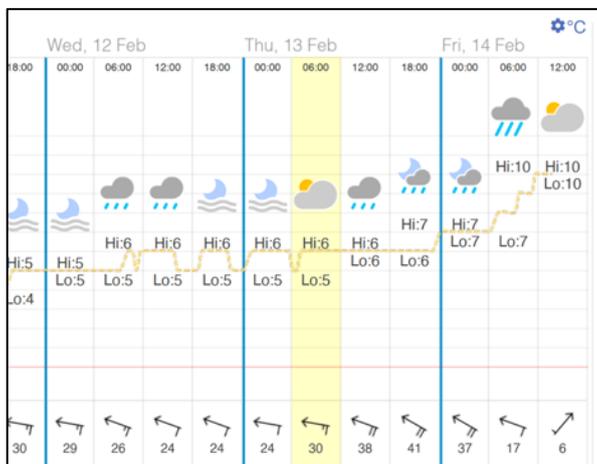
The vast majority of proposed wind farm development is located in a landscape designated as ‘most sensitive’. Farnane Wood is classified as ‘high sensitive’. The application should be rejected.

Appendix 1 – River water samples

The samples were taken by [IAS laboratories](#) on Friday 14 February 2025 late morning and early afternoon at the following places:

Farnane River Upstream	52°10'19.4"N 7°46'08.2"W
Farnane River Downstream	52°10'05.4"N 7°45'51.5"W
Mogeha River Upstream	52°09'32.2"N 7°46'58.1"W
Mogeha River Downstream	52°08'39.2"N 7°46'07.6"W
Glenshelane River	52°11'59.9"N 7°48'50.2"W

There had been heavy rain over night. This resulted in the rivers not being as clear as they usually are. The image below shows the weather at Dungarvan.





Test Report

Lab Report Number: 42935S002

Customer ID:	YOUN.J4	Analysis Type:	99A (99A)
Contact Name:	JONATHAN YOUNG	Delivery By:	IAS COLLECTION CHARGABLE
Company Name:	JONATHAN YOUNG	Sample Card Number:	1402-YOUNG
Address:	FARNANE UPPER CAPPAGH DUNGARVAN CO.WATERFORD	Condition on Receipt:	Acceptable
Sample Type:	SURFACE WATER	Sample Date:	14/02/2025
Sample Reference:	RIVER TESTING 14/02/2025	Sample Time:	
Sample Description:	FARNANE RIVER, UPSTREAM	Date Sample Received:	14/02/2025
		Date Analysis Commenced:	14/02/2025
		Date Certificate Issued:	25/02/2025

Parameter	Method	Result	Unit
Biochemical Oxygen Demand	SOP 2006	2	mg/l
Chemical Oxygen Demand	SOP 2005	23	mg/l
Conductivity	SOP 2076	80.0	µS/cm 20°C
Dissolved Oxygen*	Site	11.01	mg/l O ₂
Dissolved Oxygen*	Site	90.7	%
Ammonium	SOP 2130	0.03	mg/l NH ₄
Nitrite	SOP 2134	<0.10	mg/l NO ₂
Nitrate	SOP 2138	5.72	mg/l NO ₃
Orthophosphate P	SOP 2135	0.02	mg/l P
Total Phosphorus	SOP 2126	0.04	mg/l P
pH	SOP 2004	7.2	pH units
Temperature Site*	Site	6.6	Degree Celsius
Total Nitrogen	SOP 2075	0.9	mg/l

Signed: Laura Kavanagh

Date: 25/02/2025

Laura Kavanagh - Site Lead

* = not INAB Accredited ^ = Subcontracted

This report must not be reproduced, except in full, without the prior written approval of IAS Laboratories. This report relates only to the sample submitted and tested.

Opinions and interpretations expressed herein are outside the scope of INAB accreditation. Uncertainty of Measurement is not taken into account for any test results reported.



IAS Laboratories, Unit 4 Bagenalstown Bus. Park, Bagenalstown, Co Carlow, R21 YX99



Independent Analytical Supplies

Test Report

Lab Report Number: 42935S001

Customer ID:	YOUN.J4	Analysis Type:	99A (99A)
Contact Name:	JONATHAN YOUNG	Delivery By:	IAS COLLECTION CHARGABLE
Company Name:	JONATHAN YOUNG	Sample Card Number:	1402-YOUNG
Address:	FARNANE UPPER CAPPAGH DUNGARVAN CO.WATERFORD	Condition on Receipt:	Acceptable
Sample Type:	SURFACE WATER	Sample Date:	14/02/2025
Sample Reference:	RIVER TESTING 14/02/2025	Sample Time:	
Sample Description:	FARNANE RIVER, DOWNSTREAM	Date Sample Received:	14/02/2025
		Date Analysis Commenced:	14/02/2025
		Date Certificate Issued:	25/02/2025

Parameter	Method	Result	Unit
Biochemical Oxygen Demand	SOP 2006	3	mg/l
Chemical Oxygen Demand	SOP 2005	24	mg/l
Conductivity	SOP 2076	114.5	µS/cm 20°C
Dissolved Oxygen*	Site	11.61	mg/l O ₂
Dissolved Oxygen*	Site	93.4	%
Ammonium	SOP 2130	0.04	mg/l NH ₄
Nitrite	SOP 2134	<0.10	mg/l NO ₂
Nitrate	SOP 2138	6.16	mg/l NO ₃
Orthophosphate P	SOP 2135	0.03	mg/l P
Total Phosphorus	SOP 2126	0.06	mg/l P
pH	SOP 2004	7.3	pH units
Temperature Site*	Site	6.7	Degree Celsius
Total Nitrogen	SOP 2075	1.7	mg/l

Signed: *Laura Kavanagh*

Date: 25/02/2025

Laura Kavanagh - Site Lead

* = not INAB Accredited ^ = Subcontracted

This report must not be reproduced, except in full, without the prior written approval of IAS Laboratories. This report relates only to the sample submitted and tested.
Opinions and interpretations expressed herein are outside the scope of INAB accreditation.
Uncertainty of Measurement is not taken into account for any test results reported.



IAS Laboratories, Unit 4 Bagenalstown Bus. Park, Bagenalstown, Co Carlow, R21 YX99



Test Report

Lab Report Number: 42935S005

Customer ID:	YOUN.J4	Analysis Type:	99A (99A)
Contact Name:	JONATHAN YOUNG	Delivery By:	IAS COLLECTION CHARGABLE
Company Name:	JONATHAN YOUNG	Sample Card Number:	1402-YOUNG
Address:	FARNANE UPPER CAPPAGH DUNGARVAN CO.WATERFORD	Condition on Receipt:	Acceptable
Sample Type:	SURFACE WATER	Sample Date:	14/02/2025
Sample Reference:	RIVER TESTING 14/02/2025	Sample Time:	
Sample Description:	GLEANSHEAINE RIVER	Date Sample Received:	14/02/2025
		Date Analysis Commenced:	14/02/2025
		Date Certificate Issued:	25/02/2025

Parameter	Method	Result	Unit
Biochemical Oxygen Demand	SOP 2006	1	mg/l
Chemical Oxygen Demand	SOP 2005	21	mg/l
Conductivity	SOP 2076	57.4	µS/cm 20°C
Dissolved Oxygen*	Site	10.97	mg/l O ₂
Dissolved Oxygen*	Site	91.3	%
Ammonium	SOP 2130	<0.03	mg/l NH ₄
Nitrite	SOP 2134	<0.10	mg/l NO ₂
Nitrate	SOP 2138	<4.4	mg/l NO ₃
Orthophosphate P	SOP 2135	<0.01	mg/l P
Total Phosphorus	SOP 2126	<0.01	mg/l P
pH	SOP 2004	7.0	pH units
Temperature Site*	Site	6.6	Degree Celsius
Total Nitrogen	SOP 2075	<0.5	mg/l

Signed: Laura Kavanagh

Date: 25/02/2025

Laura Kavanagh - Site Lead

* = not INAB Accredited ^ = Subcontracted

This report must not be reproduced, except in full, without the prior written approval of IAS Laboratories. This report relates only to the sample submitted and tested.

Opinions and interpretations expressed herein are outside the scope of INAB accreditation. Uncertainty of Measurement is not taken into account for any test results reported.



IAS Laboratories, Unit 4 Bagenalstown Bus. Park, Bagenalstown, Co Carlow, R21 YX99



Test Report

Lab Report Number: 42935S004

Customer ID:	YOUN.J4	Analysis Type:	99A (99A)
Contact Name:	JONATHAN YOUNG	Delivery By:	IAS COLLECTION CHARGABLE
Company Name:	JONATHAN YOUNG	Sample Card Number:	1402-YOUNG
Address:	FARNANE UPPER CAPPAGH DUNGARVAN CO.WATERFORD	Condition on Receipt:	Acceptable
Sample Type:	SURFACE WATER	Sample Date:	14/02/2025
Sample Reference:	RIVER TESTING 14/02/2025	Sample Time:	
Sample Description:	MOGEHA RIVER, UPSTREAM	Date Sample Received:	14/02/2025
		Date Analysis Commenced:	14/02/2025
		Date Certificate Issued:	25/02/2025

Parameter	Method	Result	Unit
Biochemical Oxygen Demand	SOP 2006	4	mg/l
Chemical Oxygen Demand	SOP 2005	54	mg/l
Conductivity	SOP 2076	102.6	µS/cm 20°C
Dissolved Oxygen*	Site	10.66	mg/l O ₂
Dissolved Oxygen*	Site	91.3	%
Ammonium	SOP 2130	0.17	mg/l NH ₄
Nitrite	SOP 2134	<0.10	mg/l NO ₂
Nitrate	SOP 2138	5.72	mg/l NO ₃
Orthophosphate P	SOP 2135	0.09	mg/l P
Total Phosphorus	SOP 2126	0.19	mg/l P
pH	SOP 2004	6.9	pH units
Temperature Site*	Site	6.6	Degree Celsius
Total Nitrogen	SOP 2075	1.0	mg/l

Signed: Laura Kavanagh

Date: 25/02/2025

Laura Kavanagh - Site Lead

* = not INAB Accredited ^ = Subcontracted

This report must not be reproduced, except in full, without the prior written approval of IAS Laboratories. This report relates only to the sample submitted and tested.

Opinions and interpretations expressed herein are outside the scope of INAB accreditation. Uncertainty of Measurement is not taken into account for any test results reported.



IAS Laboratories, Unit 4 Bagenalstown Bus. Park, Bagenalstown, Co Carlow, R21 YX99



Independent Analytical Supplies

Test Report

Lab Report Number: 42935S003

Customer ID:	YOUN.J4	Analysis Type:	99A (99A)
Contact Name:	JONATHAN YOUNG	Delivery By:	IAS COLLECTION CHARGABLE
Company Name:	JONATHAN YOUNG	Sample Card Number:	1402-YOUNG
Address:	FARNANE UPPER CAPPAGH DUNGARVAN CO.WATERFORD	Condition on Receipt:	Acceptable
Sample Type:	SURFACE WATER	Sample Date:	14/02/2025
Sample Reference:	RIVER TESTING 14/02/2025	Sample Time:	
Sample Description:	MOGEHA RIVER, DOWNSTREAM	Date Sample Received:	14/02/2025
		Date Analysis Commenced:	14/02/2025
		Date Certificate Issued:	25/02/2025

Parameter	Method	Result	Unit
Biochemical Oxygen Demand	SOP 2006	4	mg/l
Chemical Oxygen Demand	SOP 2005	44	mg/l
Conductivity	SOP 2076	124.4	µS/cm 20°C
Dissolved Oxygen*	Site	10.62	mg/l O ₂
Dissolved Oxygen*	Site	89.3	%
Ammonium	SOP 2130	0.19	mg/l NH ₄
Nitrite	SOP 2134	<0.10	mg/l NO ₂
Nitrate	SOP 2138	10.56	mg/l NO ₃
Orthophosphate P	SOP 2135	0.11	mg/l P
Total Phosphorus	SOP 2126	0.21	mg/l P
pH	SOP 2004	7.3	pH units
Temperature Site*	Site	7.2	Degree Celsius
Total Nitrogen	SOP 2075	3.3	mg/l

Signed: Laura Kavanagh

Date: 25/02/2025

Laura Kavanagh - Site Lead

* = not INAB Accredited ^ = Subcontracted

This report must not be reproduced, except in full, without the prior written approval of IAS Laboratories. This report relates only to the sample submitted and tested.

Opinions and interpretations expressed herein are outside the scope of INAB accreditation. Uncertainty of Measurement is not taken into account for any test results reported.



IAS Laboratories, Unit 4 Bagenalstown Bus. Park, Bagenalstown, Co Carlow, R21 YX99

Appendix 2 – Hyperlinks used in the submission

Introduction

Waterford City and County Development Plan 2022-2028

<https://waterfordcouncil.ie/documents/development-plan-2022-2028/>

Impact on Rivers

Waterford City and County Council high quality river map

<https://storymaps.arcgis.com/stories/c405cfe0213145f589ceb44de1a1624f>

Waters of LIFE homepage

<https://www.watersoflife.ie/>

Waters of LIFE project map

<https://watersoflife.maps.arcgis.com/apps/webappviewer/index.html?id=e10f7f75bd7c4e589b20f3385735b7b2>

Waters of LIFE homepage

<https://www.watersoflife.ie/>

Environmental Protection Agency PIP-P map

<https://gis.epa.ie/EPAMaps/agriculture>

IAS laboratories

<https://iaslabs.ie/>

Invertebrates data set for the Farnane River

<https://maps.biodiversityireland.ie/Map/Terrestrial/Dataset/335>

Biodiversity map of *Dinocras cephalotes*

<https://maps.biodiversityireland.ie/Map/Terrestrial/Species/184724/DatasetFilter/225>

Environmental Protection Agency maps

<https://gis.epa.ie/EPAMaps/>

Water quality monitoring report on nitrogen and phosphorus concentrations in Irish waters 2023

<https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/Water-quality-monitoring-report-on-Nitrogen-and-Phosphorus-in-Irish-Waters-2023-for-publication.pdf>

Parameters of Water Quality – Interpretation and Standards, 2001

https://www.academia.edu/20331712/Parameter_of_water_quality_Interpretation_and_standars

The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015

https://www.legislation.gov.uk/uksi/2015/1623/pdfs/uksi0d_20151623_en_auto.pdf

Department for Environment Food & Rural Affairs - Water Framework Directive implementation in England and Wales: new and updated standards to protect the water environment

<https://assets.publishing.service.gov.uk/media/5a7f00e740f0b62305b84861/river-basin-planning-standards.pdf>



Your Drinking Water Analysis Explained

<https://iaslabs.ie/wp-content/uploads/2021/07/Drinking-Water-Analysis-Explained.pdf>

Impact on Farnane Wood

Management Guidelines for Irelands Native Woodland

[https://www.npws.ie/sites/default/files/publications/pdf/Management Guidelines for Ireland%27s Native Woodlands 2017.pdf](https://www.npws.ie/sites/default/files/publications/pdf/Management%20Guidelines%20for%20Ireland%27s%20Native%20Woodlands%202017.pdf)

Trinity College Dublin Down Survey

<https://downsurvey.tchpc.tcd.ie/landowners.php#mc=52.182537,-7.685983&z=12>

Native Woodland Trust

<https://www.nativewoodlandtrust.ie/>

Observations on the Waterford City and County Development Plan 2022-2028

Waterford City and County Council wind farm exclusion map

<https://storymaps.arcgis.com/stories/39cb4846c01e40f7b94ed562b9077bfe>

Waterford City and County Council Landscape and Seascape Character Assessment Map

<https://storymaps.arcgis.com/stories/c405cfe0213145f589ceb44de1a1624f>