Annex IV Species Risk Assessment.

Renewal of aquaculture licence T27/002B.
Coolroe, Ballyduff, Thomastown, Co. Kilkenny.

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	Prepared by Environmental Facilitation Ltd on behalf of the Department of Agriculture, Food and the Marine. Date: 26/01/2026

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1. Introduction

This Annex IV risk assessment has been prepared by Environmental Facilitation Ltd on behalf of the Department of Agriculture, Food and the Marine to comply with the provisions of Article 12 and 13 of Council Directive 92/43/EEC[1] (Habitats Directive) in relation to the protection afforded to Annex IV species from disturbance or harm. Specifically, this risk assessment considers the renewal of an aquaculture licence (application reference: T27/002B), for the land-based aquaculture of Rainbow Trout (*Oncorhynchus mykiss*).

1.1. Legislative context

Council Directive 92/43/EEC[1] (Habitats Directive) identifies a suite of animal and plant species across Europe which are rare or are threatened with extinction and which require the application of special measures to ensure their long-term survival. Under Article 12 and 13 of the Habitats Directive, Member States must establish systems of strict protection for animal and plant species listed under Annex IV of the Directive. Article 12 and 13 of the Habitats Directive are transposed into Irish law by Regulations 51 and 52 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended[2].

The strict protection measures mentioned above aim to bring these animal and plant species to a healthy population level (favourable conservation status) and keep them that way. This means their populations can maintain themselves on a long-term basis as a viable component of their natural habitat. It also means that the natural range of the species is neither being reduced, nor is likely to reduce in the future and that there is (and will be) sufficiently large habitat to maintain its populations in the long-term.

Annex IV species are afforded strict protection throughout their range, within and outside designated protected areas, and throughout all stages of their life cycle, wherever they occur including during periods of breeding, rearing, hibernation and migration. It is an offence to deliberately capture or kill, keep, transport or sell, injure or disturb a specimen in the wild, or to damage or destroy a breeding site or resting place of an Annex IV animal species. For plants it is an offence to deliberately pick, collect, cut, uproot or destroy any specimen of these species in the wild, or keep, transport, or sell any specimen of these species taken in the wild.

S.I. No. 477/2011 - European Communities (Birds and Natural Habitats) Regulations 2011 (inc. Amendment SI 293 of 2021[2])
Protection of fauna referred to in the First Schedule 51.

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01992L0043-20130701
[2] https://www.npws.ie/legislation

(1) The Minister shall take the requisite measures to establish a system of strict protection for the fauna consisting of the species referred to in Part 1 of the First Schedule.

(2) Notwithstanding any consent, statutory or otherwise, given to a person by a public authority or held by a person, except in accordance with a licence granted by the Minister under Regulation 54 or 54A, a person who in respect of the species referred to in Part 1 of the First Schedule—

a) deliberately captures or kills any specimen of these species in the wild,

b) deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration,

c) deliberately takes or destroys eggs of those species from the wild,

d) damages or destroys a breeding site or resting place of such an animal, or

e) keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive,

shall be guilty of an offence.

(3) The prohibitions referred to in paragraph (2) shall apply to all stages of life of the biological cycle of fauna to which this Regulation applies.

(4) The Minister shall establish a system to monitor the incidental capture and killing of fauna consisting of the animal species referred to in Part 1 of the First Schedule and, having regard to the information gathered, he or she shall conduct further research or take such conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned.

Protection of flora referred to in the First Schedule

52.

(1) The Minister shall take the requisite measures to establish a system of strict protection for the flora consisting of the plant species referred to in Part 1 of the First Schedule.

(2) Notwithstanding any consent, statutory or otherwise, given to a person by a public authority or held by a person, except in accordance with a licence granted by the Minister under Regulation 54 or 54A, a person who in respect of the plant species referred to in Part 1 of the First Schedule—

a) deliberately picks, collects, cuts, uproots or destroys any specimen of these species in the wild, or

b) keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 13(1)(b) of the Habitats Directive,

shall be guilty of an offence.

(3) The prohibitions referred to in paragraph (2) shall apply to all stages of the biological cycle of the flora to which this Regulation applies.

The following is a list of Annex IV species which occur in Ireland and its waters[3]

Animal species:

- Otter
- all bat species
- all cetaceans (whales, dolphins and porpoises)
- Natterjack toad
- Leatherback (or leathery) turtle
- Loggerhead turtle
- Kemp's Ridley turtle
- Hawksbill turtle
- Green turtle
- Kerry slug

Plant species:

- Slender Naiad
- Yellow Marsh Saxifrage
- Killarney Fern

As an Annex IV species may be found throughout the country, the protection of these species is not restricted in geographical terms and is not necessarily associated with areas subject to specific designations. Any works or projects must ensure compliance with the requirements of the Regulations, which means avoiding impacts to Annex IV species. To do this a project must determine the probability of the protected species being present in the area affected by the works, using existing information, and applying the precautionary principle. If it is highly unlikely that an Annex IV species could be present or affected by the works, then the works will be compliant with Regs 51 and 524[4].

[3] https://www.npws.ie/legislation

[4] https://www.npws.ie/sites/default/files/files/strict-protection-of-certain-animal-and-plant-species.pdf

If information shows that the Annex IV species is present, or may be present, then an investigation to establish presence is required. The Precautionary Principle must be applied in relation to this matter at this stage. If the investigation finds the species to not be present within relevant distances of concern, then the project may proceed. If an Annex IV species is found to be present, or there is a breeding or resting place to which the animals are likely to return, then the likely impacts of the project needs to be examined to see if those impacts can be avoided through the design of the works[4].

2. Outline of aquaculture activities

This Annex IV Risk Assessment considers the renewal application for an aquaculture licence (under licence application T27/002B) for the land-based aquaculture of Rainbow Trout (*Oncorhynchus mykiss*).

The finfish farm (T27/002B project area) is located on the west shore of the Arrigle river. The farm itself sits within the ARRIGLE_030 river sub-basin in good ecological status and at risk[5] and freshwater is abstracted from the adjacent Arrigle river. Waste water is also discharged back into this river (as per the Effluent Discharge Licence (EDL) issued by Kilkenny County Council on 9th January 2013) following treatment. Less than 700m downstream from the project, the ARRIGLE_030 river waterbody drains into the NORE_240 river waterbody[6], in moderate ecological status with risk status under review.

The project area is located immediately adjacent to/overlapping with the River Barrow and River Nore SAC[7] (Figure 1). A more detailed location map is set out in Figure 2.

Figure 1: Location map for the aquaculture licence (T27/002B) renewal application and showing its close proximity/overlap with the River Barrow and River Nore SAC.

[5] https://www.catchments.ie/data/#/waterbody/IE_SE_15A020300?_k=p8lhkf
[6] https://www.catchments.ie/data/#/waterbody/IE_SE_15N012400?_k=407f46
[7] https://www.npws.ie/protected-sites/sac/002162

A summary description of the project along with local site characteristics are provided in Table 1 below.

Table 1: A summary of the land-based finfish aquaculture activity, under renewal application T27/002B.

Species proposed for farming	Rainbow trout (*Oncorhynchus mykiss*)
Proposed source of stock	IDAS Ltd, Co. Wicklow
Proposed system of culture	13 ponds – drawings submitted with application.
Proposed standing stock/production	Existing licenced standing stock: 17.25 tonnes.
Reason for site selection	Existing licenced site
Source of water supply	Arrigle River
Estimated dry weather flow of water source	75 – 100 litres/second (as referenced in application)

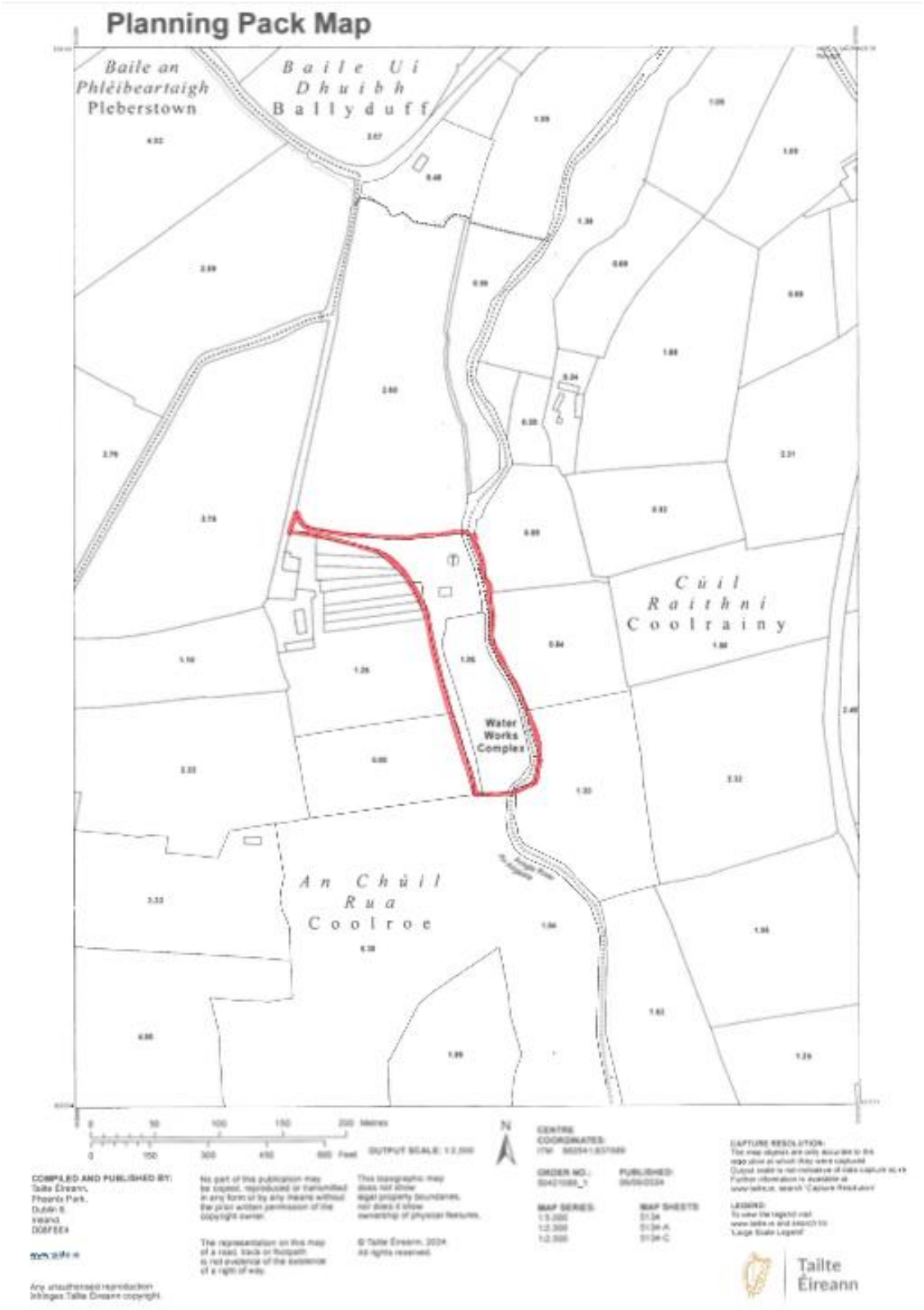

Figure 2: Location map showing existing access road to the site.

3. Relevant Annex IV species provisional risk assessment

The Habitats Directive identifies a number of plant and animal species across Europe, which are rare, or are threatened with extinction and which need special measures to be taken to ensure their long-term survival. All species listed under Annex IV with the potential to be impacted by the existing and proposed aquaculture activities have been included within the following section, even if they have been separately assessed in the AA process.

Of the animal and plant species on Annex IV known to occur in Ireland, the following species were identified as relevant to the renewal of aquaculture licence T27/002B.

3.1. Otter

The Otter (*Lutra lutra*) is listed on Annex IV of the Habitats Directive and is afforded strict protection under Article 12. It is also a Qualifying Interest of the River Barrow and River Nore SAC[8], which is located adjacent to and partially overlapping with the project area.

Ireland supports a strong and widespread otter population, with the species commonly associated with rivers, lakes and coastal habitats. Otters require:

- adequate prey availability (primarily fish), and
- secure resting and breeding sites (holts and couches), typically located along riparian corridors.

A desk-based review of data from the National Biodiversity Data Centre (accessed 21/01/2026) indicates records of otter <5.5km from the project (see Figure 3). Given the proximity of the River Arrigle, suitable commuting and foraging habitat is present. Potential impact pathways include:

- Disturbance from site activities (e.g. staff movement, vehicle traffic);
- indirect effects via water quality affecting prey availability.
- Habitat disturbance within the immediate vicinity of the river.

Conclusion: Otter is considered a relevant and is carried forward for further assessment.

[8] https://www.npws.ie/protected-sites/sac/002162

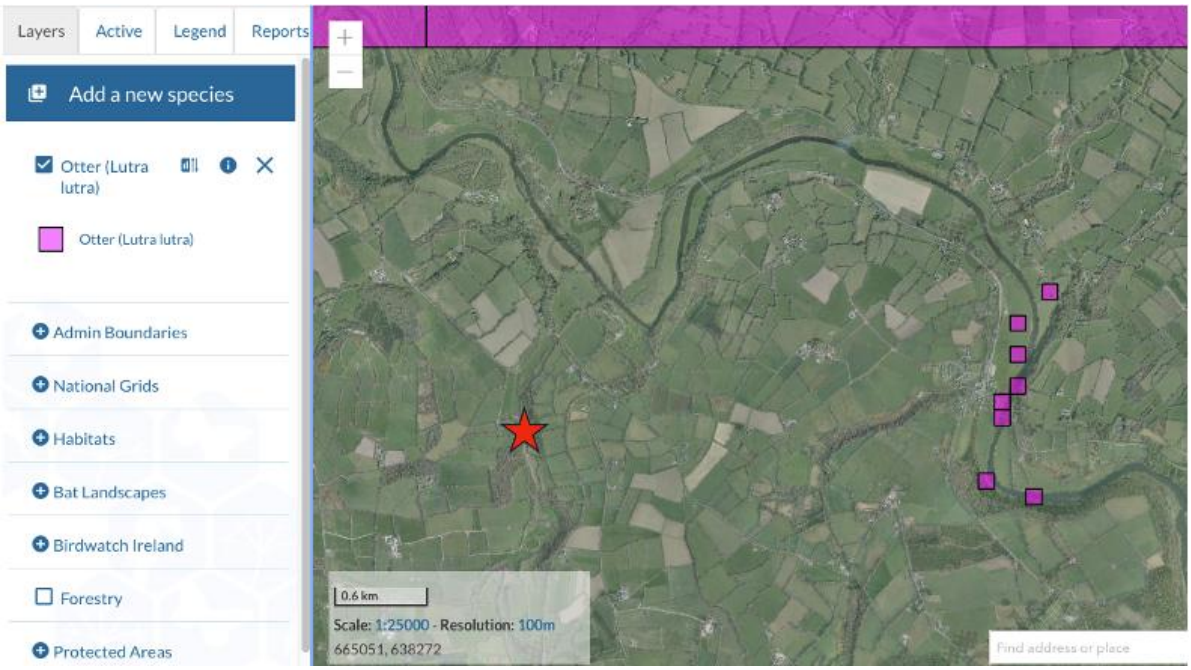

Figure 3: Records of otter (*Lutra lutra*) <5.5km downstream of the project area T27/002B (marked by red star). Source: https://maps.biodiversityireland.ie/Map (Accessed 26/01/2026).

3.2. Bat species

All species within the order Chiroptera occurring in Ireland are listed on Annex IV of the EU Habitats Directive, requiring strict protection of their breeding and resting sites. Bat species distribution data from the National Biodiversity Data Centre (Accessed 21/01/2026) was used to help inform this Annex IV assessment; data was also visualized via Biodiversity Maps[9]. Data from within four 2km grid cells (S63D, S53Y, S53Z, S63E) encompassing all planned aquaculture activities (including access routes) under the aquaculture licence application T27/002B was compiled and is shown in Table 2 below. An example output from Biodiversity Maps showing sightings data in the vicinity of the proposed aquaculture activity is also shown in Figure 4.

Table 2: Counts of bat species from the four 2km grid cells (S63D, S53Y, S53Z, S63E) encompassing all planned aquaculture activities (including access routes) under the aquaculture licence renewal application T27/002B.

Species name	Record count	Date of last record	Title of dataset
Daubenton's Bat (*Myotis daubentonii*)	41	13/08/2015	National Bat Database of Ireland
Common Pipistrelle (*Pipistrellus pipistrellus sensu stricto*)	3	30/05/2009	National Bat Database of Ireland
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	3	30/05/2009	National Bat Database of Ireland
Pipistrelle (*Pipistrellus pipistrellus sensu lato*)	2	30/05/2009	National Bat Database of Ireland
Natterer's Bat (*Myotis nattereri*)	1	30/05/2009	National Bat Database of Ireland

[9] https://maps.biodiversityireland.ie/

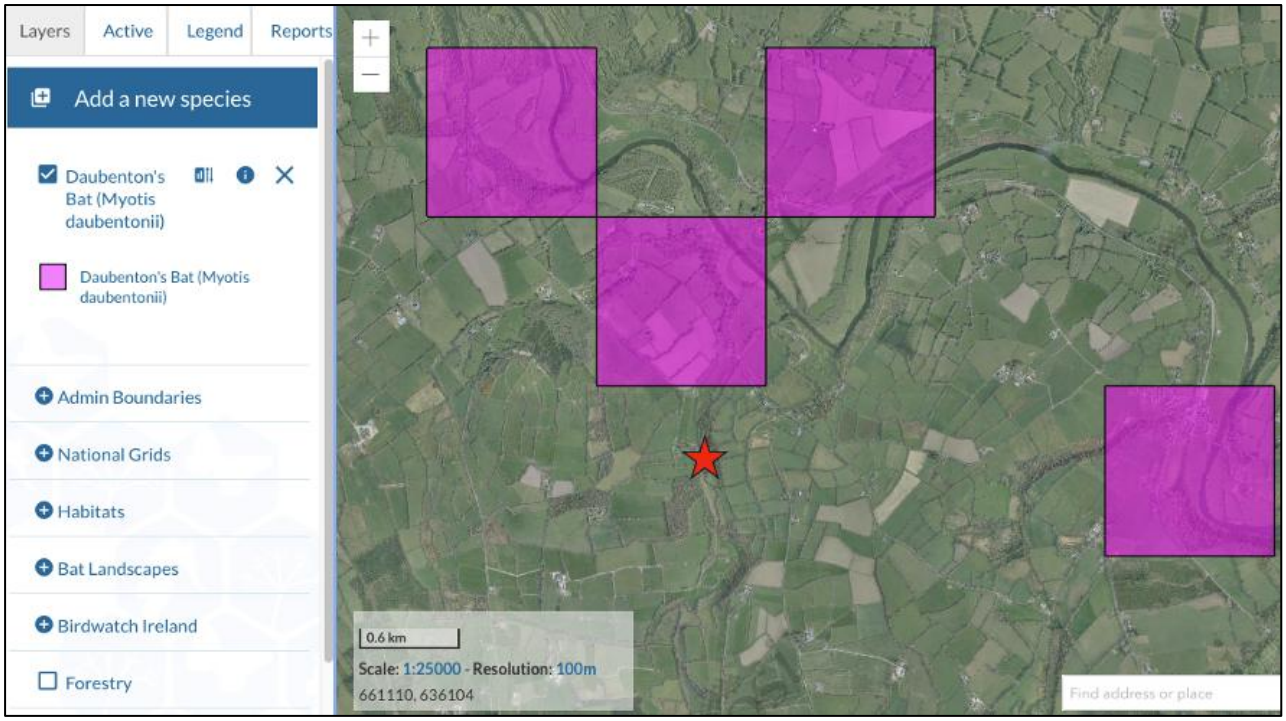

Figure 4: Records of Daubenton's Bat (*Myotis daubentonii*) located in the vicinity of the project area T27/002B (marked by red star) . Source: https://maps.biodiversityireland.ie/Map (Accessed 26/01/2026).

There are records of several bat species occur within the wider area. However:

- the project is confined to an existing facility;
- no removal of trees, buildings, or roosting features is proposed;
- no changes to lighting are proposed;
- no alteration of commuting features (e.g. hedgerows, river corridors) will occur.

No pathway for disturbance or roost loss is identified.

Conclusion: No risks to species.

3.3. Dolphins, Whales and Porpoises

This project area is located inland over 25km from the nearest coastline. Data on the distribution of cetacean species from the National Biodiversity Data Centre (accessed on 21/01/2026) confirmed the absence of cetacean records in the vicinity of the project area. There are no cetacean species listed as a qualifying interest feature of the River Barrow and River Nore SAC, located adjacent to/overlapping with the project area.

Noting the land-based project and its location, the separation distance between the closest live cetacean record and the project area (>40km downstream) and the lack of spatial overlap or likely interactions between the Annex IV species and the aquaculture activity (and its land-based location), there will be no significant risk to the number of individuals to breed successfully, nor to the survival of the population; the species natural range is secure and will not be reduced. The scale of downstream dispersion and dilution excludes all hydrological pathway risks.

Conclusion: No risks to species.

3.4. Natterjack Toad

The natural ranges for the Natterjack Toad are freshwater and terrestrial with populations generally restricted to sites in County Kerry (although records were also noted in County Wexford[10]). Natterjacks are nocturnal, hiding during the day under logs and stones. Over winter, natterjacks hibernate in burrows that they dig themselves in sandy soils, or in piles of rocks or dry-stone walls. The toad breeds in shallow ponds and forages in the areas surrounding the ponds.

The planned aquaculture activity under the renewal application for an aquaculture licence (under licence application T27/002B) is in habitat unsuitable for Natterjack toads. There is no overlap between this aquaculture site and the natural habitat or range of this species.

Conclusion: No risks to species.

3.5. Marine Turtles

This project area is located inland over 25km from the nearest coastline. Data on the distribution of turtle species from the National Biodiversity Data Centre (accessed on 21/01/2026) confirmed the absence of turtle records in the vicinity of the project area. There are no turtle species listed as a qualifying interest feature of the River Barrow and River Nore SAC, located adjacent to/overlapping with the project area.

Noting the land-based project, the separation distance between the closest live record and the project area (>40km downstream) and the lack of spatial overlap or likely interactions between the Annex IV species and the aquaculture activity (and its land-based location)

[10] https://maps.biodiversityireland.ie/Map

means there will be no significant risk to the number of individuals to breed successfully, nor to the survival of the population; the species natural range is secure and will not be reduced. The scale of downstream dispersion and dilution excludes all hydrological pathway risks.

Conclusion: No risks to species.

3.6. The Kerry Slug

The Kerry Slug is a terrestrial and nocturnal (generally) mollusc, with a natural range restricted to sites in County Kerry and west Cork (and more recently in Galway, Limerick and Tipperary). Its preferred habitat is woodland, lichen covered rock outcrops and boulders. There were no records of this species found within the proximity of the project area on National Biodiversity Data Centre (Accessed 26/01/2026).

Conclusion: No risks to species.

3.7. Plants

3.7.1. Slender Naiad

There were no records of this species found within the proximity of the project area on National Biodiversity Data Centre (Accessed 26/01/2026); the closest record was >100 km away. The buildings, outbuildings and structures which form the infrastructure of the aquaculture project area are not a suitable habitat for this species and therefore it is highly unlikely that it would occur here. Therefore, it is concluded that there will be no significant risk to the number of individuals to breed successfully, nor to the survival of the population; the species natural range is secure and will not be reduced.

Conclusion: No risks to species.

3.7.2. Yellow Marsh Saxifrage

There were no records of this species found within the proximity of the project area on National Biodiversity Data Centre (Accessed 26/01/2026). The buildings, outbuildings and structures which form the infrastructure of the aquaculture project area are not a suitable habitat for this species and therefore it is highly unlikely that it would occur here. Therefore, it is concluded that there will be no significant risk to the number of individuals to breed successfully, nor to the survival of the population; the species natural range is secure and will not be reduced.

Conclusion: No risks to species.

3.7.3. Killarney Fern

The Killarney Fern *Vandenboschia speciosa* is a Qualifying Interest feature of the River Barrow and River Nore SAC which lies adjacent to/overlapping with the project area. There was a record of this species noted ca. 6km from the project area in the National Biodiversity Data Centre (Accessed 26/01/2026). However, the buildings, outbuildings and structures which form the infrastructure of the aquaculture project area are not a suitable habitat for this species and therefore it is highly unlikely that it would occur here. Therefore, it is concluded that there will be no significant risk to the number of individuals to breed successfully, nor to the survival of the population; the species natural range is secure and will not be reduced.

Conclusion: No risks to species.

3.8. Provisional assessment

The relevant Annex IV species which may either be present in the area, or potentially affected by this aquaculture project, and considered for further investigation, are:

- Otter

4. Further Assessment of Risk

4.1. Otter

The site is located adjacent to the River Arrigle, which provides suitable habitat for otter. However, the aquaculture facility is confined to an established operational footprint with no encroachment into natural riparian habitat.

4.1.1. Summary of Potential Impacts and Risk Assessment

Disturbance

Site activity is limited to routine operations and occurs primarily during daylight hours. Otters are predominantly nocturnal/crepuscular, reducing the likelihood of interaction (Kruuk, 2006).

Water Quality / Prey Availability

Effluent discharge represents a potential pathway for indirect effects. However:

- discharge is regulated under an existing EDL;
- no change to discharge characteristics beyond permitted limits is proposed.

Habitat Loss or Fragmentation

No in-stream works, bank modification, or vegetation removal is proposed.

4.2. Mitigation Measures

No specific mitigation measures are required. Standard good practice will apply, including:

- compliance with the existing EDL;
- prevention of accidental pollution events;
- maintenance of existing infrastructure.

4.3. Conclusion (Otter)

Following consideration of all potential impact pathways, it is concluded that the project is not likely to result in:

- the deliberate disturbance of otter;
- damage or destruction of a breeding site or resting place; or
- any impact on the species' ability to maintain a favourable conservation status.

5. Overall Conclusion

Following a risk assessment of the renewal application for an aquaculture licence (under licence application T27/002B) for a land-based aquaculture project, the activities pose no risk to the number of individuals to breed successfully, nor to the survival of the population, and the species natural range is secure and will not be reduced, for the Annex IV species which occur in Ireland and its waters.

6. References

Kruuk, H. 2006. Otters - ecology, behaviour and conservation. Oxford University Press

NPWS 2025. Conservation Objectives: River Barrow and River Nore SAC 002162. Version 2. National Parks and Wildlife Service, Department of Housing,
Local Government and Heritage.