SALMON WATCH IRELAND

Dedicated to the restoration of salmon abundance in Ireland"

SAVING THE IRISH SALMON

Draft Submission

Salmon Watch Ireland

Aquaculture and Foreshore Licence Application T09-124

Screebe Fishery Ltd – Lough an tSaile/Lough Ahalia, Co. Galway

To: Aquaculture and Foreshore Management Division
Department of Agriculture, Food and the Marine

Re: Renewal and Review of Aquaculture and Foreshore Licence T09-124 – Screebe Fishery Ltd

A Chara,

Salmon Watch Ireland welcomes the opportunity to make a submission in respect of the application for the renewal and review of aquaculture and foreshore licence T09-124 at Lough an tSaile/Lough Ahalia, Screebe, Co. Galway.

Our principal concern is the protection of wild Atlantic salmon and the integrity of the European sites potentially affected by the proposed continuation of this aquaculture operation. We have particular concerns regarding the assessment of genetic interaction and escapes, disease and pathogen pathways, water quality, benthic impacts, cumulative effects and the adequacy of the evidence relied upon to reach conclusions under Article 6(3) of the Habitats Directive.

The applicant's own Natura Impact Statement recognises that impacts on Atlantic salmon cannot initially be excluded and therefore carries Atlantic salmon forward to Stage 2 Appropriate Assessment. It also recognises potential pathways involving escaped farmed salmon, nutrient releases and effects upon the coastal lagoon habitat.

Salmon Watch Ireland submits that these matters require particularly rigorous examination by the competent authority before any decision is made to renew or review the licence.

1. Nature of the Development

T09-124 is an established intensive finfish aquaculture operation within Lough an tSaile. The documentation describes a production system involving up to 120,000 salmonid parr/smolts, described variously in the application material as Atlantic salmon and/or trout, transferred from an associated hatchery at approximately 5 g and grown in six open net pens until approximately 60–80 g. The smolts are subsequently removed during October/November and transferred onwards to marine sea-rearing sites. The cages are then fallowed for approximately six months. The competent authority should clarify precisely which species, life stages, strains and maximum numbers are proposed to be authorised by the renewed licence.

The Marine Institute describes the application as involving Atlantic salmon and trout, a 0.75 ha site, a proposed relocation approximately 140 metres east and a maximum allowable biomass of 9,600 kg per annum.

This operation takes place in an environmentally sensitive location. Lough an tSaile is a tidally influenced coastal lagoon situated within the **Connemara Bog Complex SAC**, while the system is connected with other protected waters and the wider Kilkieran Bay environment. Coastal lagoons are an Annex I priority habitat.

These circumstances require a precautionary and scientifically rigorous assessment.

2. Atlantic Salmon

Atlantic salmon must be a central consideration in the determination of this application. Sea trout are addressed separately below as an important component of the wider wild salmonid ecosystem.

The applicant's NIS acknowledges the connectivity between Lough an tSaile, the Screebe River and other lakes within the system. It expressly concludes at screening stage that:

"Potential impact on salmon in the river and lakes cannot be screened out and proceeds to stage 2 AA."

and consequently, carries Atlantic salmon forward to Stage 2 Appropriate Assessment.

At Stage 2, however, the applicant concludes that significant direct and indirect impacts can be ruled out.

Salmon Watch Ireland considers that the competent authority must independently examine the scientific basis for that conclusion rather than relying upon the long history of operation of the facility.

The appropriate question is not whether significant damage has previously been recorded. It is whether the proposed project, alone and in combination with other relevant plans or projects, can be demonstrated not to adversely affect the integrity of the relevant European site having regard to its conservation objectives.

3. Sea Trout, Wider Salmon Aquaculture and Nature Restoration

Salmon Watch Ireland is also concerned that the assessment should recognise the position of **sea trout (Salmo trutta)** within the wider Screebe, Connemara and west-coast ecosystem. Sea trout share freshwater, estuarine and coastal habitats with Atlantic salmon, and their life history can make them particularly vulnerable to pressures arising in nearshore waters. This is relevant in the present case because T09-124 does not operate as an isolated production facility. The NIS confirms that up to 120,000 parr are transferred from the associated hatchery to Lough an tSaile and, following their development into smolts, are subsequently removed and transported onwards to **marine sea-growing sites**. While impacts arising at separate marine farms cannot automatically be attributed to T09-124, the Screebe operation is clearly a functional component of a wider salmon-aquaculture production cycle. Salmon Watch Ireland therefore considers that the cumulative and ecological assessment should acknowledge the wider context in which juvenile fish produced at Screebe ultimately enter marine open-net aquaculture.

Sea trout are of particular concern to Salmon Watch Ireland because populations in a number of western coastal catchments have experienced profound historical decline in areas associated with intensive marine salmon farming. The potential effects of salmon lice and other pressures associated with open-net salmon aquaculture on sea trout are therefore highly relevant to the wider environmental context in which aquaculture licences are renewed. Peer-reviewed scientific literature supports particular concern for sea trout because they often remain in coastal and estuarine waters where exposure to salmon lice can occur; see, for example, Thorstad et al. (2015)[1], The Screebe NIS does not itself provide the scientific evidence necessary to determine the extent of these wider sea-trout impacts, and Salmon Watch Ireland submits that the competent

[1] "Effects of salmon lice Lepeophtheirus salmonis on wild sea trout Salmo trutta - a literature review", Aquaculture Environment Interactions 7:91-113: https://docslib.org/doc/6066967/effects-of-salmon-lice-lepeophtheirus-salmonis-on-wild-sea-trout-salmo-trutta-a-literature-review

authority should have regard to the relevant scientific evidence when considering cumulative effects and the environmental sustainability of the wider production system.

This issue should also be considered in the context of Regulation (EU) 2024/1991 [2]on nature restoration and the State's obligations to put in place measures for the restoration of degraded ecosystems, including measures directed towards improving habitat condition, habitat quality and ecological connectivity. Article 4 requires restoration measures for terrestrial, coastal and freshwater ecosystems and, as appropriate until 2030, gives priority to restoration measures in Natura 2000 sites. Ireland's National Restoration Plan is the mechanism through which many of these obligations will be planned and implemented. Aquaculture licensing should therefore be considered not only in terms of preventing additional deterioration, but also in the context of whether licensing decisions are consistent with the wider statutory objective of ecological restoration. This does not replace the specific legal test under Article 6(3) of the Habitats Directive, which remains the primary test for the present licence. For migratory salmonids such as Atlantic salmon and sea trout, meaningful restoration requires reducing manageable anthropogenic pressures throughout their freshwater, estuarine and marine life stages.

Salmon Watch Ireland considers that the recovery of **wild sea trout should be an important indicator of the ecological recovery of western coastal catchments**. Where populations have undergone serious decline, public policy should seek to create the conditions necessary for recovery rather than perpetuate avoidable pressures. The renewal and regulation of aquaculture operations that form part of a production system ultimately supplying open-net marine salmon farms should therefore be considered against the State's wider biodiversity and nature-restoration objectives, alongside the specific legal requirements applying to the European sites concerned.

4. Escapes and Genetic Integrity

The applicant itself identifies escape of farmed fish as a potential pathway affecting wild salmon.

The NIS acknowledges that escaped farmed stock could compete with native salmon for food resources and, if escaped fish subsequently returned to reproduce, could **alter the genetics of the local breeding stock**.

This is an important acknowledgement.

The NIS subsequently rules out significant effects principally on the basis that no escapes have reportedly occurred, that cages are regularly maintained and that

[2] EU Nature Restoration Regulation: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1991&qid=1722240349976

returning adult salmon showing signs of farmed origin have not been identified in the Screebe River traps.

Salmon Watch Ireland does not consider that absence of a reported escape should automatically be treated as proof that escapes have never occurred.

Neither should the absence of visibly identifiable farm-origin adults necessarily be considered sufficient evidence to exclude genetic interaction.

The competent authority should therefore establish what monitoring has actually been undertaken to detect escaped fish and whether genetic monitoring capable of detecting introgression has been undertaken.

The origin and strain of the farmed salmon stock should also be clearly identified and assessed.

5. Disease and Pathogen Transmission

The Marine Institute records that veterinary personnel regularly inspect the farm for diseases and parasitic pests, that no events requiring pest management have reportedly occurred during the previous 30 years and that mortality is described as low.

However, Salmon Watch Ireland considers that the relevant environmental question extends beyond whether pest treatment has historically been required.

A population of up to 120,000 cultured salmonids is being maintained in open net pens within a waterbody connected with wild salmon habitat.

The competent authority should therefore be satisfied that the potential for **disease and pathogen interaction between farmed and wild salmonids** has been adequately assessed.

The Stage 2 salmon assessment contained in the NIS focuses particularly on nutrient releases and escapes.

We request that DAFM establish whether disease and pathogen pathways have been comprehensively assessed and, if not, obtain the necessary scientific information before completing the Appropriate Assessment.

6. Mortality and Fish-Health Records

The Marine Institute assessment describes mortality at the facility simply as:

"Low levels of mortality are recorded onsite."

No quantitative mortality figures are provided in the documentation considered here.

Such a description is insufficient to independently evaluate historical performance.

Salmon Watch Ireland requests disclosure and consideration of annual mortality numbers and percentages for each available production cycle, together with recorded causes of mortality, significant disease events, veterinary findings and relevant fish-health records.

Historical performance is being relied upon extensively throughout the assessment. The underlying quantitative information should therefore be available to the competent authority and capable of scrutiny.

7. Water Quality

The NIS relies substantially upon water-quality monitoring undertaken during 2019–2022 to conclude that the operation is not adversely affecting Lough an tSaile.

While surface-water results are generally presented as favourable, the NIS records differences at depth.

In particular, it acknowledges that ammonia concentrations at the net-pen site at depth were higher than the control site during three of the four years presented and states that this indicates a **local influence on the water at depth**.

Phosphate concentrations at depth were also higher at the cage site than at the control, although the applicant concludes that they remain below the threshold relied upon for high ecological status in transitional waters.

These findings are important because they demonstrate that the operation can produce a detectable local influence.

The issue for Appropriate Assessment is not simply whether individual measurements comply with general water-quality thresholds. The competent authority must determine whether the effects of the operation are compatible with the **specific conservation objectives of the European site and its priority coastal-lagoon habitat**.

8. Moderate Status of the Screebe River

The NIS records that Lough an tSaile has Good status under the WFD classification relied upon and that Lough Ahalia South is classified Good based on modelling.

However, it also records that the **Screebe River is classified Moderate**, including stretches above and below the hatchery supplying fish to the lake operation.

This deserves further examination.

Salmon Watch Ireland requests that the competent authority establish the pressures responsible for the Moderate status and determine whether these pressures have been adequately considered when assessing the proposed aquaculture operation in combination with other pressures affecting the system.

9. Priority Coastal-Lagoon Habitat

Lough an tSaile is not simply a receiving waterbody. It constitutes protected **coastal-lagoon habitat**, identified by the NIS as a priority habitat under the Habitats Directive.

The conservation requirements applicable to this habitat must therefore be given considerable weight.

The NIS acknowledges potential direct effects arising from solid wastes and uneaten feed and potential indirect effects from soluble waste.

The competent authority must assess these effects specifically against the conservation objectives and attributes of the protected lagoon rather than relying exclusively upon compliance with more general environmental standards.

10. Benthic Effects

The NIS relies upon benthic monitoring undertaken in 2011, 2015, 2018, 2021, 2022 and 2023.

Significantly, it does not establish that there is no benthic influence whatsoever. Instead it concludes that the influence is localised:

"Influence of the farm operations on the benthic habitat is limited to the area directly beneath the netpens."

The NIS considers that the effect is no longer evident approximately 10 metres from the cages and that the long fallow period allows recovery beneath the cages.

This means there is an acknowledged repeated local effect upon the benthic environment.

Given that the activity occurs within a priority habitat, the competent authority should specifically determine whether repeated deposition, enrichment and subsequent recovery beneath the cages is consistent with the site's conservation objectives.

11. Proposed Relocation of the Site

The application involves moving the licensed site approximately **140 metres east**.

This raises an important evidential issue.

Much of the environmental justification for renewal relies upon historical monitoring of an operation that has existed for more than 30 years.

If the licensed location is now being altered, the competent authority should establish that historical benthic, hydrographic and water-quality data are representative of the proposed location.

Historical monitoring at one location should not automatically be assumed to characterise another without an adequate scientific basis.

12. In-Combination and Cumulative Effects

Salmon Watch Ireland has concerns regarding the scope of the in-combination assessment.

The NIS principally considers the associated upstream hatchery. It acknowledges that nutrients released from the hatchery could combine with nutrients generated by fish held in the lake cages.

The applicant rules out a significant cumulative effect because monitoring at the net-pen site incorporates upstream inputs and is considered satisfactory.

However, Article 6(3) requires consideration of the project **in combination with other relevant plans and projects**.

We request that the competent authority clearly identify all relevant aquaculture operations, discharges, abstractions and other projects or plans considered in completing its assessment.

A review limited substantially to conventional planning applications and the associated hatchery may not necessarily capture all relevant pressures on the protected system.

13. Relationship with Marine Salmon Aquaculture

The NIS makes clear that T09-124 forms part of a wider salmon-production process.

Fish are produced in the associated hatchery, transferred into Lough an tSaile as parr, grown into smolts and subsequently transported to a pier for onward transfer to **marine sea-growing sites**.

The environmental assessment should therefore clearly explain how the functional relationship between T09-124 and associated marine aquaculture operations has been considered.

Salmon Watch Ireland is not suggesting that every subsequent marine production site automatically forms part of this project for the purposes of Article 6(3). However, where operations are functionally or operationally linked, the competent authority should determine whether they constitute relevant projects for the purposes of the project definition or in-combination assessment and record the basis for its conclusion.

14. Updated Environmental Information

The NIS was originally prepared in February 2024 and updated in July 2025. It expressly states that the **only alteration in July 2025 was the addition of information concerning procedures for delivery and removal of stock**, following a request for additional information arising from the Marine Institute screening report.

Much of the detailed water-quality dataset presented relates to **2019–2022**.

Before determining the application, Salmon Watch Ireland requests that the competent authority consider the most recent available environmental and operational information, including subsequent water-quality monitoring, benthic monitoring, mortality records, fish-health information and any recorded escape or containment incidents.

15. Adequacy of Mitigation

The NIS proposes principally the continuation of existing measures: long annual fallowing, use of appropriate feed, cage and net maintenance, low boat activity, monthly water-quality monitoring during stocking and annual benthic monitoring.

These measures are largely continuations of existing operational practices rather than new mitigation addressing identified uncertainty.

The competent authority should therefore distinguish carefully between:

evidence demonstrating absence of an adverse effect, and **monitoring intended to identify an effect after operation has continued**.

Monitoring cannot substitute for the scientific assessment required before consent is granted.

16. Precautionary Principle and Article 6(3)

The applicant's NIS ultimately concludes that no negative direct, indirect or in-combination effects are predicted with existing mitigation.

However, that conclusion must be independently tested by the competent authority.

The documentation itself identifies credible environmental pathways involving Atlantic salmon, genetic interaction following escapes, nutrient releases, benthic deposition and the protected coastal-lagoon habitat.

Salmon Watch Ireland submits that the competent authority must therefore have sufficiently complete and robust scientific information to establish that the proposed renewal and review, alone and in combination with other relevant plans and projects, will not adversely affect the integrity of the European sites concerned.

The long historical operation of the facility and the absence of reported incidents cannot, in themselves, substitute for that assessment.

17. Genetic Introgression – Screebe

The findings of the EMFAF Salmon GeneFlow[3] study are of particular relevance to any licensing decision concerning salmon aquaculture in the Screebe area and must, in our view, be expressly addressed in the environmental assessment. The study demonstrates a persistent and significant signal of farmed salmon genetic introgression in the Screebe wild salmon population. An introgression score of approximately 6.7% was recorded in 2006, while the main Screebe population recorded 6.2% in both 2023 and 2025, resulting in a Moderate impact classification in both contemporary sampling years. In 2023, nine of the 36 salmon analysed were identified as putative farm-ancestry fish, while four of 38 were identified in 2025. Of additional concern, Screebe was one of only four river populations nationally in which individual salmon displayed genetic signatures consistent with descendants of relatively recent farm escape events. These findings demonstrate that genetic interaction between farmed and wild salmon in this catchment is not a hypothetical future risk: measurable introgression has already occurred and has persisted over a period approaching two decades. While the study does not attribute the introgression to any particular aquaculture facility or escape event, the existence of an already impacted wild population materially increases the importance of preventing any further escape and subsequent interbreeding. Salmon Watch Ireland submits that a licensing authority cannot reasonably assess a further or renewed aquaculture licence in this area without explicitly considering these genetic findings, the existing baseline of introgression, the potential cumulative effects of additional escapes, and whether adverse effects on the genetic integrity and conservation objectives of protected wild Atlantic salmon populations can be excluded such that no reasonable scientific doubt remains as to the absence of adverse effects on site integrity.

18. Information Requested Before Determination

Accordingly, Salmon Watch Ireland requests that, before the licence application is determined, the competent authority ensure that the assessment includes:

1. complete annual stocking, biomass and mortality records for the available production cycles;

[3] An Assessment of the Level of Genetic Introgression in Irish Wild Salmon Populations from Farmed Escaped Salmon (GeneFlow): https://oar.marine.ie/items/9d8f8c17-33d2-48fa-86b3-32bb2772417e

2. causes of mortality and relevant fish-health and veterinary records;
3. clarification of the exact species and life stages proposed to be authorised, together with details of the genetic origin and strain of all salmonids used at the facility;
4. escape and containment records and the methodology used to detect farm-origin fish in the wild population;
5. a specific assessment, having regard to the findings of the EMFAF Salmon GeneFlow study, of the measures necessary to prevent further escapes and minimise any risk of further genetic introgression into the wild Screebe salmon population;
6. consideration of the available scientific evidence concerning the status of sea trout in the wider Screebe/Connemara system and the potential cumulative effects upon sea trout associated with marine salmon aquaculture, including salmon-lice exposure, having particular regard to the functional relationship between the Screebe smolt facility and subsequent marine grow-out operations;
7. a comprehensive assessment of disease and pathogen pathways between cultured and wild salmonids;
8. the most recent available water-quality and benthic-monitoring results;
9. consideration of the reasons for the Moderate WFD status of the Screebe River;
10. evidence demonstrating that monitoring undertaken at the historic cage location is representative of the proposed location approximately 140 metres east;
11. identification of the plans and projects considered in the in-combination assessment;
12. consideration of relevant functional relationships with associated hatchery and marine aquaculture operations; and
13. a clear assessment of all identified effects against the site-specific conservation objectives for Atlantic salmon and the priority coastal-lagoon habitat.

Conclusion

Salmon Watch Ireland considers that this application requires particularly careful scrutiny because it involves the intensive rearing of farmed salmonids **within a protected coastal-lagoon system connected to wild Atlantic salmon habitat**.

The applicant's own NIS acknowledges that potential effects upon Atlantic salmon could not be excluded at screening stage and identifies plausible pathways involving

nutrient release, escape, competition and genetic interaction. It also acknowledges localised effects beneath the net pens.

We therefore request that DAFM does not treat the fact that the facility has operated for more than 30 years as evidence, in itself, that the proposed renewal and review can have no adverse effect.

The determination must instead be based upon the current condition of the receiving environment, current conservation objectives, up-to-date monitoring information and a scientifically robust assessment of the proposed operation, both alone and in combination with relevant plans and projects.

Where, following a complete and scientifically robust Appropriate Assessment, the competent authority cannot be satisfied that the proposed renewal will not adversely affect the integrity of the European sites concerned, such that no reasonable scientific doubt remains as to the absence of such effects, Salmon Watch Ireland submits that the licence cannot lawfully be renewed under Article 6(3) of the Habitats Directive.

John Murphy

Salmon Watch Ireland
September 2026