Salmon Watch Ireland
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SALMON WATCH IRELAND
"Dedicated to the restoration of salmon abundance in Ireland"

(T12/276)
Applicant: Ocean Farm Ltd.
Location: Inver Bay, Co. Donegal
Application Type: Review & Renewal of Marine Finfish Aquaculture Licence
Date: February 2024

The legal requirement for consent for this licence is contained in the following judgements:

Kelly (Eamon) v An Bord Pleanála [2014] IEHC 400 [1]and Connelly v An Bord Pleanála [2018] IESC 31. In Connelly, the Supreme Court explained that the 'overall conclusion' which must be reached before the competent authority will have jurisdiction to grant development consent following an appropriate assessment 'is that all scientific doubt about the potential adverse effects on the sensitive area have been removed.'

Executive Summary

Ocean Farm Ltd. has submitted an application for the review and renewal of its marine finfish aquaculture license at Inver Bay, County Donegal. However, the assessment of this application reveals significant environmental concerns, particularly regarding the impact of salmon farming on wild Atlantic salmon, sea trout, freshwater pearl mussels, and overall coastal water quality.

Key Environmental Concerns

1. **Wild Salmon and Sea Trout Conservation:**
    - Several nearby rivers, including the Eany, Oily, and Bungosteen Rivers, are home to wild Atlantic salmon and sea trout.
    - Conservation targets for these species are not being met, with salmon populations in critical decline.
    - The risk of disease transmission and genetic dilution from farmed salmon escapees poses a significant threat to wild populations.

[1] http://www.europeanrights.eu/public/sentenze/Irlanda-25luglio2014-High_Court.pdf

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2. **Sea Lice and Disease Transmission:**
    - Sea lice infestations from the salmon farm are harming juvenile wild salmon and sea trout, reducing their survival rates.
    - The effectiveness of chemical treatments and cleaner fish to control sea lice is diminishing, further exacerbating the problem.
    - Warmer sea temperatures due to climate change are expected to worsen these conditions, increasing disease prevalence.

3. **Freshwater Pearl Mussel Populations:**
    - The continued decline of wild salmon and sea trout negatively impacts freshwater pearl mussel populations, which rely on these fish for reproduction.
    - The potential deterioration of water quality further threatens these already endangered species.
4. **Water Quality and Pollution Risks:**
    - The application lacks sufficient independent data on the modelling of biological oxygen demand (BOD), dissolved inorganic nitrogen (DIN), and phosphorus levels.
    - Potential nutrient loading from fish farming waste could degrade water quality in Inver Bay and surrounding habitats.
5. **Special Areas of Conservation (SACs) at Risk:**
    - The farm's operations could negatively impact multiple SACs designated for the protection of Atlantic salmon and freshwater pearl mussels.
    - The Natura Impact Statement (NIS) fails to adequately assess these risks, raising concerns about compliance with EU Habitats Directive regulations.
6. **High Mortality Rates in Farmed Fish:**
    - Recent mortality rates in nearby Mc Swynes Bay salmon farms have reached up to 84%, highlighting welfare and sustainability issues.

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- The industry's vulnerability to climate-induced stressors, such as harmful algal blooms and increased storm intensity, raises further concerns.

7. **Lack of Consideration for Alternative Technologies:**
    - The application does not explore the feasibility of alternative, more sustainable salmon farming methods, such as land-based aquaculture.

Conclusion

The current application does not meet the necessary legal and environmental requirements under the EU Habitats Directive. Significant scientific uncertainty remains regarding the impact of sea lice, pollution, and farmed fish escapes on wild salmon and coastal ecosystems. Given these concerns, Salmon Watch Ireland strongly opposes the renewal of Ocean Farm Ltd.'s license at Inver Bay.

It is imperative that the Department of Agriculture, Food, and the Marine (DAFM) conduct an independent, comprehensive assessment of the environmental risks before making a decision. A shift towards more sustainable aquaculture practices is necessary to protect Ireland's wild salmonid populations and the integrity of its coastal ecosystems.

Introduction

The documentation submitted by Ocean Farm Limited seeking a review and renewal of their extant aquaculture licence in Inver Bay, County Donegal falls far short of what is required pursuant to Article 6(3) of the Habitats Directive. Nor can there be reliance on Article 6 (4) thereof, as there are no stated 'imperative reasons of overriding public interest', (IROPI), which could ever justify locating a salmon farm at this sensitive location.

The site is within close proximity to the following rivers which discharge directly into Inver Bay and adjacent rivers flowing into Donegal Bay. The recent report by the Technical Expert Group on Salmon (TEGOS) [2] noted the conservation status of these rivers as follows:

Eany River:

- Atlantic salmon (*Salmo salar*) and sea trout (*Salmo trutta*) are present.
- Conservation Concern: Below conservation limits (only 28% of CL achieved in 2024)

[2] Report of the Technical Expert Group on Salmon to the North-South Standing Scientific Committee for Inland Fisheries-The Status of Irish Salmon Stocks in 2024 with Catch Advice for 2025.
The Status of Irish Salmon Stocks in 2024 with Catch Advice for 2025

- Special Protection: Not designated as an SAC but protected under national conservation laws.

Oily River

- Smaller river flowing into the eastern part of Inver Bay.
- Categorised as a salmon river but struggling to meet conservation targets (19% of CL achieved).
- Special Protection: Included in habitat conservation initiatives due to low salmon numbers.

Bungosteen River

- Short river draining local agricultural lands into Inver Bay.
- Small salmonid population but important for local biodiversity.
- Conservation Status: Below conservation limits (75% of CL achieved).

Smaller Catchments

Several unnamed streams and minor rivers also enter Inver Bay and the wider Donegal Bay. These rivers are also important waterbodies for migratory sea trout. Some of these smaller streams and rivers may sustain small and unique populations of Atlantic salmon which have not been assessed in the environmental documents presented by the applicant.

The Oily River which discharges into the nearby Mc Swynes Bay has been categorised as a salmon river by Inland Fisheries Ireland and is only meeting 29% of its conservation limit with the latest advice from the Technical Expert Group on Salmon (TEGOS) [3] reporting that it is over five four hundred and forty five salmon (445) short of achieving its conservation limit of six hundred fish. The Bruckless river in all probability has a small unique population of Atlantic salmon which has not been adequately addressed or described by the EIAR presented by Ocean Farm Limited. These rivers are not within SAC's which have Atlantic salmon as a qualifying interest but do have protection under the recently passed Nature Restoration Law.

The sea trout which inhabit these catchments and indeed all Irish catchments now enjoy protection and are included along with Atlantic salmon as annex 111 species with specific protection under Article 5. (Restoration of marine ecosystems). [4]

Our main concerns regarding the renewal and review of this extant licence relate to Atlantic salmon, *margaritifera margaritifera* (Pearl Mussel), sea trout and near coastal pollution.

[3] Report of the Technical Expert Group on Salmon to the North-South Standing Scientific Committee for Inland Fisheries-The Status of Irish Salmon Stocks in 2024 with Catch Advice for 2025. **The Status of Irish Salmon Stocks in 2024 with Catch Advice for 2025**

[4] Nature Restoration Law – Article 5/5 - https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32024R1991&qid=1722240349976

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The transmission of sea lice and disease to the wider environment from this site currently harms wild salmonids and will continue if this licence is renewed. The prospect of escape of farmed salmon which may interbreed with wild salmon is certainly increased by climate change which will result in ever increasing challenging weather conditions including storms of severe magnitude.

The ongoing issues with sea lice and disease mediated mortality of wild juvenile salmonids has a direct effect on pearl mussel populations in the area. This will certainly increase with climatic change resulting in warmer sea surface temperatures resulting in a shorter generational period for sea lice and more disease proliferation.

The prospect of declining water quality cannot be ruled out with modelling of BOD, DIN AND Phosphorus all being viewed as a myriad of notional values with little effort by applicant to present data which were entered into the model thus not allowing any independent evaluation. We would also assume that DAFM are not in possession of this data and thus cannot form an independent appraisal. It is not even remotely good enough to accept a model as presented by applicant without independent and appropriate appraisal. We would also have similar misgivings on the modelling of sea lice dispersal.

This specific point concerning modelling of data[5] was recently raised in a judgement by the High Court which noted that experts should effectively "show their workings" or "at least stating the facts or assumptions upon which their opinion was based." We certainly would suggest that the competent authority should have stated how they appraised the data as presented for hydrological modelling in the area under review. This point is particularly relevant when viewed against modelling presented in a study by the Marine Institute [6] which suggests that there are significant differences to dispersal models presented in the NIS.

All documentation presented by the applicant requires an independent and concise appraisal by your department in order to renew and review this extant licence and this cannot be achieved in view of the standard of assessment documents presented by Ocean Farm Limited.

Special Areas of Conservation

The site under review is also within the expected zone of influence to a number of Special Areas of Conservation (SAC) which have Atlantic salmon as a qualifying species and thus have added protection requiring appropriate assessment of impacts. There are also a number of Natura sites which have *margaritifera margaritifera* as a qualifying interest which also require appropriate assessment. The Natura Impact Statement as presented does not adequately address concerns regarding Atlantic salmon and *Margaritifera margaritifera*.

The following special areas of conservation, Cloghernagore Bog and Glenveagh National Park SAC [002047], Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [000627], Lough Eske and Ardnamona Wood SAC [(000163], Lough Gill SAC [001976], Lough Melvin SAC [000428,

[5] High Court Judgement - Salmon Watch Ireland CLG -v- The Aquaculture Licences Appeals Board & Ors, Inland Fisheries Ireland -v- The Aquaculture Licences Appeals Board & Ors, Sweetman & Ors -v- The Aquaculture Licences Appeals Board & Ors – Para 1273-1274-
https://www.courts.ie/acc/alfresco/b4f7916e-69aa-4bee-bb93-a81126fbad83/2024_IEHC_421.pdf/pdf#view=fitHhttps://www.courts.ie/acc/alfresco/b4f7916e-69aa-4bee-bb93-a81126fbad83/2024_IEHC_421.pdf/pdf#view=fitH

[6] AQUAPLAN - Health Management for Finfish Aquaculture
https://drive.google.com/file/d/1GtbIvtDyFksK6pGd-zYQw5iBwvsV5y38/view?usp=sharing

River Finn SAC [00230], River Moy SAC [002298], West of Ardara/Maas Road SAC [000197] have Atlantic salmon as a qualifying interest and as such are required to be appropriately assessed.

As the objective for Atlantic salmon in the Lough Eske and Ardnamona SAC is to restore the favourable conservation condition, it is imperative that the existing farms be closed to help in this restoration. It is helpful now to remind DAFM that it would not be legally permissible to renew the licence under review due to scientific doubt existing concerning the impact of sea lice on wild salmonids.

There are many minor rivers within the SAC's mentioned above which enjoy the same protection as designated salmon rivers. The designation of a river as a salmon river is more aligned with management rather than any biological or ecological status. Caution must always be to the forefront of any decision regarding the continuation of aquaculture at this site.

In addition, the natura sites with *Margaritifera margaritifera* include the Lough Eske and Ardnamona Wood SAC [000163] , West of Ardara/Maas Road SAC [000197], and the Lough Melvin SAC [000428]. Again, the Source – Pathway – Receptor method must be used.

We certainly are concerned with the recent escape of farmed salmon in Killary[7] harbour and we consider that the large number of SAC's with salmon and pearl mussel populations as a Q1 near the Clew Bay farms or indeed remote catchments up to 100 km from this farm may be at risk as demonstrated by the migration of farmed salmon into rivers up to 100 km from the Killary escape.

Sea Lice

In regard to wild salmon, we are not satisfied with the level of scrutiny of peer reviewed material concerning the impact of sea lice on wild salmon. While the NIS does discuss the different interpretation of data, it totally ignores the effect on returning adults. We have prepared a document which outlines the various peer reviewed papers concerning the impact of sea lice on adult salmon returns.[8] This clearly reflects the loss of adult returnees across a myriad of studies and the interpretation of the Marine Institute is clearly flawed as the most important issue is returning adults and not focussing on a one percent differential in overall survival. It is also clearly admitted that in years of poor survival indices at sea of wild salmon, wild smolts treated with Slice had a very substantial increase in survival against their wild untreated smolts. Conditions at sea are expected to be challenging due to climate and changing distribution of prey thus exacerbating issues surrounding the impact of sea lice originating from salmon farming areas.
We also strongly suggest that the efficacy of chemical treatments for sea lice has now become unreliable, and it is important to note that the paired releases which demonstrate a significant difference between treated and control cohorts in the earlier releases may be subject to a situation whereby the efficacy of the treatment may be reduced over time. The continued reliance on these trial releases should take account this reduction in efficacy rather than any suggestion that

[7] Occurrence of Farmed Atlantic Salmon in Western River Basin Districts during August & September 2024
[8] Smolt Loss Aquaculture Bays – Salmon Watch Ireland https://docs.google.com/spreadsheets/d/1EuepvI1wJKDoGUFFd-vKzgr4APL2q8-B/edit?usp=sharing&ouid=111338563308166601523&rtpof=true&sd=truehttps://docs.google.com/

management of sea lice on farms had improved. It is essential that the Marine Institute Studies[9] be viewed with caution.

The following paper[10] "***notes that in a 19 year time series of release group studies of Atlantic salmon, we demonstrated that (i) the effect of subjecting out-migrating salmon smolts to parasite treatment on marine survival has been reduced over a time, (ii) the relation between salmon lice levels in the out-migration route of the salmon and effect of treatment against the parasite is weak, but also (iii) the return rates in both treated and untreated groups of salmon are negatively correlated with salmon lice levels, and (iv) returns of wild salmon to the region are similarly negatively correlated with salmon lice levels during the out-migration year. Our study suggests that salmon lice can have a large effect on wild salmon populations that is not revealed with randomized control trials using antiparasitic drugs. This should be better accounted for when considering the impacts of farms on wild salmon populations."***

The European Court of Justice (ECJ) [11]in several judgments have ruled that the test to be applied must be based on the 'best available scientific knowledge in the field.' We take issue, therefore, with the failure of the application to have regard to independent peer reviewed scientific reports and their interpretation of the effect of sea lice on wild salmonids and which challenge the conclusions of the small and select number of reports which are the only ones that have been consistently considered by DAFM and indeed the industry.

It is unacceptable that the Natura Impact Assessment as presented ignores the ECJ jurisprudence and only considers a narrow range and indeed interpretation of scientific literature concerning the impact of sea lice from salmon farms on wild salmonids.

Assessment of applications for grants of licences, and grants of renewal of licences, by the Minister for Agriculture Food and the Marine, have in the past relied exclusively on a limited number of scientific papers from the Marine Institute in respect of sea lice impacts on wild salmonids in the marine setting.

Salmon Watch Ireland strongly asserts that DAFM must consider the application by Ocean Farm Limited as flawed and thus not in compliance with Article 6 subsections (3) and (4) of the Habitats Directive.

The Marine Institute[12] studies have been relied upon by Ocean Farm Limited in their NIS associated with this application and are once again at considerable variance with both national

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[9] Jackson,D., Cotter, D., Newell,J., McEvoy, S., O'Donohoe,P., Kane, F., McDermott,T., Kelly,S., and Drumm, A. (2013). Impact of *Lepeophtheirus salmonis* infestations on migrating Atlantic salmon , Salmo salar L., smolts at eight locations in Ireland with an analysis of lice-induced marine mortality. Journal of Fish Diseases. Available at https://oar.marine.ie/bitstream/handle/10793/849/Impact%20of%20Lepeophtheirus%20Salmonis%20on%20Migrating%20Atlantic%20Salmon%20(Jackson,%20D.%20et%20al.).pdf;jsessionid=C61B3246F793421270901A3CB67C911C?sequence=1

[10] **Direct evidence of increased natural mortality of a wild fish caused by parasite spillback from domestic conspecifics**

[11] C-258/11 - Sweetman and Others v ABP (Galway Bypass)
C-258/11 - AG opinion, Sweetman and Others v ABP (Galway Bypass)
C-127/02 - Waddenzee
C-521/12 - T.C. Briels and Others v Minister van Infrastructuur en Milieu
C-323/17 - People Over Wind and Sweetman v. Coilte Teoranta

[12] Jackson et al. 2013. Impact of Lepeophtheirus salmonis infestations on migrating Atlantic salmon, Salmo salar L., smolts at eight locations in Ireland with an analysis of lice-induced marine mortality.

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and international studies in relation to the impact of salmon farming and the impacts of sea lice emanating from these farms on wild salmonid stocks. The Marine Institute papers imply falsely in their interpretation that the impact of sea lice emanating from salmon farms are a minor and irregular component of wild salmon survival. This has been relied upon by the applicant in this case to minimize the effects caused by salmon farming.

These studies have been subject to much criticism[13] and overall scientific consensus indicates a significant effect on wild salmon survival.

While other peer reviewed papers concerning sea lice appear in the NIS and EIA, it is obvious that a bias is towards the Marine Institute papers and that the Competent Authority in its examination of same is not independent in this matter.

Salmon Watch Ireland strongly suggests that an independent review be considered to examine the studies carried out by the Marine Institute which have already been widely dismissed as defective. Simply put there is an impact on vulnerable salmon stocks and to licence open cage farming is effectively ignoring the inevitable outcome of this practice, **less adult returns**.

It is alarming to note the dependence of the applicant on sea lice treatments and the recent transfer over to the use of cleaner fish to mitigate the effects of sea lice on farmed salmon, as most of the studies concerning impacts on wild salmonids were carried out while mitigation strategies were in place and while biomass was generally lower on farms.

It is also a rapidly changing temperature regime in the majority of bays in Ireland where salmon farming is taking place. The recent study[14] by the Marine Institute, Marine Environmental Characterisation of Irish Inshore Aquaculture Regions, **certainly notes that the longest running SST timeseries, based at Malin Head and submitted to ICES annually, has showed a steady increase in positive anomalies, suggesting a general trend of rising SST, particularly in the Northwest region. These anomalously high-water temperatures have been linked to salmon survivability in farms.**

This factor will make sea lice more problematic and disease more prevalent as indicated by the extraordinary mortalities experienced by the nearby Mc Swynes Bay farm which alone on a welfare basis should not be allowed to continue. We are unable to access mortality reports for this application but are in the process of an FOI request to DAFM.

We again strongly reiterate that trigger levels for treatment on farms are arbitrary and have no scientific basis to suggest that background natural levels are ever maintained in the presence of salmon farms.

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https://oar.marine.ie/bitstream/handle/10793/849/Impact%20of%20Lepeophtheirus%20Salmonis%20on%20Migrating%20Atlantic%20Salmon%20(Jackson,%20D.%20et%20al.).pdf?sequence=1

Jackson et al. 2011. An evaluation of the impact of early infestation with the salmon louse Lepeophtheirus salmonis on the subsequent survival of outwardly migrating Atlantic salmon, Salmo salar L., smolts.
https://www.sciencedirect.com/science/article/pii/S004484861100247X

[13] M Krkosek et al. (2013) Comment on Jackson et al. 'Impact of Lepeophtheirus salmonis infestations on migrating Atlantic salmon,
Salmo salar L., smolts at eight locations in Ireland with an analysis of lice-induced marine mortality'
https://drive.google.com/file/d/1TtsD1Ra3R7bczcNtJZ2IMT6LS3BUpD1G/view?usp=sharing

[14] Marine Institute "Marine Environmental Characterisation of Irish Inshore Aquaculture Regions
https://drive.google.com/file/d/1C0meEnLHD6h9-okD_OSbh-8seWqkvwqk/view?usp=sharing

It is essential to note that there is a substantial difference in impact aligned with biomass, period fish are in farms and environmental conditions. There are significant differences in impacts if farms in bays are recently stocked with smolts during spring, grower fish in second year of production and bays that are fallowed. The situation in Mc Swynes and Inver Bay presently has fish in second year of production at all times in that both areas are in production in alternate years. There is **no whole-bay (Donegal)** fallowing and there is a consistent source of sea lice larval distribution 12 months per year.

The impacts are readily recognisable from Passive Integrated Transponder (PIT) studies carried out by Inland Fisheries Ireland on the Erriff river in County Mayo. These studies clearly demonstrate that there is a substantial effect on salmon and sea trout survival and all times but is substantially greater when farms are in second year of production and biomass is large.[15]

It is also mentioned that sea lice densities rapidly decrease away from the farm. There has been no concerted study to indicate larval sea lice densities or copepod densities in areas where no salmon farms are, so to suggest that background levels are achieved is entirely without merit.

The recent paper by Morton *et al*. [16] clearly demonstrates that removal of farms reduces sea lice infestation pressure to background levels.

It is noteworthy that the applicant has gone to considerable lengths to demonstrate that studies carried out in Killary Harbour are not reflective of conditions in Inver Bay. However, it is still obvious that studies carried out are over a greater geographic range demonstrate a significant reduction in returning adults. The interpretation of data by the competent authority is flawed.

The following peer reviewed papers although not exhaustive demonstrate the impact of sea lice on wild salmon and must be considered in order to comply with the standards required what is required pursuant to Article 6(3) of the Habitats Directive. [17]

Salmon Watch Ireland also contends that no relevant studies have been undertaken to identify the migration routes of wild salmonids through Donegal Bay.

Mortalities in Farmed Salmon

Another aspect which requires more scrutiny is the abject record of Ocean Farm in relation to mortalities on their farms. Mortality rates are running at up to 84% (Mc Swynes Bay) and it is objectionable that such events are allowed to continue. While climatic change may negatively affect their operation it is indefensible that DAFM should continue to allow open cage farms which offer little if any protection from changing oceanic conditions which may amplify further harmful algal blooms, jellyfish infestations, sea lice and a myriad of pathogenic diseases. Permitting such ongoing mortality in the farmed stocks raises fundamental questions regarding regulatory commitment to animal welfare. We have requested information on mortalities in the Inver Bay site through FOI to DAFM.

[15] Page 66- Annual Report and Financial statements – Inland Fisheries Ireland
https://opac.oireachtas.ie/Data/Library3/Documents%20Laid/2023/pdf/DECCdoclaid290623_102523.pdf

[16] Effect of government removal of salmon farms on sea lice infection of juvenile wild salmon in the Discovery Islands - https://drive.google.com/file/d/1C0meEnLHD6h9-okD_OSbh-8seWqkvwqk/view?usp=sharing
[17] Sea Lice Papers -https://drive.google.com/drive/folders/14pkmp_eiA4zA_yE-_w1wXrXJCyWdPQNr?usp=sharing

Amoebic Gill Disease

With warming oceanic temperatures, it is evident that AGD will continue to increase in both intensity and indeed over longer periods and as such there is a consistent negative effect on both salmon and sea trout in areas where AGD is present on salmon farms. it is also important to note that the marine institute does note that wild salmon smolts may be affected by AGD dependant on temperatures during spring. The treatment of this topic in the documentation presented is not sufficient and falls far short of what is required. The juvenile wild migrating salmon from the Lough Eske SAC and indeed all rivers in Donegal Bay are certainly at risk on their migration route.

The issues with AGD and wild salmonids have not been sufficiently addressed in the EIAR and NIS and it is alarming that wild salmonids may be disproportionally affected by this disease when compared to farmed salmon. The following study[18] demonstrated that wild fish showed substantially higher mortality levels (64%) than farmed fish (25%), with intermediate levels for hybrid fish (39%) suggesting that AGD susceptibility has an additive genetic basis. This is extremely important as there has been no attempt to analyse the effect on wild fish at sea in Ireland and the attempt in the documentation to mitigate this disease falls far short of what is required.

The environmental reports presented suggest that the temperature regime required for the outbreak of AGD at 12 degrees Celsius are at odds with the marine institute temperature guidelines of 10 degrees Celsius. We would suggest that this is an attempt by the applicant to downplay the significance of salmon smolts being affected by AGD during their migration in April and May. Nearby temperature in Donegal Bay regularly is below 12 degrees Celsius during this period.

Freshwater Pearl Mussel

The issue of Freshwater Pearl Mussel populations in the Lough Eske and Ardnamona Wood SAC [000163] , West of Ardara/Maas Road SAC [000197] and the Lough Melvin SAC [000428] has not been effectively addressed in the EIAR and NIS. The negative effect of farm origin lice on both Wild Atlantic salmon and sea trout is well established. As the FPM requires a healthy population of juvenile salmonids to ensure that reproduction capacity is not inhibited and if this renewal is granted it will continue to deteriorate.

Wrasse

It is insufficient to describe the use of wild wrasse as having no impact on the near coastal ecosystem and the use of wild fish to effectively be used as cleaner fish outside their normal ecosystem is an issue which should alarm anyone interested in a balanced ecosystem. These fish are culled at the end of the production cycle due to concerns surrounding disease transfer to the wider environment. Again, we reiterate that no study has been carried out to essentially describe the effect which falls far below the criteria for appropriate assessment. It is also important to note

[18] Links between host genetics, metabolism, gut microbiome and amoebic gill disease (AGD) in Atlantic salmon

that the Annex IV species *Lutra Lutra* may be affected by the commercial fishery targeting wild wrasse (To be used as cleaner fish in salmon farming). Wrasse is an important aspect of the diet [19]of *Lutra Lutra* and this has not been sufficiently addressed in the environmental documentation presented by the applicant.

Alternative Technologies

Alternative technologies as usual have again not been in any way addressed. There are many technologies available to rear salmon to market on land and this should have been addressed. It is imperative that economics over ecology is not used by the applicant. As we have stated there are no imperative reasons of overriding public interest to allow these licenses to be renewed.

Conclusion

In conclusion, it has to be accepted that salmon farming in open cage technology is significantly harmful to juvenile wild salmon and sea trout. The prospect of escapee salmon from farms breeding with wild salmon is certainly an issue which may continue to increase as a result of climatic change causing more intense storms and expected damage to farm infrastructure.

The legal requirement for consent for this licence is contained in the following judgements:

Kelly (Eamon) v An Bord Pleanála [2014] IEHC 400 [20]and Connelly v An Bord Pleanála [2018] IESC 31. In Connelly, the Supreme Court explained that the 'overall conclusion' which must be reached before the competent authority will have jurisdiction to grant development consent following an appropriate assessment 'is that all scientific doubt about the potential adverse effects on the sensitive area have been removed.'

Accordingly, we state that consent cannot be given as scientific doubt exists concerning the impact of sea lice on wild salmon smolts originating in the Lough Eske and Ardnamona SAC as well as the escape of salmon which may impact on other SAC's which have pearl mussel or Atlantic salmon as qualifying interest.

Signed

John Murphy
Salmon Watch Ireland
21 March 2025

[19] S. Kingston, M. O'Connell and J. S. Fairley (1999). *Biology and Environment: Proceedings of the Royal Irish Academy Vol. 99B, No. 3 (Dec., 1999), pp. 173-182 (10 pages).*

[20] http://www.europeanrights.eu/public/sentenze/Irlanda-25luglio2014-High_Court.pdf

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