

Rec #	Recommendation text	Response to Recommendations
1	<p>The Committee acknowledges both the economic and social value that the salmon farming industry brings to Scotland. It provides jobs to rural areas, investment and spend into communities and stimulates economic activity in the wider supply chain. However, the industry also creates a number of economic, environmental and social challenges for other businesses which rely on the natural environment and the Committee recognises this impact. Therefore, if the industry is to grow, the Committee considers it to be essential that it addresses and identifies solutions to the environmental and fish health challenges it faces as a priority.</p>	<p>Recommendations 1 & 2</p> <ul style="list-style-type: none"> • The Committee raised concerns on the environmental impact and fish health challenges which the sector faces, and we have prioritised action in these areas. • A new, strengthened, environmental regime has been implemented by SEPA and transition to this new framework is nearly complete. The framework introduced a tighter seabed standard and significantly enhanced modelling and monitoring requirements. • Additionally, the Scottish Environment Protection Agency (SEPA) is now the lead regulator responsible for managing interactions between sea lice from fish farms and wild Atlantic salmon and sea trout. SEPA commenced the implementation of a new sea lice framework to protect wild salmon populations from 1 February 2024. • The new SEPA sea lice framework will support sustainable development of fish farming by protecting wild fish, whilst making the development process more efficient and effective. SEPA will use the new sea lice regulatory framework alongside its other regulatory responsibilities for the water environment. • The Farmed Fish Health Framework continues to support a progressive approach to fish welfare and health management, undertaking collaborative work within the work themes of understanding mortality, climate change and treatments (including medicines). • The Scottish Aquaculture Council (SAC) has met on 5 occasions to date, most recently on 4 June 2024. The SAC continues to add value to the policy process, providing advice across all aquaculture related issues.
2	<p>The Committee strongly agrees with the view of the Environment, Climate Change and Land Reform Committee (ECCLR) Committee that if the industry is to grow, the “status quo” in terms of regulation and enforcement is not acceptable. It is of the view that urgent and meaningful action needs to be taken to address regulatory deficiencies as well as fish health and environmental issues before the industry can expand.</p>	<ul style="list-style-type: none"> • We want to go further – that is why I commissioned the independent review of aquaculture consenting. • The Consenting Task Group (CTG) has worked together to develop a new pre application process which seek to minimise delays by streamlining and removing unnecessary duplication in the pre-application process, and to provide developers with an early understanding of potential constraints in the consenting system – including environmental constraints information – as well as enhancing community engagement on the environmental risks. • In January 2024 we commenced pilots in Shetland and Highland local authority areas and there are currently 4 pilots underway. • We are still fully aware that careful management is needed to enhance blue and green infrastructure and to ensure use of land and sea is in the long-term public interest. Our National Planning Framework 4 (NPF4) was published in February 2023 and the Aquaculture Policy within makes clear

		<p>the need to minimise adverse effects on the environment, including cumulative impacts. We expect Local Development Plans, as they are refreshed and new plans come forth, will play a key role in guiding development to locations that are appropriate for the area and will minimise adverse environmental impacts while meeting industry needs.</p> <ul style="list-style-type: none"> • The new National Marine Plan 2 (NMP2) will act as companion document alongside our National Planning Framework 4, setting out a coherent vision for the future development of Scotland’s land and seas. The updated NMP2 will continue to guide all marine licensing and consenting decisions
<p>3</p>	<p>The Committee notes calls for a moratorium on new salmon farm development and expansion of existing sites, it considers that there is insufficient evidence to support this.</p>	<ul style="list-style-type: none"> • <u>On expansion</u> – As the Committee has heard in evidence to date, the salmon farming sector is highly agile and responsive to a fast-changing environment. No farming business wants to expand production at sites they do not believe offer the best opportunities to grow fish as well as possible • In addition, there is a drive to deliver the highest standards of health and welfare with minimum environmental impact. • <u>Previous and current calls for a moratorium on new and expansion of salmon farms</u> – we have made significant progress since the REC Committee found there were no grounds to support a moratorium. • We are clear there is a statutory structure which must be followed for all decision-making in the planning system, which generally does not support moratoriums – individual applications must be decided on their own merit. • Section 25 of the Town and Country Planning (Scotland) Act 1997 requires that decisions must be made in accordance with the development plan, unless material considerations indicate otherwise. The statutory development plan consists of the NPF4 and the Local Development Plan (LDP) for the relevant area. • NPF4 makes clear the need to minimise adverse effects on the environment, including cumulative impacts, and continues to maintain further open pen developments on the north and east coasts of mainland Scotland will not be supported.

<p>4</p>	<p>The impact of expansion plans on other sectors which share the marine environment needs to be recognised and the impact reduced.</p> <p>The Scottish Government, SEPA and all other responsible authorities should therefore ensure that the needs of other industries are fully considered in setting the strategic context for the sector.</p>	<ul style="list-style-type: none"> • Our Vision for Sustainable Aquaculture, published in July 2023, sets out the Scottish Government’s ambitions for the sustainable development of the aquaculture sector. • The Vision is the product of an extensive piece of work across government and aquaculture stakeholders; we will continue to work collectively with producers, supply chain businesses and other stakeholders to respond and adapt to the nature and climate crises ensuring the continued success of Scottish aquaculture. • Our developing spatial plans, supported by thorough consideration of economic, social and environmental impacts through the consenting system, are key to balancing the interests of other marine users and communities and ensuring the right decisions are taken in the local context. • We continue to enshrine and deliver local democracy through the planning system. • National Planning Framework 4 was adopted in February 2023, and we are making progress to deliver National Marine Plan 2 which will further help to manage conflict and prioritisation of the use of Scotland’s seas, alongside delivery of local development plans and regional marine plans. • The sector continues to implement its community engagement charter, which set out how it will engage with other marine users on its development proposals and through the consenting task group, we are piloting new approaches to pre application activities which places discussions on impacts on other marine users upfront in the consenting system.
<p>5</p>	<p>The Committee calls elsewhere in this report for the highest possible environmental and fish health regulatory standards to apply to the farmed salmon sector in Scotland. However, it is concerned that these standards could become technically misaligned with those in the EU post-Brexit and that this could lead to problems in accessing EU markets. It therefore calls on the Scottish Government to indicate how it intends to work with the UK Government to ensure that this issue is addressed.</p>	<ul style="list-style-type: none"> • The Scottish Government is committed to aligning to EU law as far as is practical and has created powers and measures to align devolved Scottish law with EU legislation. The UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021 focuses on three key areas following the end of the transition period: <ul style="list-style-type: none"> ○ 1) a discretionary power to enable Scottish Ministers to align devolved Scots law with EU legislation ○ 2) provisions to ensure continuation of guiding principles on the environment in Scotland ○ 3) establishment of new oversight body ‘Environmental Standards Scotland’. • To ensure that environmental law in Scotland is effective, Environmental Standards Scotland has been established as an independent body to ensure public authorities’ compliance with environmental law and to prevent enforcement gaps arising from leaving the EU. • We worked with the Department for Environment, Food and Rural Affairs (DEFRA) on the development and introduction of The Aquatic Animal Health (Amendment) Regulations 2022 (came into force on 15 August 2022), which enables changes to vector and susceptible species to be made more timeously.

		<ul style="list-style-type: none"> • On international standards more generally – these are always considered as part of our development process, however Scotland’s own environment and unique circumstances mean that some international standards are not easily comparable or workable.
<p>6</p>	<p>The Committee also acknowledges the infrastructure constraints faced by the sector that were raised in evidence, particularly a lack of available housing, which can make it difficult to attract and retain staff. The Committee recognises that a lack of housing can cause difficulty for many businesses in rural and remote areas. It calls on the Scottish Government to work with enterprise agencies and local authorities to consider what work might be done to help ease this constraint.</p>	<ul style="list-style-type: none"> • A public consultation on the current National Islands Plan ran from July-November 2023 and consisted of an online questionnaire and 16 workshops to evaluate the impact of the initiative. Salmon Scotland submitted an online response to the consultation. The Scottish Government has now published an independent analysis of the consultation results, which are being used to guide work on a refreshed National Islands Plan. This will be published in 2025. • Our commitment to deliver 110,000 affordable homes, of which at least 70% will be for social rent and 10% in our rural and island communities, is supported by our Rural and Islands Housing Action Plan, published on 13 October 2023. • In addition to our substantial mainstream investment, demand led funds, such as the £30 million Rural and Island Housing Fund and the £25 million Rural Affordable Homes for Key Workers Fund are key elements in addressing specific rural housing issues where they arise. • We are providing an almost £1 million package of support, co-funded with Nationwide Foundation, to underpin a delivery pipeline of community-led housing supply in rural and island areas. Funding has been provided to support the continuation of dedicated Settlement Officer posts within Argyll and Bute Council and Comhairle Nan Eilean Siar to help people who want to stay on or move to the islands. • We have worked collaboratively to a number of housing projects with the sector for example on Colonsay Mowi, Scottish Government, local authorities and community councils worked in partnership to deliver an affordable housing project worth £3,124,178. I’ve seen firsthand how these sorts of projects are making a difference in rural communities. • We will continue to work with the sector to identify opportunities to address strategic challenges together.
<p>7</p>	<p>Many marketing and quality assurance accreditation schemes exist for farmed salmon. These often set more stretching environmental standards than are currently in place in Scotland. The Committee calls on the Scottish Government to take the requirements of existing</p>	<ul style="list-style-type: none"> • Understanding the current regulatory, voluntary code and policy landscape is an important part of policy development, specifically in relation to determining if, and where government action is needed. • We engaged with accreditation schemes when developing the Vision for Sustainable Aquaculture – they offer a unique consideration of welfare and the contribution they make to driving sustainable practice – this was important to our policy development.

	<p>accreditation schemes into account when considering regulatory change to establish where alignment might be appropriate and feasible.</p>	
<p>8</p>	<p>The Committee calls on industry representatives, accreditation bodies, retailers and other stakeholders to work together to consider ways in which clarity and simplicity for consumers in a potentially confusing accreditation landscape can be provided.</p>	<ul style="list-style-type: none"> • This is a matter for the sector, accreditation bodies and retailers – but we consider that independence from government is an important attribute of accreditation. • It is not clear that a single Scottish brand would meet the salmon sector’s needs, and in terms of international marketing the sector has been very successful in gaining the French Label Rouge standard. There are some standard components of the food labelling systems, and these provide the clarity on, for example, calorie and fat content which consumers should have access to.
<p>9</p>	<p>However, the Committee considers the current level of mortalities to be too high in general across the sector and it is very concerned to note the extremely high mortality rates at particular sites. It is of the view that no expansion should be permitted at sites which report high or significantly increased levels of mortalities, until these are addressed to the satisfaction of the appropriate regulatory bodies.</p>	<ul style="list-style-type: none"> • Fish health remains complex to address, with unexpected environmental conditions in recent years contributing to pressures such as algal blooms and micro jelly fish – these damage gills and largely explain high mortality at specific sites. • These specific health challenges have increased the difficulty in maintaining good fish health. • As you heard in your evidence session with the sector, salmon businesses have diverted attention to mitigate the effects of these impacts, which we hope to see the fruits of in coming years. • It does not make sense to prevent expansion at sites which have experienced high mortality without considering the cause ; a one-off event does not necessarily indicate a systemic problem with welfare or husbandry. • We should not act disproportionately with a moratorium, but we should better understand mortality causes and find a way forward which supports greater survival. • The sector itself does not want to invest in sites which are not productive, and which represent economic loss. • The Fish Health Inspectorate, as the fish health regulator, investigates increased mortality above certain thresholds for presence of the diseases listed in legislation as requiring statutory control – and it would take action if specific diseases were detected. The FHI also ensures good biosecurity practice is being followed which is a requirement of the Aquatic Animal Health (Scotland) Regulations 2009. • The FHI are statutory consultees in planning applications for all new or expanding marine sites. They provide comment on appropriateness of proposals and other fish health aspects, and these are considered by planning authorities.

<p>10</p>	<p>The Committee welcomes the statement in the Scottish Government’s Fish Health Framework that ambitious targets should be agreed “to achieve a significant and evidenced reduction in mortality for salmon and trout” and that these should be world-leading. However, it is strongly of the view that practical action is also required and that there should be a process in place which allows robust intervention by regulators when serious fish mortality events occur. It considers that this should include appropriate mechanisms to allow for the limiting or closing down of production until causes are addressed.</p>	<p><u>Targets</u></p> <ul style="list-style-type: none"> • To agree targets you must first understand the causes of mortality and take an evidence-based approach to improving fish health. • The experience of salmon farmers is that the environment is becoming more challenging to farm fish, as waters warm and new health challenges arise, although until now mortality trends have remained broadly stable. Although this isn’t definitive, it is indicative of the sector managing previous challenges at the same time as new ones emerge. The key to reducing mortalities will be to get ahead of emerging challenges faster than they arise, which involves concerted effort to innovate. • Through the Farmed Fish Health Framework, the sector worked with the Fish Health Inspectorate to establish categories of mortality to introduce standardised reporting and to help analyse monthly statistics. This supports decision making on areas of focus particularly for the activities of the Sustainable Aquaculture Innovation Centre. • The voluntary publication of site-specific mortality information by Salmon Scotland is a significant step forward and is leading amongst food production sectors. • With the sector itself prioritising addressing key health challenges, we do not consider that the setting of targets would generate additional progress around the key issues. Economic loss, reputational damage and the legal, moral and market driven obligation to deploy high welfare standards are the real drivers – the sector strives for improved survival of fish, and it is not in their interests to be complacent. <p>Intervention by regulators</p> <ul style="list-style-type: none"> • The Fish Health Inspectorate (FHI) undertakes regular inspection, sampling programmes and health surveillance in accordance with domestic and international regulations. • In addition, the sector is required to report mortality events above a certain percentage to the FHI – this is reinforced in the sector’s Code of Good Practice. • Mortality events reported to the FHI are investigated for the presence of notifiable disease and they will provide advice or take action under relevant legislation. • The focus is rightly on listed disease – these are diseases which are set in legislation as requiring statutory control as they are associated with significant detrimental impact on farmed, or wild, fish. If these are suspected or detected, the FHI places robust controls on a farm.
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<p>11</p>	<p>The Committee considers it to be essential that this work delivers high levels of transparency that will provide confidence to all stakeholders. It therefore recommends that the information provided in future should provide an accurate, detailed and timely reflection of mortality levels including their underlying causes across the whole sector. It should also incorporate a mechanism for reporting where early harvesting has been carried out because of a disease outbreak.</p>	<p>Good progress has been made through the Farmed Fish Health Framework in identifying and ranking the main causes of mortality into ten overarching categories with a view to standardising reporting across farms. This introduces consistency of recording and better analysis of mortality by cause, accepting, however that some mortality is difficult to assign to one reason given complexities and interactions of various factors leading to mortality.</p> <p>Salmon Scotland is now publishing monthly mortality data, by percentage and cause, and work is ongoing to identify if further alignment of published mortality data is possible. This reflects an openness and transparency which is leading amongst farming sectors. This approach also allows for better understanding of underlying reasons for mortality which in turn helps inform which issues require focus and collaboration to resolve.</p> <p>See progress detail on Recommendation 12.</p>
<p>12</p>	<p>The Committee calls on the FFHF working group to seek the views of all industry, scientific, environmental and other stakeholders to ensure that the methodology that it is tasked with developing for reporting mortalities is sufficiently robust. It is strongly of the view that it should be a mandatory requirement for all farmed salmon producers to provide this data.</p>	<ul style="list-style-type: none"> • Better Regulation requires us to consider proportionate legislation, including what can be achieved through voluntary measures. The sector is prompt in its publication of data and it is not necessary or proportionate to introduce regulation at this time. <p><u>FFHF Steering Group</u></p> <ul style="list-style-type: none"> • The FFHF steering group comprises of various expertise including salmon and trout sector representatives, Fish Vets, the Fish Health Inspectorate, Sustainable Aquaculture Innovation Centre, regulators (SEPA and Veterinary Medicines Directorate) and Marine Directorate policy and science officials. Within the steering group, Salmon Scotland led on delivery of this action, in turn liaising with multiple individual companies. • The range of expertise represented was extensive and ensured that methodology developed would reflect a diverse range of perspectives.

		<ul style="list-style-type: none"> • Salmon Scotland worked closely with the Fish Health Inspectorate to identify categories for mortality reporting to standardise reporting across the sector. • Salmon Scotland now reports monthly average mortality, which is leading amongst agriculture and aquaculture food producers. It is published in the public domain for transparency. <p><u>FHI</u></p> <ul style="list-style-type: none"> • The sector is already legally obliged under Aquatic Animal Health (Scotland) Regulations 2009 to report any suspected presence of notifiable fish diseases immediately to the Fish Health Inspectorate (FHI), and in addition the sector and Scottish Government has agreed voluntary mortality reporting thresholds. These reporting requirements have been adopted within the Code of Good Practice for Scottish Finfish Aquaculture. FHI uses this information to determine if a visit to a site is necessary. • Information relating to the mortality reporting regime obtained by Marine Directorate via sector reporting, and also by routine FHI surveillance, is actively published on a monthly basis, one month in arrears.
<p>13</p>	<p>The Committee further recommends that there should be coordination with the data that is to be provided on sea lice infestation levels to ensure that a package of data is available which provides an up-to-date and comprehensive overview of all fish health, welfare and treatment issues across the sector.</p>	<ul style="list-style-type: none"> • Scotland's Aquaculture website publishes a wide range of aquaculture data. The site has been developed in partnership by Marine Directorate, the Scottish Environment Protection Agency (SEPA), Crown Estate Scotland, Food Standards Scotland and Nature Scot to provide a range of information about Scottish aquaculture. Marine Directorate makes a range of reporting contributions to the website including fish escapes, sea lice information, and finfish species farms and shellfish aquaculture sites authorised as aquaculture production businesses. • Following introduction of mandatory reporting we made sea lice information publicly available and are considering improvements to accessibility, such as visualisation tools. • SEPA has done some additional work on Scotland's Aquaculture website updating its seabed monitoring classification data to tie in with the 2019 finfish framework, ensuring that additional medicine data (including hydrogen peroxide and anti-microbials) is now published. • We will keep further enhancements to Scotland's Aquaculture Website under consideration as part of the delivery of the regulatory review of aquaculture and in discussion with the Scottish Aquaculture Council (a senior stakeholder advisory group). • However, further enhancements to the website, and the preparation of wider data sets, would come at a significant cost to the public purse and have resource implications, and may not be considered a priority at this time.

		<ul style="list-style-type: none"> • We gather the information we need for regulatory purposes, which may not be the same as information other parties would prefer us to collect. • But we are committed to ensuring access to the data which we do collect. For example, SEPA is already planning how to publish its sea lice risk information.
<p>14</p>	<p>The Committee therefore recommends that a review should be conducted by the Animal and Plant Health Agency of the relevant regulatory and enforcement regime which applies to the transportation and disposal of dead fish to ensure that it remains fit for purpose. This recommendation is consistent with the Committee’s general view that there should be a strengthening of regulation which applies to the farmed salmon sector.</p>	<ul style="list-style-type: none"> • No review of the relevant regulatory and enforcement regime which applies to the transportation and disposal of dead fish has been conducted by the UK’s Animal and Plant Health Agency (APHA) it was not deemed necessary • The transportation and disposal of dead fish sits within the Animal By-Products (Enforcement) (Scotland) Regulations 2013. Scottish Ministers are the central competent authority, and local authorities are the enforcement authority, except in relation to food hygiene establishments. • The Scottish Government believes the regulatory controls in place are sufficient to ensure the transportation and disposal of dead fish is carried out correctly. • Any person who contravenes or fails to comply with an animal bi-product requirement laid out in Schedule 1 of the Animal By-Products (Enforcement) (Scotland) Regulations 2013 commits an offence. • The sector is working to explore other value chains and uses of animal by products as part of a circular economy approach. One example is its work with Pelagia to deliver ‘Sea2Soil’ – the UK’s first fish hydrolysate which can be used as an organic soil improver for food production. We strongly support circular economy approaches and encourage more development in this area. As part of this development, it may be possible to reduce road transport of APBs.
<p>15</p>	<p>The Committee notes the various views expressed in evidence relation to the different sea lice trigger levels and thresholds that are applied by the industry itself and by Marine Scotland for reporting and intervention purposes. It considers that the work of the FFHF provides an opportunity to remove confusion around this issue and develop proposals that are appropriate both to the fish health management needs of the Scottish industry and to the</p>	<ul style="list-style-type: none"> • The two regulatory regimes (FHI’s and SEPA’s) which exist are designed for different reasons and require different reporting and thresholds. • The SEPA framework relates to sea lice as emissions and interactions with wild salmon. It focuses on farms which pose risk to migrating salmonids, it does not apply all year or to all farms • In contrast, the Scottish Government’s sea lice policy, enforced by the Fish Health Inspectorate focuses on ensuring that producers are meeting their legal obligations to have satisfactory measures in place to control sea lice as parasites and applies to all farms all year. It has higher permitted levels of sea lice per fish because it relates to the numbers sea lice which pose health risk to individual farmed fish. It is difficult to develop a regulatory regime which addresses both fish health and emissions and remain proportionate to both purposes. To accept SEPA’s lower sea lice levels into the FHI’s sea lice management framework would mean adoption of levels lower nationally across all farms which would have unintended consequences.

	<p>regulatory regime. It considers, however, that these should be challenging and set a threshold that is comparable with the highest international industry standards.</p>	<ul style="list-style-type: none"> • The Sector’s Code of Good Practice also refers to sea lice levels are also lower than those reflected in the Scottish Government’s sea lice management policy - they indicate to producers a level at which they should begin to consider if sea lice control is necessary and not a level at which enforcement should be taken. • The regulatory landscape should be streamlined where possible, but regulation needs to be proportionate and appropriate to the issue at hand.
<p>16</p>	<p>Whilst the Committee recognises that it will take time for the outcomes of the FFHF sea lice workstream to emerge, it is strongly of the view that there should in general terms be a move away from a voluntary approach to compliance and reporting with regard to sea lice infestation. The working group should therefore seek to bring forward proposals which make compliance and reporting a mandatory requirement.</p>	<ul style="list-style-type: none"> • In 2020 –The Fish Farming Businesses (Reporting) (Scotland) Order 2020 was introduced (came into force in March 2021). • It requires Aquaculture Production Businesses that farm fish in marine sites to report the average number of adult female sea lice (<i>L. salmonis</i>) counted per fish per site in the reporting week to Scottish Ministers, one week in arrears. • The provisions of the Order introduced a significant change and improvement to sea lice reporting and evidence which the Fish Health Inspectorate use to both monitor and enforce if necessary. • While previous arrangements required reporting only where specific levels were met or exceeded, sea lice numbers now need to be reported weekly irrespective of the count. This is separate to reporting required by SEPA. • Data on sea lice numbers provided to the FHI in accordance with mandatory reporting requirements is used by the FHI in its implementation of the Scottish Government’s sea lice policy and management of sea lice on fish farms.
<p>17</p>	<p>The Committee notes the concerns expressed in evidence that enforcement action in relation to breaches of sea lice levels has not been sufficiently robust to date. It is therefore of the view that if the revised compliance policy is to be effective it must be robust, enforceable and include appropriate penalties.</p>	<ul style="list-style-type: none"> • The Scottish Government’s sea lice management policy, enforced by the Fish Health Inspectorate, is a robust and enforceable approach to ensuring that producers are compliant with the legal obligation to have satisfactory measures in place to prevent, control and reduce sea lice. • Since 2020 the FHI sea lice policy has been underpinned by mandatory weekly sea lice reporting introduced in line with recommendations of the previous Committee – this provides FHI with a fuller and more robust picture of sea lice levels on farms upon which to base its actions. • Good regulation drives improvement. The management policy in place allows FHI to take escalating action, from issuing advisory letters to formal warning letters and ultimately the issue of an enforcement notice if sea lice levels are not reduced within specific levels. • Data shows that most fish farms in Scotland keep sea lice levels well below the previously required intervention level and these continue to drop. (Only one report of sea lice levels above 6 in 2023 in comparison to 34 in 2021.) • The policy is robust and its objective is being achieved.

		<ul style="list-style-type: none"> • SEPA has also committed to a robust and proportionate regime relating to sea lice and wild salmonids.
18	<p>The Committee also considers it to be essential that appropriate staff and financial resources are provided by Marine Scotland to ensure that compliance is effectively monitored and enforcement action taken where required.</p>	<ul style="list-style-type: none"> • Current resourcing levels within the Fish Health Inspectorate are adequate to ensure compliance and enforcement with regards to sea lice monitoring and compliance for fish health purposes, and the wider roles of the FHI. • This is assessed annually through the Marine Directorate’s approach to resource planning.
19	<p>The Committee welcomes the recent voluntary commencement of sea lice data provision by Salmon Scotland on an individual farm basis. However, it agrees with the ECCLR Committee’s position that the provision of sea lice data should in future be mandatory for all salmon farms in Scotland.</p>	<p>(See response for Recommendation 16)</p> <ul style="list-style-type: none"> • In 2020 –The Fish Farming Businesses (Reporting) (Scotland) Order 2020 was introduced (came into force in March 2021). • It requires aquaculture production businesses in Scotland that farm fish on marine sites to report the average number of adult female sea lice (<i>L. salmonis</i>) counted per fish per site in the reporting week to the Scottish Ministers one week in arrears.
20	<p>The Committee notes that Salmon Scotland produces sea lice data 3 months in arrears, whereas such data in Norway is produced weekly in arrears. It considers that sea lice data in Scotland should be published in a similarly timely fashion, as close as possible to the collection date.</p>	<ul style="list-style-type: none"> • The Fish Farming Businesses (Reporting) (Scotland) Order 2020 was introduced (came into force in March 2021). • The data reported to the Fish Health Inspectorate is published one week in arrears from receipt to the FHI on Scotland’s Aquaculture website to promote transparency.
21	<p>The Committee also considers that it is essential that the data provided should be that which is required to inform the regulatory and enforcement regimes, as opposed to that which the industry itself takes it upon itself to produce.</p>	<ul style="list-style-type: none"> • Data on sea lice numbers provided to the FHI in accordance with mandatory reporting requirements introduced in 2020 and used by the FHI in its implementation of the Scottish Government’s sea lice policy is published by Scottish Government one week in arrears for transparency.

<p>22</p>	<p>The Committee is strongly of the view that, in order to increase transparency, there needs to be a significant enhancement in the way sea lice data and other key information related to the regulation of salmon farming is presented. It considers that a comprehensive, accessible reporting system of a similar standard to that which is already in operation in Norway should be introduced in Scotland.</p>	<ul style="list-style-type: none"> • In addition to the information which SEPA already publishes on all medicine use, biomass compliance and outcome of seabed surveys, SEPA is developing a new compliance assessment scheme (Environmental Performance Assessment Scheme). This will ensure information on farm compliance is visible. • The Scottish Government Marine Directorate has a range of reporting contributions to Scotland’s Aquaculture Website including fish escapes, sea lice information, and finfish species farms and shellfish aquaculture sites authorised as aquaculture production businesses. • I will keep further enhancements to Scotland's Aquaculture Website under consideration as part of the delivery of the regulatory review of aquaculture and in discussion with the Scottish Aquaculture Council.
<p>23</p>	<p>If the industry has aspirations to develop and grow, having a comprehensive reporting system which is transparent, reliable and, above all, trusted can only serve it well. The Committee is therefore of the view that there should be a suite of data available covering mortality, sea lice infestation, medicine application and treatment information.</p>	<p>See response to Recommendation 22</p>
<p>24</p>	<p>The Committee recognises that there would be a cost element in developing and operating such a system but is of the view that this should not preclude this work being taken forward. It considers that the associated costs should be borne by the industry, and calls on the Scottish Government to discuss with industry</p>	<ul style="list-style-type: none"> • My officials have been considering this as part of the regulatory review and in the context of decisions on budgets. • The committee previously recognised that further enhancements to Scotland’s Aquaculture website, and the preparation of wider data sets, could come at a significant cost to the public purse and have resource implications. • A number of data access improvements are ongoing and we expect more data to become available through delivery of SEPA’s sea lice risk assessment framework and their compliance dashboard, for example.

	<p>representatives how this might be achieved.</p>	<ul style="list-style-type: none"> • The Scottish Government has not approached the sector regarding further development of Scotland’s Aquaculture Website – we expect procurement and exchange of funds to be a challenging issue – this website is currently owned by the regulators. • We need to carefully prioritise what we do do, and will consider whether website enhancements are possible in later years, whilst keeping the financial situation in mind.
<p>25</p>	<p>The Committee recommends that the working group charged with taking forward the FFHF sea lice work stream should consider the production and presentation of sea lice data as an integral part of its work and bring forward proposals in line with the Committee’s views.</p>	<ul style="list-style-type: none"> • Medicine use is reported by operators to the Scottish Environment Protection Agency (SEPA) and reported on Scotland’s Aquaculture Website along with other data gathered by SEPA and other regulators. • SEPA’s 2019 regulatory framework introduced: <ul style="list-style-type: none"> ○ Enhanced environmental monitoring of the effects of new discharges of emamectin benzoate on the seabed. ○ Mandatory quality assurance requirements introduced for emamectin benzoate analysis. • Comprehensive and standardised reporting requirements on medicine use.
<p>26</p>	<p>It endorses the ECCLR recommendations on cleaner fish and agrees that there is an urgent need for an assessment of future demand as well as all associated environmental implications of the farming, fishing and use of cleaner fish.</p>	<ul style="list-style-type: none"> • Mandatory controls relating to the wild wrasse fishery came into effect in May 2021, replacing the voluntary measures introduced in 2019. • The controls are kept under review as new information becomes available. The 2021 and 2022 additional data collected as part of the mandatory measures introduced in 2021, was published on 8 July 2024. • The 2023 data is currently being analysed. We are monitoring emerging studies from Scotland and England, whilst also engaging regularly with NatureScot in relation to the wrasse fishery. • We are currently awaiting advice from NatureScot on the back of their commissioned work on the implications of wrasse fishing on marine features. Their advice will be acted on prior to the opening of the 2025 fishery. • The sector has further developed the farming of cleaner fish and is itself considering the mixture of wild and farmed fish it will use in future.
<p>27</p>	<p>The Committee welcomes the Scottish Government’s commitment to “assess whether management measures are appropriate and proportionate to the current and anticipated future levels of sustainable wild wrasse fishing in Scotland” as part of its Farmed Fish Health Framework. It would urge the</p>	<ul style="list-style-type: none"> • This consultation analysis of the measures at the time was completed it was decided to introduce new mandatory measures in 2021, building upon the existing voluntary measures that had been in place since 2019. • These measures include <ul style="list-style-type: none"> ○ additional data collection requirements on fishers who are permitted to access the fishery, including number of wrasse caught instead of weight caught ○ Fishers must be part of a survey assessing what fish are being returned from the first 20 pots each week and take observers on board if requested.

	<p>Scottish Government to complete this assessment as a matter of urgency.</p>	<ul style="list-style-type: none"> • The additional new data collected over Year 1 and 2 was published in July 2024 - the 2023 data is currently being analysed. • Data gathered on the wrasse fishery will improve the evidence base we use to make management decisions. • The Scottish Government consulted on extending appropriate vessel tracking to all commercial fishing vessels under 12 metres in length by 2026. This proposal will improve our understanding of the distribution and patterns of fishing activity. • Based on assessment of the available data, evidence showed the control measures were fit for purpose and no new management measures were introduced for the 2024 season. Management measures are being kept under review. • Any future developments will be evidence-led and informed by discussions with relevant stakeholders. • We will continue to work closely with NatureScot. • Scottish Government is also part-funding a PhD scholarship at the University of Aberdeen along with the Scottish Salmon Education and Research Foundation (a foundation funded by Salmon Scotland members). • The PhD project commenced in Autumn 2021 and aimed to Review assessment methods applied to data limited stocks to identify suitable methods for considering wrasse species status in Scottish waters – and will provide future management recommendations.
<p>28</p>	<p>The Committee strongly recommends that the Scottish Government consider the need for regulation of cleaner fish fishing to preserve wild stocks and avoid negative knock on impact in local ecosystems.</p>	<ul style="list-style-type: none"> • See progress detail for Recommendation 27.
<p>29</p>	<p>The Committee believes that it is essential that the issue of waste collection and removal is given a high priority by the industry, the Scottish Government and relevant agencies. It is clearly one of the main impacts on the environment and needs to be addressed as a matter of urgency.</p>	<ul style="list-style-type: none"> • The Scottish Environment Protection Agency (SEPA) finfish aquaculture regulatory framework was published in June 2019. The SEPA framework is helping to guide farms to higher dispersal locations where the environmental capacity to deal with waste is significantly higher. A developer wishing to develop a large farm in a sheltered (low dispersion) area of sea is likely to have to use waste capture technologies if they are to obtain authorisation from SEPA. • SEPA will not licence a fish farm if it cannot operate within safe environmental limits. • SEPA works with developers wishing to install waste collection & removal systems to help enable trials/provide upfront advice on permitting requirements. • SEPA's new charging regime provides a significant reduction of fees for waste capture technologies.

		<ul style="list-style-type: none"> • Note: SEPA cannot require the use of specific technologies, such as waste capture and collection.
<p>30</p>	<p>The Committee is concerned that the announcement of SEPA’s proposals for a new regulatory framework for managing the waste input to the marine environment from fish farm cages, as part of the outcomes of its wider sectoral review, was delayed until November 2018, shortly before this report was finalised. This meant that the Committee was unable to consider the proposals in detail. However, the Committee notes that the proposed new regulations are intended to more effectively manage the waste from salmon farms and avoid adverse impact on the seabed and the biodiversity of sea. The Committee calls on SEPA to keep it updated on the output from its consultation on the proposed framework and ultimately on the detail of how this will be implemented.</p>	<ul style="list-style-type: none"> • The Scottish Environment Protection Agency (SEPA) implemented its new regulatory framework for managing farm discharges in June 2019. • The framework has been implemented under the Water Environment (Controlled Activities) (Scotland) Regulations 2011. • The framework includes: <ul style="list-style-type: none"> ○ Improved risk assessments by SEPA to ensure that the environment can accommodate the discharges without environmental standards being compromised. ○ Improved modelling and monitoring of their impacts on the seabed by farm developers and operators to ensure that impact can be fully assessed, and proportionate action can be taken if standards breached. ○ Auditing of compliance by SEPA. • The framework has been applied to all new farms and expansion of existing farms since June 2019. Farms authorised prior to June 2019 are being progressively transferred onto the new framework. The transfer of all active farms is due to be completed by the end of 2024. • The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Amendment Order 2020 transferred responsibility for the authorisation of discharges of medicine residues from well-boats from Marine Scotland to SEPA. This means that SEPA can now regulate such discharges holistically. • SEPA provided evidence on the impact of the framework on 19 June.
<p>31</p>	<p>The Committee strongly believes in the benefits of transparency for the industry and those interacting with it. It endorses the ECCLR Committee’s recommendation that any data and analysis gaps related to the discharge of medicines and chemicals into the environment should be addressed by both the industry and regulators.</p>	<ul style="list-style-type: none"> • Medicine use is reported by operators to SEPA and reported on Scotland's Aquaculture Website along with other data gathered by SEPA and other regulators. • SEPA’s 2019 regulatory framework introduced: <ul style="list-style-type: none"> ○ Enhanced environmental monitoring of the effects of new discharges of emamectin benzoate on the seabed. ○ Mandatory quality assurance requirements introduced for emamectin benzoate analysis. ○ Comprehensive and standardised reporting requirements on medicine use.

<p>32</p>	<p>The publication of this research leaves the Committee in no doubt that effective regulation of medicine used by the farmed salmon industry is a requirement. In this regard, it welcomes the action by SEPA to the UK Technical Advisory Group (UK TAG) to make recommendations to the Scottish Government on new environmental standards for Emamectin Benzoate. It also calls on SEPA and the Scottish Government to similarly consider the environmental impact of other medicines by the industry.</p>	<ul style="list-style-type: none"> • The Environmental Quality Standard (EQS) for emamectin benzoate (EmBz) was derived by the UK Technical Advisory Group (UKTAG) using all available, reliable and relevant data and following internationally accepted guidance. Taking account of the latest evidence of the environmental persistence of emamectin benzoate, Ministers accepted UKTAG’s recommendation for the EQS for EmBz. • Following a public consultation on the timescale for implementing the new EQS, which took place from 24 April to 24 July 2023, Ministers have accepted the recommended timescales for the introduction of the new EQS. • Scottish Government will introduce the new EQS by means of a Direction to SEPA. On 5 November the acting Cabinet Secretary for Net Zero and Energy (Gillian Martin), agreed to the issuing and publication of The Scotland & Solway Tweed River Basin District (Status and Standards) directions 2024. I would expect them to be issued imminently. • Scottish Government intends to introduce the new EQS by means of a Direction to the Scottish Environment Protection Agency (SEPA). SEPA, working with the sector, is expected to have completed implementation within 48 months of this Direction being issued. • In terms of other sea-lice medicines (bath medicines) SEPA has now reviewed the latest scientific evidence and the existing environmental standards are appropriate based on the available evidence. • Where potential risk to the environment is highlighted as part of our initial screening modelling in relation to bath medicines, SEPA requires operators to undertake enhanced hydrodynamic modelling to fully demonstrate that any significant impact is appropriately mitigated, prior to any authorisation being granted.
<p>33</p>	<p>The Committee also recommends that information and data on medicine use by the industry should be made publicly available, on the same platform as that relating to sea lice and mortality rates.</p>	<ul style="list-style-type: none"> • Medicine use is reported by operators to the Scottish Environment Protection Agency (SEPA) and is published on Scotland's Aquaculture Website along with other data gathered by SEPA and other regulators. • This includes information on the anti-sea lice medicines, emamectin benzoate, azamethiphos and deltamethrin. • Information on sea lice counts on wild salmon were added to the website from March 2021 onwards. • From June 2024, SEPA has included information on Scotland’s Aquaculture Website on discharges of: <ul style="list-style-type: none"> ○ Antimicrobial medicines ○ Hydrogen peroxide

<p>34</p>	<p>The Committee shares the view of the ECCLR Committee that such physical barriers should be used ahead of deterrents such as Acoustic Deterrent Devices which potentially have a harmful impact on cetacean species such as whales and dolphins. The Committee considers it important that the use of such devices is fully assessed and it welcomes the fact that Marine Scotland has been asked to review the science to inform future policy in this area. It looks forward to an update on this from the Scottish Government in due course.</p>	<p><u>On development of the evidence base:</u></p> <ul style="list-style-type: none"> • The Scottish Government published the Parliamentary Report ‘Aquaculture – Acoustic Deterrent Device (ADD) use’ in March 2021, which reviewed the scientific evidence at the time on the potential impacts of Acoustic Deterrent Devices. • The report identified a need to improve the evidence base for ADDs through research and monitoring, and more systematic information recording. • We are aware that the Sustainable Aquaculture Innovation Centre (SAIC) is currently funding research to improve the evidence base for ADDs, following the recommended methodology identified in the Parliamentary Report and will consider the findings of this research when available. <p><u>On Non-lethal methods use (including ADDs):</u></p> <ul style="list-style-type: none"> • There is now no widespread use of ADDs in Scottish Aquaculture. A Code of Practice on interactions with marine mammals was published in November 2021 with mandatory standards with which aquaculture production businesses are required to comply, including in relation to the use of ADDs. • It requires that where a fish farm plans to deploy an ADD they must consult Marine Directorate and obtain relevant consents or demonstrate to Marine Directorate that its planned use will not harm marine mammals. • Marine Directorate has written to the aquaculture sector on several occasions setting out what actions they should take to ensure that their use of ADDs is compliant with the Code of Practice and the Habitat Regulations. • Under the Code of Practice, aquaculture businesses must report all use of containment measures to deter marine mammals on an annual basis to Marine Directorate. • In 2023 the majority of businesses reported using toughened/reinforced pen netting, tensioned pen nets, and dead fish removal systems to address marine mammal interactions.
<p>35</p>	<p>The Committee considers it to be important that this work results in the production of appropriate guidelines and best practice advice for use by the industry in responding to various scenarios, such as when seals are</p>	<p>Progress:</p> <ul style="list-style-type: none"> • The Aquaculture Code of Practice: Containment of and Prevention of Escape of Fish on Fish Farms in relation to Marine Mammal Interactions September 2021 and approved by Order on 22 November 2021.

	<p>trapped in salmon farm cages or in nets.</p>	<ul style="list-style-type: none"> • The Code provides a combination of practical guidance for Aquaculture Production Businesses (APBs), together with mandatory standards with which APBs must comply. • Practical guidance included in the Code includes recommendations on appropriate containment measures; guidance on the legal and regulatory framework on the use of ADDs; and guidance on the use of novel containment measures. • The Crown Estate and Marine Directorate commissioned a review of non-lethal seal control options to limit seal predation on salmonids in rivers and at finfish farms, which was published in 2021. This report includes discussion of non-lethal removal of seals from fish farm cages. <p><i>If pressed:</i></p> <ul style="list-style-type: none"> • In 2023 the Scottish Government asked SCOS for advice on the extent to which seals trapped in aquaculture facilities can be considered as suffering, to help inform decision-making in these scenarios. • The Scottish Government also asked SCOS for advice on non-lethal measures available to remove seals caught within fish farm cages in 2019 and 2020. • Best practice is likely to change as both technology and knowledge improve. Marine Directorate will continue to keep this under review in terms of the requirements of the Code.
<p>36</p>	<p>The Committee also looks forward to an update from the Scottish Government on its investigations into how the upcoming legislation change in the United States regarding seal shooting may negatively impact on its imports of Scottish salmon.</p>	<ul style="list-style-type: none"> • The UK submitted its comparability finding in relation to the US Marine Mammal Protection Act (MMPA) in November 2021. • We are awaiting the publication of the US’ findings. These were originally due to be published in November 2022, but publication has been delayed until 31 December 2025. • We will keep the Committee updated on the outcome of the US MMPA comparability findings. • Changes to the Marine (Scotland) Act 2010 came into force on 1 February 2021 removing two grounds for which Scottish Ministers can grant licences to take or kill seals. • These are for the purpose of protecting the health and welfare of farmed fish and for preventing serious damage to fisheries and fish farms. • The changes to the seal licensing system in 2021 were introduced to improve the conservation and welfare of seals in Scotland, but also ensured alignment with the US MMPA.
<p>37</p>	<p>The Committee notes that strict penalties are in place in Norway to deal with escapes and recommends that appropriate sanctions should be</p>	<ul style="list-style-type: none"> • It is important to both mitigate the risk of escape and to take action where escapes incidents do occur. However, we must be proportionate in our action. • To reduce the risk of escapes, the Scottish Government remains committed to working with the sector to deliver a new Technical Standard for Scottish Finfish Aquaculture - escape incidents have

	<p>developed and introduced in Scotland.</p>	<p>been reducing overall and following the introduction of the first standard, however we did see an abnormal escape incident last year relating to an escape from a well boat transporting fish.</p> <ul style="list-style-type: none"> • The Fish Health Inspectorate’s regulatory regime can already result in fines for failure to implement ‘satisfactory measures’, however in response to the Salmon Interactions Working Group report we did express our future intention to explore fines for fish farm escapes similar to that which is implemented in Chile or Norway. • Our ultimate aim here is for any monies to be ring fenced for wild salmonid conservation and/ or research, meaning funding is going directly to those are potentially impacted by the mistake. • However, I must be clear – that not all escapes lead to introgression. It very much depends on the age of the fish and the number which escape into the environment – many fish disperse widely into the sea. • I would also like to highlight the good practice being implemented by companies in this area without the need for regulatory action – for example following a large escape at one of its farms (Carradale) Mowi funded a study to determine if introgression was occurring. No evidence of impact or introgression was found following the escape event.
<p>38</p>	<p>However, it suggests that there needs to be a recognition that any work taken forward on this issue in the short term may be hampered by a lack of scientific data. The Committee supports the proposal from the ECCLR committee for more research into the interactions between farmed and wild salmon, as a matter of priority, although it acknowledges the evidence heard which suggests that this may be difficult to deliver.</p>	<ul style="list-style-type: none"> • The fish counter network has been expanded by the successful use in 2023 of new hydroacoustic cameras on two rivers. The Marine Directorate and the Helmsdale District Salmon Fishery Board have refurbished the Helmsdale counter in summer 2024. A new counter was installed on the Ayr, and recently Marine Fund Scotland awarded funding for a fish counter on the Creed and the North Esk. • A new National Electrofishing Programme for Scotland (NEPS) survey (incorporating genetic sample collection for NIPS and water quality sampling) was undertaken in summer 2023. The survey was undertaken according to a new design. • Tools have been developed to target riparian tree planting to areas where temperatures are hottest, expected to change the most under climate change and where shading can be effective in reducing temperatures (https://marine.gov.scot/information/scotland-river-temperature-monitoring-network-srtmn-riparian-woodland-prioritisation). This information was incorporated into recent changes in the Forestry Grant Scheme where a new riparian target area has been produced for new planting and the areas across Scotland which are eligible for increased grant support have been expanded. • The Marine Directorate continues to support long-term data collection on the effects of varying river temperature and flows on salmon and trout populations. • Marine Directorate has established the international Knowledge Strength Working Group (KSWG), with the aim of providing transparent information on sea lice impacts. Working with SEPA and international partners, Marine Directorate has worked on an evidence map listing available data on

		<p>sea lice farm-wild interactions as outputs from the Knowledge Strength Working Group. Through the Working Group, Marine Directorate has sought to codify production of policy advice in as clear and transparent a manner possible when working in an inevitably uncertain environment.</p> <ul style="list-style-type: none"> • Working through the Sustainable Aquaculture Validation of Ectoparasite Dispersal (SAVED) projects Marine Directorate has shared data with stakeholders on sea lice sentinel cages in Scotland, Norway and the Faroes to provide a baseline for validating models. • Work started through the SAVED project identifies Ensemble Modelling as an important approach to combining models to reduce uncertainties and therefore helps give a more accurate assessment of sea lice impacts. This is an approach used in, for example, weather forecasting. Marine Directorate has sought to publish data of use for assessing infection pressure of sea lice to make accessible to any seeking to carry out research.
<p>39</p>	<p>The Committee also encourages both the farmed salmon and wild salmon sectors to share information and data as transparently as possible in order to improve understanding as to why wild salmon stocks are decreasing</p>	<p>see responses to Recommendation 38</p>

<p>40</p>	<p>Although there is a lack of definitive scientific evidence of the various factors that are contributing to the decline of wild salmon stocks, the Committee is nevertheless of the view that a precautionary approach should be taken which will seek to minimise the potential risk to wild salmon stocks wherever possible.</p>	<ul style="list-style-type: none"> • See progress detail on Recommendation 1, 38 and 39. • Our application of the precautionary approach has been reviewed and adapted as our understanding of science and evidence has evolved. • We already have presumptions against development on the North and East coasts of Scotland, and we've taken further action to introduce the SEPA sea lice framework in the aquaculture zone. • A precautionary approach is needed where confidence in impacts of aquaculture is uncertain. For example, in relation to sea lice impacts, the Marine Directorate established the international Knowledge Strength Working Group to maximise confidence in decision making, and thus reduce the need for a precautionary approach. • As new data on sea lice is collected from sentinel cages, through the Scottish Environment Protection Agency's monitoring under the sea lice risk assessment framework, which Marine Directorate advises on, it will become possible to reduce precautionary approaches. However, until this data is collected, analysed, and used to validate models the uncertainty that requires a precautionary approach to potential risks remains important.
<p>41</p>	<p>The Committee suggests that the siting of salmon farms is key to managing any potential risk to wild salmon stocks and ensuring that the sector is managed responsibly and sustainably.</p>	<ul style="list-style-type: none"> • See progress detail on Recommendations 42, 45-47 below. • The data collection phase of the West Coast Tracking Project (WCTP) is now complete. Tagging and tracking of wild salmon smolt migration was undertaken in 2021, 2022 and 2023 in a partnership project with Marine Directorate, Fisheries Management Scotland and Atlantic Salmon Trust. This data will provide important information about the speed and direction of smolt migration and can be used to inform further development of the Scottish Environment Protection Agency's sea lice risk assessment framework.
<p>42</p>	<p>The Committee notes concerns expressed in evidence that none of the existing regulatory bodies currently has responsibility for the impact of salmon farms on wild salmon stocks. The Committee believes that clarity must be provided by the Scottish Government as to how this apparent regulatory gap will be filled and which agency will assume responsibility for its management.</p>	<p>(see response to Recommendation 1)</p> <ul style="list-style-type: none"> • We appointed SEPA as the lead regulator responsible for managing interactions between sea lice from fish farms and wild Atlantic salmon and sea trout. • SEPA commenced the implementation of a new sea lice framework to protect wild salmon populations from 1 February 2024. • The new SEPA sea lice framework will support sustainable development of fish farming by protecting wild fish, whilst making the development process more efficient and effective. SEPA will use the new sea lice regulatory framework alongside its other regulatory responsibilities for the water environment. • The framework applies a risk management and adaptive approach, which entirely in line with the precautionary principle. • The framework uses modelling to assess the risk to wild salmonids, including their migration routes, to consider the location of development proposals.

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		<ul style="list-style-type: none"> • In areas where modelling suggests there is the potential for wild fish to be affected, SEPA will require more detailed modelling before an application can be determined. Areas deemed of higher risk will be under active monitoring for impacts and actions will be taken where required. • The Fish Health Inspectorate in Scottish Government remains responsible for ensuring ‘satisfactory’ measures for the containment of farmed fish.
43	<p>The Committee is of the view that there is a need for both sectors to co-exist and it considers it to be essential that there is greater collaboration to resolve local management issues and other areas of concern.</p>	<ul style="list-style-type: none"> • Crown Estate Scotland implemented new lease terms in January 2023 that required aquaculture lease holders to report on sustainability. The purpose of the reporting lease term is to enable tenants to report on matters which are above regulation that demonstrate responsible stewardship of a shared marine space. Under this lease term finfish farmers are required to submit on a yearly basis a report that states where tenants (finfish farmers salmon/trout) are working together to manage an area to control sea lice and the management of plastics. • The first reporting due date was 31 January 2024 and reports have been submitted by tenants. Crown Estate Scotland will publish these reports on a yearly basis. • Crown Estate Scotland is committed to funding the Aquaculture Interactions post at Fisheries Management Scotland, a three-year contract is in place (2023-26). This is a continuation of the previous three years of co-funding between SG and CES for this post.
44	<p>The Committee recommends that mechanisms to encourage such collaboration between the sectors should be further developed and introduced. It further recommends that the Scottish Government’s wild salmon interactions group should, as part of its work, address this matter as a priority.</p>	<ul style="list-style-type: none"> • The post holder is working to identify collaborative projects for the wild and farmed salmon sectors with the aim to improve relationships through collaborative working. The post holder represents Fisheries Management Scotland on the collaborative working groups established by the Scottish Environment Protection Agency to develop delivery plans for monitoring needed under the sea lice risk assessment framework. • The pilot pre-application process for finfish farming currently underway includes provision for engagement with local interests, including communities and other users of the marine area. Further detail on the pilots is provided under Recommendation 1.
45	<p>The Committee shares the view of the ECCLR Committee that the siting of farms in the vicinity of known migratory routes for wild salmon must be avoided.</p>	<p>See progress on recommendation 42</p>

<p>46</p>	<p>The Committee is of the view that a similar precautionary approach must be taken in Scotland to assist in mitigating any potential impact of sea lice infestation on wild salmon. It therefore recommends that there should be an immediate and proactive shift towards siting new farms in more suitable areas away from migratory routes and that this should be highlighted in the strategic guidance on the siting of salmon farms.</p>	<p>See progress on recommendation 42</p>
<p>47</p>	<p>The Committee recognises that it will take time for the range of current activity by the Scottish Government (e.g. Farmed Fish Health Framework initiatives, consenting review) and regulatory bodies (e.g. SEPA finfish sector review) and action on the Committee’s recommendations to be completed, with outcomes known, agreed and implemented.</p>	<p>See progress on recommendation 42</p>
<p>48</p>	<p>The Scottish Government should provide strong and clear leadership in ensuring that the precautionary principle is applied, producing appropriate policy and guidance documents as necessary. These should make clear that the potential impact on the environment, known wild salmon migratory routes and other species must be comprehensively and robustly</p>	<ul style="list-style-type: none"> • The 5 environmental principles have been enshrined in The UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021 and must be considered in all policy development and in the decision-making progress. • In November 2021-February 2022, we consulted on statutory guidance for Ministers and other public authorities who must have due regard to five guiding principles on the environment. A copy can be found at the following link: https://www.gov.scot/publications/guiding-principles-environment-draft-statutory-guidance/documents/.

	<p>assessed and fully taken into account as part of the consideration of salmon farm applications.</p>	
<p>49</p>	<p>The Scottish Government should support and assist planning authorities by producing planning guidance which sets out clearly how the precautionary principle should be applied and managed.</p>	<ul style="list-style-type: none"> • The 5 environmental principles have been enshrined in The UK Withdrawal from the European Union (Continuity) (Scotland) Act 2021 and must be considered in all policy development and in the decision-making progress. • In November 2021-February 2022, we consulted on statutory guidance for Ministers and other public authorities who must have due regard to five guiding principles on the environment. • A copy can be found at the following link: https://www.gov.scot/publications/guiding-principles-environment-draft-statutory-guidance/documents/. • In addition, the independent review raised the issue of the precautionary principle and its potential for inconsistent use in the consenting process. • One of the biggest areas where this was considered an issue was the management of sea lice. • On 1 February 2024 SEPA commenced the implementation of a new risk-based framework for managing the interaction between sea lice from farmed fish and wild Atlantic salmon during their migration to sea by defining wild salmon protection zones. • A framework for protecting sea trout will be introduced from March 2025.
<p>50</p>	<p>Support should also be provided to local authorities to enable planning committees to have access to appropriate training resources so that decisions on applications for salmon farms can be better informed.</p>	<ul style="list-style-type: none"> • There are a range of actions being taken to support local authorities with decision making. • We currently fund an annual meeting of Local Authority aquaculture planners to share expertise and discuss common issues • We have recently consulted on a range of proposals which aim to ensure that Scotland’s planning services have the resources and the skills at their disposal to support delivery of much-needed investment in our places. <ul style="list-style-type: none"> ○ We announced that we would introduce changes to planning fees providing much needed additional financial resources for planning authorities. ○ Changes to be introduced in December 2024 include increasing fees to take account of the impact of inflation since fees were last amended in 2022 and introducing an annual increase commencing in Summer 2025. ○ Increasing Discretionary charging to include processing agreements, enabling authorities to ensure that they can resource delivery. ○ Future changes include the introduction of fees for appealing planning decisions • We’ve also announced a new planning hub, to build capacity and resilience, and to improve consistency and efficiency in decision-making.

		<ul style="list-style-type: none">• The Hub’s initial priority will be to help planning authorities make quicker decisions on hydrogen planning applications, with a plan to support wider developments including good quality homes and onshore wind• The new fish farm consenting pilots process should help to support local authorities in their decision making, where joint discussions take place and there is coordination and support amongst regulators.• Lastly - the new sea lice framework led by SEPA, recognises the challenges created by leaving local authorities to deal with complex science information at the end of the consenting process
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<p>51</p>	<p>It is therefore of the view that the Scottish Government should, as a matter of priority, initiate a spatial planning exercise with a view to developing strategic guidance specifying those areas across Scotland that are suitable or unsuitable for siting of salmon farms. This work should take full account of existing strategic documents such as the Marine Plan, and incorporate an assessment of the potential impact of salmon farms on Marine Protected Areas (MPAs) and Priority Marine Feature (PMFs) and the species which inhabit them.</p>	<ul style="list-style-type: none"> • Our National Planning Framework 4 was published in February 2023 and the Aquaculture Policy within makes clear the need to minimise adverse effects on the environment, including cumulative impacts. • We expect Local Development Plans, as they are refreshed and new plans come forth, will play a key role in guiding development to locations that are appropriate for the area and will minimise adverse environmental impacts. • The new National Marine Plan 2 will act as companion document alongside our National Planning Framework 4, setting out a coherent vision for the future development of Scotland’s land and seas. The updated NMP2 will continue to guide all marine licensing and consenting decisions. • Regional Marine Plans can be supported by guidance on the location of finfish farming. I was pleased to see Orkney Islands Council consult on their fish farming spatial guidance this summer following progress of their regional marine plan – this guidance has been developed to identify sensitive areas and species and potential constraints for fish farm development and/ or other activities in Orkney. • Every fish farm application is considered within these frameworks, as well as SEPA’s regulatory frameworks for managing discharges and sea lice. • This means the suitability of every proposed site in relation to potential environmental impacts is carefully considered. • These frameworks also benefit from refinement when new data is inputted.
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<p>52</p>	<p>The Committee acknowledges the role of planning authorities in considering and deciding on planning applications for salmon farms, taking into account a range of social, economic and environmental factors. However, it is of the view that strategic guidance on the siting of salmon farms should also be viewed as a material consideration in planning terms, which would help guide the industry in making applications and planning authorities in deciding on these. The Committee calls on the Scottish Government to consider how this might operate in practice and to consider whether any changes in planning guidance might be required.</p>	<p>See response to Recommendation 51</p>
<p>53</p>	<p>However, the Committee considers that there should be immediate dialogue with the industry to identify scope for moving existing poorly sited farms. It recommends that this should be led by Marine Scotland and encouraged with appropriate incentives for operators, such as giving favourable consideration towards allowing increased capacity at replacement sites that are known not to be environmentally sensitive. The Committee considers it to be important, however, that there is no deviation from due process in terms</p>	<ul style="list-style-type: none"> • The issue of resiting of farms was raised as part of the independent review in 2022. • Where the SEPA sea lice framework finds evidence of impact from existing farms, SEPA will support operators to consider alternative locations where that is required. The framework is working now to guide fish farms to the least sensitive locations. • We are aware that some developers are considering options for relocation of some farms in areas where conditions are not favourable for operations, and which could improve efficiency and lead to benefits for fish health and welfare. • The Consenting Task Group is working to improve the consenting process, seeking to remove duplication and enhance multilateral engagement. • Whilst new applications or changes to fish farm locations still need to be thoroughly assessed, consolidation and revision of layouts could be significantly supported by the pilots - it is our aim to support the sectors consolidation through the work of the CTG.

	of granting approval for replacement sites.	
54	<p>The Committee recommends that work to examine the scope for siting salmon farms in suitable offshore and other locations where there are higher energy water flows should also be treated as a high priority by the industry. It acknowledges that there are significant technological challenges associated with locating farms in these areas, as well as risks in terms of workforce health and safety. However, it also notes the benefits this could bring in terms of addressing fish health issues, reducing the environmental impact of waste and providing scope for the industry to develop higher capacity sites.</p>	<ul style="list-style-type: none"> • We are taking action to clarify the consenting process for aquaculture developments beyond 3 nautical miles. • As part of this work, we have recently published a consultation on proposals for plans to address an existing gap in aquaculture planning regulations by extending Local Authority planning controls through marine planning zones further offshore out to 12 nautical miles. • SEPA’s framework is aimed at supporting the sector into higher energy and dispersal sites. • We are assessing our legislative framework to ensure that consenting beyond 3nm will be possible to help support innovation in this space.
55	<p>The Committee further recommends that the Scottish Government should consider how the regulatory framework which applies to the industry might need to be adapted to suit the particular circumstances of offshore aquaculture.</p>	<p>See response to Recommendation 54</p>
56	<p>The Committee endorses the ECCLR Committee’s recommendation for urgent research on the subject and the consideration of ways to incentivise the industry to explore further use of the technology. However, it is aware that RAS is not</p>	<ul style="list-style-type: none"> • As set out in our Vision for Sustainable Aquaculture, the Scottish Government expects that increasing adoption of new and innovative technologies which achieve both positive environmental and health and welfare outcomes will support the sector’s sustainable development. Such technologies include, but are not limited to, vaccination, sea lice capture, medicine waste capture technologies or semi and closed containment, for example. • Following the Scottish Funding Council’s decision last year to end the core funding of the Sustainable Aquaculture Innovation Centre, the Scottish Government has worked to ensure

	<p>the only closed containment option and would encourage wider research on alternative technologies.</p>	<p>transition funding is available while considering how best to support aquaculture innovation in the longer term – a £1.5m package of support was announced in May 2024. We are engaging with a range of stakeholders, including the salmon sector, as options for the future are explored.</p> <ul style="list-style-type: none"> • Projects supported by the Marine Fund Scotland are delivering innovation and sustainable practices in our Aquaculture sector, supporting our economy and communities, and protecting the marine environment.
<p>57</p>	<p>The Committee notes that the ECCLR Committee’s report identified a range of significant gaps in knowledge, data, analysis and monitoring around the adverse risk the sector poses to the environment. It strongly endorses the ECCLR Committee recommendation on the need for more research in these areas.</p>	<p>see responses to Recommendations 38</p>
<p>58</p>	<p>However, the Committee acknowledges the challenges inherent in the collection and processing of this data. It calls on the industry and all other relevant bodies and organisations to work together to overcome the barriers of the scale of the task and the challenge of securing appropriate funding for that research. In particular, it agrees that there should be a requirement for the industry to contribute finance, expertise and</p>	

	<p>other relevant resources to independent research. The Committee calls on the Scottish Government to consider how an appropriate mechanism can be introduced.</p>	
<p>59</p>	<p>The Committee also notes and shares the concerns expressed in evidence that the current consenting and regulatory framework which is spread across several regulatory bodies is confusing and is poorly coordinated. It is of the view that the co-ordination of and interaction between the various elements of the regulatory regime needs to be significantly improved. The Committee recommends that Marine Scotland should be tasked with taking responsibility in delivering the necessary improvements and in taking on an overarching co-ordinating role.</p>	<ul style="list-style-type: none"> • I commissioned an independent review of the aquaculture regulatory system which was published in February 2022. • Following this, I have taken the lead in chairing the Scottish Aquaculture Council (SAC), which provides strategic advice on aquaculture policy developments. • The Marine Directorate has taken the lead in chairing and supporting working groups to deliver the necessary improvements, through the Consenting Task Group (CTG) and Consenting Task Group - Advisory Group. • This work is currently in the pilot phase.

<p>60</p>	<p>The Committee is therefore of the view that maintaining the status quo in terms of the regulatory regime in Scotland is not an option. It considers that there is a need to raise the bar in Scotland by setting enhanced and effective regulatory standards to ensure that fish health issues are properly managed and the impact on the environment is kept to an absolute minimum. The Committee therefore recommends that a comprehensively updated package of regulation should be developed by Marine Scotland and other regulatory bodies, both to ensure the sector will be managed effectively and to provide a strong foundation on which it can grow in a sustainable manner.</p>	<p>(see responses to Recommendations 1, 29, 30)</p> <ul style="list-style-type: none"> • It should be noted that we understand our regulatory regime relating to potential benthic impacts (SEPA’s regime) is significantly stricter than comparable fish farming nations.
<p>61</p>	<p>However, the Committee calls on the Scottish Government to conduct a review of those other aspects of the regulatory framework that are not covered by these exercises.</p>	<ul style="list-style-type: none"> • We commissioned an independent review of aquaculture regulatory processes, which was published in February 2022. • The independent review work was wide ranging, covering consenting and science. • In addition to the establishment of the SAC and CTG I asked the Scottish Science Advisory Council to examine the use and communication of science relating to aquaculture consenting. • That report was published in April 2023. • I am pleased that we’ve also recently appointed a Chief Scientific Advisor for Marine, and I look forward to discussing further progress to deliver our science strategy and following the SSAC’s report.

<p>62</p>	<p>The Committee considers it to be essential that SEPA introduces a significantly enhanced regulatory and monitoring regime under which it will robustly and effectively enforce compliance with environmental standards. It therefore welcomes the inclusion in SEPA’s draft sector plan of consultation proposals to more effectively monitor the environmental performance of the industry and, improve compliance levels.</p>	<ul style="list-style-type: none"> • SEPA implemented a new regulatory framework in June 2019. • The framework includes: <ul style="list-style-type: none"> ○ Requirements for enhanced monitoring of the effects of farm discharges on the seabed around the farm ○ Audit monitoring by SEPA of compliance with licence conditions, including environmental monitoring of the seabed to check compliance with seabed environmental standards. ○ Quality assurance scheme for data produced by operators on farm performance. ○ Under the framework, SEPA has a wide range of powers that it can use to enforce compliance if necessary. These include monetary penalties, enforcement notices, referral for prosecution and powers to vary, suspend and revoke licences. • SEPA is the lead regulator responsible for managing interactions between sea lice from fish farms and wild Atlantic salmon and sea trout. SEPA commenced the implementation of a new sea lice framework to protect wild salmon populations from 1 February 2024. • The new SEPA sea lice framework will support sustainable development of fish farming by protecting wild fish, whilst making the development process more efficient and effective. SEPA will use the new sea lice regulatory framework alongside its other regulatory responsibilities for the water environment.
<p>63</p>	<p>The Committee is of the view that a key part of any improvement in the enforcement of regulation should be the introduction of mechanisms to provide more open and transparent reporting of regulatory breaches. It also strongly recommends that any changes to the enforcement regime should incorporate measures which will ensure that there is a move away from the self-assessment culture that appears to be prevalent at present.</p>	<p><u>The introduction of mechanisms to provide more open and transparent reporting of regulatory breaches:</u></p> <ul style="list-style-type: none"> • You will recall the verbal evidence of Charles Allan, Head of the Scottish Government’s Fish Health Inspectorate on 12th June when he provided information on the regulation of sea lice, including the step-wise progression of enforcement actions taken by Scottish Government. • Formal enforcement is rarely taken, as aquaculture production businesses in Scotland routinely comply with the requirements of the Aquaculture and Fisheries (Scotland) Act 2007, with respect to having satisfactory measures for the prevention, control and reduction of sea lice. • However, any action taken by Scottish Government is published alongside the weekly sea lice counts on the Scotland’s aquaculture website. <p><u>Self-assessment culture</u></p> <ul style="list-style-type: none"> • We previously considered whether independent audits of sea lice would deliver any benefits to the existing sea lice regime. • We recognise that some stakeholders would consider that approach more robust – however at the time it was considered it would come at significant cost and with little to no benefit to compliance and enforcement and overall sea lice levels in Scotland.

		<ul style="list-style-type: none"> • It is an offence under the Aquaculture and Fisheries (Scotland) Act 2007 to fail to comply, without reasonable excuse, with the requirement of The Fish Farming Businesses (Reporting) (Scotland) Order 2020, or to knowingly provide any information which is false. • We have introduced a robust and transparent reporting and the Fish Health Inspectorate already conducts a risk-based surveillance regime for sea lice, which includes observing sea lice counting methodology and inspecting training records. • From these activities, there is currently no evidence of systematic bias of counts in Scotland. • The Fish Health Inspectorate’s regime operates around the average number of adult females which, based on the evidence available at the time, suggestably had a smaller margin of counting error than smaller life stages and we were satisfied that independent counts would not lead to significantly different enforcement or compliance in Scotland. • We appreciate that SEPA’s regime, which will require tighter sea lice controls in some cases, for a different purpose, may require a different level of evidence base and interrogation and is a matter for SEPA. • We also appreciate that, despite controls, a level of suspicion appears to exist between some stakeholders and which drives calls for independent counts. • We do advocate for local engagement on sea lice numbers where possible, including counts, and why we’ve previously funded an interactions manager specifically to help support dialogue on issues such as these. • As technology advances there is interest in automated sea lice counting because it does not involve handling of fish which causes stress. Automated counts will need to demonstrate accuracy. It may not be suitable for all locations, particularly where automated reporting depends upon reliable mobile phone connections.
<p>64</p>	<p>The Committee notes that the Scottish Government is currently undertaking a consenting review. It requests an update on this exercise, including details of whether the outcome is likely to impact on the role of planning authorities in considering applications for salmon farms.</p>	<ul style="list-style-type: none"> • An independent review of the aquaculture regulatory processes was published in 2022 resulting in the formation of the Scottish Aquaculture Council, the Consenting Task Group and the publication of a report from the Scottish Science Advisory Council on the use and communication of science in the consenting process. • Pilots of a new pre-application consenting process developed by the Consenting Task Group commenced in January 2024 in the Shetland and Highland local authority areas. • This work is focused on the consenting process and does not diminish the statutory roles, functions or responsibilities of the local authority or regulators involved. • Our priorities for this year, developed by the Consenting Task Group and agreed by the Scottish Aquaculture Council, include delivering more pilots, completing and responding to evaluation activities to improve the process, exploring opportunities to better coordinate Environmental

		<p>Impact Assessment (EIA) and Habitats Regulations Assessment (HRA) activities and working to align onward application processes.</p> <ul style="list-style-type: none"> • We're also taking action to clarify the consenting process for aquaculture developments beyond 3 nautical miles. • As part of this work we have recently published a consultation on proposals for plans to address an existing gap in aquaculture planning regulations by extending Local Authority planning controls through marine planning zones further offshore out to 12 nautical miles. • The public consultation will run until 11 December 2024.
<p>65</p>	<p>The Committee notes the indication that consideration of licence auctions for farmed salmon sites will be included as part of the Scottish Government's consenting review. It also notes the Cabinet Secretary's suggestion that licence fee structures could be used in Scotland to incentivise the use of new technologies. However, the Committee cautions that careful thought would have to be given as to how the implementation of any such measures would ensure a fair market and avoid smaller operators and local communities being marginalised or excluded. The Committee calls on the Scottish Government to provide it with details of the outcomes of its consideration of these matters in due course.</p>	<ul style="list-style-type: none"> • Crown Estate Scotland's recent Aquaculture Lease Review included consideration of prospects for auctioning of the seabed, as undertaken by Norway for salmon farming, as part of its consideration of potential revenue options. • Crown Estate Scotland concluded that auctioning was not a viable means of revenue generation in the prevailing regulatory and market conditions in Scotland. Instead, the review found that seabed lease fees for fish farms should increase, in line with the value of Scotland's seabed • New rental charges for Crown Estate Scotland Aquaculture tenants were implemented in January 2023. This has resulted in the revenue doubling 2022-23 from over £5,000,000 in 2022 (~£5,338,782) to over £10,000,000 in 2023 (~£10,714,934). • Lease fees will further increase from 1% to 1.5% of notional turnover in 2026, increasing aquaculture's contribution to around £15m.