ANNEX A

INDEX OF ENCLOSURES

No.	Description	Explanation of redactions	Clause
01	SALMON FARMING ISSUES RAISED BY ARIANE BURGESS MSP		
02	FINAL BRIEFING PACK – RURAL AFFAIRS AND ISLANDS COMMITTEE SALMON FARMING DEBATE	Personal information of a third party Internal communications Information is already publicly available and easily accessible to the applicant in another form or format	11(2) 10(4)(e) 6(1)(b)
03	SUPPLEMENTARY BRIEFING		
04	OPENING REMARKS		
05	CLOSING REMARKS		

Enclosure 01 – SALMON FARMING ISSUES RAISED BY ARIANE BURGESS MSP

Salmon farming issues raised by Arianne Burgess Q&A

Q. The daily record has reported that UK and SG has spent £17 million of taxpayer money on subsidising fish farms since 2017 – and have been willing to do this regardless of how much environmental damage and animal suffering has been caused

- The Marine Fund Scotland has supported a wide range of innovative aquaculture projects including new feeding systems, eDNA lab facilities, net recycling and Recirculating Aquaculture Systems projects.

- 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.

- Our Vision for Sustainable Aquaculture makes clear that we support the development of an aquaculture sector that operates within environmental limits and which delivers social and economic benefits for Scotland. It also recognises the vital role that innovation plays in reducing adverse environmental impacts and addressing fish health challenges.

Q. Industry arguments boil down to economic good, but fish farm multinationals do not have Scotland's interests at heart - they operate only in the interests of shareholders.

- Salmon farming companies are businesses like any other – of course they have to consider their shareholders. But that does not make them irresponsible or mean they do not contribute to the Scottish economy, quite the opposite.

- Businesses have to think about their productivity in the long term, and that has led them, for example, to invest heavily over recent years to address challenges posed by changing environment and the impact on fish health and welfare, with this investment having supported improved survival rates during 2024.

- Salmon farming is also providing direct benefits to communities, through the creation of employment opportunities across the production and supply chain sectors, as well as through the Crown Estate Scotland lease fees totalling £50 million from 207-2022, with the net revenues from those rents distributed to local authorities for the purpose of coastal community benefit.

- Salmon Farming businesses also directly fund local community projects through their own individual community funds

- Salmon farming businesses are also major investors in Scotland through the construction of new facilities and investment in local infrastructure, including housing.

Q. On job creation, only 254 full time roles have been created in the Highland region over the last 35 years

- The sector supports around 2,000 jobs on farms and over 10,000 additional roles across its broader supply chains across the country, many of which are skilled and provide average annual incomes well above national and regional averages.

- For example, a study by Cooke Aquaculture Scotland in Orkney found that their permanent, skilled jobs were paying on average 24.8% more than the average Orkney wage and 8.6% above the average for Scotland.

Q. Fish farming wreaks environmental destruction and impacts on other sectors and coastal communities

- I dispute the claim that the aquaculture sector 'wreaks environmental destruction'. Our strong regulatory framework ensures that environmental impacts are managed, in balance with other industries and with the positive economic benefits that salmon farming brings to Scotland.

- SEPA, along with other environment bodies, plays a pivotal role in protecting and maintaining a safe, healthy and sustainable environment for the people of Scotland, and I have full confidence in SEPA's ability to carry out its regulatory functions.

- The planning system ultimately delivers a cost benefit analysis of every development proposal: The planning system carefully considers the economic, social and environmental impacts of fish farms, including environmental impact assessment, careful and experienced local authority planners are charged with making decisions in the best interest of their communities, in consideration of social and economic impact and in line with the statutory development plan.

- Further to that – SEPA will not permit significant environmental impacts – farms would not achieve a licence where that were to be the case.
- The economic and social benefits of salmon farming are clear and there is no argument to be had – we are discussing the UK's number 1 food export, a sector with global reach, which supports around 12,000 jobs in Scotland across its supply chain and which provides a steady stream of revenue to Scotland's coastal communities and which embeds itself in those communities.

Q. For Scottish food and drink to continue to be viewed as high quality, and demonstrating high environmental and animal welfare standards, we must act now to cut the high levels of mortality, sea lice and pollution

- The sector is already highly regulated which continues to support Scottish salmon's international reputation as a high-quality product.

<u>On Fish health and welfare</u>

- We have robust legislation, policies, and operational practices in place to ensure fish farmers are meeting statutory requirements on sea lice reporting and management, mortality reporting and listed disease surveillance.

- I've made it clear that I expect mortality to be driven down - and that all producers should comply with animal welfare legislation and industry standards.

- We do know that there are factors which cause fish mortality outside of farmers' control, such as micro jellyfish - these are areas where the sector is making considerable investment into mitigations.

- We must better understand mortality persistence at sites before we determine if further regulation is appropriate - I will take forward analysis of data to establish if there are sites with recurrent high mortality, and whether mortality is not being appropriately addressed.

- On sea lice, we are reaping the benefits of sustained policy and regulatory interventions– this has focused industry action on sea lice management, resulting in a downward trend in sea lice at a national level.

<u>On environmental Impact</u>

- I have confidence in SEPA's approach to protecting the environment and their approach to adaptive management.

- SEPA has completed the transfer of all active farms onto its revised regulatory framework for managing farm discharges which introduced enhanced predictive modelling, tighter seabed standards and increased environmental monitoring.
- In terms of sea lice, SEPA commenced the implementation of a new risk-based framework to protect wild salmon populations from sea lice from fish farms on 1 February 2024. From March 2025 implementation of a framework for protection of sea trout populations will commence.

Q. No other farmed sector would accept such high mortality levels and nor should we – therefore we must introduce a pause on fish farm expansion. This will send a clear message to businesses and the people of Scotland that we will not allow those with complete disregard for our environment and our communities.

- I do not believe a moratorium is warranted - Salmon Scotland recently wrote to the Committee to set out their mortality data indicated survival across all marine farms was 82.3% in 2024, up 10 percentage points from 72.3% in 2023.

- This is a positive indication that investment and attention from both Government and the sector has paid off - we will continue to ensure that driving improvement remains a core focus.

- Scottish Salmon's international reputation for high quality is supported by innovation and science – moves towards a moratorium could stifle the very

investment needed to continue this work towards fish health, environmental and productivity goals.

- It could in effect enact the status quo – and could cause economic ripples beyond the salmon industry by causing investors to question whether Scotland is really open to sustainable development

- We continue to develop our regulatory approach to ensure it remains fit for the purpose – ensuring environmental interactions are managed – whilst we continue to benefit from the undoubted economic and social benefits.

Bakers Food and Allied Workers Union – Seeking Recognition from Mowi Q&A
A briefing on this issue was sent to all MSPs on 19 March
Q. It has been reported by the Bakers Food and Allied Workers Union that Mowi are refusing to engage with them to develop Union recognition following the Union's recruitment of workers at Mowi's processing plant in Rosyth. What is SGs view on this matter?

- The Scottish Government regards trade unions as key social partners in delivering our economic and social aspirations, especially in driving fair work across Scotland's workplaces.
- We are supportive of positive employer-trade union relationships, and our refreshed Fair Work Action Plan includes actions to strengthen effective voice, which could ultimately increase collective bargaining coverage.
- Employment and Industrial Relations legislation is reserved to the UK Government and our Fair Work First conditionality cannot therefore mandate that employers engage with trade unions, although we strongly promote effective voice which can be delivered through trade union recognition.
- While I am support Unions in seeking recognition from Employers of their members, it is not appropriate for Scottish Ministers to make representation to employers on a trade union's behalf.

Enclosure 02 – FINAL BRIEFING PACK – RURAL AFFAIRS AND ISLANDS COMMITTEE SALMON FARMING DEBATE

What	**Debate on Salmon Farming in Scotland —** *S6M-16852 Finlay Carson: Salmon Farming in Scotland—That the Parliament notes the conclusions and recommendations contained in the Rural Affairs and Islands Committee's 1st Report, 2025 (Session 6), Follow-up inquiry into salmon farming in Scotland (SP Paper 720).
Where	Scottish Parliament
When	Thursday 20 March 2025, 14:55-17:00
Key Message(s)	• Aquaculture is a significant contributor to our economy, providing well paid and highly skilled jobs, particularly in rural and island communities and will be an essential part of our transition to net zero. • Our Vision for Sustainable Aquaculture, published in July 2023, sets out the Scottish Government's ambitions for the sustainable development of the aquaculture sector, with an enhanced emphasis on environmental protection and community benefit. • We recognise that as aquaculture is developed it must do so sustainably and with appropriate regulatory frameworks which minimise and address environmental impacts. • I am grateful for the Committee's detailed consideration of important issues in relation to salmon farming in Scotland, and I have set out the actions the Government will take to address their concerns across the range of topics they raise.
Why	• The Rural Affairs and Islands Committee (RAIC) published its report on 'Salmon Farming in Scotland' on 17 January 2025. • RAIC called on the Scottish Government to implement the outstanding REC recommendations, and its own recommendations, as a matter of urgency, asking for a clear timetable for the implementation of recommendations over the next year. • You responded to the Rural Affairs and Islands Committee report on 13 March.
Supporting official	• [Redacted – Regulation 11(2)], Aquaculture Policy • [Redacted – Regulation 11(2)], Aquaculture Policy • [Redacted – Regulation 11(2)], Aquaculture Policy • [Redacted – Regulation 11(2)] (online only), Aquaculture Policy • [Redated – Regulation 11(2)] (online only), Aquaculture and Fish Health (Science) • Malcolm Pentland (online only), DD, Marine Economy and Communities

Media Handling	Following the debate, communications colleagues will prepare a short clip, seeking to emphasise the value of the sector to Scotland's economy.

Briefing Pack Contents		
		Page
	Opening remarks and closing remarks (separate document)	
Annex A	KEY MESSAGES AND AREAS OF LIKELY CHALLENGE	3
Annex B	ACHIEVEMENTS SINCE JANUARY 2019	14
Annex C	FISH WELFARE	19
Annex D	FISH HEALTH (MORTALITY AND SEA LICE)	24
Annex E	MORTALITY REPORTING AND DATA	34
Annex F	CLEANERFISH (INCLUDING WELFARE AND WRASSE FISHERY)	37
Annex G	ENVIRONMENTAL INTERACTIONS: SEA LICE AND ESCAPES	43
Annex H	ENVIRONMENTAL IMPACTS: DISCHARGES (INCLUDING EMBZ)	56
Annex I	SCIENCE AND INNOVATION	60
Annex J	ECONOMIC IMPACT AND COMMUNITY BENEFIT	69
Annex K	SPATIAL PLANNING AND CONSENTING	74
Annex L	MARINE DIRECTORATE 2025-26 BUDGET HEADLINES	87
Annex M	PQs SINCE CAB SEC RALRI EVIDENCE SESSION ON 13 NOV	91
Annex N	MEDIA LINES	100
	Cabinet Secretary's Response to RAI Committee's report (separate document)	

ANNEX A

KEY MESSAGES AND LIKELY AREAS OF CHALLENGE

- Aquaculture is a significant contributor to our economy, providing well paid and highly skilled jobs, particularly in rural and island communities and is an essential part of our transition to net zero.
- Scottish salmon is a high quality, home grown nutritious product with a lower carbon footprint than many other sources of farmed protein.
- Our Vision for Sustainable Aquaculture, published in July 2023, sets out the Scottish Government's ambitions for the sustainable development of the aquaculture sector, with an enhanced emphasis on environmental protection and community benefit.
- We recognise that as aquaculture is developed it must do so sustainably and with appropriate regulatory frameworks which minimise and address environmental impacts; we have a robust regulatory framework to build upon, ensuring that we keep up with innovation and changing challenges and opportunities.
- We took action across the range of areas raised by the previous Rural Economy and Connectivity (REC) Committee report in 2018, and I have committed to undertake further actions as part of my response to the Rural Affairs and Islands Committee's follow up report published in January.
- Salmon farming produces Scotland and the UK's number one food export, whilst contributing to food security at home, and provides well-paid jobs in rural Scotland and beyond throughout the supply chain – I want to chart a course that encourages continued investment in Scotland's salmon farming sector, including its people, and which continually delivers on innovation: the future of salmon farming in Scotland has the support of this Government and will continue to do so.

Summary of Commitments in response to RAIC

1. ***Information Management and Data***

- We will progress work to explore how the presentation and accessibility of existing data collections can be improved. We acknowledge that Scotland's Aquaculture website requires modernisation and will work with partners to scope out how it can be refreshed to enhance transparency. We will carry out scoping work within **2025-26**, anticipating that implementation of improvements, particularly to the website, will take longer.

2. ***Fish Health, Welfare and Cleanerfish***

- We will work to analyse mortality data, exploring thresholds for 'persistently high mortality' and whether fish farms with 'persistently high mortality' exist [**2025/2026**]

- We will undertake an analysis of options, including statutory and other alternatives, to understand how welfare standards can best be supported. We expect this options appraisal to be completed ahead of the proposed September update to the Committee, and we will set out next steps at that point. [**2025/2026**]

- We have commissioned Sea Fish Industry Authority to undertake initial scoping work to help inform our approach to non-quota species (which includes Wrasse) Fisheries Management Plans (FMPs) in Scotland. We will consider the outputs of any forthcoming advice in **2026**

- We will deliver a Fisheries Assessment (Habitat Regulation Appraisal and Appropriate Assessment) prior to May **2025 fishery** (opening of the fishery)

3. Science and Innovation

- We will continue to engage with the Farmed Fish Health Framework Steering Group, the Marine Association for Science and Technology and the Sustainable Aquaculture Innovation Centre to provide direction and focus to ongoing research programmes [**2025/2026 and beyond**]

- We will also engage with the Chief Scientific Adviser (Marine), Professor Mark Inall, to ensure aquaculture priorities are factored into the strategic approaches to marine and freshwater science, including through implementation of our Marine Science and Innovation Strategy, and publication of an Areas of Research Interest Paper to identify and enable research priorities and knowledge transfer to key communities of interest [**2025/2026**]

- We will continue to support projects which deliver on our blue economy objectives, including through the Marine Fund Scotland, including projects such as work to progress eDNA benthic sampling **[ongoing]**

- We will deliver a new coordination structure for aquaculture innovation in Scotland beyond the Sustainable Aquaculture Innovation Centre transition period **[2026]**, taking further discussion on innovation sites with the sector and others when this innovation vehicle is ready **[2027/2028]**

- We will engage with the salmon farming sector to determine whether sector led voluntary biomarker databases are appropriate for Scotland **[2026/27]**

4. Environment – Discharges and Interactions with Wild Fish

- SEPA will introduce the new Environmental Quality Standard for Emamectin Benzoate by **June 2028**

- We will continue to work with SEPA and the sector to support development of the monitoring strategy underpinning SEPA's Sea Lice Risk Assessment Framework (including introduction of sentinel cage monitoring in **2025**) and to manage the transition of governance of this issue under existing local authority Environmental Management Plans by **the end of 2025**. Scottish Government will publish updated working arrangements guidance for fish farm developments by the **end of 2025**[1]

- We plan to prioritise progress on financial penalties for fish farm escapes in **2026/2027**, and a revised technical standard for finfish escapes in **2027/2028**

5. Spatial Planning, Consenting and Community Benefit

- Following consideration of the independent evaluation (expected **April 2025**), we will deliver improvements to the fish farm consenting process through our Consenting Task Group, including prioritising discussion and coordination of regulatory activities and resources which could support the salmon farming sector to consolidate and relocate biomass [in phases, **2025/2026** and **2026/2027**]

- Beyond updates to reflect SEPA's role as the lead body responsible for managing the risk to wild salmonids from sea lice (**by end of 2025**), we will support ongoing review and updates to our working arrangements guidance to reflect, for example, implementation of improvements to consenting delivered by the Consenting Task Group and consideration of the inclusion of precautionary principles consenting case studies **[aim for first CTG related updates by Spring 2026, with ongoing review and update thereafter]**

- To support the sector's development in more exposed and 'offshore' waters, we will respond to the recent planning consultation [**April 2025**] which sought views on extending local authority planning controls and the relevant marine planning zones to 12 nm and we will take forward work to clarify the broader regulatory framework in **2025/2026**

- We will explore, through the development of National Marine Plan 2, a commitment to bring the range of management measures and spatial constraints data for salmon farming into one place beyond the expected adoption of the plan in **2027**, in addition to continued progress of our Regional Marine Plan programme. Further, we will explore support for 'relocation' of salmon farms through the development of NMP 2 and how it can work to underpin adaptive management approaches.

- We will commence scoping work on a community benefit package in **2025/2026**, which could be progressed beyond the planned fish farm rent uplift planned in **2026**

MOST LIKELY AREAS OF CHALLENGE

Pace of Action

Q. We don't believe that there has been significant action on the previous recommendations. Does the Cabinet Secretary think this response is ambitious enough?

- I have demonstrated the Government's commitment to delivering on the Committee's concerns, having delivered improvements across all the themes of the Rural Economy and Communities Committee 2019 report.

- Despite the emergency response demands resulting from the management of Covid and EU Exit, we have delivered powerful action across priority areas such as protection of the environment and biodiversity, consenting, community benefit, and animal health and welfare.

- I have set out clearly in my response how each recommendation has been considered and what will be taken forward and when that will happen

- I would urge Committee members to be realistic about what can be delivered in a year, and to recognise that we must, on behalf of the people of Scotland, balance progress across a range of Government's most urgent priorities.

- Progressing issues at pace does not necessarily lead to better outcomes; good policy making requires collaboration and buy in from partners to ensure the right choices are made and all parties can deliver. While that should happen as fast as reasonably possible, skimping that step puts achieving optimum outcomes at real risk.

- My response to Committee carefully prioritises what is achievable for Government, but also importantly priorities and balances what is most important for the range of partners which we work with. We need to be cognisant of the cumulative impact of our work programmes on all stakeholders.

Q. Why aren't you delivering every recommendation in full?

- As my written response to the Committee shows, I am committed to action across the full range of topic areas the Committee has put forward, but it is not practical or desirable to progress across all fronts without prioritisation. This will ensure actions taken are effective and proportionate, based on science and evidence.

- My response to the Committee sets out the definitive activities to be taken forward in response to their recommendations, aligned to this Government's strategic outcomes of eradicating child poverty, growing Scotland's economy, tackling the climate emergency and improving Scotland's public services.

- My response sets out the progress we anticipate in the next twelve months, and beyond, on these areas.

Economy and Moratorium

Q. The Rural Affairs and Islands Committee Convenor, in trade press, said "It's down to Government to make sure they can deliver the recommendations. If they don't, and we don't get a satisfactory response to this report…we will seriously look at the implications of a moratorium or pause".

What are the implications of a moratorium for salmon farming in Scotland? Does this Government support economic growth at all costs?

- I know the Committee shares my view, set out in the Vision for Sustainable Aquaculture, that such economic benefit must not be at the expense of our environment. Our strong regulatory framework already provides the important safeguards necessary to preserve our environment now and for the future.

- However, I believe any move towards some sort of 'moratorium' would deprive Scotland of the benefits of salmon farming for our economy and communities, without adequate justification that the potential environmental harms are not being managed appropriately.

- I am disappointed that, despite prior Committees' findings that there was insufficient evidence to support a moratorium, and the significant progress made since previous inquiries, Committee has signalled it will revisit this issue in a year's time.

- A moratorium could stifle the very investment and innovation required – it would in effect enact the status quo – and could cause economic ripples beyond the salmon industry by causing investors to question whether Scotland is really open for business.

- We continue to develop our regulatory approach to ensure it remains fit for the purpose – ensuring environmental interactions are managed – whilst we continue to benefit from the undoubted economic and social benefits.

Q: What is the Cabinet Secretary's response to the impact of Scotland's policy and regulatory system, leading to the closure of Organic Sea Harvest, news about Mowi reviewing its Scotland feed operations and the Loch Long Salmon planning appeal which is still to be determined by Scottish Government?

Is Scotland really open for business?

- We are committed to ensuring Scotland is a good place to do business.

- I accept that there is work to do on Scotland's consenting system, which is a priority for us. Whilst we must also recognise there are other global and local factors affecting business operations, not all of which the Scottish Government has control over.

- There should be no question about whether Scotland wants salmon farming in Scotland or not - that is why I have been concerned about revisiting the potential issue of moratorium and the language used around this - despite progress made since the 2017/18 inquiries.

- I am sure most Committee members would recognise the importance of this sector to rural Scotland and beyond, and the need to look forward and to attract investment which delivers on innovation.

Scottish Government Leadership

Q: Committee is concerned about silo working by Scotland's regulators, will the Cabinet Secretary take a lead role in ensuring better coordination and delivering on Committees asks?

- I am fully committed to driving the delivery of the Committee asks and ensuring Scotland's consenting system is improved through better coordination and collaboration.

- I have already, personally, taken a lead role in my capacity as Chair of the Scottish Aquaculture Council, which I established, to provide strategic advice on delivery.

- The SAC includes representation from the aquaculture sector alongside key organisations with interests in the industry and its environmental and community impacts.

- One of the key outcomes of this collaborative work was the formation of the Consenting Task Group, which brings together regulators and the sector to develop a better, more coordinated approach to the pre-application consenting process. That is now being piloted in the Highland and Shetland local authority areas

- This work is testament to the strides made in ensuring success through collaboration, which I am pleased to have overseen.

- Establishing the Council has been an important opportunity to hit reset - building trust, collaboration and communication between key parties.

Welfare/mortality

Q. Mortality keeps rising despite sector and SG action to improve fish health; the 2023 Fish Farm Production survey showed that survival has dropped by over 7 percentage points. Isn't it time for a moratorium, until mortality is under control?

- The survival to harvest of the 2021-year class, as published in the 2023 production survey is too low, but in statistical terms cannot be considered a trend. Over the period 2003 to 2023 fish survival to harvest has remained relatively constant at 75%.

- However, I've made it clear that I expect mortality to be driven down.

- The lower levels of fish surviving to harvest are not acceptable either to Government or salmon producers, and we are working closely with the sector to

ensure challenges to survival can be mitigated via research, innovation, and improved farming practices. I do not believe a moratorium is warranted.

- Salmon Scotland recently wrote to the Committee to set out their mortality data indicated survival across all marine farms was 82.3% in 2024, up 10 percentage points from 72.3% in 2023.

- This is a positive indication that investment and attention from both Government and the sector, in this fundamentally important area, is paying off, although I am clear that we will continue to work closely with the salmon sector and innovation and science communities to ensure that driving improvement remains a core focus.

Q: What are you doing about repeated incidents of high mortality on fish farms? Does the Government find this acceptable – will you allow continued expansion at those sites?

- I have committed to analysing data on mortality to understand more about whether there are farms with persistent high rates of mortality which could indicate a systemic problem.

- However, we do know that a number of factors which cause fish mortality are outside of farmers' control, such as micro jellyfish and algal blooms. These are areas where research into mitigations is ongoing.

Sea Lice

Q. The salmon sector is appealing conditions relating to SEPA's sea lice risk assessment framework. Does this show the sector is out of control?

- I will not comment on the specifics of live appeals.

- As the Committee knows, there are many and varied stakeholder opinions relating to sea lice and the risks to wild salmonids. Indeed, there have been similar public debates occurring in other nations, such as Norway and Canada.

- Speaking generally, our environmental licencing regime rightly includes the capacity for licensees to appeal, and a process is in place for these to be considered and managed.

- Such checks and balances are an important part of any regulatory framework, supporting the development and management of effective regulation.

- Scottish Government will give full consideration to the issues raised and to ensuring the framework is proportionate and fit for purpose. We remain committed to science and evidence led policy and regulation.

Q: Do the appeals mean that, in effect, there has been no implementation of SEPA's Sea Lice Risk Assessment Framework? Have you really progressed your 'priority area of action'?

- As Committee members will know, there are strong and varied opinions relating to management of sea lice and the risk to wild salmonids.

- SEPA issued two public consultations, in December 2021 and May 2023, and has engaged with a wide range of stakeholders, involving multiple meetings to develop a framework that they consider to be best on best available science and evidence, which provides adequate protection for the environment, whilst ensuring sustainable development.

- Between October 2021 and December 2023, SEPA engaged with a wide range of stakeholders to develop the framework, involving multiple meetings and two public consultations, including an impact assessment of the implications of the proposals for communities, the economy and the environment.

- There is a right to appeal in our environmental licensing system, and Scottish Government will give its full consideration to the issues raised and to ensure we reach the right outcome.

- My current understanding is that whilst conditions will not apply to existing fish farms which have appealed the framework until appeals are determined. SEPA will continue to implement the sea lice risk assessment framework as directed to ensure environmental protection for new developments.

[Background for Cabinet Secretary: SEPA-initiated variations to existing operations have been appealed. These variations to existing operations do not come into effect until the outcome of any appeal is finalised. [Redacted – Regulation 10(4)(e)]

- We have only very recently received appeals, and I commit to keeping the Committee up to date with any developments or implications as a result.

Escapes

Q: We called on Scottish Government to deliver its outstanding and overdue escapes commitments – do you think your response is adequate?

- We remain committed to delivering penalties for fish farm escapes with the ultimate aim that penalties are redistributed for the benefit of wild salmonids and to working with the sector to deliver an updated technical standard for fish farm equipment.

- However, I have made, and will continue choices based on careful prioritisation - in this area, priority is being given to delivery of a new sea lice risk assessment framework under SEPA, recognising Committee's previous concerns about suggested 'regulatory gaps' in this area and in recognition that Scotland already has a well-established escapes regulatory framework – as the Committee is aware, this has been a complex piece of work.

- I also recognise the importance of making further progress on escapes, which is why I have set out, in my response to Committee, prioritisation of this issue beyond the sea lice framework and the expected timescales.

Q: Should you redivert resource to deliver on escapes instead of further work on SEPA's Sea Lice Risk Assessment Framework following the submission of appeals?

- It is important to recognise that developers have a right to appeal and due process will be followed to consider the issues raised.

- Whilst the appeals are considered, there is still work to do. Work will be ongoing to ensure that we deliver a national monitoring strategy by the end of 2025 which will allow the transition away from management of this issue under local authority environmental management plans - addressing, an issue that Committee members have already raised concerns about.

- However, my officials and I will of course, in the coming weeks, carefully consider the appeals and any implications for this year's work plan.

Emamectin Benzoate – EQS June 2028

Q. It will take until 2028 for the new standard for Emamectin Benzoate to take effect, an unacceptably long time for our oceans to continue to be exposed to what we know to be a highly toxic substance.

Why haven't you brought the deadline forward?

- It would be destabilising to make a change at this stage, given the care that went into the existing decision.

- There was no question of whether we would accept the standard, but rather what the implications would be of the transition timeline and how we could best work towards new controls – that is why we consulted on this issue.

- New fish farms which were put onto a lower, interim standard by SEPA, have been issued the new EQS, however existing fish farms will transition by June 2028.

- Existing fish farms require time to adapt a new EQS; As the Committee knows, fish health is an area of equal importance. Emamectin Benzoate is one of few

medicines licensed for treatment of sea lice for farmed salmon, and it is an important part of the health regime for many farmers.

- Ensuring fish health does not suffer is a key reason for giving producers time to change their practices, securing and investing in alternative treatment options, to meet the new standard.

- Four years is roughly equivalent to two production cycles – in production planning, it is a relatively short timeframe.

Lack of commitment to further monitoring or regulation

Q. Your response contains no concrete commitments to additional monitoring or new regulatory measures. Will you introduce mandatory mortality and other reporting data?

- Salmon farming in Scotland is already a highly regulated industry, and more data are collected and published with respect to salmon farming in Scotland than salmon farming in other jurisdictions, and in comparison, to terrestrial farming sectors.

- Data already available are sufficient for transparency and regulatory purposes, and I have committed to improving how these are presented to improve transparency.

- This Government is committed to supporting the New Deal for Business, which requires justifications for additional business burdens. I do not believe new mandatory monitoring requirements for salmon farming would meet the test or justify the cost of additional monitoring and enforcement.

- I have committed to explore the possibility of a welfare code for farmed fish, which could have a legislative basis. I will update Committee on any action on this later in 2025.

ACHIEVEMENTS SINCE JANUARY 2019 **ANNEX B**

- We have conducted a broad programme of work to ensure the continued success of aquaculture in Scotland which recognises the role the sector has in delivering our National Framework Outcomes and for the people of Scotland.

- Our **Vision for Sustainable Aquaculture**, published in July 2023, sets out the Scottish Government's ambitions for the sustainable development of the aquaculture sector, operating within environmental limits, and which recognises the considerable social and economic benefits the sector delivers today, and can deliver in the future.

ECONOMY AND SOCIAL BENEFIT

- **We support Scotland's successful aquaculture sector** and are determined to enable it to continue to provide economic and social benefits within sustainable environmental limits for the long term.
- In 2022, salmon production generated £324 million Gross Value Added (GVA), 7% of the Scottish marine economy GVA. [Scottish Government Marine Economy Statistics 2022].
- The Scottish Government and its partners continue to work together to ensure that **communities which host aquaculture see the direct benefits** of aquaculture.
- You heard from Crown Estate Scotland that from 2017 to 2022 aquaculture generated in the region of **£50 million in rents**, with the net revenues from marine assets out to 12 nautical miles distributed to local authorities for the purpose of coastal community benefit.
- That community contribution is due to increase following **Crown Estate Scotland fish farm rent increases announced in 2023** and which and operates alongside the **individual community initiatives** the sector separately supports – such as housing, IT infrastructure or local community projects.
- We are also investing in the sector's future by supporting innovation through the **Marine Fund Scotland** which in 2024/25 awarded over £4.5 million to aquaculture projects, which will enable over £17 million of investment across the sector.
- The sector continues to invest in its people – the sector supports around 2000 jobs on farms and over 10,000 additional roles across its broader supply chains, many of which are skilled and provide average annual incomes well above national and regional averages.
- For example, a study by Cooke Aquaculture Scotland in Orkney found that their permanent, skilled jobs were paying on average 24.8% more than the average Orkney wage and 8.6% above the average for Scotland.
- We provided a package of emergency financial support to the sector and mitigate the **impact of Covid-19 and EU Exit** through up to £3 million total funding to eligible shellfish growers and trout farmers. We were also pleased to be able to provide more than £5 million to assist seafood processors.

FISH HEALTH AND WELFARE

- **Availability of fish farm mortality information in Scotland is world leading in farming transparency and** we have advanced our understanding of mortality in identifying and ranking the main causes of mortality into ten overarching categories- Salmon Scotland is now publishing monthly mortality data (as a percentage).
- Information held, relating to the mortality reporting regime, is obtained by the Marine Directorate through either industry reporting based on voluntary **mortality reporting** thresholds that were agreed between Scottish Government and industry stakeholders, or via Fish Health Inspectorate surveillance. Information is actively published on a monthly basis, one month in arrears.
- **We've introduced mandatory sea lice reporting requirements –** In 2021, The Fish Farming Businesses (Reporting) (Scotland) Order 2020 came into force. It requires Aquaculture Production Businesses in Scotland to report a weekly average adult female sea lice number to the Scottish Ministers one week in arrears.
- **We're taking action to consider the health and welfare implications relating to the use of cleaner fish in salmon farms** – Recognising the importance of this issue, the Scottish Animal Welfare Commission are looking at the use of cleaner fish in salmon production and consider welfare aspects - we look forward to receiving its recommendations.
- **We have delivered investment into innovation through the Sustainable Aquaculture Innovation Centre, addressing key challenges** - Between 2014-2023, the Sustainable Aquaculture Innovation Centre converted a direct project funding pot for fish health of £9.2m into industry-critical research across aquaculture sectors, supporting collaborative projects and leveraging a further £53.5m from the sector, and third party funding. This total investment of £62.7 million includes a range of projects such as mitigating harmful algal blooms, gill health improvement, rapid diagnostic technologies and vaccination.

ENVIRONMENTAL IMPACTS (WATER AND SEABED IMPACTS)

- **A new, strengthened, environmental regime** continues its roll out by the Scottish Environment Protection Agency to ensure the protection of the marine environment. **The transfer of all active farms onto the framework was completed in 2024**.
- Regulators are actively considering how to **support innovation** - In 2022, SEPA introduced a **new charging regime** for marine fish farms which provides a significant reduction of fees for waste capture technologies (where an operator shows the new site will reduce emissions by 80%+ then the application charges will be reduced by 50%) and which will help to encourage innovation and adoption of technologies in Scotland.
- We've been working to **consolidate SEPA as the environmental regulator of fish farms to remove duplication and effect efficient management of the environment** - The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Amendment Order 2020 transferred responsibility for the authorisation of **discharges of medicine residues from wellboats** to SEPA. This means that SEPA is now responsible for monitoring and regulating all discharges associated with fish farming.
- Following a public consultation (April-July 2023) we will introduce a **new Environmental Quality Standard (EQS)** for emamectin benzoate in June 2028

to ensure that use of this medicines stays within independently recommended limits to protect the environment. I've also been pleased to see **sector commitment to Net Zero** through its sustainability charter and the increasing introduction of new clean technologies, such as hybrid workboats.

ENVIRONMENTAL IMPACTS (INTERACTIONS)

- Recognising the regulatory challenge previously identified by committee, we have been working to address the interactions between sea lice and farmed and wild fish as a priority.
- SEPA commenced the implementation of a **new sea lice risk assessment framework** to protect wild salmon populations from 1 February 2024. The framework for protecting sea trout populations will start in March 2025.
- We also continue to **invest in interactions science and research** to support policy decisions and understand the impacts of interactions between farmed and wild salmon – for example delivering the collaborative SPILLS (Salmon Parasite Interactions in Linnhe, Lorn and Shuna) programme to consider the accuracy and comparability of different sea lice models.
- In 2021, we published an **Aquaculture Code of Good Practice** to address the impact of marine mammal interactions upon containment and escape of fish at fish farms and guidance on the use of acoustic deterrent devices (ADDs).
- The Scottish Government remains committed to working with the sector to **reduce the risk that fish escape** from fish farms with a new Technical Standard for Scottish Finfish Aquaculture, and to explore the introduction of fines for fish farm escapes, with the aim of ring-fencing money for wild salmon conservation.
- It is important that we take effective prioritisation decisions to progress the actions identified within our overarching Wild Salmon Strategy Implementation Plan which deals with the range of pressures facing wild salmon.
- In March 2024, the Scottish Government published a report on the progress made in the first year since publication of the **Wild Salmon Strategy Implementation Plan**, showing work has progressed on over fifty of the actions.

SPATIAL PLANNING AND CONSENTING

- **We're making progress on spatial planning and consenting**: considering spatial and cumulative risks of sea lice was a key driver behind a number of the RECC committee recommendations, and I am pleased that **SEPA's sea lice framework has now been introduced as a priority**.
- However, we've always been clear we will go beyond that – which is why Professor Russel Griggs was tasked by the Scottish Government to deliver an **independent review into the regulation of aquaculture**.
- Professor Griggs reported his findings and recommendations in February 2022 which I immediately accepted in principle, subsequently establishing the **Scottish Aquaculture Council** as an advisory group bringing together the sector, regulators and Scottish Ministers to coordinate across the range of Scottish Government's commitments and to deliver our aspirations for aquaculture in Scotland.

- A **Consenting Task Group (CTG)** has been working to identify, pilot, and review new measures to achieve improvements in consenting processes – working towards a **coordinated and efficient consenting system**.
- A key aim of this work was to unpick detailed regulatory requirements and to **build consensus on the way forward**.
- **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. There are currently 4 pilots underway, and these are currently being independently evaluated, with a report expected in April 2025. **We've made improvements to our national planning frameworks, including a specific aquaculture policy contained within National Planning Framework 4 (NPF4),** which was adopted in February 2023, and will act as a companion document to the **National Marine Plan 2 (NMP2)**.
- NMP2 will provide the coordinated overarching planning framework for sustainable development in Scotland's seas. It will bring into the planning framework, policy developed in other areas, such as the Vision for Sustainable Aquaculture.
- All policies in the draft NMP2 will be subject to statutory assessments to determine the potential impacts on marine sectors, communities and the marine environment to identify any mitigation measures required.
- The NMP2 will not replace or remove existing regulatory regimes or legislative requirements. As a planning document NMP2 will inform if, where, when and how development takes place, and provide guidance on reaching those decisions. The regulation and management of activities are covered by sector specific regulations outside of planning. We continue to provide feedback where requested on developing local spatial plans. **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.
- While no Regional Marine Plan (RMP) has yet been adopted, RMPs will reflect local circumstances and issues. **The precise approach and coverage of the regional plan is for Marine Planning Partnerships to determine** based on local priorities and taking account of existing partnerships, methodologies and alignment with other plans including the adopted National Marine Plan.
- As part of our work to clarify regulatory arrangements for 'offshore' farming. A consultation on proposals for plans to address an existing gap in aquaculture planning regulations by extending Local Authority marine planning out to 12 nautical miles ran from September to December 2024. My officials are analysing the responses, and I expect them to report back shortly.

THEME 6: SCIENCE AND INNOVATION

- **We continue to invest in developing our science and evidence base** – progressing collaborative science to develop sea lice models and publishing Scotland's first assessment of genetic introgression, for example.
- Putting in place the right mechanisms to **deliver on our long-term science and innovation needs** is essential.

- I asked the **Scottish Science Advisory Council to consider issues of science in the consenting system following the regulatory review.** The SSAC is Scotland's highest independent science advisory body – an indication of the importance that I place on this work. The SSAC reported in April 2023, and I have discussed the report's findings with leaders at the Scottish Aquaculture Council.
- In January 2024 **I launched the Marine Science and Innovation Strategy** to ensure that the Scottish Government can use the best science and data to make informed decisions.
- I am pleased that we've also appointed a **Chief Scientific Advisor for Marine in Summer 2024,** and I look forward to working with Professor Mark Inall to make progress on an Implementation Plan to deliver our Strategy and following the SSAC's report.
- We're working to ensure continued aquaculture innovation support in Scotland: The Scottish Government and Scottish Funding Council **secured a £1.5 million transitional funding package for the Sustainable Aquaculture Innovation Centre (SAIC)** to March 2026**.** This will ensure the value and expertise which SAIC offers to innovation in a key marine sector is retained, and there is no hiatus in important research and development activity.
- Our **Marine Fund Scotland** has awarded over £4.5 million to aquaculture innovation projects, which will enable over £17 million of investment across the sector.

ANNEX C

FISH WELFARE

RAI COMMITTEE RECOMMENDATIONS –
PARAGRAPH 94
Recommends the Scottish Government bring forward additional regulations and official guidance under the Animal Health and Welfare (Scotland) Act 2006 in order to set specific baseline standards for the welfare of farmed fish. This should dovetail into the upcoming review of industry's Code of Good Practice to ensure this provides adequate guidance on how statutory requirements should be achieved. **Recommends official guidance must take account of industry's need to balance treating their fish in order to meet regulatory standards for sea lice with the potential unintended consequences this may have for fish health and welfare.** **RESPONSE** The totality of the provisions, which include robust legislation, policies, and operational practices, already safeguard the health and welfare of farmed fish and we are already exploring the potential for Scottish Government guidance on welfare at time of slaughter for farmed fish. A strong Code of Good Practice for Scottish Finfish Aquaculture already provides key production standards, against which much production is independently audited. In addition, various accreditation

schemes contribute significantly to improving fish health and welfare by continually progressing welfare provisions.

There could be a number of ways in which to progress standards for farmed fish welfare and various ways this could be reflected in legislation. We will undertake an analysis of options, including statutory options and alternatives, to fully explore what benefits each would offer and determine how welfare standards could be best set out. When this analysis is complete, having reached a conclusion, we will then set out plans for next steps.

Key commitments in response

- We will undertake an analysis of options, including statutory options and alternatives, to fully explore what benefits each would offer and determine how welfare standards could be best set out.

- When this analysis is complete, having reached a conclusion, we will then set out plans for next steps.

TOP LINES

- We have robust legislation, policies, and operational practices in place to ensure fish farmers are meeting statutory requirements on sea lice reporting and management, mortality reporting and listed disease surveillance.
- We expect all producers to comply with animal welfare legislation and industry standards and there is a strong Code of Good Practice for Scottish Finfish
- I acknowledge the call for a holistic approach to fish health, one that requires equal focus on a 'good life' and not only good health.
- I have committed to exploring options for how best to set welfare standards going forward and I will do this at pace so I can set out our next steps.

Q&A

Q: Why won't you commit *now* to regulating with statutory guidance?

- Regulation is not always the best approach to improve standards and is not always flexible when new science or innovation indicate changes are required.
- There is a range of opinions on what constitutes holistic good welfare and a 'good life' for farmed fish and there is still much to learn in this area.
- We need to set clear standards for fish welfare, but in a way which is agile enough to remain relevant as knowledge evolves.
- I will explore all options, including statutory guidance, before updating the Committee on the approach I propose to take forward.

Q: Will a welfare code cover cleaner fish?

- Yes, it is intended that cleaner fish will be included, in line with our commitment in the Vision for Sustainable Aquaculture

Q: *Statutory* guidance is required to support better enforcement and prosecution of breaches of welfare law.

- Regulation should drive better performance, and not only enable prosecution.
- Lack of prosecution does not equate to lack of enforcement – a company may comply with enforcement action taken in the form of verbal advice, warning letters or Care Notices within a hierarchy of enforcement actions.

Q. The sector Code of Good Practice needs replaced by statutory guidance.

- The Code of Good Practice (CoGP) had been developed with input from leading expertise in fish husbandry and is independently audited.
- It applies to producer members of Salmon Scotland which has mechanisms to ensure producers are compliant or improve
- The Code will remain a key standard going forward – the question is how guidance developed by Government can best set the overarching standards for welfare and how the CoGP can steer compliance with that guidance.

Q: High levels of mortality and footage of welfare breaches is symptomatic of widespread welfare abuse and the need for statutory guidance.

- Mortality is not necessarily indicative of a failure by farmers to maintain welfare
- it is possible for an unforeseen disease outbreak or environmental challenge to cause mortality of well cared-for animals.
- There should be robust enforcement of welfare law (by the Animal and Plant Health Agency) if it is breached – but we cannot assume that there is widespread welfare abuse of farmed fish on the basis of a number of complaints.

Q: There has not been enough focus on ensuring fish have 'a good life'

- The Animal Health and Welfare (Scotland) Act 2006 refers to an animal's five "welfare needs' including the need for a suitable environment: a suitable diet; ability to exhibit normal behaviour; to be housed appropriately; and protected from suffering, injury and disease.
- Animal and Plant Health Agency vets can assess against these 'welfare needs'
- But I can see value in setting out how these can specifically be met for farmed fish, and I am happy to explore options for how this can be best delivered.

Q: What action has APHA taken in response to reports of welfare breaches?

Since 2022 APHA have received 34 complaints of welfare abuses from third parties, including those referred from the Fish Health Inspectorate,

- 32 of these complaints were investigated and 19 resulted in action which either included verbal advice, written advice or follow-up visits.
- 3 of these complaints remain under investigation
- The Fish Health Inspectorate will refer any suspected cases of poor welfare observed during site inspections or as a result of mortality reporting to APHA; less than 1% of approx 250 site visits per year result in an issue being referred.

Q. FHI should regulate animal welfare instead of APHA?

- It is not a question of one or the other, but both working together with their specific training and skills to fully understand a situation.
- Investigating potential breaches of animal welfare law requires an assessment of suffering and whether welfare needs have been met. APHA veterinarians have the necessary professional knowledge and training in this area.

- Fish Health Inspectors are highly skilled fish health professionals but are not vets. However, they have valuable expertise in fish health and farming practices which helps provide useful context for vets who assess suffering.

Q. There is a lack of join up between APHA and Local Authorities as the bodies APHA say are responsible for prosecution?

- APHA vets have enforcement powers as inspectors to investigate, collect evidence and serve care notices. In cases where a referral to the Procurator Fiscal is appropriate, APHA normally works with local authorities, or others who are trained to take statements under caution and who are recognised as reporting bodies to the Procurator Fiscal.
- There are working relationships between APHA vets, SSPCA and LA inspectors – I expect these relationships to function effectively, and I will ask for steps to be taken to ensure this is the case.

Q. Will you ban physical treatments which lead to poor welfare and mortality?

- The use of any method is carefully considered by attending vets and fish health professionals to assess the suitability of treatments for a fish population.
- These should be operated to minimise health and welfare impacts and in line with the sector's Code of Good Practice.
- [*If pushed*]: The Sustainable Aquaculture Innovation Centre has recently published a case study evaluating the impacts of new-generation thermal de-licing technology on fish health and welfare. Fish vets in industry and regulatory settings will now be better able to judge whether a treatment is appropriate.

Q. What is SG doing about Animal Welfare Committee guidance on slaughter?

- It is important to protect welfare of fish at the time of slaughter and we are considering recommendations made by the UK Government's Animal Welfare Committee. We are committed to working with the UK Government to deliver improvements whenever it is logical and practical to do so.
- We are currently developing guidance based on the recommendations to protect the welfare of farmed fish at the time of slaughter. When this has progressed to an appropriate stage, we will engage with the sector and welfare organisations.
- The guidance will provide flexibility for the industry to adopt new technology and management techniques to improve welfare at time of slaughter.
- We are working with representatives from the devolved administrations and the trout industry on the recently formed Trout Working Group on the development of voluntary guidelines for the welfare of farmed fish at the time of slaughter.
- At present, all salmon killing facilities operate CCTV on a voluntary basis. It is standard practice for all farmed salmon in Scotland to be killed use percussive stunning, delivering irreversible instantaneous unconsciousness.

SEALS

Q: Seals continue to cause stress and mortality at fish farms - what are you doing about it?

- Scottish Government is committed to the sustainable development of the aquaculture industry while protecting our marine wildlife.
- A Code of Practice on interactions with marine mammals was published in 2021 which sets out mandatory standards in relation to the use of ADDs and also

guidance on containment measures, including use of anti-predator nets, net tensioning, and removal of dead fish to limit predation opportunities.
- Where a farm plans to deploy an ADD it must consult Marine Directorate and obtain relevant consents (European Protected Species Licence) or demonstrate to Marine Directorate that planned use will not harm marine mammals.
- Scottish Government Compliance continues to inspect fish farms to ensure compliance with the Habitats Regulations and Code of Practice in relation to the use of ADDs.

Q: There have been no successful applications for an European Protection Species Licence - is the bar too high?

- It is for aquaculture production business to determine if an EPS is required, and it is for applicants to demonstrate how they meet the licensing tests - this is a consistent approach across all marine sectors.
- In October 2020 Marine Directorate Licencing and Operations (MD-LOT) issued an Information Note for Finfish Farms Operators on the use of Acoustic Deterrent Devices, and the requirement for a European Protected Species Licence - it will engage appropriately with applicants and request further information where required to help them make a determination.
- There has, however, been several research licences approved by NatureScot as the relevant authority to help further build the evidence base for using ADDs, and which may help support licence applications future.

ANNEX D

FISH HEALTH (MORTALITY AND SEA LICE)

RAI committee recommendations

RAI COMMITTEE RECOMMENDATIONS –
PARAGRAPH 58
Recommends the Scottish Government **provide powers to the Fish Health Inspectorate (or another appropriate body) to limit or halt production at sites which record persistent high mortality rates**. **RESPONSE** Analytical work is required to understand how sites with 'persistent high mortality' manifest. If analysis shows some sites maintain high mortality year to year, further consideration will be needed to ascertain if the mortality incidents are related and are indicative of insufficient action by the producer to mitigate issues. Given the high commercial incentive for farmers to put mitigating actions in place at sites where mortality has been significant, we do not expect there to be many farms which would meet such a bar. However, we accept that without analysis that cannot be known for certain. We will therefore undertake this analysis based on available data, exploring thresholds for 'persistent high mortality', and explore with the sector and

stakeholders what actions are already taken by producers to prevent issues causing mortality persisting from year to year.

RAI COMMITTEE RECOMMENDATIONS – PARAGRAPH 111

Recommends Scottish Government **introduce stricter conditions on the accepted reasons for no counts with regards to stock that is subject to treatments and being held for harvest** and that it updates relevant guidance and enforcement approach accordingly.

RESPONSE

This issue has already been addressed, following concerns raised in 2022 regarding 'no count' being presented as an alternative to submitting sea lice levels under The Fish Farming Businesses (Reporting) (Scotland) Order 2020. The Fish Health Inspectorate modified its data monitoring procedures and raised examples of inappropriate practice with sector representatives and individual companies, making it clear similar practice will not be tolerated in future. However, for the avoidance of doubt, the Fish Health Inspectorate will ensure there is absolute clarity in published guidance around the parameters which apply to the use of 'no counts'. Statutory enforcement procedures are already robust, and change will not be required following clarification of appropriate practice.

RAI COMMITTEE RECOMMENDATIONS – PARAGRAPH 57

Recommends **the Scottish Government establish a research project focused on testing and improving the modelling of environmental conditions that are known to cause high mortality events on salmon farms.** This research should aim to explore improvements in the capability to predict such events to provide early warning to industry and inform technological solutions and approaches to husbandry to mitigate high mortality events. This research should also consider whether the current collection and monitoring of environmental conditions around salmon farms is sufficient for computer modelling purposes and identify potential for improvements. The Committee asks the Cabinet Secretary to set out a timetable for establishing this research project in her response to this report.

RESPONSE

Research has been undertaken into aspects of climate change that impact salmon farming in Scottish waters, and the Committee is right to recognise this most impactful and important aspect of securing the sustainable future of salmon farming in Scotland. The Farmed Fish Health Framework (FFHF) steering group has already identified four key priority risks for salmon mortality, all of which have a degree of relationship with changing climatic conditions. These are anoxia, harmful algal blooms, micro jellyfish (a subset of zooplankton), and amoebic gill

disease. Projects have been undertaken in all these areas, including several by the Sustainable Aquaculture Innovation Centre (SAIC) funded by the Scottish Government.

Further research on these issues is a priority for the sector and for the Scottish Government who both provide funding and direction in multiple ways. We do not believe a single dedicated research project owned by the Scottish Government will be the most appropriate and effective way of ensuring that the anticipation and mitigation of climate harms affecting salmon aquaculture is a core focus of scientific endeavour across all the relevant scientific work in Scotland and beyond. The role for Government continues to be to act as an enabler, to support collaboration, communication and direction to aid the development of a complete and coherent research programme across the academic and salmon producer communities. We continue to do this through the FFHF Steering Group, the collaboration within Marine Alliance for Science and Technology Scotland (MASTS), and via the Sustainable Aquaculture Innovation Centre (SAIC) consortium and networks.

We will also engage with the Chief Scientific Advisor (Marine), Professor Mark Inall, and ensure these aquaculture priorities are factored into the strategic approaches to marine science under his leadership, including through implementation of our Marine Science and Innovation Strategy, and as part of the ongoing scoping exercise for Areas of Research Interest, to identify and enable research priorities and knowledge transfer to key communities of interest.

Following the withdrawal of funding for SAIC by the Scottish Funding Council in 2023, we put in place transition arrangements and funding to maintain support for applied innovation work focused around solutions related to these fish health concerns. We are in the process of designing and implementing successor arrangements, to be in place when SAIC transition arrangements run out in 2026, which will ensure there remains a mechanism through which aquaculture innovation projects can be coordinated and funded. We will ensure the design and governance of these arrangements facilitate ongoing engagement with the challenges that climate change brings to the salmon farming and other aquaculture sectors.

Key commitments in response

- We will work to analyse mortality data, exploring thresholds for ‘persistently high mortality’ and whether fish farms with ‘persistently high mortality’ exist [**2025/2026**]

- The Fish Health Inspectorate will ensure there is absolute clarity in published guidance around the parameters which apply to the use of 'no counts' in sea lice reporting.

- We will continue to engage with the Farmed Fish Health Framework Steering Group, the Marine Association for Science and Technology and the Sustainable

Aquaculture Innovation Centre to provide direction and focus to ongoing research programmes [**2025/2026 and beyond**]

TOP LINES

Mortality

- I expect producers to drive mortality to the lowest possible level.
- Between 2003 to 2023, survival of fish in a year class through to harvest has remained relatively constant at 75% with peaks and troughs in different years.
- Salmon Scotland publishes monthly mortality data. It is encouraging that in correspondence to the Rural Affairs and Islands Committee in February, it noted that their data indicated survival across all marine farms was 82.3% in 2024, up 10 percentage points from 72.3% in 2023.
- We've made significant progress on issues relating to fish health and mortality, including improvements to our sea lice management policy the introduction of mandatory reporting and transparency of data.
- We must better understand mortality persistence at sites before we determine if regulatory powers to halt production at sites is appropriate - I will take forward analysis of data to establish if there are sites with recurrent high successive mortality, and whether mortality is a result of insufficient mitigation.

Mortality Science Programme

- The Committee has rightfully acknowledged the most impactful and important aspect of securing the sustainable future of salmon farming in Scotland – the role that research and innovation will play in the understanding and capability to react to environmental pressures challenging fish health.

- In place of establishing a new research programme, the role for Government is to acknowledge the width of research and innovation already underway and facilitate collaboration, give strategic direction to the development of a coherent research programme across the academic and salmon producer communities.

- We will provide cohesion to ongoing work through continued engagement with the Farmed Fish Health Framework steering group, Marine Alliance for Science and Technology Scotland and the Sustainable Aquaculture Innovation Centre

Sea lice

- We are reaping the benefits of sustained policy and regulatory interventions on sea lice – this has focused industry action on sea lice management, resulting in a downward trend in sea lice at a national level, with 2024 levels being the lowest since 2018.

Q&A

MORTALITY

Q: How do you see the future improving?

- We remain committed to high standards of fish health and welfare and to increased survival – this is clear in our Vision for Sustainable Aquaculture
- I am encouraged by Salmon Scotland's recent letter to Committee which set out its recent mortality data, which indicated survival across all marine farms was 82.3% in 2024, up 10 percentage points from 72.3% in 2023.
- We expect the aquaculture industry to lead improvements to fish survival by continued investment in, and increasing adoption of, new and innovative technologies.

[If pushed on regulation as a next step]

- We cannot pre-empt the outcome of what the analysis will tell us.
- Any regulatory approach must proportionate and in line with our 'Better regulation' principles.

Q: What improvements have you made on fish health and mortality policy?

- The availability and transparency of fish farm data in Scotland is world leading.
- We have lowered the levels of sea lice per fish at which the Fish Health Inspectorate will intervene or take enforcement action, and we have introduced new legislation to make sea lice reporting mandatory.
- We have facilitated work through the Farmed Fish Health Framework and Sustainable Aquaculture Innovation Centre on a range of projects to better understand and address gill health, improve availability and welfare of captive bred cleaner fish and to begin to address climate change impacts on farmed fish.
- The Sustainable Aquaculture Innovation Centre has supported more the 70 collaborative projects, many of these on fish health such as gill health, rapid diagnostic technologies and vaccination in collaboration with others and representing a combined total investment of £62.7 million.

Q: SG is stalling - why won't you commit to regulating for mortality at sites?

- It would be perverse to prevent production at sites which have experienced high mortality without considering the causes and sense checking what course of action is most appropriate to address it.
- I have responded to the Committee recommendations with a commitment to analyse available data and determine if there are persistent high rates of mortality which could indicate systemic and persistent problems.

Q: You should introduce mortality targets?

- I do not believe arbitrary targets would induce behavioural change without risk of unintended consequences - fish health is already the sector's highest priority.
- Targets are not a practical approach – not all issues are within the control of the farmer or reflect poor welfare - this needs to be taken into account.
- We already have 'mortality thresholds' in place for different life stages of production. If mortality exceeds a threshold, the FHI will investigate and take statutory action if diseases listed in legislation are detected.

Q: Will you continue to oppose a moratorium if mortality remains very high?

- I do not believe a moratorium is warranted - Salmon Scotland recently wrote to the Committee to set out their mortality data indicated survival across all marine farms was 82.3% in 2024, up 10 percentage points from 72.3% in 2023.
- This is a positive indication that investment and attention from both Government and the sector has paid off - we will continue to ensure that driving improvement remains a core focus.

Q. Your own science has shown warming temperatures in some areas is driving mortality – will you stop expansion in warmer regions?

- This is a misunderstanding of the science. The work published by Marine Directorate scientists which investigated trends in losses at a regional level does not support regional moratorium on production.
- As detailed in the published work, this is because temperature is only one component that explains farmed fish losses – the methodology underpinning the work focuses on large scale averages and does not allow for any conclusions to be made at local level.

Q: Is fish farming unsustainable as climate change is driving mortality?

- I do not agree that aquaculture is, or will become, unsustainable on the basis of climate change. The sector is highly innovative and invests significantly to address challenges, we expect this to be the case with climate change adaptation and mitigation.
- The sector is investing and testing new approaches, such as strategies for larger smolts which will spend less time at sea; changes in husbandry; and testing of new technology which could help mitigate impacts from micro jellyfish and harmful algal blooms.

Q: What have you done to better understand climate change impacts on aquaculture?

- In my response to Committee I have stated that we will facilitate collaboration and help bring together a plethora of ongoing work into a coherent programme of work on environmental modelling, climate mitigation and adaptation.
- The Marine Directorate is engaged with the Marine Climate Change Impact Partnership to improve understanding of climate change on aquaculture.
- We are monitoring ocean environmental parameters such as temperature and phytoplankton communities through the Scottish Coastal Observatory and Offshore Monitoring Programme
- Scotland's National Adaptation Programme 3 was laid in Parliament last year and sets out the actions that will be taken to support aquaculture.
- We are co-funding a PhD studentship on new technologies to provide an early warning of HABS.
- Via the Farmed Fish health Framework, we funded a study to identify practical action to help address issues associated with Harmful Algal Bloom (HABs) - this was built upon by the Sustainable Aquaculture Innovation Centre which funded work to support training and the introduction of standard operating procedures for monitoring HABs across companies.

Q: There have been claims that mortality has increased up to 10 times in recent years – are you not concerned?

- It is not always clear how people have made their calculations, but I recognise increases in mortality reported to the FHI in 2022 and 2023 - the 2023 production survey also indicated lowered survival.
- Mortality must be driven down - I have committed to analysis which will help identify if there are sites with persistent mortality which could be managed.

MORTALITY SCIENCE PROGRAMME RECOMMENDATION

Q: The sector needs clear direction – it has been ineffective so far in addressing key challenges?

- The salmon sector invests quickly to address challenges – markets are highly competitive and it does not wait for government to address its economic loss
- Salmon producers undertake intense environmental monitoring at some sites in an effort to understand local environmental parameters and impacts, it embraces change and deployment of innovation, and it invests readily in research.
- But it recognises that its own knowledge and research is only one piece of the jigsaw, and it will welcome the role of government in promoting cohesion, collaboration and overall strategic direction to promote collective understanding, prediction and mitigation of any challenge.

Q: Who are MASTS and FFHF and why are you deferring to them instead of showing leadership?

- The Marine Alliance for Science and Technology Scotland (MASTS) is a scientific community of over 800 researchers, 18 partner institutions and 11 research forums with shared goals such as helping the economy adapt to climate change.
- It was established in 2009 with significant funding from the Scottish Funding Council to bring cohesion to marine science and support evidence-based policy.
- The Farmed Fish Health Framework steering group is a senior level forum of sector representatives, regulators, government formed to work collaboratively to improve farmed fish survival.
- These forums are well placed to set priorities and strategic direction, establish the breadth of work already underway on key heath challenges and mitigation and bring cohesion on the basis that the sum is better than its constituent parts.

Q: What is the role for SAIC?

- We support aquaculture innovation through the Sustainable Aquaculture Innovation Centre (SAIC) which will continue to play a key role going forward along with MASTS and the Farmed Fish Health Framework.
- SAIC has supported over 70 projects, many of these on issues such as gill health, optimising fish nutrition, rapid diagnostic technologies and vaccination.
- With collaboration with others, it represents a combined total investment of £62.7 million on aquaculture projects.
- Following the change in SAIC's funding arrangements last year, along with the Scottish Funding council, we have invested £1.5 million in transition funding to

March 2026. SAIC will continue to support fish health, and we will see three new projects delivered, including on improved micro-jellyfish monitoring, and stock.

Q: What has the Farmed Fish Health Framework achieved?

- The Farmed Fish Health Framework was launched in 2018 as a collaboration between government, regulators, vets and the sector to improve fish survival.
  - Achievements include
  - on mortality: standardised mortality recording across salmon farms and the publication of transparent mortality data by Salmon Scotland
  - On medicines – collaboration on more effective use of medicine without lowering environmental protection, barriers to vaccine development and a regulatory framework for new treatments, such as bacteriophages.
  - On climate change – Funding was provided to the Sustainable Aquaculture Innovation Centre (SAIC) to assess work underway on Harmful Algal Blooms and an assessment of other environmental monitoring.
- Its most valuable benefit is it influence on the work of member organisations in key areas of fish health.

Q: Why has the FFHF not upheld its obligation to report its delivery progress to Committee on an annual basis as stated in the framework document?

- The previous Cabinet Secretary for Rural Economy, Mr Fergus Ewing, wrote to the Committee in detail regarding the delivery in the first year of the FFHF.
- The FFHF has evolved over time with changes made to its delivery to maintain focus, and periods of change have interrupted reporting to Parliament.

SEA LICE (MANAGEMENT FOR FISH HEALTH)

Q: What have you done to manage sea lice and improve fish health?

- We are reaping the benefits of sustained sea lice policy and regulatory interventions which have driven innovation and focus across the sector.
- This has led to an ongoing downward trend in sea lice numbers at a national level, with 2024 having the lowest levels observed since 2018. The exception was Orkney which is slightly up from a very low base.
- We have
  - reduced levels of sea lice at which the Fish Health Inspectorate takes action.
  - introduced mandatory sea lice reporting for production businesses.
  - improved transparency of data by publishing weekly average sea lice levels per fish per week in the public domain on Scotland's Aquaculture website
  - acted on the Salmon Interactions Working Group recommendation that risk to wild salmonids should be controlled by licence and by a spatially adaptive management tool, which is now introduced by SEPA.

Q: Has the Government's sea lice policy led to increased mortality by encouraging use of physical treatment?

- The sector has a strong preference to reduce handling which is associated with stress and risk of mortality. But there is a balance to be made between the reduction of chemical use and the use of physical treatments in their place.

- Any type of therapeutic will be applied only upon veterinary advice – vets will only prescribe treatments most appropriate to the maintain or improve fish health.

Q. Why does SEPA sea lice framework not take account of fish health?

- SEPA's role is to protect the environment - this does not mean that SEPA doesn't recognise the concern that driving sea lice down to meet licence conditions could result in treatment being applied against veterinary advice.
- SEPA respects the role of veterinary advice managing fish health – this will be taken into account when considering if enforcement action should be taken if non-compliance with sea lice licence conditions arises.

Q: Why can't we have one combined regulation for fish health and wild fish?

- Regulation must be proportionate to the issue being managed, and since sea lice levels to protect fish health and to protect wild salmon are different, a different approach is required for fish health protection and as emissions.
- Accepting SEPA's lower sea lice levels into the FHI's sea lice management framework would mean adoption of levels lower than required to protect farmed fish health – this could drive unnecessary control measures.
- Sea lice levels in the sector's Code of Good Practice are lower than those reflected in the Fish Health Inspectorate's sea lice management policy as they indicate to producers a level at which producers should begin to consider if sea lice control is necessary, not levels where enforcement will be taken.

Q. Fish Health Inspectorate enforcement action is not robust enough, especially regarding reporting of weekly sea lice counts by producers?

- It is an offence to fail to comply, without reasonable excuse, with the requirement of the reporting order, or to knowingly provide information which is false.
- There are reasonable excuses for not providing a count such as veterinary advice, weather – the controversial reason is for 'pre-harvest'.
- During harvest periods, fish cannot be treated with anaesthetic to allow counts as they would not be allowed to enter the food chain.
- The FHI took prompt action when it was highlighted that some producers were using this reasonable excuse for several weeks. However, I have asked the Fish Health Inspectorate to ensure there is absolute clarity in published guidance.

Q: How do you expect the sector to control sea lice with the removal of key treatments such as SLICE (Emamectin Benzoate) from their toolbox?

- Access to medicines is important but must be viewed in the context of the need to protect the environment that many marine sectors thrive in.
- SLICE can still be used, but quantities for use have been reduced.
- There is an action for SEPA and the sector to determine if an alternative *pattern* of use for the permitted amounts could be used for better effect - this would not be a reduction in environmental regulation, but better and adaptive regulation.

USE OF MEDICINES

Q: Is the availability of fewer medicines driving up physical treatments and mortality?

- The sector must operate within environmental limits and there should be reduced use of medicines where they have an environmental impact.
- We have seen the sector innovate in response to this, including more use of physical treatments.
- Coupled with site selection and evolving husbandry strategies there are still options to treat fish when required

Q: Antibiotic use increased between 2022-2023 in salmon production?

- As per our Vision for Sustainable Aquaculture, Scottish Government supports reduced levels being used where possible.
- Antibiotics play an important part in the care of farmed fish, but must be used responsibly and as prescribed by a veterinarian.
- It should be noted that baseline usage of antibiotics in aquaculture is low among food production sectors.
- Treatments are relatively infrequent in the salmon farming sector, with only 7.5% of freshwater farms and 9.8% of marine farms treated in 2023.

Q: Thermolicer and other physical treatments should be banned?

- The sector needs a range of tools available to use when it is appropriate.
- It has a strong preference to reduce handling of fish to reduce risk of mortality - does not undertake physical treatments lightly,
- Vets will carefully weight negative impacts of using physical treatment with health and welfare implications of doing nothing.
- [*If pushed on thermolicer:* The Scottish Aquaculture Innovation Centre funded a project looking at welfare of modern, new generation thermolicers as they are used in Scotland – various welfare indicators were used.
- I believe this showed genuine interest on the part of participating companies to better understand the impacts of their treatments and this work can be taken into account in their decision making]

ANNEX E

MORTALITY REPORTING AND DATA

RAI committee recommendations

RAI COMMITTEE RECOMMENDATIONS –
PARAGRAPH 76-78, 124
Paragraph 76. Recommends the **Scottish Government must publish comprehensive, consistent and transparent mortality figures that include the number of fish at a farm, the freshwater mortality and seawater mortality, per facility, with accurate numbers of dead salmon, wrasse and lumpsuckers per week and with cumulative mortality totals at the end of each cycle**. **Paragraph 77.** Recommends the **Scottish Government publish an annual fish health report detailing the health and welfare status of all farmed aquatic finfish**, including wild caught wrasse, in Scotland. **Paragraph 78**. Given the concerns raised in evidence relating to the Fish Health Inspectorate information, however, the **Committee supports the REC Committee recommendation for mandatory reporting of mortalities to the Fish Health Inspectorate.** **Paragraph 124**. The Committee notes the development of the Scotland's Aquaculture website and the consensus that the suite of data called for by the REC Committee is now publicly available. The Committee also, however, agrees with the frustration expressed by stakeholders that the website is difficult to navigate, and information is not presented in an easily understandable format. The Committee is not satisfied that an explanatory document will wholly address these concerns and **recommends the Scottish Government prioritises upgrading and improving the Scotland's Aquaculture website to make data more accessible and user friendly.** The Committee notes the REC Committee's view that the costs associated with developing the suite of data should be borne by the industry and that it called on the Scottish Government to discuss with industry representatives how this might be achieved. Recommends that the Scottish Government takes forward recommendation 24 as soon as practicable. **RESPONSE** • More data are collected and published with respect to salmon farming in Scotland than salmon farming in other jurisdictions, and in comparison to terrestrial farming sectors. • Further data collections would represent significant burden for producers and regulators and the data already available are sufficient for transparency and regulatory purposes. • We believe that it is not necessary to mandate any further collections through legislation given there is no evidence of non-compliance.

- Ministers are committed to supporting the New Deal for Business, which requires such justifications for additional business burdens-

On improvements to Scotland's Aquaculture Website

- In terms of presentation, we do recognise improvements could be made in terms of how the existing data are arranged and explained to enable the best use of the large volume of information available.
- We will take forward work to explore how the presentation and accessibility of existing data collections can be improved.
- We also acknowledge that Scotland's Aquaculture Website requires modernisation and will work with partners to scope out how it can be refreshed to enhance transparency, including the financing of such a project.
- We will also explore how to gain greater insights into cleanerfish health and welfare outcomes as part of our overall response to the Committee's report and delivery of our Vision for Sustainable Aquaculture.
- We will take forward scoping work within 2025-26, anticipating that implementation (especially of the website) will take longer.

Key commitments in response

- We will take forward work to explore how the presentation and accessibility of existing data collections can be improved.
- We acknowledge that Scotland's Aquaculture website requires modernisation and will work with partners to scope out how it can be refreshed to enhance transparency. We will take forward scoping work within **2025-26**, anticipating that implementation especially of the website will take longer.
- We will also explore how to gain greater insights into cleanerfish health and welfare outcomes as part of our overall response to the Committee's report and delivery of our Vision for Sustainable Aquaculture.

TOP LINES

- More data are collected and published in Scotland than salmon farming in other jurisdictions, and in comparison to terrestrial farming sectors.
- Transparency of fish farm mortality information in Scotland is world leading.
- Although there a much data available, I recognise improvements could be made in terms of how the existing data are presented and explained - I will explore how this can be improved.
- We will work with partners to scope out how Scotland's Aquaculture can be refreshed, including financing of it. We will take this forward within 2025-26, anticipating that implementation (especially of the website) will take longer.
- I do not believe that it is necessary at this time to mandate any further collections of mortality data through legislation.
- We will also explore how to gain greater insights into cleaner fish health and welfare outcomes as part of our overall response to the Committee's report and delivery of our Vision for Sustainable Aquaculture.

Q&A

Q: What improvements have already been made to data transparency?

- Both Government, its agencies are committed to transparency, it is why such an increasingly large volume of information is already proactively published.
- A suite of data is already proactively published including on sea lice, medicine and chemical discharge, salmon survival and fish escapes, biomass compliance and medicine use, much of this is hosted on Scotland's Aquaculture Website.
- Through the Farmed Fish Health Framework, we identified and standardised the main causes of mortality into ten overarching categories – Salmon Scotland now publishes monthly mortality data, by percentage and cause; this level of transparency is leading amongst farming sectors.

Q: How will you improve accessibility and presentation of available data?

- I recognise that there is an opportunity to better harmonise, explain and present the wealth of the existing data on fish health in better context.
- I will explore how the presentation and accessibility of existing data collections can be improved and we will work with partners to consider how Scotland's Aquaculture website can be refreshed and financed.

Q: Why will you not mandate the reporting of mortality data?

- Ministers are committed to supporting the New Deal for Business, which requires that additional business burdens are fully justified.
- The data available is sufficient for regulatory purposes and anything more would be a burden for producers and regulators with no real regulatory benefit.
- There is also no evidence of non-compliance with existing voluntary reporting.

Q: Will you mandate the collection of cleanerfish data?

- In my response to Committee, I have committed to exploring how to gain greater insights into cleaner fish health and welfare as part of the delivery of our Vision for Sustainable Aquaculture.

Q. A number of the data you collect relies on self-assessment and reporting – how can you be sure it is accurate?

- Producers are legally obliged to report certain aspects of mortality and records must be kept available for inspection.
- Information provided for the Scottish Government production survey is cross checked with FHI movement records to ensure there are no inconsistencies.
- SEPA is developing a new Environmental Performance Assessment Scheme. This will ensure information on compliance, including medicine use, biomass compliance and seabed surveys, is visible and continues to be robust.

Q. Why doesn't SG see the value in a Norway-style annual fish health report?

- A range of fish health data is now already publicly available include information on farmed fish survival, sea lice infestation and treatments used.
- We have committed to take forward work to explore how the presentation and accessibility of existing data collections can be improved.

CLEANERFISH (INCLUDING WELFARE AND WRASSE FISHERY) ANNEX F

RAI committee recommendations

RAI COMMITTEE RECOMMENDATIONS –
PARAGRAPH 139
The Committee recommends the Scottish Government publish the University of Glasgow report commissioned by NatureScot as a matter of urgency. The Committee recommends the Scottish Government provide the further advice it is expecting from NatureScot and to publish the results of the Scottish Animal Welfare Commission review at the earliest opportunity and notify the Committee when that takes place. **RESPONSE** Scottish Government has not yet had formal receipt of either of the final reports referred to and does not have direct control of the publications. We understand NatureScot is in the process of publishing the University of Glasgow report. The Scottish Animal Welfare Commission is independent from Scottish Government and although Scottish Government provides a publication mechanism for its output it is not in control of its delivery timelines. We have asked for progress updates and will notify the Committee when the reports are published.

RAI COMMITTEE RECOMMENDATIONS –
PARAGRAPH 140
The Committee is deeply troubled by evidence that suggests NatureScot waited four years before alerting the Scottish Ministers about the report's findings. Given the potential impacts from this delay, the Committee **requests NatureScot and the Scottish Government provide urgent clarification to the Committee on this matter**. **RESPONSE** The delay in notifying Scottish Ministers of the report is unfortunate. We received the report in 2024, which helped to inform next steps and our commitment to undertake a Fisheries Assessment (Habitats Regulation Appraisal and Appropriate Assessment) prior to a 2025 fishery. Exchanges between the Scottish Government and NatureScot between 2019 and July 2024 regarding wrasse are published online. Carrying out the Fisheries Assessment is a priority for the Scottish Government. In addition to the wrasse specific fisheries assessment noted above, as part of implementing fisheries management measures for the inshore region, fisheries assessments are being undertaken for all the Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and the Nature Conservation Marine Protected Areas (NCMPAs) where these measures are required in line with Management Advice (CMA) provided by NatureScot. Whilst wrasse is not a protected feature of any designated sites, these assessments will highlight if

fisheries management measures are appropriate, and that the measures put in place ensure fishing activities do not negatively impact the conservation objectives and protected features of designated sites.

RAI COMMITTEE RECOMMENDATIONS –

PARAGRAPH 141

In addition, the Committee was assured by the Cabinet Secretary during its recent consideration of the amendments to the Joint Fisheries Statement that the Scottish Government could develop a fisheries management plan or take other action to protect a fish stock. The Committee notes the current petition PE2110 calling for a fisheries management plan for wild wrasse. Depending on the further advice it is expecting from NatureScot and the results of the Scottish Animal Welfare Commission review, the Committee **recommends a fisheries management plan or other protective action should be developed as soon as practicable to ensure any wild wrasse are harvested sustainably.**

RESPONSE

The Fisheries Assessment that the Scottish Government is undertaking, based on advice from NatureScot, will ensure appropriate protective measures for wrasse are in place. A Fisheries Management Plan (FMP) is not required for this purpose and the Scottish Government has been clear our resources are currently focussed on delivering the statutory commitment in The UK Fisheries Act and UK Joint Fisheries Statement for the production of 43 FMPs, of which the Scottish Government is the lead coordinating authority for 22. We are unable to confirm, or commit to, the production of additional FMPs beyond those currently in development. We have, however, also commissioned the Sea Fish Industry Authority to undertake some initial scoping work to help inform our approach to non-quota species (which includes Wrasse) FMPs in Scotland.

Key commitments in response

- We have commissioned Sea Fish Industry Authority to undertake some initial scoping work to help inform our approach to non-quota species (which includes Wrasse) FMPs in Scotland. We will consider the outputs of any forthcoming advice in **2026.**

- We will deliver a Fisheries Assessment (Habitat Regulation Appraisal and Appropriate Assessment) in **2025** (prior to the fishery opening in May)

TOP LINES

- **Cleaner fish use, including wild and farmed wrasse and lumpfish, are an important method of sea lice management employed by some production companies to manage sea lice in farmed salmon.**

- **The Scottish Government recognises the importance of wild caught wrasse, as cleaner fish, to the salmon farming sector and to fishers who supply the sector but the fishery must be sustainable.**
    - Since the 2018 enquiry the Scottish Government has introduced mandatory measures to regulate the wrasse fishery, including the requirement of a Letter of Derogation giving permission from SG's Marine Directorate to fish under certain eligibility and conditions.
    - We continue to improve the evidence base and management of the wild wrasse fishery; have invested in research to continue to inform our decision making to protect the stocks; and have a flexible management structure is in place to ensure we can respond to emerging evidence.
    - In light of new evidence presented to the SG in 2024, we are currently undertaking a fisheries assessment, which includes a Habitats Regulations Appraisal and Appropriate Assessment for the wild wrasse fishery.

We recognise in our Vision for Sustainable Aquaculture that there is further work required to help enhance cleaner fish health and welfare.

- Our Vision outcomes include continued research into the use of cleaner fish and developing a Code of Good Practice (CoGP) to support improved cleaner fish health, welfare and performance.
- The Scottish Animal Welfare Commission is currently looking at the use of cleaner fish in salmon production and we look forward to receiving its recommendations.
- We will consider its recommendations and engage with stakeholders on any next steps; including as part of our overall response to the recent RAI Committee's report, and the planned delivery of our Vision outcomes.

Q&A

Q: Cleanerfish use is not sustainable – why do you not ban it?

- Cleanerfish play a valuable role in the sea lice control and the approach to their health and welfare has, and continues to improve, over time.
- Cleaner-fish are afforded the same legal welfare protection as other farmed fish.
- Some producers already give a high degree of care to cleaner fish with staff dedicated to husbandry, by having welfare strategies in place, by providing species-specific shelters, feeding regimes and health monitoring.
- We want the sector to build on the positive work they are already undertaking work to progress the care of cleaner fish rather than remove them from the limited tool box producers have to control sea lice.

Q: Scottish Government should be doing more to protect the welfare of cleanerfish used in farmed fish production?

- Our Vision for Sustainable Aquaculture includes outcomes on improved welfare of cleaner fish and we will work with the sector to achieve this.
- In my response to Committee I have committed to scoping out options for guidance for farmed fish welfare and this will include cleanerfish.
- The Scottish Animal Welfare Commission is currently considering the use of cleaner fish in salmon production, and we look forward to receiving its recommendations.

- Cleaner fish were an early focus for members of the Farmed Fish Health Framework, with work undertaken on captive breeding programmes, and international knowledge-exchange on cleaner fish husbandry best practice, helping to establish best practice measures for the Scottish industry.
- Cleaner fish are also afforded the same protection in law as species farmed for food, meaning The Animal Health and Welfare (Scotland) Act 2006 protects them from 'unnecessary suffering'.

Q. What are you doing about reports of cleanerfish welfare abuse and high mortality in salmon farming?

- We remain committed to high standards of fish health and welfare and are clear in our expectations of producers to drive mortality of all species to the lowest possible levels.
- The Animal and Plant Health Agency are responsible for investigating potential breaches in welfare law, and consider concerns reported to them.
- Where salmon are being treated when cleaner fish are present, we expect treatment to be undertaken with appropriate veterinary advice and in line with the sector's Code of Good Practice and relevant accreditation schemes.

Q: Will you introduce better transparency for cleaner fish mortality ?

- As I stated in my response to the Committee, we will explore how to best gain greater insights into cleanerfish mortality.
- Cleanerfish mortality is not currently reported in a similar manner to farmed salmon mortality. We will explore with the sector through the Farmed Fish Health Framework an appropriate reporting mechanism for cleanerfish mortality.

Q. Should SG mandate salmon farmers only farmed cleaner fish to protect wild stocks?

- It is important that fisheries are sustainable and we have robust management measures in place for wrasse sourced from the wild.
- Different companies use different species, or different combinations of species of wild caught and captive bred cleanerfish.
- The Farmed Fish Health Framework previously initiated collaborative work to scale up production of farmed cleanerfish to increase availability of captive bred wrasse and lumpfish.
- This included -
  - Building agreed management measures for wild caught cleanerfish with Scottish Government
  - Reducing dependence on wild-caught wrasse by replacing with farmed wrasse. - Mowi Scotland and Scottish Sea Farms collaborated on a wrasse hatchery project supported by SAIC and the Institute for Aquaculture - eggs were successfully hatched from progeny of wild-caught fish – a possible world first at the time
- Mowi, our largest producer, has since invested significantly in captive breeding.
- Lumpfish were also successfully deployed with hatchery production increasing, with production, in its early years we saw captive breeding increasing from 262,000 lumpfish in 2016 to 925,000 in a year.

Q: Has SG assessed the current and future demand of cleanerfish?

- The annual demand for cleanerfish by the farmed salmon sector can fluctuate.
- We have mandatory measures to regulate the wrasse fishery, including the requirement of a Letter of Derogation giving permission from SG's Marine Directorate to fish under certain eligibility and conditions.

Q: Regulatory responsibility around cleanerfish fish health, welfare and mortality is opaque.

- Fish health legislation does not differentiate between species held on fish farms.
- All farms must follow good biosecurity practice to obtain authorisation to operate, and all business legally must notify the FHI or a veterinarian if there is unexplained mortality in any species, including cleaner fish.
- The FHI does not have responsibility for fish welfare, but it does raise any issues it observes to the Animal and Plant Health Agency which is responsible for considering potential breaches in welfare law.

Q. Will Scottish Government develop a Wrasse Fisheries Management Plan?

- The UK Fisheries Act and UK Joint Fisheries Statement contain a statutory commitment for the production of 43 Fisheries Management Plans (FMPs), of which the Scottish Government is the lead coordinating authority for 22.
- We are unable to confirm or commit to the production of additional FMPs beyond those in development.
- We will keep this under review and where appropriate and necessary will consider the need for additional FMPs in the future.
- We have commissioned the Sea Fish Industry Authority to undertake some initial scoping work to help inform our approach to non-quota species (which includes Wrasse) FMPs in Scotland.

Q. Why has the Scottish Government not undertaken an appropriate assessment, under the Habitats Regulations, for the wrasse fishery?

- Neither a habitats appraisal nor an appropriate assessment was carried out prior to the introduction of the mandatory measures, as wrasse are not protected features in any of Scotland's Special Areas of Conservation and there was no evidence that showed pots had a significant impact on rocky reefs.
- This decision not to undertake an assessment was in line with advice from NatureScot received at the time.
- In 2024 Marine Directorate received a copy of a currently unpublished report (dated 2020) undertaken by Glasgow University, on behalf of NatureScot, on the implications of wrasse fishing for marine sites and features. The report has brought new evidence of wrasse fishing interactions with Special Areas of Conservation (SACs) and Marine Protected Areas.
- In light of this evidence, we are undertaking an appropriate assessment ahead of the wrasse fishery opening in May 2025.
- Officials are engaged with NatureScot on the development of the Appropriate Assessment. The intention is that we will publish NatureScot's advice alongside the appropriate assessment.

Q. When will the Scottish Government share the additional wild wrasse data collected in Year 3?

- The third year of additional data has been collected and is in the process of being analysed. Subject to other pressures, we are aiming to share this in Q2 2025. The Scottish Government will continue to use the best available evidence to manage the fishery, as it becomes available.

Q: What are the existing Wrasse control measures?

The control measures include:

1. The closed season runs from 1st December – 1st May. Marine Directorate determined the wrasse spawning season based on observations of sampled wrasse in UK waters.
2. Minimum and maximum landing sizes for wrasse are in place and kept under review.
3. There are controls over creels, including a limit on creel numbers and otter exclusion devices.

- In addition to the statutory requirements to provide accurate landings details on Form FISH1, Log Books and landings declarations, the licence holder must submit additional data on wrasse operations that is used to inform scientific advice on the fishery.

Q How will the Inshore Fisheries Management Improvement (IFMI) Programme improve management of the wild wrasse fishery?

- Through the IFMI programme, we want to develop an agile framework for managing our inshore fisheries that is flexible to changing needs of our marine environment and fishers, based on the best available scientific data. We are considering all options, nothing is off the table at this stage.
- Our intention is that the IFMI programme will have a positive impact on all of our inshore stocks, including the wrasse fishery.
- Our recent call for evidence on a new framework for inshore fisheries management closed on 18 February and my officials are currently analysing the responses. The intention is to publish the analysis report as soon as possible, with a view to consulting on proposals in late 2025/early 2026.
- As part of the IFMI Programme, we are committed to working closely with stakeholders and improving monitoring and data collection for inshore vessels, including improving how we use tracking technology. There will be significant progress on this policy in 2025.
- We also acknowledge that Scotland's Aquaculture Website requires modernisation and will work with partners to scope out how it can be refreshed to enhance transparency, including the financing of such a project.

ENVIRONMENTAL INTERACTIONS: SEA LICE AND ESCAPES ANNEX G

RAI committee recommendations and key commitments in response

RAI COMMITTEE RECOMMENDATIONS –- SECTION 4
Paragraph 180 (SALMON INTERACTIONS WORKING GROUP RECOMMENDATIONS)
The Committee is disappointed by the lack of progress made by the Scottish Government in actioning the 42 recommendations from the Salmon Interactions Working Group report. **Recommends the Scottish Government publish a timetable for implementing the recommendations, as a matter of urgency**. **RESPONSE** • A summary of what Scottish Government said it would do in response to the Salmon Interactions Working Group report, and the latest information on progress and the next steps, is included in Annex B of the response to RAIC.

Paragraph 198 (TIMETABLE FOR ESCAPES WORK)
The Committee notes there has been little progress in developing and introducing "appropriate sanctions" for escapes from salmon farms and, therefore, recommendation 37 has not been implemented. The Committee also notes the review of the 2015 technical standard for Scottish finfish aquaculture, set out in the Scottish Government's response to the REC Committee report and committed to again in the 2023-24 programme for government, has yet to be progressed. The Cabinet Secretary has said she cannot commit to a firm timescale for undertaking these two workstreams. **Recommends that… the Scottish Government should set out a clear timetable for when it expects to be in a position to conclude this work.** **RESPONSE** • We remain committed to taking forward a programme of work to make fish farm containment measures more robust, including delivery of a revised technical standard to reduce the risk of farm escapes and the introduction of financial penalties for fish farm escapes with the ultimate aim of redistributing money to support wild salmonid conservation and research. • We have, however prioritised development and delivery of SEPA's Sea Lice Risk Assessment Framework. • In the coming year, we will work with SEPA to develop the monitoring programme which underpins its sea lice risk assessment framework. From March 2025, the framework will provide protection for sea trout. We will also work with SEPA to plan the managed transition away from control of sea lice and the risk to wild salmonids through local authority Environmental Management Plans which will be phased out by the end of 2025, and replaced by SEPA's national monitoring plan.

- We will also deliver updated working arrangements guidance, which sets out how regulators and statutory consultees work together to deliver the fish farm consenting system, in light of SEPA's new responsibilities by the end of this year (2025).
- Fish farming businesses have appealed sea lice reporting and sea lice limit conditions issued to existing fish farms by SEPA as part the sea lice risk assessment frameworks implementation. In the coming weeks we will work with SEPA to understand whether there are any implications of the appeals on the above milestones.
- Subject to satisfactory completion of the above activities, officials will prioritise progress to introduce financial penalties for fish farm escapes in the following delivery year, 2026/2027, followed by work on the technical standard in 2027/2028. I have made the decision to prioritise financial penalties on escapes over the updated Technical Standard as a result of resource constraints within Scottish Government, but also given the views of our external partners which we rely on to deliver almost all of our work. This also takes into account that there is an existing technical standard in operation and we are confident in the actions being taken by the sector to fulfil their responsibilities to reduce the risk of escapes.

Paragraph 211 (RESEARCH AND MONITORING IN WILD SALMON STRATEGY)

Recommends the **Scottish Government provide an update, as a matter of urgency, on its progress against the commitment to building an evidence base through coordinated scientific research and monitoring which is included in the Wild Salmon Strategy Implementation Plan.** This should include an update on the defined research objectives, monitoring framework and reporting requirements.

RESPONSE

- Our Wild Salmon Strategy and Implementation Plan provides an overarching framework to tackle pressures on wild salmon. It brings together the range of organisations with an interest and remit to protect salmon, including the Scottish Environment Protection Agency (SEPA), District Salmon Fishery Boards, River Trusts, NatureScot and Scottish Forestry. The Plan is supported by a Delivery Group and Science and Evidence Board.
- Our ambition is to have a coordinated approach to salmon research across Scotland to enable strategic delivery, analysis and publication of scientific data and reports.
- Progress in meeting these objectives is described in more detail in our response to the recommendations of the Salmon Interactions Working Group, described in Annex B of my response to RAIC.
- The Scottish Government is also supporting SEPA in the process of implementing a multi-year programme of environmental monitoring to assess the risk posed by sea lice to wild salmon populations, through their Sea Lice Risk Assessment Framework.

Paragraph 212 (NASCO-COMMISSIONED REVIEW ON EFFECTS OF AQUACULTURE)

Committee is aware of the NASCO-commissioned review of the effect of salmon aquaculture on wild Atlantic salmon populations.

Recommends Scottish Government **consider the findings of this review in so far as they relate to the risk posed to wild salmon from sea lice dispersal from farmed sites in Scotland when the review report is published**.

Recommends Scottish Government **update the Committee on what, if any, changes it then intends to make to finfish aquaculture policy as a result of the NASCO review findings.**

RESPONSE

- The Scottish Government has contributed scientific expertise to support the NASCO state of knowledge paper on the risk that sea lice from fish farms pose to wild salmon. We will work with SEPA to consider whether the outcomes of this review have any material impact on SEPA's Sea Lice Risk Assessment Framework, and I am happy to keep the Committee updated on this. SEPA remains committed to ensuring the framework is based on best available evidence and can adapt to new evidence in future.

Paragraph 222 (COORDINATION OF SEPA ACTIVITIES WITH ALL REGULATORY BODIES)

Recommends **SEPA implements the Salmon Integration Working Group recommendation that the lead body tasked with this responsibility should be "required to coordinate its activities with all regulatory bodies with responsibility for the range of pressures that wild salmonids face**".

Recommends **a memorandum of understanding between SEPA and other relevant bodies to ensure a coordinated approach to managing the impacts of farmed salmon on wild salmon** as a means to achieve this coordinated approach.

RESPONSE

- As the lead for producing river basin management plans, SEPA works with other regulatory bodies to establish programmes of measures aimed at achieving the plans' environmental objectives and is committed to working with others to coordinate activity to address the range of pressures which wild salmonids face.
- In the case of managing the risks to wild salmonids from fish farms, SEPA is currently working with Scottish Government and other regulators and statutory consultees to update the working arrangements document. This sets out the roles and responsibilities of regulators and advisory bodies in the consenting processes for marine fish farm developments and how those regulatory bodies work together. Beyond recognising SEPA's new role as lead body responsible for sea lice and the risks to wild fish in the revised working arrangements guidance, we intend to ensure the working arrangement document is regularly reviewed and updated.

Paragraph 236 (ENVIRONMENTAL STANDARDS SCOTLAND INVESTIGATION INTO SEPA SEA LICE RISK ASSESSMENT FRAMEWORK)

The Committee notes the complaint made by Wildfish and the Coastal Communities Network to Environmental Standards Scotland about whether the SEPA Sea Lice Framework is compliant with environmental law.

Requests the Scottish Government **keep it informed of the outcome of Environmental Standards Scotland's investigation and, if the complaint is upheld, how it and SEPA intends to respond.**

RESPONSE

- Representation is currently under internal evaluation by Environmental Standards Scotland (ESS), and we await a decision from them as to whether an investigation will be taken forward. Information on active evaluations and investigations is available on ESS's Website and we will keep the Committee updated on progress.

Paragraph 237(END THE SITING OF FARMS IN THE VICINITY OF KNOWN MIGRATORY ROUTES)

Recommends **an immediate end to the siting of farms in the close vicinity of known migratory routes for wild salmon.**

RESPONSE

- SEPA's Sea Lice Risk Assessment Framework has been designed to assess and manage this risk. All proposed fish farm developments, irrespective of their location, are subject to an appropriate risk assessment. If this assessment concludes a development is incompatible with the protection of wild salmon populations, SEPA will not grant authorisation.

Paragraph 282 (REVIEW OF USE OF ENVIRONMENTAL MANAGEMENT PLANS)

Given the importance of environmental management plans as a mechanism to deliver joint working between farmed and wild fish sectors, recommends Scottish Government **undertake a review of the use of environmental management plans in local planning to ensure it remains fit for purpose.**

RESPONSE

- With the implementation of SEPA's Sea Lice Risk Assessment Framework, Environmental Management Plans (EMPs) relating to the management of interactions between sea lice from fish farms and wild salmonids will be phased out by the end of 2025.
- SEPA is establishing targeted environmental monitoring programmes to underpin the implementation of its Sea Lice Risk Assessment Framework. These will be in place prior to EMP monitoring requirements ending. It has established stakeholder advisory groups to help and advise it on these monitoring programmes. Fisheries Management Scotland is represented on these groups.

- We will continue to work with local authorities and others to ensure that revised working arrangements guidance reflects instances where local authorities or others may explore use of an EMP for matters other than sea lice.

TOP LINES

- We are committed to supporting the sustainable growth of the aquaculture sector, through streamlining the consenting regime and through delivery of a new framework to manage sea lice and the risks to wild fish.
- A range of pressures act upon wild salmon stocks at national and regional scales. The Wild Salmon Implementation Plan, published in February 2023, sets out a range of actions to protect and improve Scotland's wild salmon populations.
- Where there is interaction between wild and farmed fish, we have adopted a precautionary approach, using the best available evidence.
- There is currently a presumption against open cage fish farm development on the North and East coasts of Scotland, implemented by the National Planning Framework and National Marine Plans, protecting migratory species and Scotland's largest populations of wild salmon.
- SEPA began implementation of a new sea lice risk assessment framework in February 2024. We will continue to make progress on the monitoring strategy which underpins the framework this year and due process will be followed to determine any appeals.
- We remain committed to taking forward a programme of work to make fish farm containment measures more robust, including delivery of a revised technical standard to reduce the risk of farm escapes and the introduction of financial penalties for fish farm escapes with the ultimate aim of redistributing money to support wild salmonid conservation and research.

Q&A

SEPA SEA LICE RISK ASSESSMENT FRAMEWORK

Q: What do the appeals to SEPA's sea lice framework mean in practice? Will wild salmon be protected?

- SEPA will continue to implement the sea lice risk assessment framework as directed to ensure environmental protection for new development.

[Background for Cabinet Secretary: SEPA-initiated variations to existing operations have been appealed. These variations to existing operations don't come into effect until the outcome of any appeal is finalised. [Redacted – Regulation 10(4)(e)]

- For existing fish farms which have appealed the conditions, conditions will not come into effect until the appeal is determined one way or another.
- However, in the interim, I expect producers to continue to maintain sea lice at levels achieved in recent years, which are some of the lowest on record.

Q: What happens if that salmon farming sector is successful in its appeals? What will happen to SEPA's sea lice risk assessment framework?

- It would be inappropriate to comment on the potential outcome of appeals. There is a robust and fair process to be followed.

Q: Do the appeals show that SEPA is not fit to regulate sea lice? Will the Scottish Government resume oversight of this issue?

- We took action to identify SEPA as the lead regulator for sea lice and the risks to wild fish in consideration of the Rural Economy and Connectivity and Environment, Climate Change and Land Reform Committees prior findings, and those of the Salmon Interaction Working Group, which raised concerns about management of this issue under planning and made recommendations on a new interactions approach, including that adaptive management should be delivered through licensing.
- We carefully considered who was best placed to develop, consult on and deliver a new framework in line with those recommendations.
- Our regulatory framework provides for a right of appeal, and the Scottish Government will carefully consider the appeals received.

Q: Will Scottish Ministers determine the appeals?

- It is too early to say. A decision on whether Scottish Ministers or a Scottish Government reporter will determine the appeals will be made at a later date. Scottish Government Planning and Environmental Appeals Division (DPEA) is currently working to register the appeals and to consider their onward handling.

Q: The sector says that the framework failed to consider economic impacts – is that correct?

- We are committed to supporting the sustainable growth of the finfish sector through streamlining the consenting regime and through delivering in relation to sea lice interactions.
- SEPA carried out extensive consultation on the development of the new sea lice framework, including an impact assessment of the implications of the proposals for communities, the economy and the environment.
- The sea lice framework is intended to be adaptive and will seek to improve the effectiveness and targeting of the framework whilst minimising negative effects on the economy and communities.

Q: Will the Scottish Government commit to delivering a Business and Regulatory Impact Assessment on the sea lice framework?

- The Scottish Government has no formal plans to conduct a Business and Regulatory Impact Assessment at this stage, however we are committed to working to address uncertainty and sector concerns around the detail of the operation of the framework.
- SEPA conducted an implications assessment as part of its second consultation on the framework, in May 2023. SEPA indicated that they are happy to consider any improvements to the framework which address economic impact, whilst remaining proportionate and ensuring protection of the environment.
- We therefore need to understand fully where the sector's economic concerns lie to ensure we remain focused on the right issues.

Q: Is it the case that SEPA doesn't have powers to improve the environment, only to avoid deterioration – is this a problem?

- SEPA's overall statutory purpose is "to protect and improve the environment in ways that, as far as possible, also contribute to improving health and well-being and achieving sustainable economic growth". This statutory purpose is built into SEPA's 2024-27 Corporate Plan which sets out SEPA's priorities for the coming three years.
- The statutory purpose is clear that SEPA's role is not just to prevent deterioration of the environment but, through delivery of its functions, to improve it. Improvement is embedded into many areas of SEPA's work such as setting waterbody improvement objectives in River Basin Management Plans, remediating contaminated land that is impacting on the environment and through delivery of the Water Environment Fund.
- Where SEPA finds evidence of impact from existing fish farms, it will take action to address the issue and improve the environment.

Q: Should the purpose and content of Environmental Management Plans (EMPs) have been more thoroughly scrutinised before they were implemented? We have heard them referred to as a "missed opportunity".

- I do not agree with the assessment that EMPs were a "missed opportunity".
- EMPs were introduced as an interim measure prior to the implementation of SEPA's sea lice risk assessment framework.
- We advise that local authorities seek EMPs where there is a potential for sea lice interaction between farmed fish and wild fish and these plans form a condition of the planning consent.
- Since implementation of EMPs in 2019, Marine Directorate has continued to have an overarching role to ensure a level of consistency as part of a phased approach to developing and implementing longer-term arrangements.
- It is ultimately a matter for local authorities to determine (in agreement with the applicant) the overall content of the EMP and whether the conditions of planning have been met.

Q: Will the Scottish Government review EMPs?

- The Scottish Government will not review EMPs.
- With the implementation of SEPA's Sea Lice Risk Assessment Framework, we expect EMP's relating to the management of interactions between sea lice from fish farms and wild salmonids will be phased out by the end of 2025.
- Managing sea lice under EMPs was an interim advisory from Scottish Government whilst a new framework to manage sea lice was progressed.

Q: What about other issues covered under EMPs?

- Local authorities may, at their own discretion, place other conditions on development under EMPs – it is a matter for local authorities to ensure those conditions are enforced.

Q: Who is responsible for oversight for science and evidence relating to sea lice and risks to wild salmon? Will the Scottish Government take a lead in this area?

- The Scottish Government's Wild Salmon Strategy and Implementation Plan provides an overarching framework to tackle pressures on wild salmon, and is supported by a Delivery Group and Science and Evidence Board.
- The Science and Evidence Board is chaired by Marine Directorate, and includes experts from a wide range of organisations, including academia.
- Our ambition is to have a coordinated approach to salmon research across Scotland to enable strategic delivery, analysis and publication of scientific data and reports.
- The Scottish Government Marine Directorate is also supporting SEPA in the process of implementing a multi-year programme of environmental monitoring to assess the risk posed by sea lice to wild salmon populations, through their Sea Lice Risk Assessment Framework.

Q: SEPA's sea lice risk assessment framework will not work. Will the Government commit to moving forward at pace on other pressures impacting upon wild salmon?

- SEPA is taking an adaptive approach to implementation of its sea lice regulatory framework. We are supporting SEPA in the process of implementing a multi-year programme of environmental monitoring to understand the effectiveness of the framework.
- On mitigating other pressures, the Scottish Government IS moving forward at pace; we published the Scottish Wild Salmon Strategy in January 2022 with associated 5 year Implementation Plan following in February 2023 whilst also establishing a Delivery Group to oversee the 60 or so actions contained therein and a Science and Evidence Board to advise.
- This work cuts across five key themes including:
    - improving the condition of rivers and giving salmon free access to cold, clean water
    - managing exploitation through effective regulation, deterrents and enforcement
    - understanding and mitigating pressures in the marine and coastal environment
    - making a positive contribution through international collaborations, and
    - developing a modernised and fit for purpose policy framework.
- The first annual progress report under the Implementation Plan was published in March 2024 and the second annual report is being prepared now for publication in the near future.

Q: What is the Scottish Government doing to better understand migratory routes?

- SEPA's sea lice risk assessment framework will work on an area basis and consider cumulative risks. The data collection phase of the West Coast Tracking Project is now complete.
- Tagging and tracking of wild salmon smolt migration was undertaken in 2021, 2022 and 2023 in a partnership project between Marine Directorate, Fisheries Management Scotland and the 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 SEPA's sea lice risk assessment framework.

Q: What is the Scottish Government's interpretation of the precautionary principle?

- Scottish Government has published guidance on the precautionary principle which is about risk management and adaptive management. The precautionary principle, as it relates to the environment, is defined in the UN Rio Declaration on Environment and Development 1992 as, "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". This intention was reflected in the EU precautionary principle and developed through Commission publications and case law.
- The precautionary principle enables proportionate decision-making in areas of scientific uncertainty that allow for protective measures to be taken without having to wait until the hazard or harm is realised.
- In the case of the management of sea lice interactions – there is a presumption against development on the north and east coasts of Scotland (where there is the greatest wild salmon populations) and we've sought to support the sector to maintain as low as possible lice levels on the west coast.
- The SEPA sea lice risk assessment provides a risk management and mitigation tool, in line with the precautionary approach.

Q: I am informed that SEPA's framework doesn't cover all migratory routes. Will Scottish Government implement an immediate end to the siting of farms in the close vicinity of known migratory routes?

- The risk posed by sea lice from fish farms is not solely predicated on proximity of salmon farms to migratory routes, but influenced by the farm's location, the number of fish on the farm, the farm's sea lice management measures, the behaviour of the surrounding water environment and the potential for cumulative effects, such as the interaction and number of additional farms in the environment.
- SEPA's Sea Lice Risk Assessment Framework has been designed to assess and manage this risk.
- All proposed fish farm developments, irrespective of their location, are subject to an appropriate risk assessment. If this assessment concludes a development is incompatible with the protection of wild salmon populations, SEPA will not grant authorisation.

Q: Is Scotland meeting international goals (NASCO set goals for 100% of farms to have effective sea lice management, 100% farmed fish to be retained in production facilities)?

- We are working towards effectively regulating sea lice emitted from fish farms and strengthening the escapes regulatory regime in Scotland.
- SEPA commenced the implementation of a new risk-based framework to protect wild salmon populations from sea lice from fish farms on 1 February 2024. From March 2025 implementation of a framework for protection of sea trout populations will commence.

- We remain committed to explore how to strengthen the escapes regulatory regime. On escapes, the evidence suggests a general downward trend in numbers of fish escaping, and whilst we can't infer the exact reasons for this pattern, we expect that escape incidents will have reduced overall as the sector's understanding and implementation of best practice has evolved. This has likely been further aided through the introduction of the Record Keeping Order and the Aquaculture and Fisheries (Scotland) Act 2007 and the associated requirement for "satisfactory measures" for containment and the FHI risk-based inspection regime.

FARMED FISH ESCAPES

Q: The Salmon Interactions Working Group recommended a single regulator for interactions – will the Scottish Government identify SEPA as the relevant regulator for escapes?

- The Scottish Government has no plans to identify SEPA as the lead regulator for escapes from fish farms in Scotland.
- There is an existing and robust regime relating to escapes in Scotland.
- The Fish Health Inspectorate assesses whether satisfactory measures are in place for the purposes of the containment of fish and the prevention of escape of fish. Where satisfactory measures are found not to be in place, Scottish Ministers may serve an enforcement notice.
- The Scottish Government is continuing to explore options to consider how best to deliver a new Technical Standard for Scottish Finfish Aquaculture. We remain committed to working with the sector to reduce the risk that fish escape from fish farms.
- In our response to the Salmon Interactions Working Group report in October 2021, we also committed to exploring ring-fencing fees for wild salmonid conservation and research.

Q: Where is the delivery of your escapes commitments? Why has there been no progress?

- Progress has been made - we've invested and improved our science and evidence base for escapes.
- A new National Electrofishing Programme for Scotland (NEPS) survey (incorporating genetic sample collection for the National Introgression Programme for Scotland and water quality sampling) was undertaken in summer 2023. The paper is expected to be complete by the end of March 2025 and will help to inform our work.
- We've also published a Code of Good Practice for the containment and prevention of escapes of fish on fish farms in relation to marine mammal interactions (2021).
- However I do accept we have outstanding commitments on the Technical Standard and fines for fish farm escapes.
- We chose to prioritise work to deliver the SEPA sea lice framework, recognising that this was a regulatory gap identified by Committee and there is already an effective regime for escapes in operation.

- I must be clear that escaped farmed fish do not always lead to impacts – that is why it is important that we start to build a picture of introgression across Scotland – and I would highlight good practice by the sector to fund introgression research following escape events, such as the Mowi research following the escape of 50,000 fish at Carradale, and which did not find evidence of introgression.
- We'll continue to make difficult prioritisation decisions within the context of our aquaculture commitments, and broader initiatives taking place in Marine Directorate, in addition to priority areas of interest under the Wild Salmon Strategy which considers the range of pressures affecting wild salmon.

Q: What progress has been made on delivering on the Salmon Interactions Working Group recommendations on escapes and Programme for Government commitment to new Technical Standard for Scottish Finfish Aquaculture?

- We remain committed to working with the sector to reduce the risk that fish escape from fish farms, including revision and publication of the Technical Standard for Scottish Finfish Aquaculture, which is well developed.
- I have made the decision to prioritise financial penalties on escapes over the updated Technical Standard as a result of resource constraints within Scottish Government, but also given the views of our external partners which we rely on to deliver almost all of our work. This also takes into account that there is an existing technical standard in operation and we are confident in the actions being taken by the sector to fulfil their responsibilities to reduce the risk of escapes.
- I would highlight we've found the Technical Standards can become quickly outdated and therefore we are exploring how best to introduce ongoing updates to the standard and ensure responsiveness of the document to changes in what is considered best practice within the sector.

Q: Does the Scottish Government take a precautionary approach to managing escapes – is the equipment on fish farms inspected?

- Yes – we have adopted risk, adaptive management and a precautionary principle approach across all regulation.
- There is a presumption against fish farming development on the North and East coasts of Scotland to protect migratory fish and where 80% of Scotland's migratory fish stocks live – that is a very blunt tool to mitigate risk.
- In the aquaculture zones, the risk of escapes is mitigated through Environmental Impact Assessment processes under the planning regime and through ensuring equipment is as suitable as possible for the chosen location.
- During the lifetime of the farm it will be inspected by the Fish Health Inspectorate to establish that satisfactory measures are in place to contain fish and prevent escapes, with a range of sanctions available where non-compliance is identified.
- Inspections are also risk based – so that those with near misses or incidents of escapes are prioritised.

Q: How can you be sure all farms are reporting escapes incidents?

- The Fish Health Inspectorate (FHI) conducts inspections to ascertain the risk of escape from a fish farm, whether an escape has occurred, and assess the measures in place for containment on the fish farm.
- These inspections are conducted via a routine of risk-based surveillance based on the history of the site and operator.

- The FHI may also conduct unannounced inspections and will investigate reports of escaped fish from members of the public.
- The operator of an Aquaculture Production Business (APB) is required to immediately notify Scottish Ministers if they believe an escape or a significant risk of an escape of fish has occurred.
- Failure to comply with the requirements of the Aquatic Animal Health Regulations may result in service of an enforcement notice, suspension or revocation of the authorisation to operate as an APB or proceedings for an offence.

Q: What evidence does the Scottish Government have on the number of escapes in Scotland?

- The existing regulatory framework requires the circumstances which give rise to a significant risk of escape or escape of fish on, or in the vicinity of a fish farm to be reported under the Aquatic Animal Health Regulations (Scotland) 2009 (as amended).
- The Scottish Government collects evidence through reports from fish farm operators when escapes or incidents that give rise to a significant risk of escape occur. This evidence includes the site at which the incident occurred, the reason for the incident occurring, and how many fish escaped.
- The evidence collected to date from fish farm operators demonstrates that weather incidents are responsible for the largest number of fish escaping from fish farms in Scotland, accounting for approximately 50% of total fish escaped. Holes in nets and predation are also listed as responsible for significant numbers of fish escaping.
- There is a general downward trend in numbers of fish escaping, and whilst we can't infer the exact reasons for this pattern, we expect that escape incidents will have reduced overall as the sector's understanding and implementation of best practice has evolved.
- This has likely been further aided through the introduction of the Record Keeping Order and the Aquaculture and Fisheries (Scotland) Act 2007 and the associated requirement for "satisfactory measures" for containment and the FHI risk-based inspection regime.

Q: Why were details of the escape of 80,000 fish not published on Scotland's Aquaculture Website?

- We are aware of an escapes incident that occurred in February 2023 where 80,000 fish escaped from a wellboat, which is disappointing.
- Wellboats are commonly used in Scotland to transport fish, however reported escapes from wellboats are a rare occurrence.
- It is not currently a legal requirement for farmed fish transporters to report farmed fish escapes. However in this instance, the operator has followed best practice and made a notification.
- Farmed fish escapes are normally registered to fish farms in our Aquadat database system, and information is subsequently published on Scotland's Aquaculture Website.
- This gap has occurred due to the source of escape and we will consider the issue of reporting and transparency further.

Number of escaped fish (all species) by year (10 May 2002-31 December 2023)

Year	Escape #	Year	Escape
2002	354,161 (after 10 May)	**2013**	40,754
2003	161,438	**2014**	184,618
2004	100,594	**2015**	18,096
2005	901,653	**2016**	11,766
2006	204,736	**2017**	31,161
2007	210,643	**2018**	53,301
2008	73,031	**2019**	70,307
2009	141,165	**2020**	206,522
2010	37,963	**2021**	19,738
2011	415,771	**2022**	56,381
2012	40,957	**2023**	80,007

- Source: Aquadat (deregistered sites are included).
- Annual Fish Production in tonnes includes Atlantic Salmon, Rainbow Trout, Other Species (Arctic charr, Brown trout, Cod, Halibut). Numbers exclude Salmon Smolts Ova production (which is reported in numbers, not weight).
- The legislative requirement to report escapes or circumstances that give rise to the risk of escape, on or near fish farms, came in to force on 10 May 2002.

ENVIRONMENTAL IMPACTS: DISCHARGES (INCLUDING EMBZ) ANNEX H

RAI committee recommendations and key commitments in response

RAI COMMITTEE RECOMMENDATIONS –- SECTION 3
Paragraph 160. (SUPPORT MONITORING, DATA COLLECTION AND RESEARCH – SEABED ANALYSIS) Recommends the Scottish Government continue to **support monitoring, data collection and research to improve the understanding and assessment of the impact of discharges on the marine environment.** Recommends Scottish Government **prioritise supporting SEPA in the development of techniques to accelerate the analysis of seabed survey samples** as a matter of urgency and ensures SEPA has sufficient expertise and capacity to analyse seabed samples.
RESPONSE TO PARA 160 • SEPA and fish producers have been collaborating on a research project supported by the Sustainable Aquaculture Innovation Centre to develop the use of DNA to assess seabed impacts. DNA-based monitoring enables much faster analysis of environmental samples than conventional techniques. • The option for using DNA based monitoring was introduced by SEPA in 2022. The second phase of DNA development is due to deliver in the next few months. Following completion of phase 2 and a review of increased data sets, SEPA hope to be able to extend the scope (the number of farms where DNA monitoring is suitable) of DNA-based monitoring by the end of 2025. Discussions are on-going about a third phase of the project, including how funding could be secured. • SEPA is also collaborating on separate research projects aimed at using imagery and Artificial Intelligence to assess impacts on otherwise difficult to assess seabed types. These are currently being trialled at a number of farms. Scottish Government remains committed to facilitating, where possible, innovative projects like these which can make a real difference and deliver on blue economy ambitions. We have previously supported work on eDNA through our Marine Fund Scotland and the co-coordinated Agenda for Marine, Environment and Rural Affairs Science Partnership and Rural and Environmental Science and Analytical Services.
Paragraph 174 (SEPA REVIEW ITS 2018 RESEARCH REPORT TO ASSESS IMPACT OF MEDICINE USE) Recommends that SEPA **review its 2018 research report to assess whether salmon farm medicine use is still "significantly impacting" local marine environments or if the tighter standards introduced in the interim period have mitigated the impact alongside their current plans to research, monitor and address the impacts** of medicine use. **Paragraph 175 (NEW EQS FOR EMBZ)** The Committee is concerned by the proposed four-year implementation period for the introduction of a revised environmental quality standard for emamectin benzoate, given the environmental risks from the chemical. It **recommends the**

Scottish Government considers whether an expedited timetable may be appropriate.
RESPONSE TO PARAS 174 AND 175 • SEPA is committed to ensuring that its regulatory framework is based on best available evidence and provides protection for Scotland's marine environment, upon which the fish farming sector and many others depend. • I do not consider that an expedited timetable for the new EQS is appropriate. Ministers accepted the recommended timescales for the introduction of the new EQS, following a public consultation which took place from 24 April to 24 July 2023. Four sets of Directions regarding environmental standards came into force on 01 February 2025, with the standard for EmBz coming into force on 6 June 2028.

Top lines

- I recognise the important work that SEPA does, and the continued collaboration undertaken throughout the development and implementation of the new sea lice framework alongside its wider regulatory framework.
- SEPA has completed the transfer of all active farms onto its revised regulatory framework for managing farm discharges which introduced enhanced predictive modelling, tighter seabed standards and increased environmental monitoring.
- I have confidence in SEPA's approach to protecting the environment and their approach to adaptive management.
- SEPA operates on a cost recovery basis and so I have full confidence that they have the resources required to ensure effective regulation of the sector. SEPA's aim is to remain proportionate however, and considerate of the impacts of monitoring regimes on business.

Q&A

Q: Do you have confidence in SEPA's ability to effectively regulate?

- I have full confidence in SEPA's ability to carry out its regulatory functions.
- As a regulator SEPA must ensure its approach to protecting and, where necessary, improving the marine environment is proportionate and evidence led.
- SEPA has refined and improved its framework for managing discharges from fish farms first introduced in 2019, and in February 2024 introduced a risk-based framework to manage interactions between sea lice from farmed fish on wild salmon.
- SEPA will require more years of data collected through these frameworks to understand if further regulation is required.
- I look forward to continued progress and further supporting SEPA on the development of its regulatory framework.

Q: Does SEPA have sufficient resource to enforce its regulations?

- SEPA, along with other environment bodies, plays a pivotal role in protecting and maintaining a safe, healthy and sustainable environment for the people of Scotland. This is achieved through funding from Scottish Government alongside SEPA's regulatory activities funded by cost recovery under the principle of polluter pays.

- The budget settlement for 2024-25 recognised the increasing level and quality of work being delivered by SEPA which is why despite such challenging financial circumstances, the organisation benefitted from an 5% uplift to its core funding, bringing its core budget to £52.6 million in 2024-25.
- In 2022 SEPA increased its CAR licence fees to ensure cost recovery relating to the introduction of its framework – the increase was delayed to allow businesses to recover from the impacts of Covid.

Q: We need improved transparency on environmental performance - when will SEPA's Compliance Assessment Scheme be delivered?

- SEPA is developing, and will shortly consult on, a new Environmental Performance Assessment Scheme. This will ensure information on farm compliance, including medicine use, biomass compliance and outcome of seabed surveys, is visible and continues to be robust.

Q: Does SEPA compromise either fish health or the environment for the sake of the other?

- Improving fish health and reducing environmental impact are equally important – both need to be addressed to achieve sustainability, it is not a question of priority of one over another.
- The Scottish Government 's sea lice management policy implemented by the Fish Health Inspectorate safeguards farmed fish health and takes account of the levels of sea lice which impact on fish health.

NEW ENVIRONMENTAL QUALITY STANDARD FOR EMAMECTIN BENZOATE

Q: Can you provide an update on progress on a new Environmental Quality Standard (EQS) for emamectin benzoate (EmBz)?

- Ministers have accepted the recommended timescales for the introduction of the new Environmental Quality Standard for emamectin benzoate.
- The EQS for EmBz was derived by the UK Technical Advisory Group (UKTAG) using all available, reliable and relevant data and following internationally accepted guidance.
- A public consultation on the timescale for implementing the new EQS took place from 24 April to 24 July 2023.
- Four sets of Directions regarding environmental standards came into effect on February 1, 2025, with the EQS for emamectin benzoate coming into force on June 6, 2028.

Q: Is the UKTAG recommendation robust? How do you know it will protect the environment?

- The main work of developing environmental standards for use in the UK has been carried out by the UK Technical Advisory Group for the WFD (UKTAG). This is a partnership of technical experts from the UK environmental protection and conservation agencies, as well as representatives from the Republic of Ireland.
- The UKTAG methodology used to make the recommendation is scientifically robust and includes obtaining independent scientific peer reviews of the evidence.

- The lower value for the emamectin benzoate Environmental Quality Standard (EQS) has been calculated using a rigorous assessment of the impacts on aquatic life.
- The change in EQS for emamectin benzoate will fulfil commitments made to the Scottish Parliament following the 2017/18 parliamentary inquiries.
- As part of continuous improvement, **SEPA will continue to review the results of its monitoring and any new science and evidence as it emerges.**

Q: We called for urgent action on SLICE in 2018 - why has the Scottish Government shown a lack of urgency and allowed a 4-year transition period?

- While we recognise the environmental persistence of EmBz and the need to address this, we also recognise the importance of SLICE as an infeed sea lice medicine.
- A public consultation that sought stakeholders' views on the timescale for implementing the new EQS for EmBz took place between 24 April and 24 July 2023.
- Ministers accepted an appropriate implementation period to allow the sector to plan for a reduction on EmBz use and make changes to their proposed fish health treatment strategies as a result.
- Four sets of Directions regarding environmental standards came into effect on February 1, 2025, with the EQS for emamectin benzoate coming into force on June 6, 2028.

Q: How has environmental performance improved over recent years?

- I am aware that the previous Committee inquiries raised concerns on the environmental impact and fish health challenges which the sector faces, and we have prioritised action in these areas:
    - In June 2019, SEPA implemented its new regulatory framework for regulating discharges of organic matter, medicine and chemicals, for all new and expanding farms. The transfer of all active farms has been completed.
    - SEPA as the lead regulator, commenced the implementation of a new sea lice framework to protect wild salmonid populations from 1 February 2024.
    - Our National Planning Framework 4 (NPF4) was published in February 2023 and the Aquaculture Policy within makes clear the need to minimise adverse effects on the environment, including cumulative impacts.
    - The new National Marine Plan 2 (NMP2) is under development and will act as companion document alongside NPF4. The updated NMP2 will continue to guide all marine licensing and consenting decisions.

Contact: [Redacted – Regulation 11(2)]**,** [Redacted – Regulation 11(2)] **– Marine Directorate**
Date when the information was last updated/reviewed:
12 March 2025

RAI COMMITTEE RECOMMENDATIONS –

PARAGRAPH 57

Recommends **Scottish Government establish a research project focused on testing and improving the modelling of environmental conditions that are known to cause high mortality events on salmon farms**.

Research should aim to explore improvements in the capability to predict such events to provide early warning to industry and inform technological solutions and approaches to husbandry to mitigate high mortality events. Research should also consider whether the current collection and monitoring of environmental conditions around salmon farms is sufficient for computer modelling purposes and identify potential for improvements. Committee asks the Cabinet Secretary to set out a timetable for establishing this research project in her response to this report.

RESPONSE

- Research has been undertaken into aspects of climate change that impact salmon farming in Scottish waters and it is right to recognise this as an important issue for fish health and welfare.
- The Farmed Fish Health Framework (FFHF) steering group has identified four key priority risks for salmon mortality, all of which have a degree of relationship with changing climatic conditions; anoxia, harmful algal blooms, micro jellyfish (a subset of zooplankton), and amoebic gill disease.
- Projects have been undertaken in all these areas, including several by the Sustainable Aquaculture Innovation Centre (SAIC) funded by the Scottish Government.
- Further research on these issues is a priority for the sector and for the Scottish Government who both provide funding and direction in multiple ways.
- We continue to do this through the FFHF Steering Group, the collaboration within Marine Alliance for Science and Technology Scotland (MASTS), and via the Sustainable Aquaculture Innovation Centre (SAIC) consortium and networks. We will engage with the Chief Scientific Advisor (Marine), Professor Mark Inall, and ensure these aquaculture priorities are factored into the strategic approaches to marine science under his leadership.
- We do not believe a single dedicated research project owned by the Scottish Government will be the most appropriate and effective way of ensuring that the anticipation and mitigation of climate harms affecting salmon aquaculture is a core focus across all the relevant scientific work in Scotland and beyond.
- The role for Government continues to be to act as an enabler, to support collaboration, communication and direction to aid the development of a complete and coherent research programme across academic and salmon producer communities.
- We are in the process of designing and implementing successor arrangements, for the sustainable aquaculture innovation centre when the transition arrangements run out in 2026, which will ensure there remains a mechanism through which aquaculture innovation projects can be coordinated and funded.

- We will ensure the design and governance of these arrangements facilitate ongoing engagement with the challenges that climate change brings to the salmon farming and other aquaculture sectors.

PARAGRAPH 60

Recommends the Scottish Government **continue to support monitoring, data collection and research to improve the understanding and assessment of the impact of discharges on the marine environment.**

Recommends that the Scottish Government **prioritise supporting SEPA in the development of techniques to accelerate the analysis of seabed survey samples as a matter of urgency and ensures SEPA has sufficient expertise and capacity to analyse seabed samples.**

RESPONSE

- SEPA and fish producers have been collaborating on a research project supported by the Sustainable Aquaculture Innovation Centre to develop the use of DNA to assess seabed impacts. DNA-based monitoring enables much faster analysis of environmental samples than conventional techniques.
- The option for using DNA based monitoring was introduced by SEPA in 2022. The second phase of DNA development is due to deliver in the next few months. Following completion of phase 2 and a review of increased data sets, SEPA hope to be able to extend the scope (the number of farms where DNA monitoring is suitable) of DNA-based monitoring by the end of 2025. Discussions are on-going about a third phase of the project, including how funding could be secured.
- SEPA is also collaborating on separate research projects aimed at using imagery and Artificial Intelligence to assess impacts on otherwise difficult to assess seabed types. These are currently being trialled at a number of farms.
- Scottish Government remains committed to facilitating, where possible, innovative projects like these which can make a real difference and deliver on blue economy ambitions. We have previously supported work on eDNA through our Marine Fund Scotland and the co-coordinated Agenda for Marine, Environment and Rural Affairs Science Partnership and Rural and Environmental Science and Analytical Services.

PARAGRAPH 161

Recommends the Scottish Government **work with industry and academia to establish dedicated research pens. Recommends that industry should contribute to the cost of financing this infrastructure.**

RESPONSE

- We have discussed the concept of innovation sites with the sector on several occasions and SEPA is committed to discussing and understanding any proposals for research pens in Scotland.

- In principle, we are in favour of enabling such a facility or facilities, but many questions remain about what sort of requirements the sector and others would want and how those mesh with existing environmental and other safeguards.
- With the sector's support, we have prioritised work to deliver a new coordination structure for aquaculture innovation which will provide continuity in the core functions of the Sustainable Aquaculture Innovation Centre once its transition period ends in 2026.
- We will take forward further discussions on innovation sites, and with the new innovation vehicle when it is ready, to consider how innovation sites could be part of the aquaculture research ecosystem in Scotland.
- Separately, we expect sentinel pens will be utilised in the next year to support SEPA's Sea Lice Risk Assessment Framework as part of the monitoring strategy underpinning the Framework, gathering information on sea lice pressure in the surrounding area, led by, and facilitated by, the salmon farming sector.

PARAGRAPH 200

Recommends the Scottish Government **investigate and report on the current use of, and potential feasibility of the mandatory use of, biomarkers. This work should also aim to develop a protocol for the forensic investigation of escaped farmed fish.**

RESPONSE

- We must remain proportionate in our action. The risk to wild salmon from genetic introgression is dependent on numerous factors such as the age of the fish, location and how many fish escape into the environment.
- We already have powers and protocols which have been utilised to investigate the origin of escaped farmed fish. There are existing powers in the Aquaculture and Fisheries (Scotland) Act 2013 which provide for the Fish Health Inspectorate to take, or require, samples from fish to determine from which fish farms fish have escaped.
- Genetic sampling techniques have been successfully used in freshwater in Scotland in the Loch Shin system.
- The issue of biomarkers was raised in the context of it being a potential additional tool to help trace the origin of escaped fish and it is particularly relevant where escaped fish of farmed origin appear which cannot be linked to recent escape incidents.
- This is not a commonly reported occurrence in Scotland and, where we have had cases in the past, such as in Loch Shin, we have taken other action to investigate those.
- However, we are aware of developments in Norway whereby some of the salmon farming sector funds a central database to help with tracing and understand this is done on a voluntary basis. Officials will engage with the salmon farming sector to determine if a similar approach might be appropriate in Scotland.

PARAGRAPH 260

Relocation of sites must be done with a full understanding of the environmental and fish health and welfare risks associated with the relocation of fish farms, as well as the economic and social impact on fish farm staff and local communities.

Recommends the Scottish Government **commission research to assess the potential risks and benefits of moving fish farms further from the coast and to more exposed or higher energy flow sites.**

RESPONSE

- We agree there should be robust assessment of new development proposals, including those which seek to relocate existing biomass into alternative locations. Assessment of environmental, fish health and social and economic impacts is a key requirement of the fish farm consenting and leasing system and will continue to be the best place to consider individual development proposals on their own merits
- The onus is on the fish farm developer to provide sufficient evidence to satisfy those regulatory requirements.
- A variety of projects have been taking place, led by Scotland's regulators and innovation and academic institutions, to support Scotland's fish farming sector to move into more exposed locations. This includes, for example, the Off-Aqua project[2] led by the Scottish Association for Marine Science delivered in collaboration with a variety of partners to consider the potential benefits of 'offshore' aquaculture in Scotland.
- SEPA is responsible for assessing the risk to the coastal water environment from proposed fish farm developments, including developments in exposed or high tidal energy locations.
- Modelling of Scotland's environment supports that higher energy locations provide for increased environmental capacity to handle fish farm discharges whilst supporting greater capacity for fish health treatments and medicine use.
- All production companies carefully assess where to position new or reposition existing farm sites to best meet their particular production approaches. Based on their experience in their Scottish estate and fish farming operations in other nations, we see greater interest in how companies want to manage sites based on energy flow.
- It is unlikely to be a case that one-size-fits-all in terms of siting, and it will remain important for businesses to make choices about their operations that best meets their specific needs. Production imperatives are strongly aligned with health and welfare imperatives, and we are confident this is prioritised in farmers' decision making.
- There may be an opportunity to explore further questions in relation to more exposed farm sites through the use of innovation farm sites, and this is something that can be further considered once the initial phase of establishing the successor for the Sustainable Aquaculture Innovation Centre innovation funding work has been completed.

Key Commitments in Response

Science and Innovation

- We will continue to engage with the Farmed Fish Health Framework Steering Group, the Marine Association for Science and Technology and the Sustainable Aquaculture Innovation Centre to provide direction and focus to ongoing research programmes [**2025/2026 and beyond**]

- We will also engage with the Chief Scientific Advisor (Marine), Professor Mark Inall, to ensure aquaculture priorities are factored into the strategic approaches to marine science under his leadership, including through implementation of our Marine Science and Innovation Strategy, and publication of an Areas of Research Interest Paper to identify and enable research priorities and knowledge transfer to key communities of interest [**2025/2026**]

- Deliver a new coordination structure for aquaculture innovation in Scotland beyond the Sustainable Aquaculture Innovation Centre transition period **[2026]**, taking further discussion on innovation sites with the sector and others when this innovation vehicle is ready **[2027/2028]**

- We will continue to support projects which deliver on our blue economy objectives, including through the Marine Fund Scotland, including projects such as work to progress eDNA benthic sampling **[ongoing]**

- Officials will engage with the salmon farming sector to determine whether sector led voluntary biomarker databases are appropriate for Scotland **[2026/27]**

TOP LINES

INNOVATION

- Innovation is key to the sustainable development of Scotland's aquaculture sector and to addressing many of the key challenges it faces, as set out in our recently published Vision for Sustainable Aquaculture.
- It is through innovation that the sector is responding to the pressing challenges posed by the climate and biodiversity crises and relating to fish health & welfare and mortality.
- We are working with stakeholders to develop long-term arrangements for the support of aquaculture innovation beyond 2026 and expect to announce plans later this year.
- We announced in 2024 £1.5m transitional funding to support the Sustainable Aquaculture Innovation Centre (SAIC) through to March 2026.

SCIENCE

- We recognise the important role science and evidence plays in helping deliver robust and effective regulation and policies.
- It also underpins crucial R&D development which will helps the sector respond to challenges and opportunities.
- We continue to invest in developing our science and evidence base – for example progressing collaborative science to develop sea lice models and publishing Scotland's first national assessment of genetic introgression.

- We are taking steps to help coordinate that research – we are embedding aquaculture priorities into the delivery of our Marine Science and Innovation Strategy and working collaboratively with other organisations.
- Following the Scottish Science Advisory Council's report, we have appointed Professor Mark Inall as our Chief Scientific Advisor (Marine).
- Professor Inall's appointment, along with our Marine Science and Innovation Strategy published in January 2024, demonstrates our continuing commitment to science and evidence as the fundamental foundation to all our marine and freshwater policy work.
- Following a process engaging with the academic community, this year we will publish our Areas of Research Interest for Marine and freshwaters, including aquaculture, to identify and enable research priorities that will lead to knowledge transfer and generating relevant science.

Q&A
INNOVATION

How are you supporting aquaculture innovation?
- We have made £1.5m transitional funding available to SAIC to sustain operations to 2026 and are working with stakeholders to develop long term arrangements which we expect to announce later this year.
- We are supporting innovation through the Marine Fund Scotland which has awarded over £4.5 million to aquaculture innovation projects, which will enable over £17 million of investment across the sector in 2024/25.

What action are you taking to support the development of test or innovation sites?
- Innovation does not need to be tied to one site – and in reality, I see innovation taking place across the sector in its development applications.
- In principle, we are in favour of exploring dedicated innovation sites further, but questions remain about what sort of requirements the sector and others would want and how those mesh with existing environmental and other safeguards.
- We are committed to finalising our work on ensuring long term support for innovation as a priority, before moving on to work with the sector to on innovation sites, expecting that the new entity will be able to bring considerable value to how this work is taken forward.

Q: Is there a need for regulation to anticipate new technologies? Can the consenting system keep up?
- Innovation is key for Scottish aquaculture's development and we encourage innovators to come forward to engage with relevant regulators at the earliest point to understand their requirements.
- In general, current regulation should deal quite well with operation of new technology as concerns may broadly be the same – containment, parasites, diseases, environmental impact and welfare.
- However, I am aware that to foster innovation and increase investor confidence, we need to deliver a more responsive consenting system, which is being considered and delivered by the Consenting Task Group.

- Action is being taken where we can to create additional levers or benefits for innovative developments, for example, the reduction in SEPA's CAR licence fee for waste capture technologies.

Q: The Scottish Government is still sitting on an appeal relating to Loch Long Salmon's semi-enclosed containment proposals – does the Cabinet Secretary think this is encouraging innovation?

- The report and recommendation from the reporter have been undergoing full and proper consideration and a decision will be issued as soon as possible.
- The appeals process is an important check and balance provided for in our consenting system.
- More, broadly, we're working through the consenting task group to re-focus efforts on early and meaningful pre-application consenting discussions which lead to quick and informed consenting decisions.

Q: Where do you see aquaculture innovation priorities?

- While improving finfish health and welfare and reducing mortalities is vital, we also see growing the shellfish sector, mitigating climate change, reducing adverse environmental impacts and enabling greater exploitation of big data and AI as vital to the long-term success of the sector.

SCIENCE

Q. What is the Government doing on aquaculture science?

- The Scottish Science Advisory Council's report on the use and communication of science in aquaculture consenting, commissioned by Scottish Government, was published in April 2023.
- To introduce a strategic approach to science delivery, we published our Marine Science and innovation Strategy in 2024 which will help direct science funding to strategic outcomes, explore the role of new technology, and deliver value for money.
- We've also recently appointed a Chief Scientific Advisor (CSA) Marine, Mark Inall to provide independent advice to Scottish Ministers and policy makers.
- This includes carrying out an "Areas of Research Interest scoping exercise" for marine and fresh water, supported by our Chief Scientific Adviser for Marine.
- Once published later this year, it will help align UK research activity more closely with SG priorities, including on aquaculture. ARI's are important for Governments to communicate their strategic research and science and evidence needs.

Q: When will you respond to the Scottish Science Advisory Council's report on aquaculture consenting science?

- There will be no official response to the SSAC's report – that is not our normal practice or arrangement with the SSAC.
- However – we will make progress on the issues raised. We know we have work to do on science, working to build on our already strong foundations of partnership working seen in Scotland to deliver on strategic areas of interest and which support sustainable salmon farming in Scotland.

- The role for Government continues to be to act as an enabler, to support collaboration, communication and direction to aid the development of a complete and coherent research programme across academic and salmon producer communities
- Building on our Marine Science and Innovation Strategy and the appointment of the CSA marine, we intend to work with our stakeholders and our academia network, including Marine Alliance for Science and Technology for Scotland (MASTS) Aquaculture Forum, to consider how best to coordinate and develop that strategic research agenda.
- We are currently inviting input from the MASTS community to help us develop our Areas of Research Interest, to help guide research and development to Scotland's priority research and evidence needs.

Q: What does the Marine Science and Innovation Strategy do?

- Science and Innovation is essential for robust policy development, delivering the best value for Scottish taxpayers and the best outcome for the environment.
- Science and technology funding has been prioritised as part of the Marine Directorate allocation process and has been directed towards the six strategic outcomes as outlined in the Science and Innovation Strategy.

Q: Why aren't industry more involved in gathering data and science research?

- There are many areas of collaboration with industry.
- Scottish Government is keen to explore more opportunities and recognise there is real appetite for more from the marine sector. However there are some barriers that need working through, including ensuring data and information can be used for management and securing the MD resources needed to initiate new work.
- Whilst some data and research is Government led, we are also actively see and encourage academic and private partnership working and salmon farming in Scotland has long history of seeking applied research to help with opportunities and challenges.

Q: Why isn't Government delivering more aquaculture science?

- Our scientists are involved in a variety of projects to support our evidence base to ensure that regulation remains appropriate.
- For example, we've been investing in improving our understanding of the potential impacts of escaped farmed fish in Scotland.
- A new National Electrofishing Programme for Scotland (NEPS) survey (incorporating genetic sample collection for the National Introgression Programme for Scotland and water quality sampling) was undertaken in summer 2023, the results of which will build on Scotland's first assessment of introgression delivered in 2021.
- However, it is not for the Government alone to deliver all of the science and evidence needs of a sector. Scottish Government hold a convening role - we need to ensure that we facilitate and encourage collaborations between stakeholders to identify and deliver on Scotland's strategic evidence needs, whilst seeking to achieve best value of our public resources.

Q: Do we know enough about farming in those environments to issue fish farm consents?

- The fish farm consenting system continues to be the best place to consider the merits of individual developments on a site by site basis, and the onus is on the operator to submit sufficient evidence to the EIA and other processes to allow thorough consideration before determination.
- However we know from the sectors domestic and global experience, that operating in higher energy locations can be beneficial for the environment and for fish health and welfare. Innovation is this area highlights the ongoing importance of adaptive management to support salmon farming in Scotland.

ECONOMIC IMPACT AND COMMUNITY BENEFIT ANNEX J

RAI committee recommendations

- **No new recommendations on economic impact**

COMMUNITY BENEFIT

Paragraph 302. Recommends that the Scottish Government **consults with relevant stakeholders and affected communities to develop good practice principles for community benefits for aquaculture developments.** These should aim to create greater transparency around community benefit packages and ensure they are tailored to the characteristics of each development and their local communities. The Committee also agrees that **community benefit funds should consider the priorities of communities through a social contract in the consenting regime** as recommended by the 2022 review of the aquaculture regulatory process in Scotland.

RESPONSE

Our Vision for Sustainable Aquaculture commits to ensuring that communities which host aquaculture are engaged in the sector's development, share in its success and are supported through a range of lasting benefits.

Through Crown Estate Scotland, we have already seen an increase in fish farm rents, which in turn has increased funding available to coastal communities for community benefit, and lease fees are set to increase to 1.5% of notional turnover from 2026.

We will explore with our stakeholders, including local Government, the sector, Crown Estate Scotland and Highlands and Islands Enterprise Agency, how we can build on existing practice to ensure that funds and/ or community social contracts deliver on community priorities, including through the development of good practice principles for community benefit from aquaculture development. We will commence scoping work in 2025/2026, with a view to commencing delivery beyond the 2026 Crown Estate Scotland lease fee increases.

TOP LINES:

- We support Scotland's successful aquaculture sectors and are determined to support them to continue to provide economic and social benefits within sustainable environmental limits for the long term.
- Communities which host aquaculture should be engaged in the sector's development and share in its success through a range of lasting benefits including the provision of employment opportunities.
- Our Vision for Sustainable Aquaculture set out our ambition for the sector to be recognised as one which is flourishing, attracting investment and delivering significant economic benefit to Scotland through domestic and international trade and through its supply chain.
- The Vision also commits to ensuring that communities are supported through the provision of highly skilled employment opportunities, access to healthy local foods and other lasting benefits arising from aquaculture, and that communities are engaged in the sector's development, share in its success and are supported through a range of lasting benefits.
- We have already seen an increase in fish farm rents by Crown Estate Scotland, which in turn has increased funding available to coastal communities for community benefit, and lease fees are set to increase to 1.5% of notional turnover from 2026.
- We will explore with our stakeholders, how we can develop good practice principles for community benefits building on existing practice to ensure that funds deliver on community priorities.
- The recently published NMP2 Planning Position Statement (PPS) includes policy proposals which encourage better understanding of local priorities in the design of projects and in decision-making.

Q: How would you characterise the economic and social impact of Scottish salmon farming?

- Salmon farming is a key sector within the Scottish economy. It produces a home-grown product which meets the demands in Scotland, the UK and further afield for high-quality nutritious seafood, and contributes to our ambitions to create secure, sustainable and local food systems producing healthy food.
- Recent UK Government trade statistics showed **100,000 tonnes** of Scottish salmon was exported **to 48 countries** around the globe, worth **£844m in 2024**. Scotland ranks third globally in terms of Atlantic salmon production and accounts for 6% of global production. [UK overseas trade in goods statistics December 2024 and previous]
- In 2022, salmon farming production generated £324 million Gross Value Added (GVA), 7% of the Scottish marine economy GVA. [Scottish Government Marine Economy Statistics 2022].
- In recent years, aquaculture has equalled or been greater than fishing in terms of economic value to Scotland, and Scottish salmon is the UK's largest food export – showing its potential as a key blue economy growth sector [Scottish Government Marine Economy Statistics 2022].
- Scottish salmon achieved value at the farm gate of over £1.1 billion in 2023 [Scottish Government Fish Farm Production Survey 2023]. This is a slight drop on the record £1.2 billion achieved in 2022, but remains a hugely significant value.

- Salmon farming businesses are also major investors in Scotland through the construction of new facilities and investment in local infrastructure, including housing.

Q: When will the Scottish Government make progress on best practice principles for community benefit? Will the 'social contract' with fish farms be considered?

- We will explore with stakeholders, including local Government, the sector, Crown Estate Scotland and Highlands and Islands Enterprise Agency, how we can develop good practice principles for community benefits building on existing practice to ensure that funds deliver on community priorities.
- We will commence scoping work in 2025/2026, with a view to commencing delivery beyond the 2026 Crown Estate Scotland lease fee increases.

Q: How does salmon farming enhance and contribute to the sustainability of rural and island communities?

- Salmon farming provides well-paid secure employment, particularly in coastal and island communities, not just on farms themselves but across a varied and increasingly innovative supply chain.
- High quality salmon farming jobs in rural locations can support and enhance the wider local economy, helping to ensure the continued prosperity and viability of many rural and island communities.
- In Shetland, for example, aquaculture (fish and shellfish) is Shetland's largest private sector employer, accounting for an estimate 20% of the economy and 5% of all jobs (Seafood Shetland and Salmon Scotland estimates).
- A study by Cooke Aquaculture Scotland in Orkney found that their permanent, skilled jobs were paying on average 24.8% more than the average Orkney wage and 8.6% above the average for Scotland.
- Local communities directly benefit from fish farm rents through the Scottish Crown Estate Net Revenues scheme.

Q: What is the scale of recent investment from aquaculture businesses recently, and what are you doing to ensure the sector continues to attract high levels of international investment?

- Salmon Scotland recently reported 'nearly £1 billion' invested into fish health and welfare in Scottish aquaculture since 2018 – this doesn't include all their investment, but it gives a sense of the huge scale of financial commitment by the sector to their operations in Scotland.
- The scale of potential future investment in Scottish salmon is large, representing a significant growth opportunity for Scotland in the next 5-10 years which we are keen to grasp.
- Aquaculture is a focus area for our work to attract inward investment, and we have prioritised the promotion of Scottish aquaculture on the international stage by supporting including seafood expo, Aqua Nor and Aqua Sur trade conferences, working with our enterprise agencies to grow Scottish business, and engaging and supporting large overseas business interests when they reach out to us.
- We engage with the sector to address challenges in our business environment ensuring we are friendly to investment, within our strongly held priorities around high levels of sustainability and environmental safeguarding.

- Our Vision for Sustainable Aquaculture set out our ambition for the sector to be recognised as one which is flourishing, attracting investment and delivering significant economic benefit to Scotland through domestic and international trade and through its supply chain.

Q: We've heard from some representatives that salmon farming can come at the expense of opportunities for others. How do we ensure that this is not the case? Should the Scottish Government conduct a cost benefit analysis?

- The economic and social benefits of salmon farming are clear and there is no argument to be had – we are discussing the UK's number 1 food export, a sector with global reach, which supports around 12,000 jobs in Scotland across its supply chain and which provides a steady stream of revenue to Scotland's coastal communities and which embeds itself in those communities.
- I dispute claims that the financial and social benefits of salmon farming are not 'worth' the suggested environmental consequences or impacts on other users.
- The planning system ultimately delivers a cost benefit analysis of every development proposal: The planning system carefully considers the economic, social and environmental impacts of fish farms, including environmental impact assessment, carefully and experienced local authority planners are charged with making decisions in the best interest of their communities, in consideration of social and economic impact and in line with the statutory development plan.
- The planning system must consider the environmental impacts of salmon farming and ensure that they are mitigated to an appropriate level.
- Further to that – SEPA will not permit significant environmental impacts – farms would not achieve a licence where that were to be the case.
- The physical footprint of salmon farming in Scottish waters is estimated to be 4,000 hectares, about the same size as Colonsay; it is a small proportion of our territorial waters.
- National Planning Framework 4 is an integrated strategy to bring together cross-cutting priorities and achieve sustainable development. NPF4's policy on aquaculture seeks to ensure that new aquaculture development is in locations that reflect industry needs and considers environmental impacts, and that producers contribute to communities and local economies.
- We are also now working to deliver a new National Marine Plan to meet Scotland's future needs.

Q: It has been indicated in previous sessions that community voices are not given enough prominence in consenting decisions. How can we address this?

- Opportunities for community engagement are embedded in our planning system, itself set in the context of local democracy.
- The planning process includes formal periods for representations allowing community groups or individuals to comment on applications. Local authority planners must consider these comments where they are relevant to material considerations.
- We are committed to protecting and improving the ability of communities to meaningfully contribute to the aquaculture consenting process through community engagement mechanisms being trialled as part of our Consenting Task Group pilots.

- We aim to further support local management through delivery of regional marine plans, which are governed by representatives which are delivered by marine planning partnerships which bring a range of interests into local decision making.

Q: Should communities get a vote on fish farm developments?

- I support the sector's initiative to hold votes in small island communities. In these cases, it is relatively simpler to achieve a vote and to identify the community. If broad representation within the community is not identified, then such exercises could become skewed.
- If we project up in scale, we do not consider it feasible for example, to hold a referendum in Shetland every time a fish farm development proposal is to be decided. This is just not practical or efficient.
- The planning and SEPA licensing systems already have opportunities for public consultation enshrined in their processes, however even before this, there should have been plenty of consultation with potentially affected interest groups and marine users.

Q: Some people would characterise salmon farmers funding community projects as bribes to allow them to operate their farms. Would you agree with this?

- No, I do not agree with that statement. That salmon companies recognise wider social responsibilities and are committed to the wellbeing of their staff and the communities in which they operate is a positive.
- Many community projects, sponsorship or funding schemes run beyond the establishment of a specific farm and investing in local communities is something to be commended.
- The fish farm planning and consenting regimes consider each application strictly on their merits and development proposals which will have significant environmental impacts are not permitted – regardless of whether there are community projects associated with the proposal or not.

What has Scottish Government done to mitigate the impact of Brexit on the aquaculture industry?

- As with the wider food and drink sector, aquaculture businesses have been impacted by the introduction of controls on exports of their products to the EU since January 2022.
- Export of aquaculture products, such as farmed salmon, now require veterinary certification and must enter the EU via a Border Control Post where consignments may undergo checks
- Salmon Scotland, the trade body for the UK's largest food export, estimates that Brexit has cost Scotland up to £100 million-a-year in lost salmon exports
- We have repeatedly called on the UK Government to sign a veterinary agreement with the EU, which would remove many barriers
- We have provided a pragmatic approach around sanitary and phytosanitary border checks given the need to maintain coherence across borders to help with release of products at Border Control Posts, help ease the supply chain and minimise the impact of the new checks

SPATIAL PLANNING AND CONSENTING **ANNEX K**

RAI committee recommendations and key commitments in response

RAI COMMITTEE RECOMMENDATIONS – SECTION 5 OF OFFICIAL RESPONSE
PARAGRAPH 259
The Committee notes the broad support for a **mechanism to facilitate the relocation of existing sites**, to give industry the flexibility to relocate to protect fish welfare and mitigate environmental impacts. The Committee also notes there is no evidence that recommendation 53 calling for "immediate dialogue" with the industry on this issue has been implemented. The Committee **recommends this is progressed as a matter of urgency**. **RESPONSE** • We are working with the Consenting Task Group, which includes regulators and the sector, to identify and pilot efficient and effective consenting processes which allow determinations to be made as quickly as possible. • We are currently focussed on pre-application activities which can help developers to consider and identify potential locations for development and how to sustainably accommodate their plans to provide greater certainty on areas suitable for development and those which may have some constraints. • Pilots of a new coordinated process between planning and the SEPA CAR licence are ongoing in Shetland and Highland local authority areas. • We expect the output of independent evaluation of the pilots in April 2025, beyond which we hope to be able to broaden out testing to additional local authority areas. • We are committed to continuing an open dialogue with the sector to discuss their future development plans across Scotland and exploring strategic options for support. • SEPA has also committed to open dialogue with the sector on the reshaping of farm estates, e.g. location, shortening of production cycles, to suit operators needs whilst ensuring protection of the environment. • We will also explore how to support relocation and consolidation activities in National Marine Plan 2. **On resource** • Last year we consulted on a range of proposals which aimed to ensure that Scotland's terrestrial planning services have the resources and skills at their disposal to support delivery of much needed investment in our places. • In September 2024 we published a Blog outlining the proposals we intended to take forward, those which required further work and those which we were not intending to take forward at this time. • On 12 December new increased planning fees came into effect to take account of inflation in 2022 and 2023, increase the range of services which authorities can charge for to include, processing agreements and recovering costs

involved in establishing and delivering Masterplan Consent Areas, increasing the fee for Prior-Notification and adjusting the fee for shellfish farms.
- In June, this year we will increase fees again in line with inflation for 2024, introduce a new category of development for Hydrogen and introduce fees for appealing planning decisions. Fees will continue to increase in line with inflation annually.
- We have also established a new Planning Hub which is prioritising action on renewables, and we will work to understand how we might incorporate other priority areas of action, including aquaculture, in future.
- On 26 February, we launched our Future Planners Programme – recruiting up to 18 graduates into the Scottish Government where they will work part-time, gaining valuable practical experience, alongside studying for a Masters Degree in Planning.
- We will be launching our National Planning Skills Campaign providing a new co-ordinated approach to training and a more direct approach towards recruitment, including raising the profile of available talent, supporting more bursaries and modernising the image of planning.

Paragraph 267.

The Committee notes the criticism from industry about the **consenting process** and is disappointed in the slow pace of progress to address these concerns. The Committee also notes the Cabinet Secretary's ambition to ensure Scotland-wide improvements are adopted by Spring 2026. The Committee requests the Scottish Government **provide further information about the process by which any proposed improvements will be assessed and implemented to this timescale and to be kept updated on the evaluation of the pilot projects.**

RESPONSE

- We expect the independent evaluator of the joint preapplication process introduced in Shetland and Highland local authority areas to report in April 2025.
- We hope to extend the pilots to additional local authority areas.
- Our ambition is to introduce the first process improvements Scotland-wide by Spring 2026.
- We are committed to making continual improvements for the benefit of all as quickly as possible and will keep the Committee updated on progress.
- This year we will also begin to assess improvements to delivery of Environmental Impact Assessment and Habitat Regulations appraisals this year, alongside alignment of the final stages of the planning and SEPA CAR application processes.

Paragraph 275

…. the Committee **requests the Scottish Government reviews relevant planning and consenting guidance** to ensure that it reflects how the **precautionary principle** and other guiding principles on the environment should be applied. The Committee also **recommends that the Scottish Government ensure the guiding principles on the environment are embedded within the policies and principles of National Marine Plan 2.**

RESPONSE

- NPF4 Policy 4: Natural Places intends to protect, restore and enhance natural assets making best use of nature-based solutions. Part (e) of policy 4 sets out that the precautionary principle will be applied in accordance with relevant legislation and Scottish Government guidance.
- Ministers and public authorities should give due regard to the five guiding principles on the environment through the established Strategic Environmental Assessment processes, including during the completion of SEA pre-screening, screening and environmental report.
- Where proposals are not subject to environmental assessment under section 1 of the Environmental Assessment (Scotland) Act 2005, consideration should be given to the most appropriate means of recording compliance with the duty.
- we will consider whether it is possible to reflect case studies of the Precautionary Principle in action in future iterations of our working arrangements guidance which sets out how local authorities and other fish farm regulators work together to determine fish farm consents.
- In the case of sea lice and the potential transfer to wild fish, we have worked closely with local authorities and other regulators to deliver a new framework under SEPA's licencing regime in line with the precautionary principle and to support adaptive management.
- We're committed to assessing and aligning development of National Marine Plan 2 with the guiding principles on the environment.

PARAGRAPH 276 AND 277

276. Recommends the Scottish Government set out in its response to this report **how it intends to progress regional marine planning to provide more localised approaches to planning** for salmon farms.

277. The REC Committee's recommendation 51 called for a spatial planning exercise to inform strategic guidance on areas that are suitable or not suitable for salmon farming. The Committee understands this exercise has not been undertaken. The Committee took evidence that illustrated some of the potential challenges of initiating a **zonal approach to spatial planning but recommends that this exercise should be progressed.**

RESPONSE to 276 and 277

- The Scottish Government does not currently support a zonal approach to spatial planning for fish farming.
- We have committed to improving spatial planning tools at the national, regional and local levels as set out in our Vision for Sustainable Aquaculture.

- We will explore a commitment to bring the various spatial policies and management measures together in one place and provide significantly improved upfront integrated spatial guidance beyond the expected adoption of National Marine Plan 2 in 2027.
- NMP2 will provide guidance to decision-makers and implementation of the plan will be considered as part of its development.
- As a planning document NMP2 will inform if, where, when and how development takes place, and provide guidance on reaching those decisions.
- Separate to macro-scale plans, SEPA is bringing together information from all regulators during the pre-application process.
- The Scottish Government undertook a gateway review of developing Regional Marine Plans for the Shetland, Orkney, and Clyde regions in 2023, which identified that the plans would need work and revision before seeking approval from Ministers, and our policy team continue to work constructively with each Marine Planning Partnership to refine and develop their plans to be suitable to move to the next stage of development.

PARAGRAPH 278

As part of this exercise, the Committee emphasises that consideration must be given to how **marine spatial planning will incorporate new knowledge and adapt** to changing environmental, social and economic conditions in relation to salmon farm developments, as well as the data collection, modelling and monitoring. This should aim to inform an adaptive planning approach flexible to respond to both short-term acute environmental events and the long-term trajectory of climate change impacts on the sustainability of salmon farming. The Committee notes the Scottish Government is currently developing the **National Marine Plan 2** and that this may be the appropriate vehicle to deliver this recommendation. The Committee **requests how this recommendation will be implemented in its response to this report.**

RESPONSE

- National Marine Plan 2 (NMP2) will be designed to support adaptive management of marine planning to support sustainable development of all of Scotland's marine sectors.
- By ensuring new information is made available to end users through the spatial mapping exercise outlined, we will be able to incorporate the latest knowledge into marine licensing and consenting decisions and future marine plans.
- The consideration of adaptive management of marine planning in NMP2 is being underpinned by the development of the monitoring and evaluation framework and the implementation proposals alongside the planning policy development.

TOP LINES

CONSENTING

- We know that an effective consenting regime, where informed decisions are made quickly, is key to building investor confidence and delivering investment which helps to manage fish health and environmental interactions.

- We are committed to making improvements to the fish farming consenting regime, providing a streamlined, efficient and transparent service which enhances communication and engagement between regulators, developers and communities.
- The Consenting Task Group has developed a new pre-application process that seeks to align processes between the various regulators, remove duplication and enhancing communication.
- This new pre–application process is being trialled in the Highland and Shetland local authority areas. The pilots commenced at the beginning of 2024, and there are 4 pilot projects currently underway.
- I know there are calls to go further and faster – I share the same ambitions – however we are restricted by the volume of forthcoming applications available and by the need to develop and test new processes collaboratively, which is the right thing to do.
- The CTG will consider the outputs from an independent evaluation exercise this month, beyond which, we hope to increase the number of pilots and work with other local authority areas.
- My officials are currently analysing the responses from the recent consultation on proposals for plans to address an existing gap in aquaculture planning regulations by extending Local Authority marine planning zones out to 12 nautical miles. I expect that report to be published shortly.

SPATIAL PLANNING

- The National Marine Plan 2 (NMP2) will continue to provide the planning framework for our licensing and consenting decisions and set the context for regional and sectoral marine planning.
- We are committed to the development of a functioning regional marine planning sector that supports marine consenting and licensing, and I would like to reassert support for the production of regional marine plans for the Orkney, Shetland, and Clyde marine regions.
- I have committed to taking forward work on more localised spatial planning approaches, which would see collation of fish farm management measures and available spatial data, mirroring similar commitments for the fishing sector which we expect to introduce via NMP2.

Q&A CONSENTING

Q: What has the consenting task group achieved since it was established?

- The CTG has developed and piloted a new pre-application consenting framework which coordinates regulatory activity early in the development process, without compromising environmental safeguards or community engagement.
- This is now undergoing independent evaluation with an aim to broaden out testing to other local authority areas while continuing to build on the outcomes in an iterative process.
- This work sits alongside our recent consultation to extend marine planning zones out to 12 nautical miles in an effort to close an existing gap in aquaculture consenting and the progression of our NPF4 and regional and national marine plans.

- It is important that Scotland delivers an efficient and effective consenting regime, which is key to addressing many of the issues raised by Committee, including the possibility of 'relocating' biomass – I support the sectors ambitions ensure it has the best footprint to support its operations, including fish health and welfare and reducing environmental interactions.

Q: Why has progress of the consenting task group been so slow?

- I want to assure you that we are working as fast as we possibly can.
- We have been working to build trust and consensus and to ensure that we implement the best solutions moving forward.
- The Consenting Task Group brings regulators and sector representatives together to interrogate each other's technical processes and to develop solutions together.
- That process took time and included monthly meetings and workshops throughout 2023 to develop a process which the group was confident to trial and included responding to sector requests for additional technical meetings.
- I am grateful for the collaborative approach by members of the consenting task group - continued collaboration is essential to our success.
- We can also only go as fast as the forthcoming applications allow us to do so.

Q: What are the next steps for the consenting task group and the timescales involved?

- Our priorities include delivering more pilots, completing and responding to evaluation activities to improve the process, exploring opportunities to better coordinate Environmental Impact Assessment (EIA) and Habitats Regulations Assessment (HRA) activities and working to align onward application processes.
- There are 4 pilots currently underway in the Highland and Shetland local authority areas, which are currently going through an independent evaluation process.
- To ensure pace is maintained, we are already taking steps to introduce changes through lessons learned by considering to further simplify the pre-application process, and also by exploring the potential opportunities to better coordinate environmental assessment activities .
- We expect the output of independent evaluation of the pilots in April 2025, beyond which we hope to be able to broaden out testing to additional local authority areas.
- We are committed to continuing an open dialogue with the sector to discuss their future development plans across Scotland and exploring strategic options for support.

Q: How will Scottish Government work to support relocation of fish farms with urgency?

- Relocated biomass and applications for new developments still need to be assessed under the relevant regulations. However, the consenting system should be able to support relocated or new developments as quickly as possible – we have to make the system more responsive.

- We expect the output of independent evaluation of the CTG pilots in April 2025, beyond which we hope to be able to broaden out testing to additional local authority areas.
- We are committed to continuing an open dialogue with the sector to discuss their future development plans across Scotland and exploring strategic options for support.
- SEPA has also committed to open dialogue with the sector on the reshaping of farm estates, e.g. location, shortening of production cycles, to suit operators needs whilst ensuring protection of the environment.
- We will also explore how to support relocation and consolidation activities in National Marine Plan 2.

Q: How is coordination of regulatory activity being considered in the consenting system?

- The CTG work has led the development of the pilot pre application process which launched in 2024 in Highland and Shetland local authorities areas.
- The Consenting Task Group has worked to align processes between the various regulators – specifically the two largest consent processes, SEPA and planning – and to coordinate regulatory advice.

Q: Why do some planning applications seem to take so long?

- A robust, well-resourced and streamlined planning service is vital to improve development delivery and support our economy, environment and people.
- We want to see timescales for determining planning applications improve.
- Performance is not just about speed of decision.
- Certainty of process and good customer service are vital.
- It is important to recognise that there is a role for both authorities and applicants in ensuring that applications are determined effectively and efficiently. There are many reasons why an application can take longer to determine than the statutory timescale, such as the need for additional information to be provided, for proposals to be amended to ensure that they are acceptable in planning terms, delays in responses being provided by statutory or other consultees, or the need to conclude a legal agreement.
- We actively monitoring the performance of the planning system
- Planning Application statistics are published on a 6 monthly basis (Q1 and Q2 in January and Q2 and Q4 in July). The annual statistics are also published in July which provides a breakdown of the average timescale taken to determine major and local applications (including particular development types). Statistics and research - gov.scot (www.gov.scot)

Q: How is the Scottish Government working to ensure that the planning system is resourced?

- Last year we consulted on a range of proposals which aimed to ensure that Scotland's terrestrial planning services have the resources and skills at their disposal to support delivery of much needed investment in our places.
- On 12 December new increased planning fees came into effect to take account of inflation in 2022 and 2023, increase the range of services which authorities can charge for to include, processing agreements and recovering costs involved in

establishing and delivering Masterplan Consent Areas, increasing the fee for Prior-Notification and adjusting the fee for shellfish farms.

- In June, this year we will increase fees again in line with inflation for 2024, introduce a new category of development for Hydrogen and introduce fees for appealing planning decisions. Fees will continue to increase in line with inflation annually.
- We have also established a new Planning Hub which is prioritising action on renewables, and we will work to understand how we might incorporate other priority areas of action, including aquaculture, in future.
- On 26 February, we launched our Future Planners Programme – recruiting up to 18 graduates into the Scottish Government where they will work part-time, gaining valuable practical experience, alongside studying for a Masters Degree in Planning.
- We will be launching our National Planning Skills Campaign providing a new co-ordinated approach to training and a more direct approach towards recruitment, including raising the profile of available talent, supporting more bursaries and modernising the image of planning.

Q: Will the Scottish Government commit to a review of existing guidance in relation to the precautionary principle?

- Our application of the precautionary approach has been reviewed and adapted as our understanding of science and evidence has evolved.
- 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.
- This guidance was published in 2023 and is intended to promote a common understanding and interpretation of the guiding principles and how they should be considered and applied when developing future policy and legislation.
- We will consider whether it is possible to reflect case studies of the Precautionary Principle in action in future iterations of our working arrangements guidance which sets out how local authorities and other fish farm regulators work together to determine fish farm consents.

Q: What is the Government doing to support the sector to develop into higher energy locations and offshore developments?

- We are working to clarify the consenting process for aquaculture developments between 3 - 12 nautical miles as innovations in technology mean that aquaculture sites can now be located further from the shore.
- These developments have the potential to reduce the environmental impact of marine farming by lessening interactions with wild salmonids and supporting farmed fish health and welfare.
- As part of this work, we recently held a public 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 proposed extension to marine planning zones would ensure consistency in planning requirements for fish farm developments within the 0-12 nautical mile zone across Scotland, continuing local authorities role in the consenting process and enabling input into the planning process from a wide range of stakeholders.
- Closing this gap by extending the boundaries of marine planning zones creates the potential for business to explore develop new farms further offshore. This has the potential to bring in more investment and jobs, particularly for island and coastal communities.
- The public consultation ran from 18 September until 11 December 2024
- My officials are analysing the responses and I expect them to report back shortly.

Q: Has the Scottish Government been in discussions with Norwegian interests – Salmar Aker Ocean – to facilitate development plans here?

- I visited Salmar Aker Ocean's Ocean Farm One, the world's first 'offshore' salmon farm, in Norway in August 2023, where I learned about high farmed fish survival rates, alongside reduced environmental impacts, made possible through farming in higher energy locations.
- SalMar Ocean (previously Salmar Aker Ocean) has since met with the Scottish Government to discuss the consenting process for developing a salmon farm between 3 – 12 nautical miles.
- As committed to in our Vision for Sustainable Aquaculture, the Scottish Government is taking forward work to explore development from 3 to 12nm, including associated regulatory mechanisms.

Q: Where are you with respect to delivery on the broader regulatory review of aquaculture consenting?

- I welcomed Professor Grigg's report in February 2022, announcing an immediate change to the validity period of new marine licenses for shellfish and finfish farms from 6 to 25 years, bringing it in line with the seabed lease renewal cycle.
- I established and Chair the Scottish Aquaculture Council to provide and advice and oversight of delivery, including commissioning of the Consenting Task Group to work with our delivery partners at pace to streamline the fish farm consenting regime.
- Pilots of a new fish farm consenting process are underway in Shetland and Highland local authority areas.
- We recently held a public consultation on proposals for plans to address an existing gap in aquaculture planning regulations by extending Local Authority marine planning zones further offshore out to 12 nautical miles. My officials are analysing the responses and I expect them to report back shortly.
- We are making progress in other areas, as the regulatory review also sits alongside ongoing work to strengthen environmental protection and community benefit as committed to in our Vision for Sustainable Aquaculture.
- Scottish Government will continue to work with SEPA and the sector to support development of the monitoring strategy underpinning SEPA's Sea Lice Risk Assessment Framework which commenced in February 2024.

Q:Will there be further progress on the regulatory review?

- There are many areas of cross over between the Committees report and the regulatory review of aquaculture consenting.
- My response to Committee sets out our priorities in the next year and that is what we will be working to deliver.

Q&A SPATIAL PLANNING

Q: How will marine spatial planning incorporate new knowledge ?

- By ensuring new information is made available to end users through the spatial mapping exercise outlined, we will be able to incorporate the latest knowledge into marine licensing and consenting decisions and future marine plans.

Q: How will marine spatial planning adapt to changing environmental, social and economic conditions in relation to salmon farm development?

- National Marine Plan 2 (NMP2) will be designed to support adaptive management of marine planning to support sustainable development of all of Scotland's marine sectors.
- National Marine Plan 2 will introduce new objectives across the economy and the environment (including how marine planning can help us respond to the climate and biodiversity crises) and planning policies to support management onof our marine space.
- The consideration of adaptive management (including the precautionary principle) of marine planning in NMP2 is being underpinned by the development of the monitoring and evaluation framework and the implementation proposals alongside the planning policy development.

Q: How will marine spatial planning make a difference in better managing our seas?

- Not only in Scotland, but globally, the decisions that govern our oceans are vital to the future of our planet. The National Marine Plan 2 will support sustainable development of our seas, protect our marine environment and deliver for our coastal communities.
- By adopting a blue economy approach to NMP2 we are considering our marine economy, local communities, and the environment altogether. This will help get the right planning framework in place to address the increasing pressure for marine space, balancing the need for protection and enhancement of the marine environment, and sustainable development of existing and emerging sectors.

Q: When will the Scottish Government deliver outstanding Regional Marine Plans? How can more localised approaches be achieved?

- The Scottish Government undertook a gateway review of developing Regional Marine Plans for the Shetland, Orkney, and Clyde regions in 2023, which identified that the plans would need work and revision before seeking approval from Ministers, and our policy team continue to work constructively with each Marine Planning Partnership to refine and develop their plans to be suitable to move to the next stage of development.
- I am pleased to say that the draft Shetland RMP has been through public consultation and work is advancing, with an aim to seek Ministerial approval for adoption in 2025. The draft Orkney RMP concluded a public consultation on 25

October 2024 and responses are currently being considered. Officials will support the partnership throughout the year to produce a final draft RMP suitable for Ministerial consideration. The draft Clyde RMP is in the process of being updated ahead of identifying a suitable consultation period.

Q: Will the Scottish Government commit to delivering a zonal approach to fish farm spatial planning?

- The Scottish Government does not currently support a zonal approach to spatial planning for fish farming.
- We have committed to improving spatial planning tools at the national, regional and local levels as set out in our Vision for Sustainable Aquaculture.
- We will explore, through the development of National Marine Plan 2, a commitment to bring the range of management measures and spatial constraints data for salmon farming into one place beyond the expected adoption of the plan in **2027**, in addition to continued progress of our Regional Marine Plan programme.

Q: Do you think you are moving quickly enough on spatial planning to resolve conflicts?

- We recognise that there is more work to do to deliver enhanced spatial planning for all of our marine sectors.
- It is important to recognise that marine planning is relatively new in comparison to terrestrial planning – however we are committed to further developing our spatial plans at national and local scales.
- We are already working with a variety of stakeholders to deliver a new national marine plan for Scotland and I've made commitments on improved spatial planning beyond that in my response to Committee.

Q: Will the Scottish Government encourage economic growth in our marine sectors as well as environmental concerns?

- Encouraging economic growth across both developing and existing marine sectors is a key priority. A new planning framework as part of NMP2 must help facilitate this, and further action aimed at tackling the climate and nature emergency.

Q: How will NMP2 impact on the aquaculture sector?

- The statutory assessments are underway to determine the potential impacts on marine sectors, communities and the marine environment from the policies included in the plan.
- The NMP2 will continue to provide the planning framework for our licensing and consenting decisions and set the context for regional and sectoral marine planning.

Regional Marine Planning (RMP)

Q: How does the Scottish Government intend to progress regional marine planning to provide more localised approaches to planning for salmon farms?

- The Scottish Government remains committed to the development of a functioning regional marine planning sector that supports marine consenting and licensing.

- The ECCLR Committee undertook an inquiry into regional marine planning, publishing its recommendations in December 2020. The Scottish Government's response to the inquiry reasserted support for the production of regional marine plans for the Orkney, Shetland, and Clyde marine regions.
- While no Regional Marine Plan (RMP) has yet been adopted, when in place RMPs will reflect local circumstances and issues.
- Once adopted regional marine plans perform a statutory role in providing the policy framework against which consenting decisions can be made.

Q: Does the CTG process have a single lead coordinator?

- The current pilots process identifies a lead case officer in SEPA and the Local authority who commit to work together to oversee the process.
- This respects regulatory responsibilities and local authority and SEPA's ability to make independently informed decisions.
- However to the end user, the process is designed to be managed as a single case flow process.

Q: How can the pilots support a holistic approach to consenting?

- For first time, the pilots bring together the regulators and developers in the pre-application consenting process in a coordinate way, enabling early identification of potential issues/showstoppers early on in the process, in advance of formal application.
- This approach allows for and encourages information sharing, feedback, and the raising of issues in the process, leading to the building of trust and cooperation between developers and regulators.
- This approach now also includes upfront environmental information from SEPA on the risks of sea lice to wild fish.

Contact: [Redacted – Regulation 11(2)]**and** [Redacted – Regulation 11(2)]
Date when the information was last updated/reviewed: 13 March 2025

Fish Farming Planning Statistics

Latest stats (11 November 2024) on planning applications for Fish Farming.
Timescale in weeks.

Year	Major		Local			
			Without Processing Agreement		With Processing Agreement	
	Total Applications	Average timescale	Total Applications	Average timescale	Total Applications	% of applications determined within timescale
2018/19	1	36.9	33	15.2	n/a	n/a
2019/20	1	25.9	37	16.0	n/a	n/a
2020/21	1	Processing	42	14.6	1	100%

		Agreement – timescale met				
2021/22	-	-	28	12.1	2	50%
2022/23	2	50.0	24	16.6	1	0%
2023/24	0	0	19	13.5	0	0

2023/24

Planning Authority	Major		Local			
			Without Processing Agreement		With Processing Agreement	
	Total Applications	Average timescale	Total Applications	Average timescale	Total Applications	% of applications determined within timescale
Aberdeen City	0	0	1	4.3	0	0
Argyll & Bute	0	0	6	13.3	0	0
Highland	0	0	4	19.6	0	0
Na h-Eileanan Siar	0	0	1	10	0	0
Shetland	0	0	7	13.5	0	0

Contact: [Redacted – Regulation 11(2)] [Redacted – Regulation 11(2)]@gov.scot & [Redacted – Regulation 11(2)]

Date when the information was last updated/reviewed:

ANNEX L

MARINE DIRECTORATE 2025-26 BUDGET HEADLINES

ISSUE

The overall budget provided for marine purposes appears to have been reduced, the reduction is though due to the Autumn Budget Revision budget being used as the comparator. This included Coastal Communities payments deferred from 2023-24 which resulted in a net increase of £5 million from the 2024-25 starting position.

The background to this was that voluntary deferrals were offered to Local Authorities as part of the wider 2023-24 path to balance activities. This offer was taken up by 12 of 26 authorities. The deferred payments of £5m were made to these Local Authorities in April 2024.

In comparison to the 2024-25 starting budget there has been a £1.6 million increase to the overall budget available to Marine Directorate which when excluding depreciation is an additional £2 million of resource funding

Level 2	**2023-24 Outturn £m**	**2024-25 ABR Budget £m**	**2024-25 Original Budget £m**	**2025-26 Draft Budget £m**	**2025-26 Change %**
Marine Funding	12.5	14.5	15.0	14.7	-2%
Marine Directorate	77.4	83	78.0	79.6	2%
Total Marine	**89.9**	**97.5**	**93.0**	**94.3**	**1%**
of which					
Total Fiscal Resource	72.2	75.6	71.1	73.1	**3%**
Non-cash	5.4	6.1	6.1	5.7	**-7%**
Capital	11.7	15.8	15.8	15.8	**0%**
Financial Transactions (FTs)	-0.3		0.0	-0.3	
UK Funded AME	0.7				

TOP LINES

- The Marine Directorate budget has increased by £1.6 million from the original 2024-25 budget position, excluding depreciation this is a £2 million increase in its resource budget.

- This budget will be directed towards Marine Directorate's responsibilities for the integrated management of Scotland's seas. This includes:

- responsibility for the sustainable management of our fisheries and aquaculture industries and freshwater fisheries resources;
- responsibility for marine planning and the licensing of activities in the marine environment;
- associated compliance and enforcement capability; and
- ensuring a sound scientific evidence base exists to inform our marine policies.

- The budget will be directed towards Marine Directorate's statutory and regulatory functions and key commitment areas.

- These include consulting on further protection measures for our Marine Protected Areas and Priority Marine Features to meet conservation objectives, developing the second National Marine Plan and on streamlining the consenting for fish farming in Scotland.

- We will also ensure that the governance and reporting model for Crown Estate Scotland maximises the value of sustainable wealth generated for Scotland through the offshore renewable energy expansion supply chain.

- Marine science and research will continue to be prioritised within the budget, to be aligned with the development and publication of an Implementation Plan for the Marine Science and Innovation Strategy.

2025-26 Marine Directorate - Indicative Portfolio Allocations

- There has been criticism that the Marine Directorate budget is presented at too high a level which does not allow for greater scrutiny to be undertaken.

- The 2025-26 draft budget is based on indicative portfolio allocations (see table below) which then provides a starting point for business planning purposes.

Marine Directorate (Portfolio Breakdown)	2023-24 Budget £m	2024-25 Budget £m	2025-26 Budget £m
Operational Delivery	30.2	29.3	29.9
Science Evidence, Data and Digital	16.9	16.5	17.7
Marine Economy and Communities	3.6	4.1	4.2
Marine Environment	8.4	8.2	8.2
Corporate, Strategy and Marine Planning	10	6.5	6.6
Fiscal Resource Total	**69.1**	**64.6**	**66.6**
Non-cash	5.7	6.1	5.7
Capital	8	7.3	7.3
Total	**82.8**	**78**	**79.6**

- Based on the initial budget planning exercises the greatest increase in budget will sit in Science with an additional £1.2 million provisionally allocated. This is an increase of greater than 7% on the 2024-25 budget position and recognises the importance placed on science.

- The Marine Directorate portfolio allocations are refined through the established business planning processes that takes place ahead of the new financial year and which informs the Annual Delivery Plan (ADP).

Marine Funding

- We will continue to maintain funding of £14.5 million for the Marine Fund Scotland (MFS) which will support projects that deliver on Scotland's Blue Economy Vision.

- Aquaculture projects received £4.5m in funding from the MFS in 2024-25.

- These projects are focused on achieving an innovative and economically sustainable marine economy; delivering real benefits for Scotland's coastal communities; and reducing carbon emissions and protecting the marine environment.

Q&A

Q. The Committee, as part of its pre-budget examination requested that more granular detail was provided to supplement the high-level Directorate budget position. Can you advise what is happening in respect to this and anything you can share on the internal budget allocations?

- In response to the pre-budget letter we have committed to providing the Committee the final internal allocations for 2025-26 on conclusion of the business planning processes.Based on the initial budget planning, of which the draft 2025-26 budget is predicated the greatest increase in budget will sit in Science with an additional £1.2 million provisionally allocated. This is an increase of greater than 7% on the 2024-25 budget position and recognises the importance placed on science.

Q. The Marine Directorate budget is shown to be £3.4 million less than the 2024-25 budget, what will be the impact of this reduction?

- The 2024-25 budget included a number of transfers that occurred at Autumn Budget Revision (of which the comparative budgets are now based). The main transfer related to the inclusion of deferred Coastal Communities payments from 2023-24 which resulted in a net increase of £5 million from the 2024-25 starting position.

- In comparison to the 2024-25 starting budget there has been a £1.6 million increase to the overall budget available to Marine Directorate which when excluding depreciation is an additional £2 million of resource funding.

Q. How does the Marine Directorate ensure the quality of its Science and Evidence?

- The Marine Directorate, Science, Evidence, Data and Digital Portfolio delivers its science and data under a formal Quality Management System compliant with International Standard 17025 with a broad scope of analytical methods

accredited by the United Kingdom Accreditation Service. All work is conducted under the principles agreed for UK scientific organisation's Joint Code of Practice (JCOP).

- Fisheries scientific methods are internationally standardised through ICES protocols and scientific data collection is internationally coordinated on an annual basis through the ICES expert groups. External quality assurance is undertaken regularly with comparisons of results of analysis between member country scientists and laboratories and international training made available where required.

- Our commitment to scientific excellence is demonstrated through the appointment of Professor Mark Inall as Chief Scientific Advisor Marine, who provides independent advice and ensures or marine and fisheries polices are underpinned by sound scientific evidence.

PQs SINCE CAB SEC RALRI EVIDENCE SESSION ON 13 NOV ANNEX M

WRITTEN PQs

[Redacted – Regulation 6(1)(b)]

ANNEX N

MEDIA LINES

17 Mar: Daily mail Scotland reports 'Fish farm giants net £17m from taxpayer', referring to grants from Marine Fund Scotland and elsewhere since 2021.
8 Mar: The Guardian reports 'unprecedented' mass mortalities and animal welfare issues in Tasmanian (Australian) salmon farms. Scottish industry reported mortality rates appear to have improved in 2024 but the sector's sustainability continues to be questioned by eNGOS and some MSPs based on high mortality levels experienced in UK in 2022 and 2023.
7 Mar: Scottish Government's Planning and Environmental Appeals Division (DPEA) confirms receipt of 208 appeals from aquaculture companies against variations ("standstill conditions") to their Controlled Activities Regulations licences to operate fish farms, introduced by the Scottish Environment Protection Agency (SEPA) as part of the implementation of the new sea lice regulatory framework. A few more appeals are expected during March.
5 Mar: Mowi could sell its fish feed mill in Skye, as part of a strategic review of operations. More than 70 people are employed at the feedmill, most of them local. Mowi said it would now undergo a review to assess whether it would continue to produce its own feed, or concentrate on farming and processing salmon.
4-7 Mar: Shetland News and Fish Farming Expert reports on Norwegian aquaculture business SalMar Ocean, exploring the potential to establish an 'offshore' salmon farm off the coast of Shetland.
4 Mar: BBC and STV reports on potential redundancies at a Skye-based aquaculture production business Organic Sea Harvest – a relatively new salmon farming operation in Scotland. Highlands and Islands Enterprise has confirmed that 15 staff are affected.
4 Mar: Daily Record reports that there have been over 4,000 objections to plans for a "semi-closed" salmon farm within Loch Lomond national park.
27 Feb: Arianne Burgess MSP asked an Oral PQ [S6O-04365] in response to media reports that salmon farming company Mowi purchased two Scottish islands: Sanda Island in Argyll and Bute, located off the southern tip of the Kintyre peninsula, and Fladda-chuain, three miles off the northern tip of Skye.
26 Nov 2024 - 18 Feb 2025: The SG held a call for evidence which sought expert input on developing a framework to transition our inshore fisheries management model to a more agile, responsive and regional setup.

Background:
The proposed Salmon farm site is located in Loch Long within the Firth of Clyde and is included within the Loch Lomond National Park. Within this loch, there are Priority Marine Features (PMFs) and proposed fisheries measures are being considered for this area, including bottom trawl restrictions. The management measures are still under development and will be subject to consultation and ministerial consideration.

FISH FARM GIANTS NET £17 MILLION - MARINE FUND SCOTLAND

- It is right that we have provided financial support to the development and deployment of innovative approaches which enhance the sustainable development of aquaculture in Scotland.

MORTALITY AND WELFARE ISSUES

I do not agree that aquaculture is, or will become, unsustainable on the basis of climate change.

- The sector is highly innovative and invests significantly to address challenges – it is testing new approaches, from significant financial investment to support larger smolt production and changes in husbandry, to testing of new technology which could help mitigate climate change impacts.

High mortality is in no one's interest and I expect producers in Scotland to drive mortality to the lowest possible level.

- Over the period 2003 to 2023, fish survival of a year class through to harvest has remained relatively constant at 75% with peaks and troughs in different years, but I do recognise the increases in mortality reported to the Fish Health Inspectorate in 2022 and 2023.
- The industry trade body Salmon Scotland publishes monthly mortality data. In recent correspondence to the Rural Affairs and Islands Committee dated 3 February 2025, Salmon Scotland noted that their data indicated survival across all marine farms was 82.3% in 2024, up 10 percentage points from 72.3% in 2023.
- The key to reducing mortality is to get ahead of emerging challenges through research and innovation driving improvements to business practice.

We've made significant progress on issues relating to fish health and mortality, including improvements to our sea lice management policy, the introduction of mandatory reporting and transparency of data.

- The availability of fish farm mortality information in Scotland is world leading in terms of farming transparency.
- We have lowered the levels of sea lice per fish at which the Fish Health Inspectorate will intervene or take enforcement action and we have introduced mandatory sea lice reporting requirements

APPEALS - SEPA SEA LICE RISK ASSESSMENT FRAMEWORK

An independent reporter/s will be appointed and will take full account of submissions made by all parties involved.

- The appeals process forms part of our robust planning framework, to ensure all proposals are properly tested and relevant interests are considered.
- Given these are live appeals, it would not be appropriate to comment on the merits of the appeals or their handling at this stage.

We remain committed to supporting Scotland's salmon farming sector but also to implementation of the sea lice risk assessment framework under SEPA.

- We are taking action in response to previous parliamentary inquiries that expressed concerns that Scotland's regulatory framework for the protection of wild salmon was inadequate.

- Sea lice are not the only pressure on wild Atlantic salmon but are internationally recognised as posing a risk to salmonids, and the development of the framework is part of a suite of interventions to mitigate potential harms to this iconic Scottish species.
- Fish farmers have a right to appeal conditions issued by SEPA. We will follow due process to make a final determination.

'OFFSHORE' AQUACULTURE

- I am aware there is growing interest in developing farms further from the shore in more exposed locations, with a number of aquaculture businesses having approached the Scottish Government in recent years regarding the regulatory processes for consenting farms located between 3 to 12 nautical miles.
- Work is currently underway to clarify the consenting process for aquaculture developments between 3 and 12 nautical miles, including our recent consultation on fish farm planning controls.

ORGANIC SEA HARVEST SITES, SKYE

I am aware of reports of potential redundancies at Organic Sea Harvest. Officials are currently engaging with the company to understand the circumstances.

LOCH LONG SALMON APPEAL

As this is a live application, it would not be appropriate to comment on the merits of the proposed development.

- Loch Long Salmon Ltd submitted an appeal against the decision by the Loch Lomond & The Trossachs National Park Authority to refuse the planning application for the 'installation of a marine fish farm and associated development including shore base, slipway and pontoon and road upgrades' on 3 February 2023.
- The Scottish Ministers recalled the appeal for their own determination on 6 March 2023 and the report from the Directorate for Planning and Environmental Appeals (DPEA) was received by the Scottish Ministers intervene in only a handful of cases each year and generally only where they raise important issues that require a decision at national level.
- The report and recommendation from the reporter have been undergoing full and proper consideration and a decision will be issued as soon as possible.

PURCHASE OF SANDA ISLAND AND FLADDA-CHUAIN BY AQUACULTURE COMPANY MOWI

The Scottish Government is not currently aware of any submitted proposals for development, and all proposed developments are thoroughly scrutinised for their potential impact on the environment and communities through the planning system.

- Scotland has a robust legislative and regulatory framework in place which provides the right balance between developing the fish farming sector and protecting the environment on which the sector depends.
- All farms must meet strict regulations and guidelines to ensure that the environmental effects are assessed and managed safely.
- The planning application process for aquaculture developments includes Environmental Impact Assessment, and Habitats Regulations assessment, and requirements for public consultation and consulting with statutory consultees including the Scottish Environment Protection Agency.
- The Scottish Government Marine Directorate may also be consulted, on behalf of Scottish Ministers, as planning authorities deem necessary depending on the nature of any development.

RURAL AFFAIRS AND ISLANDS COMMITTEE REPORT

Scottish salmon is a significant contributor to our rural economy, and we are wholly committed to the sector's success.

- We have made significant progress on a number of key issues, including on, for example, the management of sea lice and environmental protection, since the previous wide-ranging committee inquiry.
- We have also published our Vision for Sustainable Aquaculture [July 2023], setting out how we will support the development of our aquaculture industry to operate within environmental limits while continuing to deliver social and economic benefits for Scotland.
- I am grateful for the Committee's detailed consideration of important issues in relation to salmon farming in Scotland, and I have set out the actions the Government will take to address their concerns across the range of topics they raise.

Enclosure 03 – SUPPLEMENTARY BRIEFING

SUPPLEMENTARY Q&A

SEPA'S REMIT AND COMPETENCE

Q: How does the Scottish Government ensure SEPA is properly discharging its functions? What is the relationship between SEPA and the Scottish Government?

- As an executive Non-Departmental Public Body (NDPB), SEPA operates under a framework document, which sets out the respective roles and responsibilities of the organisation, the Scottish Ministers and sponsor teams.
- Scottish Government and SEPA work together to ensure that its aims and objectives are aligned with the Programme for Government, Scotland's Economic Strategy and National Performance Framework.
- NDPBs are, by nature, delivery focussed. They deliver against agreed priorities within clear policy, financial and performance management frameworks set by Government.

Q: Do you have confidence in SEPA's ability to effectively regulate?

- I have full confidence in SEPA's ability to carry out its regulatory functions.
- As a regulator SEPA must ensure its approach to protecting and, where necessary, improving the marine environment is proportionate and evidence led.
- SEPA has refined and improved its framework for managing discharges from fish farms first introduced in 2019, and in February 2024 introduced a risk-based framework to manage interactions between sea lice from farmed fish on wild salmon.
- SEPA will require more years of data collected through these frameworks to understand if further regulation is required.
- I look forward to continued progress and further supporting SEPA on the development of its regulatory framework.

Q: Does SEPA have sufficient resource to enforce its regulations?

- SEPA, along with other environment bodies, plays a pivotal role in protecting and maintaining a safe, healthy and sustainable environment for the people of Scotland. This is achieved through funding from Scottish Government alongside SEPA's regulatory activities funded by cost recovery under the principle of polluter pays.
- The budget settlement for 2024-25 recognised the increasing level and quality of work being delivered by SEPA which is why despite such challenging financial circumstances, the organisation benefitted from an 5% uplift to its core funding, bringing its core budget to £52.6 million in 2024-25.
- In 2022 SEPA increased its CAR licence fees to ensure cost recovery relating to the introduction of its framework – the increase was delayed to allow businesses to recover from the impacts of Covid.

Sensitivities:
On 3 October 2019 Salmon Scotland (then called the Scottish Salmon Producers Organisation) submitted a formal complaint on the "regulatory practices, standards

and behaviours" of SEPA. In 2020 SEPA upheld 10 of the 14 issues raised in part or in full. Salmon Scotland's written evidence to the RAI Committee as part of its inquiry into salmon farming, dated 13 June 2024, acknowledged SEPA's action plan introduced to address the issues identified and there is "ongoing dialogue" with SEPA to drive improvements, but they remain concerned about progress against some of the issues raised in the complaint. These letters were released under FOI and reported in The Ferret on 9 September 2024.

Q: Salmon Scotland formal complaint against SEPA.

- Formal complaints lodged against SEPA are for them to respond to.
- SEPA is continuing to engage with stakeholders as it develops its regulatory frameworks.
- I have full confidence in SEPA's ability to carry out its regulatory functions.

AQUACULTURE REGULATORY REVIEW

The sector says progress in responding to the independent review, led by Professor Griggs, has been slow, how do you respond to that?

- We know the smooth operation of the consenting framework is fundamental to the success of salmon farming and other businesses. As can be seen from our Programme for Government commitment, we continue to prioritise improvements to the aquaculture consenting regime and to making sure that Scotland is a great place to do business.
- We are delivering on Professor Griggs's recommendations through the Scottish Aquaculture Council, which I chair, and the Consenting Task Group. In these forums we are building trust and consensus, to ensure that we implement the best solutions moving forward.
- We also commissioned the Scottish Science Advisory Council to consider the science underpinning aquaculture consenting, and its findings are supporting our further consideration of the consenting process.
- The Consenting Task Group has developed a new pre-application process which is being piloted in Highland and Shetland Local authority areas. We expect the output of independent evaluation of the pilots in April 2025, beyond which we hope to be able to broaden out testing to additional local authority areas.

CALLS FOR A COST BENEFIT ANALYSIS OF THE SALMON FARMING SECTOR

We've heard from representatives, and in an open letter to you published in the Herald (November 2024), that salmon farming can come at the expense of opportunities for others or with outsized environmental impact. How do we ensure this is not the case? Should the Scottish Government conduct a cost benefit analysis?

- The economic and social benefits of salmon farming are clear. We are discussing the UK's number 1 food export, a sector with global reach, which supports around 12,000 jobs in Scotland across its supply chain, which provides a steady stream of revenue to Scotland's coastal communities, and which embeds itself in those communities.

- The planning system ultimately delivers a cost benefit analysis of every development proposal: The planning system carefully considers the economic, social and environmental impacts of fish farms, including environmental impact assessment, carefully. Experienced local authority planners are charged with making decisions in the best interest of their communities, in consideration of social and economic impact and in line with the statutory development plan.
- Salmon farming provides well-paid secure employment, particularly in coastal and island communities. These jobs can materially enhance the sustainability of often small communities.

- In Shetland, for example, aquaculture (fish and shellfish) is Shetland's largest private sector employer, accounting for an estimate 20% of the economy and 5% of all jobs (Seafood Shetland and Salmon Scotland estimates).
- A study by Cooke Aquaculture Scotland in Orkney found that their permanent, skilled jobs were paying on average 24.8% more than the average Orkney wage and 8.6% above the average for Scotland.
- The planning system must consider the environmental impacts of salmon farming and ensure that they are mitigated to an appropriate level.
- Further to that – SEPA will not permit significant environmental impacts; farms would not achieve a licence if they were guilty of significant impact in the way suggested.
- National Planning Framework 4 (NPF4) is an integrated strategy to bring together cross-cutting priorities and achieve sustainable development. NPF4's policy on aquaculture seeks to ensure that new aquaculture development is in locations that reflect industry needs and considers environmental impacts, and that producers contribute to communities and local economies.
- We are also now working to deliver a new National Marine Plan 2 to meet Scotland's future needs.
- The physical footprint of salmon farming in Scottish waters is estimated to be 4,000 hectares, about the same size as Colonsay; it is a small proportion of our territorial waters. The sector itself gave evidence to the Committee that it is more interested in expanding its value than expanding its physical size; with Ben Hadfield noting that production has 'flatlined' at around 180,000 tons for some time. That means making better use of existing quantity of biomass, including by moving farms to better locations where required.

Enclosure 04 – OPENING REMARKS

Cab Sec RALRI speech to Parliament – Aquaculture Debate
20th March 2025

Response to Motion
Time available: 8 minutes
Word count: 1,302

Thank you, Presiding Officer,

I am grateful for the Rural Affairs and Islands Committee's thorough exploration of the issues facing salmon farming in Scotland and for members' consideration of progress made since the December 2018 'Salmon Farming in Scotland' report.

I am also grateful for the opportunity this debate brings to discuss these matters more broadly in Parliament, to outline the key work that we as a Government have delivered since that initial report, and to discuss in more detail our response to the Committee's recommendations.

In 2023 I published the Vision for Sustainable Aquaculture setting out our ambitions for the sustainable development of the aquaculture sector.

The sector provides invaluable benefits for our nation, particularly for the coastal and island communities where it operates, and our Vision sets out how we see the sector developing - operating within environmental limits and supporting our local communities and economies.

Last year Scottish salmon was once again the UK's top food export achieving a record high of £844 million in exports.

The sector contributes significantly to our economy with approximately 2,300 people directly employed and many, many more throughout its supply chain covering a variety of disciplines such as fish health, engineering, feed, vessels and equipment manufacture.

Salmon production largely takes place in our highlands and islands where it provides high-value, high-skill, long term employment opportunities that contribute to the ongoing vibrancy and vitality of those communities.

The committee heard evidence on the wide range of community benefits the sector brings including generating and sustaining direct and indirect jobs, the provision of housing, financial and in-kind support to local projects and community interests, and the underpinning of populations.

Evidence

As we work to tackle the climate crisis and grow Scotland's economy, we look to enable the sustainable development of the sector.

I know the Committee would share my view, set out in our Vision, that economic benefit must not be at the expense of our environment.

Our strong regulatory framework already provides the important safeguards necessary to preserve our environment now and for the future.

However, we know, and would agree, that of course there is always more to do. Our policies and regulations should always be informed by the best available science and evidence.

And I hope that members across the chamber would agree it is important our interventions are evidence based, balancing proportionate regulatory improvements to protect our natural environment against the impact regulation could have on the sector's economic potential.

I am sure that all members are aware that salmon farming is a sector which attracts many and varied stakeholder opinions.

It is absolutely right that all sectors, including salmon farming, are scrutinised and held to account.

But in the case of salmon farming, where we know polarised opinions are commonplace, it is more important than ever, to take the time to collaborate in shaping and delivering policies which ultimately bring people and communities together, rather than divide them.

Setting Expectations: Unrealistic Timescales and Changed Circumstance

Collaboration and consultation take time.

Whilst I recognise the urgency in which the Committee calls on Government to act in this area, there is a need to build consensus on the way forward and, as far as is possible, to build relationships.

Pace does not necessarily lead to good outcomes.

My response to Committee carefully prioritises what I believe is achievable for Government, but also importantly, for the range of partners which we work with.

We need to be cognisant of the cumulative impact of our work programmes on all stakeholders.

Another factor impacting on delivery, and affecting Government in its entirety, is the ongoing challenge of ensuring we manage effectively within our financial means. This means prioritising how and when we take work forward.

That is why I want to be open and transparent about the balance that Government is trying to achieve to ensure that we are delivering on the most important issues.

That means, whilst we work within resource constraints, we must continue to make careful and difficult prioritisation decisions.

Moratorium

Another key point I want to touch on today from the Committee's considerations, is the references and talk of moratoriums on either new sites or expansion at existing sites.

Despite prior Committees' findings that there was insufficient evidence to support a moratorium on future development, and the significant progress made since those inquiries, I was disappointed that the Committee has signalled that it would look to revisit this issue in a years' time.

I do welcome the Committee outlining that it would not support a moratorium at this time, albeit I recognise not all members supported that position, but Presiding Officer, there should be no question about whether we want salmon farming in Scotland or not – we do.

Any move towards some sort of 'moratorium' would deprive Scotland of the benefits of salmon farming for our economy and communities, without adequate justification that the potential environmental harms are not being managed appropriately.

A moratorium could stifle the very investment in science and innovation that will ultimately support fish health, environmental and productivity goals.

We are committed to ensuring Scotland is a good place to do business, with effective but proportionate regulation that protects our environment both now and into the future.

We take matters of fish health and welfare and protecting our environment seriously.

I hope that my response to Committee is clear on these issues and provides an insight into what is being prioritised and when, within the context of our work plan.

Ending on positive messaging and reassurance:
Work programme

What I hope I have also managed to convey in my response, is openness and transparency about the Government's intentions and that we are being absolutely clear about what work we intend to deliver, when we will deliver it and why.

Having set that out, and having carefully considered our response to the Committees findings, I hope colleagues across this chamber, can see that we have committed to a number of actions, across all areas, and that we take Committee's time, deliberations and recommendations seriously.

We have already made significant progress on key areas including reducing environmental impact, improving fish health, and streamlining planning and consenting.

Beyond that progress, I have committed to a range of further actions in my response to the Committee. While I don't have the time to cover all of them this afternoon I want to set out some of the priorities we are taking forward.

We will be:

- Exploring with partners how existing data collections can be better presented and accessibility enhanced including improvements to Scotland's Aquaculture website.
- Working to analyse mortality data, exploring thresholds for 'persistently high mortality' and whether fish farms with 'persistently high mortality' exist.
- Based on the evidence the committee received, we will be undertaking an analysis of options, including statutory and other alternatives, to understand how improved welfare standards can best be supported.
- Continuing to support projects which deliver on our blue economy objectives, including through the Marine Fund Scotland.
- We will deliver a new coordination structure for aquaculture innovation, taking forward discussion on innovation sites when this innovation vehicle is ready.
- We will continue work with SEPA and the sector to support development of the monitoring strategy underpinning the Sea Lice Risk Assessment Framework.
- Beyond delivery of SEPA's framework, we are prioritising and progressing work on financial penalties for fish farm escapes and then will subsequently issue a revised technical standard for finfish escapes.
- We will deliver improvements to the fish farm consenting process through our Consenting Task Group, including discussion of how the sector can be supported to consolidate and relocate biomass.
- To support development in more exposed and 'offshore' waters, we will respond to the recent consultation on extending local authority planning controls and relevant marine planning zones to 12 nautical miles.
- We will explore, through the development of National Marine Plan 2, bringing the range of management measures and spatial constraints data for salmon farming into one place.
- We will also commence scoping work on a community benefit package.

Conclusion

The detail of these commitments is broad and set out in our written response to the Committee.

But I hope what I have set out briefly today shows that we are listening, we are acting and we want to continue to make progress.

On drawing to a close Presiding Officer, I want to thank Committee members again for in-depth consideration of these matters.

I look forward to keeping the committee updated as we make further progress across these important areas, to ensure we continue to support the development of this sector, operating within environmental limits, and delivering the range of social and economic benefits we know that it brings.

Enclosure 05 – CLOSING REMARKS

Closing Remarks

Target Time: 7 minutes
Word count: 1,136 words

Thank you, Presiding Officer.

I would like to reiterate my thanks to the Committee for their work and to all of the organisations and stakeholders who gave evidence and time both to support that process and for the debate this afternoon.

As I noted earlier, salmon farming is a sector which attracts many and varied stakeholder opinions and, while the sector is rightly scrutinised and held to account, it is important that such scrutiny leads to an open and respectful dialogue rooted in clear evidence.

We have committed in our response to the Committee's report to a number of actions which will build transparency and accessibility of data but also to examine more closely some of the assumptions made about the sector.

Value

It is clear to me that across this Chamber the value of aquaculture is widely recognised.

We value the important roles it plays in supporting employment with 2,300 jobs directly and over 10,000 roles in the broader supply chains, many of which are skilled, and provide average annual incomes well above national and regional averages.

We value the £324 million in gross value added by the salmon sector for the Scottish economy in 2023 and the £1.1 billion which the sector was worth at the farm gate in the same period.

It is why this Government continues to support the Sustainable Development of salmon farming in Scotland. Our response to the committee's report, alongside our Vision for Sustainable Aquaculture, sets out how we will support the development of the sector to operate within environmental limits and deliver social and economic benefits for Scotland.

Delivery at pace
We are committed to realising improvements in performance with the sector and other stakeholders as rapidly as practically possible, but we are mindful of the complexity of the issues under discussion and of the resources available to us.

Our response to the Committee's report sets out where we will take action in the next 12 months and where we expect to deliver other key strands of work as we prioritise key actions.

Community benefit
Our Vision for Sustainable Aquaculture commits to ensuring that communities which host aquaculture are engaged in the sector's development, share in its success and are supported through a range of lasting benefits.

We will explore with our stakeholders how we can build on existing practice to ensure that funding or community social contracts deliver on community priorities, including through the development of good practice principles.

We are going to start that scoping work in 2025/2026, with a view to commencing delivery beyond the 2026 Crown Estate Scotland lease fee increases.

Moratorium
I earlier expressed my disappointment that, despite prior Committees' findings there was insufficient evidence to support a moratorium, and the significant progress made since previous inquiries, the Committee has signalled it may revisit this issue in a year's time.

Having listened carefully to the debate today I'm concerned that any form of moratorium is entirely inappropriate and risks depriving Scotland of the benefits of salmon farming for our economy and communities, without adequate justification that the potential environmental harms are not being managed appropriately.

It is within the sector's best interests to ensure that mortalities are driven to the lowest possible levels and we have to recognise that there can be circumstances that lead to mortalities that are completely outwith a fish farm's control- such as micro jellyfish or algal blooms.

Research is ongoing into mitigations. There must be continued investment in research and innovation to address the key threats that we know can lead to mortalities so that they continue to be minimised.
I have committed to analysing data on mortality to understand more about whether there are farms with persistent high rates of mortality which could indicate a systemic problem.

Regulation
We continue to develop our regulatory approach to ensure it remains fit for the purpose – ensuring environmental interactions are managed – whilst we continue to benefit from the undoubted economic and social benefits.

The Consenting Task Group will continue its important work following an in independent evaluation of progress so far.

Fish health and Progress
A wide range of work has been completed on fish health challenges and considerable progress is being made.

We have introduced mortality reporting, mandatory sea lice reporting, and we have lowered sea lice intervention levels for farmed fish health following session five's recommendations.

Average sea lice levels in Scotland are the lowest they have been in recent years as a result.

Salmon Scotland recently wrote to the Committee to set out their mortality data indicated survival across all marine farms was 82.3% in 2024, up 10 percentage points from 72.3% in 2023.

This is a positive indication that investment and attention from both Government and the sector in this fundamentally important area is paying off, although I am clear we will continue to work closely with the salmon sector and innovation and science communities to ensure that driving improvement remains a core focus.

Environmental impact
Our strong regulatory framework already provides important safeguards necessary to preserve our environment now and for the future.

In my response to the Committee, I set out some of the key actions we will take or are already taking to support SEPA and the sector including supporting development of the monitoring strategy underpinning the Sea Lice Risk Assessment Framework and introducing the new Environmental Quality Standard for Emamectin Benzoate.

Our Vision commits us to ensure that the sector's environmental impact is within acceptable limits, with continual progress to minimise that impact through innovation, research and development.

The work I have committed to on science and innovation, and our funding through Marine Fund Scotland, will continue to enable progress on better understanding impacts and ensuring that they are indeed within environmental limits.

Escapes
We remain committed to delivering penalties for fish farm escapes with the ultimate aim that monies are redistributed for the benefit of wild salmonids, and to working with the sector to deliver an updated technical standard for fish farm equipment.

In this area, priority is being given to delivery of a new sea lice risk assessment framework under SEPA, recognising Committee's previous concerns about suggested 'regulatory gaps' in this area and in recognition that Scotland already has a well-established escapes regulatory framework. As the Committee is aware, this has been a complex piece of work.

I also recognise the importance of making further progress on escapes, which is why I have set out, in my response to Committee, prioritisation of this issue beyond the sea lice framework and the expected timescales.

Sea lice – SLRAF and appeals
In response to the recommendations of previous Committees and as part of our action to protect wild salmonids, SEPA has begun to implement its sea lice regulatory framework. We are supporting SEPA in the process of implementing a multi-year programme of environmental monitoring to understand the effectiveness of the framework.

As the Committee knows, there are varied stakeholder opinions relating to sea lice and the risks to wild salmonids. Indeed, there have been similar public debates in other nations, such as Norway and Canada.

I will not comment on the specifics of live appeals. Speaking generally, our environmental licencing regime rightly includes the capacity for licensees to appeal, and a process is in place for these to be considered and managed.

Scottish Government will give full consideration to the issues raised and to ensuring the framework is proportionate and fit for purpose. We remain committed to science and evidence led policy and regulation, balancing protection of the environment with growing our economy.

EmBz
I do not consider an expedited timetable for the new Environmental Quality Standard for Emamectin Benzoate is appropriate. Following a public consultation held from 24 April to 24 July 2023, Ministers accepted the recommended timescales, recognising this as the most suitable approach for aligning with the planning and investment horizons across multiple operators.

Farmers need an appropriate period to adjust their practices to manage down the use of Emamectin Benzoate without compromising the health of their fish. The four year period for introduction is roughly equivalent to only 2 production cycles.

It would be destabilising to amend this decision, following a carefully balanced evaluation which took account of the impact on businesses, the environment, the impact on fish health, and the other tools available to production companies to manage sea lice to the required standards.

Consenting
We are committed to making improvements to the fish farming consenting regime, providing a streamlined, efficient and transparent service which enhances communication and engagement between regulators, developers and communities.

We know this is key to building investor confidence and delivering investment which helps to manage fish health and environmental interactions.

The Consenting Task Group has developed a new pre-application process that seeks to align processes between the various regulators, remove duplication and enhancing communication. This is being piloted, and the Group will consider the outputs from an independent evaluation exercise this month. We then hope to increase the number of pilots and work with other local authority areas.

My officials are currently analysing the responses from the recent consultation on proposals for plans to address an existing gap in aquaculture planning regulations by extending Local Authority marine planning zones out to 12 nautical miles. I expect that report to be published shortly.

Spatial planning
The National Marine Plan 2 will continue to provide the planning framework for our licensing and consenting decisions and set the context for regional and sectoral marine planning.

We are committed to the development of a functioning regional marine planning sector that supports marine consenting and licensing, and I would like to reassert support for the production of regional marine plans for the Orkney, Shetland, and Clyde marine regions.

I have committed to taking forward work on more localised spatial planning approaches, which would see collation of fish farm management measures and available spatial data, mirroring similar commitments for the fishing sector which we expect to introduce via NMP2.

Farmed Fish Health Framework
The Farmed Fish Health Framework has provided a valuable locus for collaboration between fish vets, the sector, regulators, innovation bodies and government on farmed fish health, recognising that the collective can achieve more than any one part. Its early work delivered on aspects of cleaner fish captive breeding and knowledge exchange, and also agreed management measures for wild caught cleaner fish. More recently its work has led to Salmon Scotland's monthly publication of data, and it has identified barriers to medicine development, including vaccine and emerging therapies.

Most importantly, it has provided strategic direction to fish health as a priority work area, which has influenced projects taken forward by organisations including the Sustainable Aquaculture Innovation Centre in collaboration with fish farming businesses.

The Farmed Fish Health Framework is not a static forum and we are in a good position to draw on the expertise it represents to identify and deliver on new priorities. I see an important and unique role for it in delivery of key aspects of my commitments to the Committee, particularly in identifying and then mitigating emerging climate related challenges.

Data and transparency
More data is collected and published in relation to salmon farming in Scotland than salmon farming in other jurisdictions, and in comparison to terrestrial farming sectors. I do not believe that it is necessary at this time to mandate any further collections of mortality data through legislation.

Regulation must be proportionate- if I believed there were issues in collecting that data, I wouldn't hesitate to consider this.

I do however recognise that improvements could be made in terms of how the existing data are presented and explained – I will explore how this can be improved.

We will work with partners to scope out how Scotland's Aquaculture can be refreshed, including financing of it. We will take this forward within 2025-26, anticipating that implementation (especially of the website) will take longer.

Griggs review
Professor Griggs reported his findings and recommendations in February 2022 which I immediately accepted in principle. I subsequently established the Scottish Aquaculture Council as an advisory group bringing together the sector, regulators and Scottish Ministers to coordinate across the range of Scottish Government's commitments and to deliver our aspirations for aquaculture in Scotland.

We are continuing to work towards a coordinated and efficient consenting system through the Consenting Task Group.

Conclusion

Presiding Officer, in drawing to a close I would like to thank the Committee for its work and Members across the chamber for their contributions today.

We have heard a wide range of thoughtful views and whilst I do not agree with every point made on every issue, I am grateful for the consideration given to these important matters and want to reassure you that we are listening.

Our response to the Committee's report sets out our planned actions.

The salmon farming industry is of vital importance to our economy and particularly for our rural and island communities. I hope we can work together to ensure its continued success as a sustainable sector, operating within environmental limits and providing community benefit.