Scottish Environment LINK

An Ocean Recovery Plan for Scotland

2020-2024 Review

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An Ocean Recovery Plan for Scotland Review of 2020-2024

Introduction

Scotland's seas are amongst the most productive in Europe, and the marine life they support is a constant source of wonder and inspiration. The UK, especially Scotland, has a rich biodiversity with 11 cetacean species regularly sighted, one third of the world's grey seal populations and a significant portion of Europe's breeding seabird populations [1, 2]. Scotland's seas are also a global hotspot for unique species such as temperate burrowed mud communities, flameshell beds and cold-water coral reefs. Our coasts and seas, and the species and habitats they support, are among Scotland's greatest assets, deeply shaping communities, influencing cultural identity, and providing the foundation of the maritime economy.

Scotland makes up approximately 13 % of the inshore and offshore waters of European seas [3]. However, the state of Scotland's seas and coastline have been in decline, and marine species and habits are a shadow of what they once were. Impacts from climate change, anthropogenic pressures and pollution, have affected these important ecosystems [4]. The Scottish Marine Assessment 2020 (SMA2020) was produced by the Scottish government and is the third assessment in a series to review the state of Scottish marine regions. It provides key findings for a variety of topics related to the health of marine regions such as human activities, ocean acidification, climate change, health and diversity, productivity, natural capital, ecosystem services and the blue economy. [5] The SMA2020 depicts severe decline in many of Scotland's marine ecosystems. It also identifies climate change and bottom-contact and pelagic fishing as the biggest threats to Scotland's seas.

Unsustainable use of natural resources, high carbon emissions and other human activities have made climate change happen more rapidly than ever, making it crucial to assess the state of our seas and the impact of ongoing activities. Using an ecosystem-based approach to the management of marine activities such as offshore infrastructures, bottom trawling and pelagic fishing, while collaborating with coastal communities will be key to help tackle the declining state of our seas and help deliver the Scottish government's vision of clean, healthy, diverse and productive seas. [6]

Protecting what is left in our marine ecosystems will not suffice to ensure the marine environment's resilience and adaption to climate change. Setting our seas on a path for recovery is vital for the health of our planet. To ensure that nature thrives, and the ecosystem services provided by the marine environment are available in the future, the Scottish Government must commit to delivering ocean recovery.

Setting up an ocean recovery plan, with achievable targets can be beneficial to the environment, society and economy. Marine carbon sinks such as seagrass beds and salt marshes help capture and store carbon which consecutively helps regulate and mitigate the effects of climate change. Fisheries support rural communities by providing people with job opportunities as well as contributing to food security. In addition, healthy coastlines attract visitors, support the marine tourism sector as well as local communities' physical and mental wellbeing. [7]

The UN has set a goal of conserving and using marine areas sustainably (goal 14) which is beneficial for both the environment and human population [8]. This is why creating legally binding targets for ocean recovery is key to achieve restored landscapes and seascapes. Government-created incentives have a powerful influence on how society thinks about and behaves towards biodiversity. This is especially important for managing resources in a sustainable way.

Scottish Environment LINK (LINK) is the forum for Scotland's voluntary environment community, with over 40 member bodies representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society. Its member bodies represent a wide community of environmental interest, sharing the common goal of contributing to a more sustainable society. LINK provides a forum for these organisations, enabling informed debate, assisting co-operation within the voluntary sector, and acting as a strong voice for the environment.

Acting at local, national and international levels, LINK aims to ensure that the environmental community participates in the development of policy and legislation affecting Scotland. LINK works mainly through groups of members collaborating together on topics of mutual interest, exploring the issues and developing advocacy to promote sustainable development, respecting environmental limits.

In December 2020 LINK's Marine Group published an **Ocean Recovery Plan** [7] for Scotland. The Ocean Recovery Plan calls for the Scottish Government to ensure our seas are healthy and resilient in the face of climate change by 2030. Its main asks were to:

1. Create legally binding targets for ocean recovery
2. Strengthen the Marine Protected Area (MPA) network for ocean recovery
3. Reform fisheries for resilience
4. Invest for our future

This report is the first review assessing how well those asks have been addressed by the Scottish government. The scope of this review is the first four years of the Ocean Recovery Plan, 2020-2024.

Assessment key:

🟢 Good progress/ action made

🟡 Some progress/ ongoing

🔴 No meaningful progress/ action urgently needed

The Ocean Recovery Plan calls for 58 actions to be implemented or progressed between 2020 and 2023. The review shows that **only 7 were assessed as in "good progress".** 25 other actions were assessed as with "some progress" while 26 actions remain with no meaningful progress.

2020 Review

Overview

In 2020 out of 8 ask only 2 were fully achieved.

2020 was a year of multiple emergencies. Both Brexit and the global pandemic of coronavirus (COVID) posed significant challenges for policy-making processes. 2020 was the last year of the Brexit transition period, meaning the UK would no longer be bound by EU environmental regulations, prompting the development of domestic frameworks to address environmental governance. In Scotland, concerns arose about maintaining high environmental standards and the potential loss of EU funding for environmental projects. The global pandemic seriously affected our societies and economies, with increasing calls from individuals and scientists to build a sustainable and fair recovery from COVID. [9]

Category	ORP Goals for 2020	Actuality	Progress
1.Legally binding targets	**1.1** Commitment to regulate chemical pollution with regulations that go beyond EU REACH regulations	Brexit → UK REACH, basically same regulations as EU REACH, nothing beyond that	🔴
	1.2 Scottish Government marine and national litter strategies and response to single-use plastics consultation drive further measures to stop ocean waste and plastic, including tackling sewage related debris and fishing litter	Deposit Return Scheme Plan (3 years later still not done/delayed) Marine litter strategy delays to 2022 because of Covid → Completed in 2022	🟡
2. MPAs	**2.1** 4 Inshore MPAs designated	4 inshore MPAs (Sea of the Hebrides, Shiant East Bank, Southern Trench and Northeast Lewis)	🟢
	2.2 13 Marine bird SPAs designated	12 SPAs 13 SPAs were proposed to designation but only 12 were designated	🟡
3. Fisheries reform	**3.1** Strategy for Scotland's sea fisheries published, includes: ● Commitment to climate and nature smart fishing	Consultation about REM but no real commitment for delivering Note – REM mandatory for scallop dredge fleet since June 2024	🟡

Category	ORP Goals for 2020	Actuality	Progress
	• REM with over 10m and small high-risk vessels fishing in Scottish waters and Scottish vessels fishing elsewhere • UK fisheries publish yearly precautionary recovery plans following most recent science to ensure catch limits to end overfishing	Future Fisheries: Management Strategies 2020 to 2030 Fisheries Act 2020 In 2020 69% of Scottish fish stocks were fished at sustainable levels UK Joint Fisheries Statement in 2022	
4. Investing in Future	4.1 Scottish Government invests in nature and wellbeing to ensure a green recovery and recognises the economic benefits that arise from environmental sustainability	Commitments to just transition: • Net zero by 2045 • Sustainable development goals UN • Only 5 out 19 Aichi targets achieved	🟠

1.Legally binding targets

1.1 Scottish Government commits to developing a regulatory regime that prevents chemical pollution and goes beyond EU REACH regulations:

The EU REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) legislation is set to monitor and regulate chemical usage in the EU. The EU REACH Regulation was brought into UK law as UK REACH on 1st January 2021, under of the European Union (Withdrawal) Act 2018 [10]. UK REACH had great potential to include stricter pollution regulations that had not been agreed on by the EU. Unfortunately, nothing beyond the regulations set in EU REACH with minor changes to make it operable in domestic UK context, was agreed upon [11]. Nothing Scotland-specific has been established.

1.2 Scottish Government marine and national litter strategies and response to single-use plastics consultation drive further measures to stop ocean waste and plastic, including tackling sewage related debris and fishing litter:

The Marine Litter Strategy [12] was supposed to be published in 2020 but was delayed due to COVID. It was published in 2022 which prompted LINK to publish a response to it [13]. The response broadly agreed with the Marine Litter Strategy proposal but raised additional concerns:

• More circular fishing and aquaculture

- Further efforts to prevent pollution and litter in coastal and island communities
- A ban on single-use plastic sanitary items when more sustainable options are available and more governmental support on moving towards reusable options
- Further legislation on plastic pellets
- A ban on artificial turf pitches made of styrene butadiene rubber (SBR) to prevent more microplastics getting into the environment and to prevent leaching of heavy metals and other toxic chemicals.
- Research into the chemical components of physical litter e.g. treatments that are used in alternative food packaging to avoid regrettable substitution where one harmful option is exchanged for another harmful option.
- More effective timescales for proposed directives.

The SMA2020 includes sea-floor litter, beach litter and microplastic assessments. Sea-floor assessment completed between 2012-2018 recorded litter, mainly plastic, in 44 % of the trawls used. The highest densities occurred in the North Sea and lowest in the west of Scotland. [14] Beach litter assessments, which have been carried out by the Marine Conservation Society (MCS) since 1993, provide key data on plastic pollution on British coasts. The MCS Beachwatch Report 2023 [15] concluded that there is a decrease in the abundance of plastic cutlery, trays and straws whereas the abundance of sanitary items has been increasing with 72% of the surveyed beaches having sewage-related debris found on them. The decrease in certain plastic items might be the result of the bans that were introduced in 2022-2023 highlighting the effectiveness of legislation and encouraging the Government to further bans and actions on single-use plastic items. It is crucial to notice that currently, three out of the five top litter found on British beaches during the 2024 MCS Great British Beach Clean are single-use plastics [16]

Microplastic assessment was carried out between 2014-2020 at 398 sites within the Scottish marine Regions (SMR). Microplastics were found in all sea areas but not in all sample sites. The Clyde, Forth and Tay and Solway SMRs were the most contaminated. [17]

2. Marine Protected Areas (MPAs)

2.1 Four inshore Marine Protected Areas (MPAs) and 13 marine bird special protected areas (SPA)s are designated

Establishing and effectively managing Marine Protected Areas (MPAs) is crucial for protecting and restoring marine ecosystems. This is a global challenge but achieving it can bring significant benefits to society. Human activities have increasingly impacted marine environments, altering ecosystems and highlighting the need for action. In response, governments worldwide are recognising the importance of creating ecologically coherent networks of MPAs and other area-based conservation measures to safeguard ocean biodiversity.

Scotland, like many countries, is committed to meeting international targets for nature,

climate and sustainable development by 2030. This includes the "30x30" targets, to protect 30% of land and seas by 2030. Strengthening the Marine Protected Area (MPA) network is therefore crucial for ocean recovery. It is also recognised that governments need the support of local communities to achieve this effectively.

The Scottish government has designated 247 marine protected areas to provide protection to 37 % of Scottish seas [18]. In 2020 4 new inshore MPAs and 12 special protected areas (SPAs) were adopted. These new protected sites include many vulnerable species such as basking sharks, minke whales and Risso's dolphins as well as seabed habitats and geological features. [19]

The 4 new MPAs are:

- North-east Lewis MPA
- Sea of the Hebrides MPA
- Shiant East Bank MPA
- Southern Trench MPA

LINK members, as highlighted in the ORP asks, called for 13 sites to be designated. However, even after extensive review and recommendations, some sites have not been designated [20].

The 12 new designated SPAs are:
- Solway Firth
- Seas off St Kilda
- Seas off Foula
- Outer Firth of Forth and St Andrews Bay Complex
- Moray Firth
- Ythan Estuary, Sands of Forvie, and Meikle Loch (extension)
- Bluemull and Colgrave Sounds SPA
- East Mainland Coast, Shetland SPA
- Sound of Gigha SPA
- Coll and Tiree SPA
- Rum SPA
- West Coast of the Outer Hebrides SPA

3. Fisheries reform

3.1 Strategy for Scotland's Sea Fisheries is published which includes a commitment to climate and nature smart fishing, new legislation where necessary and rollout of Remote Electronic Monitoring with cameras (REM) across all over 10m and smaller high-risk vessels fishing in Scottish waters and Scottish vessels fishing elsewhere.

This and every year, UK fisheries authorities publish precautionary recovery plans

for all depleted fish stocks, including requirement for REM on vessels accessing these stocks, and work together to ensure catch limits follow the science and end overfishing.

In 2019 the UK Bycatch Monitoring Programme (BMP) estimated that the most caught species as bycatch in UK fisheries were harbour porpoises (502-1560 individuals), common dolphins (between 165-662 individuals) followed by both grey and harbour seals (between 375-872 individuals). [21]

Remote Electronic Monitoring (REM) with cameras is a cost-effective tool for monitoring fishing activities by using imagery sensory and GPS. Monitoring fishing activities is important for receiving knowledge of what is being caught out in the sea. This data can then be used to provide better methods to avoid harming vulnerable and endangered species [22]. It has been estimated that using REM systems on all boats longer than 10 metres in the UK would only cost the government a quarter of what is currently used for monitoring [23]. And it vastly improves the transparency of the industry.

The most recent primary legislation, the Fisheries Act 2020 [24] provides 8 objectives with 6 of them focussing on sustainability and environmental protection. This includes minimising and, where possible, eliminating unintentional catches of sensitive marine species. This informs the UK Joint Fisheries Statement (JFS) which contains policies on how to achieve these targets set in the Fisheries Act 2020 [25].

The Fisheries Act and JFS alongside the UK Marine Strategy [26] and Scotland's Fisheries Management Statement [27] play a major role in sustainable fisheries in Scotland. Unfortunately, as highlighted in a consultation response from the Future Fisheries Alliances (FFA), the Joint Fisheries statement lacked explicit commitment to deliver REM [28]. In 2020, 69 % of Scottish fish stocks were fished at maximum sustainable yield levels (fMSY) [29].

4. Investing in future

4.1 Scottish Government invests in nature and wellbeing to ensure a green recovery and recognises the economic benefits that arise from environmental sustainability

The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 provide targets to reduce greenhouse gas emissions, with the objective of Scotland achieving just transition to net zero by 2045. A just transition involves reducing emissions and responding to climate change while ensuring the creation of a fair future for everyone regardless of economic or social status [30]. In 2020 the Scottish government published their 2018-2032 Climate Change Plan, which includes [31]:

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- Investments to net zero markets
- Climate Skills Emergency Action Plan
- Improvement in public transportation infrastructure especially focusing on improving connectivity for people in lower socio-economic groups
- Heat and energy efficient policies
- Collaborative work with farmers and crofters to support development of better agricultural systems
- Collaborating with Grangemouth Future Industry Leadership Board to ensure low-carbon economic growth

The plan however lacks a marine focus and fails to mention Scottish marine regions, which is a significant missed opportunity. Building a marine just transition is vital to achieving the 2045 target and create a fair future for all.

In 2020 only 5 out 19 Aichi targets were achieved by the UK [32]. These targets are set by the Convention of Biological Diversity to address and mitigate biodiversity loss [33,34]

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2021 Review

Overview

In 2021, out of 24 LINK Ocean recovery Plan targets, only 5 were fully achieved.

In early 2021, the COVID pandemic was still hugely affecting the speed of decision-making [35]. In November, Glasgow hosted the United Nations Climate Conference (COP26) with world leaders and climate experts from nearly 200 different countries [36]

Category	ORP Goals for 2021	Actuality	Progress
1.Legally binding targets	**1.1** UK Dolphin and Porpoise Conservation Strategy	UK Dolphin and Porpoise Conservation Strategy in consultation	🟡
	1.2 Scottish Government develops ambitious positions for COP15 and COP26	COP26 and COP15 ● Glasgow Climate Pact ● Kunming-Montreal Global Biodiversity Framework → assessed in 2023, UK lagging behind	N/A
	1.3 Cabinet Secretary for Ocean Health and Maritime Affairs established to drive transformative change in how we manage marine resources and recover ocean health	Not assigned Cabinet secretary for rural affairs, land reform and islands also in charge of Ocean Health and Maritime Affairs	🟡
	1.4 Scottish Government champions an ambitious Post-2020 Global Biodiversity Framework under the Convention on Biological Diversity that recognises the need for ocean protection and restoration targets alongside a strong role for regional and sub-national governments and communities in line with the Edinburgh Declaration	Draft published in December 2022	🟡
	1.5 Maritime sectors are encouraged to outline their plans for their contribution to net zero ahead of COP26 in Glasgow	UK Maritime sector was given a map for the future at COP26 → Blue Economy plan published in 2022	🔴

	1.6 Natural Environment (Scotland) Bill	SBS published for consultation in 2023. The Natural Environment Bill is expected in 2025.	🟡
	1.7 All UK administrations commit to delivering the monitoring programmes needed to measure progress towards achieving GES by 2024	Consultation on the proposed updating of the Marine Strategy because of insufficiency in achieving GES.	🟡
	1.8 New fisheries legislation	Fisheries Act 2020 →Covers Scotland, has positive objectives Scotland specific management plan proposed	🟡
	1.9 Development of the Joint Fisheries Statement and Fisheries Management Plans	Joint Fisheries Statement ● Published in 2022 ● Currently no Scotland specific Fisheries Management Plans for scallops, brown crabs, lobster	🟢
	1.10 Scottish Seabird Conservation Strategy is published	Delayed - being published in 2025	🟡
	1.11 Sectoral marine plan for offshore wind energy adopted	Updated draft plan 2024 and final plan will be adopted in 2025	🟡
	1.12 All existing and new salmon farms are managed under SEPAs updated regulations	SEPA introduced a new regulatory framework in 2019. Around 73% of farm licences have been moved across to the new framework with the remaining expected to move across by the end of February 2025. Around 200 fish farms have appealed against variations in sea lice regulation, which have been submitted to Scottish Ministers in 2025 Update expected in SEPA's progress report.	🟡
	1.13 Circular Economy (Scotland) Bill is introduced	Circular Economy bill delayed → published in 2023 A routemap published in 2024	🟡

	1.14 British Standards Institution (BSI) Publicly Available Specification (PAS) for plastic pellet supply chain adopted with a roadmap for introduction as a legal requirement	Marine Litter Strategy updated in consultation → published in 2022	🟠
	1.15 National Marine Plan review is published and scrutinised by Parliament	National Marine Plan Review 2021 NMP2	🟢
	1.16 A replacement fund comparable to the European Maritime Fisheries Fund, with a focus on sustainability	Maritime and Fisheries Fund (MFF) 2019, updated in 2022	🟠
	1.17 A strategy for regulating and managing marine tourism, to ensure that any growth occurs in a managed way and allows for nature recovery	Marine Tourism: Giant Strides 2020-2025	🟢
	1.18 The updated Climate Change Plan includes policies and targets for blue carbon protection and restoration	Climate Change Plan Update (December 2020)	🟢
2. MPAs	**2.1** A new independent commission is established to advise on the transformative change needed in the MPA network and in site management to meet 2030 target for Scotland's seas	No independent commission established	🔴
3. Fisheries reform	**3.1** Fisheries Management Plans include requirements to improve data to ensure stock assessments and appropriate protection	The Joint Fisheries Statement lists 43 proposed FMPs. Some FMPs will be developed jointly by 2 or more fisheries policy authorities, whilst others will be developed by a single authority for its own waters. Temporary management measures for scallops, crab and lobster have been implemented	🔴
	3.2 Scottish Government adopts the UK Plan of Action on Seabird Bycatch	Not achieved	🔴
	3.3 Review of military exercise impact on cetaceans and other marine wildlife in Northwest Exercise Area	Not achieved	🔴

4. Investing in future	4.1 Scottish Government outline and commit to a strategy to have all 11 Regional Marine Plans in place and functioning effectively by 2030	No further plans before the NMP2 is adopted	🔴
	4.2 Scottish Marine Environmental Enhancement Fund is established to support and drive an increase in practical conservation and restoration projects	Planned in 2021 and formally launched in 2022	🟢

1. Legally binding targets

1.1 UK Dolphin and Porpoise Conservation Strategy

About 23 cetacean species have been recorded in Scottish waters over the last 25 years, of which 11 are regularly sighted. UK waters are home to five threatened species: the North Atlantic right whale, blue whale, sei whale, fin whale and sperm whale.

All cetaceans are legally protected throughout various pieces of legislation at national, European, and international scales. The EU Habitats Directive makes it an offence to deliberately capture, kill or recklessly disturb cetaceans. In the UK, cetaceans are also protected under the Wildlife and Countryside Act 1981, and the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas (ASCOBANS) In Scotland, 13 cetaceans species are listed as priority marine features.

The UK Dolphin and Porpoise Conservation Strategy was developed by the Scottish Government in collaboration with the Department for Environment, Food and Rural Affairs (DEFRA), the Welsh Government (WG), Department of Agriculture, Environment and Rural Affairs Northern Ireland (DAERA) and the UK Statutory Nature Conservation Bodies (Joint Nature Conservation Committee (JNCC), Natural England (NE), Natural Resources Wales (NRW) and Scottish Natural Heritage (SNH) [37]. The strategy aimed to ensure effective management to achieve and/or maintain favourable conservation status for the most commonly found cetacean species in UK waters.

The UK Dolphin and Porpoise Conservation Strategy was published for consultation in 2021, yet the consultation's outcomes have not been published. In a question to Parliament on 21st June 2023 [38] Jeremy Balfour, MSP asked the Scottish Government when the UK Dolphin and Porpoise Conservation Strategy would be finalised. The Scottish Government answered that the aim was to publish the strategy in early 2024, but to this day it is still not the case.

1.2 Ambitious position for COP26 and COP15

In 2021 COP26 was held in Glasgow. The UK government led a series of initiatives ranging

from banking to forests and energy during COP15 in 2022 [39,40]. For the first time at a COP, ocean action was formally recognised as climate action, and the ocean was permanently anchored in the multilateral climate change regime. The UK was very vocal about the importance of developing an ambitious plan to help mitigate climate change. However, the Committee on Climate Change published a review in 2023, showing that the UK was severely lagging behind most of the targets [41]:

Out of the 18 targets assessed, none are currently on track to make good progress. Instead, action on 12 of the targets has stalled or is going backwards. This includes:

- The targets on climate change (with the UK Prime Minister at the time backtracking on net zero pledges);
- Pollution (with lack of action related to pesticides)
- Agriculture (with new agricultural policies impacted by delays and lacking ambition and coordination)
- Restoration of marine habitats (with continued impacting activities such as bottom-contact fishing and oil and gas exploration in Marine Protected Areas).

1.3 Cabinet Secretary for Ocean Health and Maritime Affairs established to drive transformative change in how we manage marine resources and recover ocean health

No specific cabinet for ocean health and maritime affairs has been established. Instead, the ministerial portfolios covering marine matters are split across various ministers. The Cabinet Secretary for Rural Affairs covers fisheries and aquaculture, while the Cabinet Secretary for Net-Zero covers marine planning, environment and nature recovery. With the Bute House Agreement, the newly appointed Green Party minister also covered biodiversity and circular economy [42], therefore partly working on marine. Establishing an Ocean Health and Maritime Affairs cabinet secretary could provide more specialised knowledge and better efficiency to address the marine challenges at hand.

1.4 Scottish Government champions an ambitious Post-2020 Global Biodiversity Framework under the Convention on Biological Diversity that recognises the need for ocean protection and restoration targets alongside a strong role for regional and sub-national governments and communities in line with the Edinburgh Declaration

Species extinction rates for vertebrate species have accelerated after the Industrial Revolution due to anthropogenic pressures and are now up to 100 times higher than they would be without humans. Scotland ranks 28th from the bottom of the 240 regions and countries included in the Biodiversity Intactness Index (BII) in terms of the health of biodiversity, as measured by the BII. In 2022 the Edinburgh Declaration on post-2020 Global Biodiversity Framework sets out goals and commitments to deliver biodiversity strategies for the coming decade at a sub-national level [43]. Scotland's wildlife is not doing well and the BII has estimated that only around 56 % of Scotland's biodiversity was intact [44].

1.5 Maritime sectors are encouraged to outline their plans for their contribution to net zero ahead of COP26 in Glasgow

No outlined plans from maritime sectors before COP26 are publicly available.

After COP26, UK Maritime sectors were given a roadmap (Maritime 2050) for the future which includes their contribution to achieving net zero [45]. In addition, Scotland's Blue Economy Vision published 2022, ties together with the maritime sectors and states that, by 2045, the Scottish marine environment should support ecosystem health, livelihoods, economic prosperity and social wellbeing [46].

1.6 Natural Environment (Scotland) Bill

The Environment Act 2021 [47] came into act in 2022. This new UK's environmental framework after leaving the EU, includes new laws on environmental protection, water and air quality [48]. The Environment Act 2021 was designed to set statutory targets for the recovery of nature through four priority areas: Air quality, biodiversity water and waste. Most importantly, it includes a new legally binding target for species abundance towards 2030.

In August 2021 the Scottish Government and the Green Party published the Bute House Agreement [49]. This shared policy programme focussed on areas of mutual interest. The Bute House Agreement included a commitment to deliver a Natural Environment Bill and a new Scottish Biodiversity Strategy. The draft Scottish Biodiversity Strategy was issued in 2022 and published for consultation in 2023. The Natural Environment Bill is expected in 2025.

1.7 All UK administrations commit to delivering the monitoring programmes needed to measure progress towards achieving GES by 2024

The UK Marine Strategy Regulations 2010 reviews the current state of the environment in the UK and outlines measures for achieving and maintaining Good Environmental Status (GES) [50, 51]. The UK Marine Strategy 2018 covers 11 descriptors that ensure parts of GES are achieved and provides an opportunity to compare the progress done since the first Marine Strategy was published [51].

However, UK administrations **collectively failed to achieve 11 of 15 GES indicators under the UK Marine Strategy**, to halt biodiversity loss in the ocean, and to ensure fisheries were managed sustainably, as required by 2020.

In 2021, the UK Marine Strategy Part 3: Programme measures from 2015 was proposed to be updated [52]. In 2025, the UK Marine Strategy Part Three: Programme Measures from 2025 was published, providing an update on the previous programme [53]. It is important to notice that some of the measures set up to be delivered from 2025, were

already part of the previous programme, showing delay from the UK administrations to implement the actions needed to achieve GES.

1.8 New Fisheries Legislation
   and
1.9 Development of Joint Fisheries Statement and Fisheries Management Plans

In 2020 the Fisheries Act 2020 [25] gave the UK Government and Devolved Administrations an improved legal framework to manage their fisheries. The Fisheries Act 2020 includes key factors that need to be taken into consideration such as bycatch and climate change, and it covers Scotland. In 2022 a Joint Fisheries Statement (JFS) was published by the UK Government and Devolved Administrations as a collaborative effort to contribute and achieve Fisheries Act objectives. The JFS not only covers sea fisheries policy and management within UK water but is also in negotiation with other coastal regions [26, 27].

Fisheries management plans (FMPs) are evidence-based action plans to achieve more sustainable fisheries. They are vital for the UK's commitment to sustainable fishing. FMPs are management plans established in collaboration with the fisheries sector and other stakeholders and aim to deliver sustainable fishing. Each FMP is specifically developed by one or more fisheries policy authorities and planned for an area with its unique features in mind to maximise its effectiveness [54]. The Joint Fisheries Statement lists 43 proposed FMPs with Marine Scotland being a major coordinating authority [23]. In 2024, due to concerns raised related to the health of scallop, brown crab and lobster stocks, temporary measurements have been introduced [55]:

1. Retaining onboard, landing, offering for sale or consigning a berried (egg bearing) lobster (*Homarus gammarus*)
2. Retaining onboard, landing, offering for sale or consigning a berried (egg bearing) brown crab (*Cancer pagurus*)
3. Deploying creels, pots or traps within any part of Scottish inshore waters (0-6 nautical miles), if the vessel is greater than 12 metres overall length and caught over 200 tonnes of brown crab and/or lobster during any 12 month period(s) from 2020 onwards.

1.10 Scottish Seabird Conservation Strategy is published

Scottish seabird populations have been declining dramatically, and it has been estimated that two-thirds of the breeding seabird species declined in the last 20 years. There are many factors affecting the population size, including climate change, urbanisation and pollution. Highly Pathogenic Avian Influenza (HPAI) has also played a role, by sweeping through Scotland and causing mass bird deaths [56]. In 2024, five more seabird species were added to the UK Red list.

Because of this alarming trend, it is crucial to implement a framework that help address the pressures facing seabird populations in Scotland. The draft Scottish Seabird Conservation Strategy was published for consultation on 12 September 2022 but the final version has been delayed and has been set to be published in 2025.

The latest seabird census [57] reveals a catastrophic decline in seabird populations. The Scottish Seabird Conservation Strategy is urgently needed to ensure the recovery of seabird populations and their resilience in the face of climate change. If implemented with urgency, effective funding and the additional asks above, this action plan can meet the key needs to bring our seabirds back from the brink of disaster.

1.11 Sectoral marine plan for offshore wind energy adopted

Scotland has the potential to provide significant energy resources from offshore wind. Any expansion of offshore wind energy in Scottish waters requires marine spatial planning at a national, regional and local scales, to map out suitable areas and avoid vulnerable areas.

In 2020 the Scottish Government published their initial Sectoral Marine Plan for Offshore Wind Energy (SMP-OWE) [58]. The Scotwind process had scoping areas originally proposed for a maximum capacity of 10GW but over 25GW of offshore wind projects were then leased during 2021-2022. [59]

The updated draft plan, which also includes the decarbonisation of the oil and gas sector (Innovation and Targeted Oil and Gas programme), was published in 2024 and the final plan should be adopted in 2025 [60].

1.12 All existing and new salmon farms are managed under SEPAs updated regulations

The Scottish Environment Protection Agency (SEPA) introduced a new regulatory framework in 2019 [61]. In 2020, SEPA gained regulatory responsibility for discharges of medicine from wellboats and became the lead regulator for all discharges from fish farms. In early 2024, the agency also became the lead regulator responsible for managing interactions between sea lice from fish farms and wild salmon. Later in 2024, approximately one-third of active fish farms in Scotland were authorised under SEPA's updated regulatory framework's permit. SEPA is working on a progress assessment report.

In March 2025, over 200 fish farms lodged appeals against licence variations issued by SEPA to implement the Sealice Regulatory Framework, stating that the variations are beyond the legal powers and scope of The Water Environment (Controlled Activities) (Scotland) Regulations 2011

1.13 Circular Economy (Scotland) Bill is introduced

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The Scottish Government's principles of circular economy are [63]:

- Reducing usage of goods and materials
- Increasing reusing items and product
- Increasing recycling
- Reducing the creation of waste

The Circular Economy (Scotland) Bill, published in 2023 [64], aims to help Scotland develop a circular economy. To ensure its implementation, a Routemap for Scotland's Circular Economy and Waste was published in December 2024 [65].

1.14 British Standards Institution (BSI) Publicly Available Specification (PAS) for plastic pellet supply chain adopted with a roadmap for introduction as a legal requirement

Marine litter can be defined as any persistent items that are discarded or abandoned by humans and enter the marine system. Plastic accounts for around 85 % of all marine litter with microplastics being found in every part of the world [66]. Microplastics are plastics less than 5 millimetres in diameter. They are the most common type of litter found at sea and on shores. Plastic pellets are the raw material for most of our plastic products, and can often end up in the environment causing large-scale problems. Annually, around 230,000 tonnes of plastic pellets leak into the global environment [67].

In 2021, the BSI published PAS 510, which is a standard setting out requirements for the handling and management of plastic pellets, flakes and powder [68]. The Scottish Government reviewed and updated the Marine Litter Strategy and published it in 2022 [69]. The Scottish government has also been working with the EU to reduce plastic pellet waste [70] as the Members of European Parliament (MEPs) voted in favour of the European Commission plastic pellet regulation proposal, but in Scotland no roadmap for introducing legislation to end pellet loss from the supply chain has been published.

1.15 National Marine Plan review is published and scrutinised by Parliament

The first National Marine Plan (NMP) was published in 2015 to outline how Scottish marine resources are used and managed [71]. The NMP was reviewed in 2021 but, due to COVID, it did not involve a large scope of consultations with external stakeholders [72, 73].
LINK responded to the NMP review consultation and urged the Scottish Government to incorporate legally binding targets for nature recovery and restoration [74]. When the National Marine Plan Review was published in 2021, the National Marine Plan 2 was also announced.

1.16 A replacement fund comparable to the European Maritime Fisheries Fund,

with a focus on sustainability

The Maritime and Fisheries Fund (MFF) was launched in 2019 and updated in 2022. This fund was proposed as a replacement for the European Maritime and Fisheries Fund (EMFF) which the UK lost after Brexit [75]. The funding is not yet comparable to EMFF.

1.17 A strategy for regulating and managing marine tourism, to ensure that any growth occurs in a managed way and allows for nature recovery

A strategy from the Scottish marine tourism sector, the Giant Strides 2020-2025 [76], was officially launched in 2020. The strategy presents a five-year plan for boosting Scotland as a sustainable marine tourism destination. This strategy aims to align with the UN sustainable goals [8]. It outlines commitments to healthier seas and includes actions such as reducing plastic pollution and limiting the disturbance of marine species.

Despite the strategy, concerns remain as management regulations of marine wildlife tourism is lacking. For example, whale and dolphin wildlife watching is not a licensed activity in the UK, and no legislation related to wildlife watching exists. Voluntary guidelines and code of conduct, such as the Scottish Marine Wildlife Watching Code, are helpful but do not guarantee minimal disturbance for species. [77]

1.18 The updated Climate Change Plan includes policies and targets for blue carbon protection and restoration

The Climate Change Plan was updated in December 2020, and still lacks significant commitment related to blue carbon. The Climate Change Plan refers to the Blue Economy Vision, published in 2022 which includes the protection and restoration efforts on blue carbon as an outcome. These efforts include:

- Natural Capital
- Climate Change
- Economy and Trade
- Food Security and Nutrition
- Inclusion and Equality
- Ocean Literacy

No extensive measure of the overall status of Scottish marine natural capital currently exists.

2. Marine Protected Areas

1.2 A new independent commission is established to advise on the transformative change needed in the MPA network and in site management to meet 2030 targets for Scotland's seas

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No independent commission has been established [65]. The MPA monitoring strategy must ensure the inclusion of adequate data for the next MPA network report. In December 2024 the Scottish Government published a statutory report to the Parliament on Scotland's inshore and offshore MPAs which is a legal requirement every six years [78].

The report includes case studies, showcasing local positive effects of management on Priority Marine Features (PMFs). The progress highlighted in the report is welcomed by LINK. However, there is still a lot more to do to ensure healthy and resilient marine ecosystems [79].

3. Fisheries reform

3.1 Fisheries Management Plans include requirements to improve data to ensure stock assessments and appropriate protection

The JFS lists 43 proposed FMPs and some of these will be developed collaboratively by two or more fisheries policy authorities whereas others will be more area-specific and developed by a single policy authority. Many of the proposed FMPs had Marine Scotland as a coordinating authority [54]. 22 FMPs were to be developed in Scotland and were due to be delivered by the end of 2024. However, none have been brought forward between 2020 and 2023, and the deadline for the Scottish-led FMPs was moved to the end of 2026. No Fisheries Management Plans have been proposed for some key (non-quota) stocks in Scotland, such as scallops, crabs and lobsters.

Bycatch Avoidance Tool (BAT) is a mapping tool developed jointly by the government and the fishing sector. It is an app that Scottish skippers can use in real-time to share information with other skippers about bycatch heavy areas. This, together with REM, stock assessments and a clear management strategy, could help tackle the issue of bycatch and minimise the decline of impacted species [80].

3.2 Scottish Government adopts the UK Plan of Action on Seabird Bycatch

No UK plan of Action on Seabird Bycatch has been developed but LINK has long called for the Seabird Conservation Strategy for Scotland, which has been in development since before 2021. In 2018 DEFRA contracted JNCC to develop a seabird bycatch plan of action and a report was produced in 2022. Some preliminary estimated seabird bycatch numbers have been developed by the UK Bycatch Monitoring Programme (BMP). BMP has a small sample size and some biases but could still be useful as an indicator of the current situation [81].

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3.3 Review of military exercise impact on cetaceans and other marine wildlife in Northwest Exercise Area

No review of military exercise impacts on cetaceans and other marine wildlife in the UK has been completed since 2012. A report assessing possible impacts of military activity on cetaceans in west Scotland by the Sea Watch Foundation [82] highlighted that the sonar testing of military equipment emits underwater noises that can cause vocal behavioural changes in marine species. Missile testing has also been shown to be damaging and causing mortality to individuals of marine species.

Scientific evidence [82] clearly shows that the use of sonar results in injury and mortality in cetaceans such as deep-diving beaked whales. Research links the disturbance, at-sea injury and mass strandings of cetaceans to the use of military sonar. The absence of review on military exercise impact on cetaceans remains, therefore, a significant concern. The timing and area where such exercise occurs are of extreme importance: Sonar should only be used in areas which have been shown to have low densities of marine mammals and in particular, should be excluded from all areas that have been designated to protect cetaceans.

4. Investing in future

4.1 Scottish Government outline and commit to a strategy to have all 11 Regional Marine Plans in place and functioning effectively by 2030

The Scottish Government's aspiration to have all 11 Regional Marine Plans fully functioning has been postponed due to delays in the publishing of National Marine Plan 2. No further Marine Planning Partnerships will be established, excluding the Outer Hebrides where early works have already started, until the NMP2 is adopted. The pause of Regional Marine Plans development is explained by the need to ensure alignments between the new RMPs and the NMP2 [83].

LINK has, however, highlighted the need to recommit to a timeline. There is a risk of large gaps in the Scottish marine planning system as RMPs are not a statutory requirement under the Marine (Scotland) Act 2010. The Act includes non-mandatory provisions for Regional Marine Plans, which can be delegated by Ministers.

4.2 Scottish Marine Environmental Enhancement Fund is established to support and drive an increase in practical conservation and restoration projects

The Scottish Marine Environmental Enhancement Fund (SMEEF) was planned in 2021 and formally launched in 2022. To bring transparency, SMEEF is managed by a steering

group composed of NatureScot, the Scottish Government's marine directorate and Crown Estate Scotland. SMEEF was established to provide grants for projects that promote healthy Scottish waters. So far, SMEEF has distributed £3.3 million to approximately 50 marine enhancement projects around Scotland [84].

2022 Review

Overview

Out of 14 LINK Ocean recovery Plan targets 0 were fully achieved.

2022 was another challenging year for the UK and Scotland. The political instability was evident in the UK, with three different prime ministers appointed in a year. The recovery from Covid is still fragile, resulting in delays in policy decision-making. The newly agreed Bute House Agreement is set in motion, with ministers working to implement some of the key proposals on social and environmental policies.

2022 hit new records, with extreme weather events and one of the hottest and driest summers ever recorded. A 40 Celsius degree heatwave hit the UK in the summer which was a large strain on the already poorly doing biodiversity as well as negatively affecting human health [85]

Category	ORP Goals for 2022	Actuality	Progress
1. Legally binding targets	**1.1** Reviews of progress towards National Marine Plan General Policy 9(b) for all other Priority Marine Features and develop action plans for features not currently addressed	Many protected under MPA network but not all Marine Directorate reviewing additional protection	🔴
	1.2 Scottish Government advocates for a global concordat to support an international moratorium on deep seabed mining	No official policy on the topic	🔴
	1.3 A ban on all new fossil fuel developments is included in the National Planning Framework	Not achieved, new oil fields still being developed	🔴
	1.4 Scotland's second National Marine Plan is published	Started the process of NMP2 in 22-23, delayed to 2025	🟠
	1.5 Deposit Return Scheme is operational and protocols reviewed so it can be adapted for Refill systems	Deposit Return Scheme delayed/ not done	🔴

	1.6 Scottish Government outlines strategy for identifying and tackling all contaminants of concern at sea, and new REACH chemical regulations match ambition and timeline of EU REACH	Nothing beyond UK REACH which is lagging behind when compared with EU REACH	🔴
	1.7 Scottish Government match or exceed EU Single-Use Plastics Directive	Scotland trying to match the EU single-Use Plastic Directive	🟡
	1.8 All of Scotland's bathing waters meet Sufficient and 95% meet Good or Excellent water quality	Has been improving every year since 2015 In 2022 44% meeting excellent water quality	🟡
	1.9 Impacts on wild salmonid populations are accounted for in regulation, resulting in locations of all new salmon farms posing no threat to wild salmonids	Scottish Wild Salmon Strategy 2022 Still relevant- based on the Sea Lice Risk Assessment Framework, ask for full implementation	🟡
2. MPAs	**2.1** Scottish Government completes the current phase of management measures for the MPA network	Fisheries management measures consultation delayed Was meant to be completed in 2024 - target missed	🔴
	2.2 A presumption against trawling and dredging within a significant part of inshore waters	Scottish government grants more scallop dredging licences in 2022 → in 2024 Open Seas organisation takes legal action against it	🔴
	2.3 The Independent MPA commission publishes review of Scotland's MPA network and its recommendations for the transformative change needed to achieve the 2030 target	Still no independent MPA commission established 2 more SPAs added in 2022-North Orkney, Scapa Flow → Red Rocks and Longay MPA designated but not part of the formal review Scottish Government report to Parliament due in 2024	🟡

3. Fisheries reform	3.1 Scottish Government introduces a requirement for all over 10m and high-risk smaller fishing vessels operating in Scottish waters and Scottish vessels fishing elsewhere to install REM with cameras by end of 2022	Public consultation about: ● Enhancing Sustainable ● Fisheries Management	🟠
	3.2 Scottish Government implements a new spatial management regime for commercial and recreational fishing	Not achieved	🔴
4. Investing in future	4.1 No further requests for investing in future in 2022		

1. Legally binding targets

1.1 Reviews of progress towards National Marine Plan General Policy 9(b) for all other Priority Marine Features and develop action plans for features not currently addressed

81 species and habitats are identified as Priority Marine Features (PMFs) in Scottish seas. Some of these are protected within the MPA network but others fall outside of MPAs. The Marine Directorate is therefore planning on implementing additional protection for certain species outside the MPA network [86]:

- Blue mussel beds
- Cold water coral reefs
- Fan mussel aggregation
- Flame shell beds
- Horse mussel beds
- Maerl beds
- Maerl or coarse shell gravel with burrowing sea cucumbers
- Native oysters
- Northern sea fan and sponge communities
- Seagrass beds
- Serpulid aggregation

1.2 Scottish Government advocates for a global concordat to support an international moratorium on deep seabed mining

Deep sea mining is the extraction of minerals from the deep seabed and can be detrimental to the environment. Research has found that deep-sea mining can cause severe and potentially irreversible damage to deep-sea ecosystems [87]. Deep-sea species and habitats are extremely fragile and slow-growing environments. The disturbance to the seafloor can alter or destroy deep-sea habitats, leading to the loss of

many species that can only be found in those areas. There is no official policy on the topic but the UK has shown support for an international moratorium on deep-sea mining [88]. In 2019 the Scottish Government held a consultation on designating a deep-sea protected area in Western Scotland, which would prohibit deep-sea mining through its conservation objectives and management [89]. The West of Scotland MPA was designated in 2020.

1.3 A ban on all new fossil fuel developments is included in the National Planning

A ban on new fossil fuels has not been achieved. New oil fields are still being developed e.g. Rosebank by Equinor. The UK government has committed to decarbonising the energy sector but the commitments for reduced emission and net zero for 2030 were retracted in 2024. The commitments for 2045 are still in place [90]. Overpromising and underdelivering renewable technologies should not be a replacement for moving away from fossil fuels.

1.4 Scotland's second National Marine Plan is published

The NMP2 started in 2022-2023 but is not yet published. The Scottish government established a NMP2 Steering group to ensure stakeholders' participation and engagement in the NMP2 process. A consultation on the NMP2 Strategic Environmental Assessment (SEA) Scoping Report was launched in 2023. The Scottish Government also ran the first National Marine Planning Forum in 2023.

The initial timeline suggested publication of the NMP2 by late 2025. However, delays have been announced, and the NMP2 will not be published before 2026. This sparks further concern for regional marine spatial planning, as no new RMPs can be developed until NMP2 is adopted.

1.5 Deposit Return Scheme is operational and protocols reviewed so it can be adapted for Refill systems

The Deposit Return Scheme (DPR) aims to encourage people to recycle bottles and cans. Similar schemes have been successfully implemented in various countries around the world. The DPR was originally planned to be launched in Scotland in 2020, but it was postponed due to COVID, to a later date in 2023 and further delayed to 2025. England and Wales are also planning on launching their versions of the deposit return scheme in 2025. There have been discussions about launching it simultaneously in Scotland, England and Wales to avoid creating any trade barriers and different prices on different sides of the border. The Refill system, that has been planned after the Deposit Return Scheme, is implemented [91].

1.6 Scottish Government outlines strategy for identifying and tackling all

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contaminants of concern at sea, and new REACH chemical regulations match ambition and timeline of EU REACH

The state of UK REACH was reviewed in 2023 by ChemTrust [92]. The report shows that, while the EU REACH is advancing chemical pollution regulations by including more harmful substances, UK REACH has taken a much slower pace. The EU has plans to identify and classify all known and suspected endocrine disruptive chemicals (EDCs) whereas the UK only agreed to do this if global classifications are agreed. This could take multiple years to achieve.

No new substances have been included in the UK authorisation list and no new bans or restrictions on harmful substances have been put in place. The EU, however, has incorporated five new substances to the EU REACH authorisation list, including chemicals showing a link with increased risk of certain types of cancers. Eight new restrictions on harmful substances were implemented.

The gap between EU REACH and UK REACH is getting wider since the initial splitting of the two and will most likely become greater in the coming years, with the EU's Restriction Map [93] fully implementation.

1.7 Scottish Government match or exceed EU Single-Use Plastics Directive

Scotland aims to match the EU single-Use Plastic Directive. Both the EU and Scotland have restrictions on the supply chain and/or the manufacture for the following items:

- Plastic drink stirrers
- Plastic stemmed cotton buds
- Plastic drinking straws
- Disposable plastic plates
- Single-use plastic cutlery
- Balloon sticks
- Expanded polystyrene containers

In addition, the EU implemented a ban on Oxo-degradable products whereas Scotland has still ongoing research into the degradability of these items [94].

1.8 All of Scotland's bathing waters meet Sufficient and 95% meet Good or Excellent water quality

Scotland's third River Basin Management Plan was published in late 2021. It aims to ensure that at least 81 % of Scotland's waters will meet good or excellent classification by 2027. Litter surveys done by volunteers of Marine Conservation Society have suggested higher levels of sewage on Scottish beaches than in England or Wales. Both England and Wales currently have stricter monitoring rules which may be the major

contributing factor. Still, the water quality of Scotland's bathing waters has been improving every year since 2015. In 2022, 44 % met the excellent water quality standard, as set by Scottish Water [95].

Despite a positive trend, it is still far behind the target of 95 % meeting good or excellent water quality.

1.9 Impacts on wild salmonid populations are accounted for in regulation, resulting in locations of all new salmon farms posing no threat to wild salmonids

The Scottish Wild Salmon Strategy 2022 sets out a plan for the protection and recovery of Scottish Atlantic wild salmon populations. There has been a significant decline in population size of North Atlantic salmon in the last decade, due to multiple factors including climate change [96]. In December 2023, the UK salmon was listed as endangered by the International Union of Conservation of Nature (IUCN) [97]. Due to their complex life cycle and migration between freshwater and marine systems, salmons encounter an accumulation of pressures. The Scottish Wild Salmon Strategy's objectives are:

- Scotland's rivers have healthy, self-sustaining populations of wild Atlantic salmon that achieve good conservation status.
- Wild salmon management is evidence-based and underpinned by integrated data gathering, research and dissemination.
- The environmental and socio-economic benefits arising from healthy wild Atlantic salmon populations are identified and maximised through partnerships between the public, private and charitable sectors.

Efforts have been made to understand and mitigate the negative interactions between wild and farmed salmon [98]. Salmon interactions working groups assess the risks presented by fish farming [98]. In 2024 a Sea Lice Risk Regulatory Framework was implemented [99]. It includes designated protection zones on salmon migration bottlenecks in coastal waters. The framework aims to decrease the risk of young wild salmon getting sea lice infestations from fish farms. The framework only covers new or amended sites and risk to sea trout will only be added in March 2025. See also appeals against licence variations by fish farms, March 2025.

2. MPAs

2.1 Scottish Government completes the current phase of management measures for the MPA network

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In the Bute House Agreement, the Scottish Government committed to completing the MPA network by March 2024.

The majority of Scotland's MPAs still do not have restrictions in place for fishing activities, which are considered the second most widespread pressure in Scotland's sea [100]. The Scottish Government has committed to deliver public consultation on fisheries management measures within MPAs and on the protection of PMFs outside MPAs. However, no consultations were put forward between 2020 and 2023. A consultation on fisheries management measures in offshore MPAs was published in 2024, 10 years after the designation of the first Scottish nature conservation MPAs.

In 2022 two more new SPAs were designated on top of the twelve SPAs in 2020 yet no management measures for the SPAs nor MPAs have been put in place.

2 new designated SPAs:

- North Orkney
- Scapa Flow

A whole-site management approach, which means managing sites in their integrity in order to protect the natural dynamism of the marine environment, would be beneficial for offshore MPAs, and contribute to Scotland's alignment with international targets and EU legislation.

2.2 A presumption against trawling and dredging within a significant part of inshore waters

Both scallop dredging and bottom trawling are some of the most impacting types of fishing occurring in European waters. A scallop dredge can destroy up to 70 % of living seabed habitats in one tow and bottom trawling can catch large quantities of bycatch [101, 102]. In Scotland, scallop dredging can still access most of inshore waters. The Scottish government granted more scallop dredging licences in 2022 which prompted Open Seas organisation to take legal action against it [103].

2.3 The Independent MPA commission publishes review of Scotland's MPA network and its recommendations for the transformative change needed to achieve the 2030 target

No independent MPA commission has been established.

The Red Rocks and Longay MPA was permanently designated. This MPA was initially created as an emergency MPA due to divers finding flapper skate eggs [104]. An urgent

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MPA can only remain in place for a maximum of two years after which, the site would need to be made permanent, following full assessment and public consultation. This was the case with Red Rocks and Longay. The Scottish Government report to Parliament related to Red Rocks and Longay MPA is due in 2024 [78].

3. Fisheries Reform

3.1 Scottish Government introduces a requirement for all over 10m and high-risk smaller fishing vessels operating in Scottish waters and Scottish vessels fishing elsewhere to install REM with cameras by end of 2022

The Scottish Government published its Future Fisheries Management delivery plan in 2022 [105]. Installing REM on all over 10m and high-risk smaller fishing vessels would improve spatial knowledge and address any other knowledge gaps of fishing efforts which in turn would assist marine planning and management. In 2022 a consultation was held about REM. LINK's responses to consultation expressed disappointment in the lack of commitment to delivering REM from the Joint Fisheries Statement [106, 107].

3.2 Scottish Government implements a new spatial management regime for commercial and recreational fishing

Not achieved.

The Fisheries Management Plans and Future Catching Policy will include some spatial elements. The Scottish Government has outlined that the NMP2 will not have spatial prescription but may include policies relating to prioritisation.

4. Investing in Future

No further requests.

2023 Review

Overview

Out of 7 LINK Ocean recovery Plan targets 0 were fully achieved.

In 2023, global temperatures shattered records as the hottest year recorded. The increase in conflicts around the world and further advancements in artificial intelligence opened new possibilities as well as presented some new ethical and environmental challenges.

In February 2023, Nicola Sturgeon resigned from her roles of SNP leader and First Minister, triggering a leadership election. A key issue in the following leadership campaign was the continuation of the Bute House Agreement. While Humza Yousaf backed the power-sharing agreement, other leadership candidates criticised it, suggesting they could end the Bute House Agreement [108].

COP28 was hosted in Dubai and was strongly criticised. For the first time in COP papers, oil and gas were mentioned as important to "*contribute.. to transition away from fossil fuels in energy systems in a just orderly and equitable manner*". Marine actions were mentioned in the text, with COP28 papers re-iterating the importance to "*preserve and restore oceans and coastal ecosystems and scale up, as appropriate, ocean-based mitigation action*". At COP28, 18 countries signed a joint declaration on ocean and climate action [109].

Some of the missed opportunities at COP28 that have been highlighted were: The lobbyists outnumbering official indigenous representatives and delegates from climate vulnerable countries, number of loopholes remain in final statement; Emissions are allowed to be trapped and buried underground which can for example compromise the stability of the seabed, leak into the ocean and cause harm to marine ecosystems and wildlife. However, more than 100 countries agreed to triple their renewable energy capacity by 2030 which has the potential to be a great achievement as long as proper spatial planning frameworks are considered.

Category	ORP Goals for 2023	Actuality	Progress

1.Legally binding targets	1.1 Scottish Government develops an ambitious Programme of Measures to achieve GES+ by 2030	Circular Economy (Scotland Act) adopted in 2024 → UK Climate targets for 2030 scrapped in 2024	🔴
	1.2 Review the cumulative chemical and medicinal use of salmon treatments and their impact on the marine environment in Scotland	Reduction in antibiotics used in salmon farms in Scotland	🟠
2. MPAs	2.1 Updated MPA proposals and legislative requirements are outlined by the Scottish Government in line with independent MPA commission recommendations	HPMA proposal did not go ahead Continuing to work toward Biodiversity Strategy ambition for Scotland to be nature-positive by 2030	🟠
3. Fisheries reform	3.1 Scottish Government commits to restricting bottom-contact fishing gear below 600 metres, and strengthens controls on forage fisheries to ensure they are managed to reflect their critical role in the ocean ecosystem	No progress on revision of the deep-sea access regime Following a consultation in 2023, a new on ban of sandeel fisheries in Scottish Waters came into effect	🟠
	3.2 All over 10m and high-risk smaller fishing vessels operating in Scottish waters and Scottish vessels fishing elsewhere are fitted with REM with cameras	Still waiting for REM to be introduced to vessels on Scottish waters	🟠
	3.3 All commercially targeted fish stocks and those at risk of being overfished have adequate stock assessments	Not achieved	🔴
4. Investing in future	4.1 No further requests for investing in future for 2023		

1.Legally binding targets

1.1 Scottish Government develops an ambitious Programme of Measures to achieve GES+ by 2030

The government had set ambitious targets for reducing greenhouse gas emissions and facing climate change by 2030, however in 2024 the government decided to abandon all these plans. Targets set for 2045 for reaching net zero remain in place, but this is a large-

scale setback. In March 2024, stage 1 of the Circular Economy Bill Scotland took place meaning that commissions will examine and review the proposed bill. Stage 2 is still ongoing [64,65].

1.2 Review the cumulative chemical and medicinal use of salmon treatments and their impact on the marine environment in Scotland

A report by the Veterinary Medicines Directorate's Veterinary Antimicrobial Resistance and Sales Surveillance (VARSS) showcased a decrease in antibiotics used in salmon farms in Scotland between 2021 and 2022. The data from 2022 indicates that the amount of antibiotics used is only slightly higher than in 2017 when VARSS started recording the data [110].

2. MPAs

2.1 Updated MPA proposals and legislative requirements are outlined by the Scottish Government in line with independent MPA commission recommendations

In the Bute House Agreement, the Scottish Government committed to designating at least 10 % of Scotland's seas as Highly Protected Marine Areas (HPMAs). The proposal would include a ban on fishing activities within the HPMAs, which prompted a strong response from the local communities. The responses to the proposal were highly polarised with 55 % of all respondents supporting the proposal, 43 % opposing and 2 % holding a neutral view. A large majority of the respondents who did support the proposal through an e-action ran by LINK [111].

Following the consultation analysis, Mairi McAllan, Cabinet Secretary for Net Zero and Just Transition, announced that, while remaining committed to enhancing marine protection, the implementation of HPMAs across 10 % of Scotland's seas by 2026 will not go ahead [86].

3. Fisheries Reform

3.1 Scottish Government commits to restricting bottom-contact fishing gear below 600 metres, and strengthens controls on forage fisheries to ensure they are managed to reflect their critical role in the ocean ecosystem

No progress was achieved on restricting bottom-contact fishing gear below 600 metres. Deep sea habitats at 600-800m depth show high levels of productivity, have significant potential to sequester carbon, and contain a high diversity of fish species and benthic habitats, such as deep-sea sponges, coral gardens, and cold-water reefs. Scientific evidence [112] suggests a depth limit of 600m for all mobile demersal fishing gear is most appropriate, as beyond this depth ecological damage increases significantly while the commercial gain per unit effort decreases. LINK members therefore call for a 600m

depth limit on the use of mobile demersal gear which would enable the recovery and expansion of remnant vulnerable marine ecosystems.

Good progress was assessed in regard to forage fisheries, especially sandeel fisheries. Following a consultation in 2023, a ban on sandeel fisheries in Scottish Waters came into effect via the introduction of the Sandeel (Prohibition of Fishing) (Scotland) Order 2024. The EU requested the establishment of an arbitration tribunal over the UK's prohibition of fishing of sandeels [113]. In 2024, NGOs across the UK and the EU expressed support for the UK and Scottish governments' decision [113]. In their response to the consultation on fisheries management measures in offshore MPAs, LINK members highlight that sandeels were not accepted as a designated feature at Firth of Forth Banks Complex NCMPA which may leave them vulnerable to indirect pressures [114].

3.2 All over 10m and high-risk smaller fishing vessels operating in Scottish waters and Scottish vessels fishing elsewhere are fitted with REM with cameras

In November 2023, the Scottish Government launched another consultation on requiring electronic tracking and monitoring technology on under 12-metre commercial fishing vessels. LINK's response emphasises that it is vital to have VMS to fulfil the Bute House Agreement commitment and REM further improving the monitoring [107].

Later in 2024, the Scottish Government introduced the Sea Fisheries (Remote Electronic Monitoring and Regulation of Scallop Fishing) (Scotland) Regulations 2024 [115], requiring scallop dredging vessel to operate a REM system. LINK members welcomed the regulations, stating that REM is an important tool to support sustainable fisheries, However, concerns remain over the delays to the roll out of the programme across the fleet, originally promised in 2019. [116].

3.3 All commercially targeted fish stocks and those at risk of being overfished have adequate stock assessments

Key gaps remain, included for wrasse [117] which is harvested as cleaner fish for commercial aquaculture industry, and ling, as well as there are regional data deficiencies in crab and lobster assessments.

4. Investing in Future

No further requests in the Ocean Recovery Plan.

The Ocean Resilience and Climate Alliance (ORCA) secured around £200 million for advancing ocean-based solutions to climate change (5-year period) including:
- Scaling offshore wind development
- Decarbonising shipping industry

- Safeguarding the Arctic
- Bolstering strategic ocean diplomacy
- Scaling community-led action in the Global South (Should also be bolstered in Global North)
- Advancing ocean carbon research
- Expanding habitat restoration and conservation efforts

The Rapid Assistance Fund by Ocean Action 2030 aims to support countries in the development and implementation of national sustainable ocean plans.

£144 million of new funding by the UK government was given to support restoration of saltmarsh and seagrass habitats in England. In addition, the UK was chair of the Global Ocean alliance and signed the COP28 statement on climate, nature and people.

2024 Review

Overview

In 2024 out of 5 LINK Ocean recovery Plan targets, none were achieved.

2024 was another challenging year for nature and climate in Scotland, with evidence mounting that current efforts are falling far short of what is needed.

In March, the Climate Change Committee (CCC) published its *Progress in reducing emissions in Scotland* report [118]. The assessment was stark: only one-third of the emissions reductions required to meet Scotland's 2030 climate target are currently underpinned by credible plans. The CCC concluded that Scotland is not on track to meet its legally binding targets and that emissions reductions need to accelerate across nearly all sectors.

In December, the Scottish Government published their report to Parliament on MPAs. While progress is welcome on the expansion of the network and the designation of new sites, most of the sites are still waiting for fisheries management measures to be delivered. Simply designating an MPA without putting in place restrictions on damaging activities is meaningless.

Policy progress remains slow, and biodiversity is under increasing pressure. Five additional seabird species were added to the UK Red List [57]. These additions reflect broader trends of decline and the urgent need for enhanced conservation efforts across the UK, including in Scotland.

Category	ORP goals for 2024	activity	Progress
1 Creating legally binding targets	Scottish Government supports the International Maritime Organisation to push for an emissions reduction pathway for international shipping compatible with the Paris Agreement on climate change and supports a moratorium on ship-to-ship oil transfers.	No progress in 2024 April 2025 An agreement passed at the UN's International Maritime Organisation (IMO) meeting on Draft regulations to set mandatory marine fuel standard and GHG emissions pricing for shipping	🟠

		to address climate change.	
1 Creating legally binding targets	Aquaculture, including salmon farming, is integrated into regional marine planning; all areas deemed unsuitable are designated aquaculture free-zones and all poorly sited farms relocated or closed, taking into account MPA conservation objectives, PMF distribution, sea lice mapping and cumulative impacts	RMP paused – here add comments related to NMP2	🔴
1 Creating legally binding targets	Per-fluorinated alkyl substances (PFAS) are removed from all non-essential uses and Scottish Government develops road-map for PFAS removal from essential uses such as firefighting foam	Partial progress	🟠
1 Creating legally binding targets	All washing machines sold in Scotland have a microfibre filter fitted and all commercial machines are retrofitted with one	No progress	🔴
1 Creating legally binding targets	All intermittent sewage overflows are reviewed to ensure they meet licence requirements, and monitored, with information including real-time data for bathing waters, other recreational waters and shellfish waters publicly available	Partial progress Environmental Standard Scotland (ESS) highlights a lack of transparency and need for major improvement.	🟠

1. Creating legally binding targets

1.1 Scottish Government supports the International Maritime Organisation to push for an emissions reduction pathway for international shipping compatible with the Paris Agreement on climate change and supports a moratorium on ship-to-ship oil transfers.

Partial progress – Commitment to support, but delivery is needed.

International shipping emissions are subject to regulatory standards laid down in treaties adopted by the International Maritime Organization (IMO) and implemented by its member States. UK legislation to limit shipping emissions therefore follows the standards set at the IMO [119].

Scotland includes international shipping emissions in its national emissions inventory, underscoring its commitment to global maritime decarbonisation.
The Scottish Government supports international efforts to reduce greenhouse gas emissions from shipping in alignment with the Paris Agreement. In their Response to the *Climate Change Committee: progress reducing emissions – report to Parliament 2021* [REF], the Scottish Government affirmed supporting the decarbonisation of shipping globally. The Updated Climate Change Plan [31] also contains a commitment to work with the UK Government to support proposals at the International Maritime Organisation (IMO) to significantly lower shipping carbon emissions in the global sector, including the option of introducing a global levy on marine fuel to fund research in cleaner technologies and fuels.

On April 2025, the IMO reached an agreement on draft regulations that will set mandatory marine fuel standard and GHG emissions pricing for shipping to address climate change [120]. The IMO Net-zero Framework could be the first in the world to combine mandatory emissions limits and GHG pricing across an entire industry sector [121].

1.2 Aquaculture, including salmon farming, is integrated into regional marine planning; all areas deemed unsuitable are designated aquaculture free-zones and all poorly sited farms relocated or closed, taking into account MPA conservation objectives, PMF distribution, sea lice mapping and cumulative impacts
No progress

No new Regional Marine Plans (RMPs) will proceed until NMP2 is enacted, and its timeline has shifted to 2026. Since the Orkney Regional Marine Plan was initiated before the NMP2, it is allowed to continue. The plan was published for consultation [122] and included a consultation on Finfish Farming Spatial Guidance [123].

From November 2024 to February 2025, the Scottish Government consulted on the NMP2 Planning Position Statement (PPS) [124]. The PPS stated that the NMP2 will support the Vision for Sustainable Aquaculture and the delivery of its outcomes. LINK members responded to this consultation, expressing support for maintaining the presumption against "further marine finfish farm developments on the north and east coasts to safeguard migratory fish species" as in the Aquaculture Policy 2 [71]. Clarity is needed on whether this presumption applies within 3 or 12 nautical miles. LINK also welcomed the alignment of NMP2 with the updated National Planning Framework 4 (NPF4), which now explicitly refers to "open pen" fish farm developments [125].

In January 2025, the Rural Affairs and Islands (RAI) Committee published its review of progress made since the 2018 Rural Economy and Connectivity (REC) Committee's report on salmon farming. The RAI Committee's findings highlighted the continued lack of progress and stressed the urgency of action. Several recommendations from both reports address key issues in marine spatial planning and the consenting process—most notably, the need for mechanisms to enable the relocation of poorly sited farms. These recommendations must be embedded within NMP2 policies to ensure meaningful reform [125].

1.3 Per-fluorinated alkyl substances (PFAS) are removed from all non-essential uses and Scottish Government develops road-map for PFAS removal from essential uses such as firefighting foam

Partial Progress

The UK Health and Safety executive issued a call for evidence on PFAS relating to firefighting foams which contain per- and polyfluoroalkyl substances (PFAS) but no further action were progressed since [126]

No road map or actions to phase out PFAs and prevent further contamination of the marine environment were developed. While progress is lacking, evidence continually demonstrates the impact of these "forever chemicals" on wildlife [127, 128]
In March 2025, Marine Conservation Society published results of a new YouGov survey [129], revealing public concern over the impact of PFAS on both the environment and human health. The survey also indicated a relatively low awareness of these chemicals among the UK public and called for the UK government to take urgent action to phase out PFAS.

The European Union has committed to phasing out all PFAS forever chemicals from all non-essential uses, and it is crucial the UK aligns with this commitment [130, 131]

1.4 All washing machines sold in Scotland have a microfibre filter fitted and all commercial machines are retrofitted with one

Not progress in Scotland.

At UK level, a Microplastic Filters (Washing Machines) [132] Bill was submitted to Parliament in 2022 by Alberto Costa, Conservative MP for South Leicestershire, aiming to require manufacturers to fit microplastic-catching filters to new domestic and commercial washing machines. The Bill is however, still in reading in the House of Commons.

In 2023, Marine Conservation Society handed a petition to Parliament calling on the UK Government to help prevent plastic fibres from entering the water supply by legally requiring manufacturers to install microfibre filters in all new washing machines from 2024 [133, 134]

1.5 All intermittent sewage overflows are reviewed to ensure they meet licence requirements, and monitored, with information including real-time data for bathing waters, other recreational waters and shellfish waters publicly available

Some progress

The Scottish Government acted on their route map to improve urban waters and publish annual updates [135]. The monitoring of Combined sewage overflow (CSO), increased from 4% to 7% published data since 2021 – noting Scottish waters are only legally to report 4%. In 2024, 1000 new monitors were installed, meaning that 32% of all CSOs are now monitored [136]. In their briefing, Marine Conservation Society welcomed an "*improved transparency on the frequency of sewage discharges, with certain information now being published annually on the Scottish Water website, alongside the commitment to report on near real-time sewage discharges*." [137] Scottish Water has indeed launched an Overflow Map, which shows monitored overflows data in near real-time [138].

While this progress is welcomed, we are still far from achieving 100% monitoring and reporting of the CSO network [137]. A report published in 2024 by Environmental Standards Scotland (ESS), highlights the need to improve transparency related to the operation and impact of storm overflows in Scotland [139]. ESS calls for "Major improvement to sewer overflow monitoring and management". The report's findings show that :

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- There is significant lack of information of the scale and environmental impact of spills from storm overflows in Scotland. ESS found that, in 2023, data was publicly available for only 8% of storm overflows and emergency overflows.
- Where there is data, the results show the sites spill much more often than they should be expected, some **hundreds of times a year.**
- the current Scottish guidance is outdated. ESS expressed that more clarity is needed that spills from storm overflows should only occur in exceptional circumstances.

Look into the Future

Current practices and delays in marine protection policies have failed to effectively address the threats to Scotland's marine biodiversity, leading to a continued decline in the health of our seas and moving further away from targets for nature recovery and restoration. Without significant and urgent action to reform these approaches, biodiversity loss will continue, jeopardising the future of Scotland's marine environment and the benefits it provides.

The Scottish Government has not delivered many of the goals that were set to be achieved between 2020-2024. Currently, the UK as a whole and Scotland separately, are both on track to miss the targets to achieve 30x30 by 2030. Furthermore, the UK government announced, in 2024, a reversal on net-zero targets that were supposed to be reached by 2030.

- Although legally binding targets for ocean recovery are being developed, this has not been happening at the rate that is needed.
- Scotland has established a MPA network covering almost 37% of its seas. However, most sites are still waiting for fisheries management measures. The Scottish Government highlight that delivering those measures will "complete" the MPA network, but gaps will remain to ensure an ecologically coherent network. An adaptative management framework is essential to ensure the effective management of the network. The MPA network also requires a clear assessment to better understand how the management measures, once adopted, contribute to the 30x30 targets [140].
- Reforming fisheries for resilience and investing for the future are both meant to address the challenges that the marine ecosystems are facing whilst also being

socially and economically beneficial to society but currently Scotland is still far from the targets.

The decisions made on Scottish coasts and seas will have a knock-on effect to a myriad other aspects of life. The human health is strongly dependent on marine systems. Challenges such as plastics, runoff chemicals, access to clean water, accumulation of toxic substances in food webs and availability of medicine and other compounds derived from marine sources. Long-term exposure to toxic compounds that have ended up in marine systems can result in various health problems for humans such as hormonal issues, reproductive issues as well as damage to the nervous system and kidneys [141, 142].

Poor decision making will also escalate already rapid climate change which will appear as heatwaves, wildfires, floods, tropical storms and hurricanes that are increasing in scale, frequency and intensity. This will not only have an effect on the cost of living and quality of life. It has been estimated that between 2030 and 2050 an additional 250,000 deaths will be caused by undernutrition, diseases and heat stress, all directly or indirectly linked to climate change [143].

In early 2024, the Scottish Government allocated budget that was initially supposed to go towards nature restoration and flood prevention, to paying settlements. This was followed by cuts in various environmental schemes and funds. The Scottish First Minister declared that environmental protection was one of his government's priorities. This, however, needs to be demonstrated through the budget allocations. Nature recovery cannot happen with shrinking budgets [144].

To achieve a more sustainable planet, there must be a shift towards laws that promote more sustainable exploitation of natural resources and prohibit harmful activities that could have cascading effects on biodiversity. With technology continuously advancing [145] and new research coming out, it is of key importance to equip not just governments and industries but also local communities with information, opportunities and funds to be part of discussions and policy-making when advocating for coastal and marine issues.

As we have now entered 2025, we are at the midpoint for two significant United Nations decadal events: for Ocean Science for Sustainable Development, and for Ecosystem Restoration. Scotland, like many countries, is committed to meet multiple national and international targets for nature, climate and sustainable development by 2030.

With Holyrood Elections in May 2026, there is one more parliamentary term to ensure Scotland is on the right track to set our ocean on a path for recovery. The coming year will be crucial to deliver the paradigm shift our marine environment urgently needs.

Annexe – Recap of all tables: Assessment of ORP 2020-2024 asks.

2020

Category	ORP Goals for 2020	Actuality	Progress
1.Legally binding targets	**1.1** Commitment to regulate chemical pollution with regulations that go beyond EU REACH regulations	Brexit → UK REACH, basically same regulations as EU REACH, nothing beyond that	🔴
	1.2 Scottish Government marine and national litter strategies and response to single-use plastics consultation drive further measures to stop ocean waste and plastic, including tackling sewage related debris and fishing litter	Deposit Return Scheme Plan (3 years later still not done/delayed) Marine litter strategy delays to 2022 because of Covid → Completed in 2022	🟡
2. MPAs	**2.1** 4 Inshore MPAs designated	4 inshore MPAs (Sea of the Hebrides, Shiant East Bank, Southern Trench and Northeast Lewis)	🟢
	2.2 13 Marine bird SPAs designated	12 SPAs 13 SPAs were proposed to designation but only 12 were designated	🟡
3. Fisheries reform	**3.1** Strategy for Scotland's sea fisheries published, includes: • Commitment to climate and nature smart fishing • REM with over 10m and small	Consultation about REM but no real commitment for delivering Note – REM mandatory for scallop dredge fleet since June 2024	🟡

Category	ORP Goals for 2020	Actuality	Progress
	high-risk vessels fishing in Scottish waters and Scottish vessels fishing elsewhere ● UK fisheries publish yearly precautionary recovery plans following most recent science to ensure catch limits to end overfishing	Future Fisheries: Management Strategies 2020 to 2030 Fisheries Act 2020 In 2020 69% of Scottish fish stocks were fished at sustainable levels UK Joint Fisheries Statement in 2022	
4. Investing in Future	4.1 Scottish Government invests in nature and wellbeing to ensure a green recovery and recognises the economic benefits that arise from environmental sustainability	Commitments to just transition: ● Net zero by 2045 ● Sustainable development goals UN ● Only 5 out 19 Aichi targets achieved	🟠

2021

Category	ORP Goals for 2021	Actuality	Progress
1.Legally binding targets	1.1 UK Dolphin and Porpoise Conservation Strategy	UK Dolphin and Porpoise Conservation Strategy in consultation	🟠
	1.2 Scottish Government develops ambitious positions for COP15 and COP26	COP26 and COP15 ● Glasgow Climate Pact ● Kunming-Montreal Global Biodiversity Framework → assessed in 2023, UK lagging behind	N/A
	1.3 Cabinet Secretary for Ocean Health and Maritime Affairs established to drive transformative change in how we manage marine resources and recover ocean health	Not assigned Cabinet secretary for rural affairs, land reform and islands also in charge of Ocean Health and Maritime Affairs	🟠
	1.4 Scottish Government champions an ambitious Post-2020 Global Biodiversity Framework under the Convention on Biological Diversity that	Draft published in December 2022	🟠

	recognises the need for ocean protection and restoration targets alongside a strong role for regional and sub-national governments and communities in line with the Edinburgh Declaration		
	1.5 Maritime sectors are encouraged to outline their plans for their contribution to net zero ahead of COP26 in Glasgow	UK Maritime sector was given a map for the future at COP26 → Blue Economy plan published in 2022	🔴
	1.6 Natural Environment (Scotland) Bill	SBS published for consultation in 2023. The Natural Environment Bill is expected in 2025.	🟠
	1.7 All UK administrations commit to delivering the monitoring programmes needed to measure progress towards achieving GES by 2024	Consultation on the proposed updating of the Marine Strategy because of insufficiency in achieving GES.	🟠
	1.8 New fisheries legislation	Fisheries Act 2020 →Covers Scotland, has positive objectives Scotland specific management plan proposed	🟠
	1.9 Development of the Joint Fisheries Statement and Fisheries Management Plans	Joint Fisheries Statement ● Published in 2022 ● Currently no Scotland specific Fisheries Management Plans for scallops, brown crabs, lobster	🟢
	1.10 Scottish Seabird Conservation Strategy is published	Delayed - being published in 2025	🟠
	1.11 Sectoral marine plan for offshore wind energy adopted	Updated draft plan 2024 and final plan will be adopted in 2025	🟠
	1.12 All existing and new salmon farms are managed under SEPAs updated regulations	SEPA introduced a new regulatory framework in 2019. Around 73% of farm licences have been moved across to the new framework with the remaining expected to move across by the end of February 2025. Around 200	🟠

		fish farms have appealed against variations in sea lice regulation, which have been submitted to Scottish Ministers in 2025 Update expected in SEPA's progress report.	
	1.13 Circular Economy (Scotland) Bill is introduced	Circular Economy bill delayed → published in 2023 A routemap published in 2024	🟠
	1.14 British Standards Institution (BSI) Publicly Available Specification (PAS) for plastic pellet supply chain adopted with a roadmap for introduction as a legal requirement	Marine Litter Strategy updated in consultation → published in 2022	🟠
	1.15 National Marine Plan review is published and scrutinised by Parliament	National Marine Plan Review 2021 NMP2	🟢
	1.16 A replacement fund comparable to the European Maritime Fisheries Fund, with a focus on sustainability	Maritime and Fisheries Fund (MFF) 2019, updated in 2022	🟠
	1.17 A strategy for regulating and managing marine tourism, to ensure that any growth occurs in a managed way and allows for nature recovery	Marine Tourism: Giant Strides 2020-2025	🟢
	1.18 The updated Climate Change Plan includes policies and targets for blue carbon protection and restoration	Climate Change Plan Update (December 2020)	🟢
2. MPAs	**2.1** A new independent commission is established to advise on the transformative change needed in the MPA network and in site management to meet 2030 target for Scotland's seas	No independent commission established	🔴
3. Fisheries reform	**3.1** Fisheries Management Plans include requirements to improve data to ensure stock assessments and appropriate protection	The Joint Fisheries Statement lists 43 proposed FMPs. Some FMPs will be developed jointly by 2 or more fisheries policy authorities, whilst others will be developed by a single authority for its own	🔴

		waters. Temporary management measures for scallops, crab and lobster have been implemented	
	3.2 Scottish Government adopts the UK Plan of Action on Seabird Bycatch	Not achieved	🔴
	3.3 Review of military exercise impact on cetaceans and other marine wildlife in Northwest Exercise Area	Not achieved	🔴
4. Investing in future	**4.1** Scottish Government outline and commit to a strategy to have all 11 Regional Marine Plans in place and functioning effectively by 2030	No further plans before the NMP2 is adopted	🔴
	4.2 Scottish Marine Environmental Enhancement Fund is established to support and drive an increase in practical conservation and restoration projects	Planned in 2021 and formally launched in 2022	🟢

2022

Category	ORP Goals for 2022	Actuality	Progress
1.Legally binding targets	**1.1** Reviews of progress towards National Marine Plan General Policy 9(b) for all other Priority Marine Features and develop action plans for features not currently addressed	Many protected under MPA network but not all Marine Directorate reviewing additional protection	🔴
	1.2 Scottish Government advocates for a global concordat to support an international moratorium on deep seabed mining	No official policy on the topic	🔴
	1.3 A ban on all new fossil fuel developments is included in the National Planning Framework	Not achieved, new oil fields still being developed	🔴
	1.4 Scotland's second National Marine Plan is published	Started the process of NMP2 in 22-23, delayed to 2025	🟡

	1.5 Deposit Return Scheme is operational and protocols reviewed so it can be adapted for Refill systems	Deposit Return Scheme delayed/ not done	🔴
	1.6 Scottish Government outlines strategy for identifying and tackling all contaminants of concern at sea, and new REACH chemical regulations match ambition and timeline of EU REACH	Nothing beyond UK REACH which is lagging behind when compared with EU REACH	🔴
	1.7 Scottish Government match or exceed EU Single-Use Plastics Directive	Scotland trying to match the EU single-Use Plastic Directive	🟠
	1.8 All of Scotland's bathing waters meet Sufficient and 95% meet Good or Excellent water quality	Has been improving every year since 2015 In 2022 44% meeting excellent water quality	🟠
	1.9 Impacts on wild salmonid populations are accounted for in regulation, resulting in locations of all new salmon farms posing no threat to wild salmonids	Scottish Wild Salmon Strategy 2022 Still relevant- based on the Sea Lice Risk Assessment Framework, ask for full implementation	🟠
2. MPAs	**2.1** Scottish Government completes the current phase of management measures for the MPA network	Fisheries management measures consultation delayed Was meant to be completed in 2024 - target missed	🔴
	2.2 A presumption against trawling and dredging within a significant part of inshore waters	Scottish government grants more scallop dredging licences in 2022 → in 2024 Open Seas organisation takes legal action against it	🔴

Category		Actuality	Progress
	2.3 The Independent MPA commission publishes review of Scotland's MPA network and its recommendations for the transformative change needed to achieve the 2030 target	Still no independent MPA commission established 2 more SPAs added in 2022- North Orkney, Scapa Flow → Red Rocks and Longay MPA designated but not part of the formal review Scottish Government report to Parliament due in 2024	🟡
3. Fisheries reform	**3.1** Scottish Government introduces a requirement for all over 10m and high-risk smaller fishing vessels operating in Scottish waters and Scottish vessels fishing elsewhere to install REM with cameras by end of 2022	Public consultation about: ● Enhancing Sustainable ● Fisheries Management	🟡
	3.2 Scottish Government implements a new spatial management regime for commercial and recreational fishing	Not achieved	🔴
4. Investing in future	4.1 No further requests for investing in future in 2022		

2023

Category	ORP Goals for 2023	Actuality	Progress
1.Legally binding targets	**1.1** Scottish Government develops an ambitious Programme of Measures to achieve GES+ by 2030	Circular Economy (Scotland Act) adopted in 2024 → UK Climate targets for 2030 scrapped in 2024	🔴
	1.2 Review the cumulative chemical and medicinal use of salmon treatments and their impact on the marine environment in Scotland	Reduction in antibiotics used in salmon farms in Scotland	🟡
2. MPAs	**2.1** Updated MPA proposals and legislative requirements are outlined by the Scottish Government in line with independent MPA commission recommendations	HPMA proposal did not go ahead Continuing to work toward Biodiversity Strategy ambition	🟡

			for Scotland to be nature-positive by 2030	
3. Fisheries reform	**3.1** Scottish Government commits to restricting bottom-contact fishing gear below 600 metres, and strengthens controls on forage fisheries to ensure they are managed to reflect their critical role in the ocean ecosystem		No progress on revision of the deep-sea access regime Following a consultation in 2023, a new on ban of sandeel fisheries in Scottish Waters came into effect	🟠
	3.2 All over 10m and high-risk smaller fishing vessels operating in Scottish waters and Scottish vessels fishing elsewhere are fitted with REM with cameras		Still waiting for REM to be introduced to vessels on Scottish waters	🟠
	3.3 All commercially targeted fish stocks and those at risk of being overfished have adequate stock assessments		Not achieved	🔴
4. Investing in future	**4.1** No further requests for investing in future for 2023			

2024

Category	ORP goals for 2024	activity	Progress
1 Creating legally binding targets	Scottish Government supports the International Maritime Organisation to push for an emissions reduction pathway for international shipping compatible with the Paris Agreement on climate change and supports a moratorium on ship-to-ship oil transfers.	No progress in 2024 April 2025 An agreement passed at the UN's International Maritime Organisation (IMO) meeting on Draft regulations to set mandatory marine fuel standard and GHG emissions pricing for shipping to address climate change.	🟠

1 Creating legally binding targets	Aquaculture, including salmon farming, is integrated into regional marine planning; all areas deemed unsuitable are designated aquaculture free-zones and all poorly sited farms relocated or closed, taking into account MPA conservation objectives, PMF distribution, sea lice mapping and cumulative impacts	RMP paused – here add comments related to NMP2	🔴
1 Creating legally binding targets	Per-fluorinated alkyl substances (PFAS) are removed from all non-essential uses and Scottish Government develops road-map for PFAS removal from essential uses such as firefighting foam	Partial progress	🟠
1 Creating legally binding targets	All washing machines sold in Scotland have a microfibre filter fitted and all commercial machines are retrofitted with one	No progress	🔴
1 Creating legally binding targets	All intermittent sewage overflows are reviewed to ensure they meet licence requirements, and monitored, with information including real-time data for bathing waters, other recreational waters and shellfish waters publicly available	Partial progress Environmental Standard Scotland (ESS) highlights a lack of transparency and need for major improvement.	🟠

References

1. NatureScot, n.d. **Plants, animals and fungi: marine mammals**. [online] Available at: https://www.nature.scot/plants-animals-and-fungi/mammals/marine-mammals [Accessed 26 July 2024].
2. Marine Scotland, n.d. **Assessment: seabirds**. [online] Available at: https://marine.gov.scot/sma/assessment/seabirds-0 [Accessed 26 July 2024].
3. NatureScot, n.d. **Landscapes and habitats: coast and seas**. [online] Available at: https://www.nature.scot/landscapes-and-habitats/habitat-types/coast-and-seas [Accessed 26 July 2024].
4. Scottish Government, 2022. **Scotland's biodiversity strategy: consultation**. [online] Available at: https://www.gov.scot/publications/scotlands-biodiversity-strategy-consultation/pages/2/ [Accessed 26 July 2024].
5. Marine Scotland, n.d. **Scotland's Marine Assessment 2020**. [online] Available at: https://marine.gov.scot/sma/ [Accessed 26 July 2024].
6. NatureScot, n.d. **Key pressures on biodiversity**. [online] Available at: https://www.nature.scot/scotlands-biodiversity/key-pressures-biodiversity [Accessed 26 July 2024].
7. Scottish Environment LINK, 2020. **Ocean Recovery Plan**. [pdf] Available at: https://www.scotlink.org/wp-content/uploads/2020/12/OceanRecoveryPlan_spreads-2.pdf [Accessed 26 July 2024].
8. United Nations, n.d. **Goal 14: Life below water**. [online] Available at: https://sdgs.un.org/goals/goal14 [Accessed 26 July 2024].
9. European Union, 2020. **Brexit: UK withdrawal from the EU**. [online] Available at: https://eur-lex.europa.eu/content/news/Brexit-UK-withdrawal-from-the-eu.html [Accessed 26 July 2024].
10. UK Government, **The REACH etc. (Amendment) Regulations 2021.** . [online] Available at: https://www.legislation.gov.uk/uksi/2021/904/contents/made [Accessed 26 July 2024].
11. House of Commons Library, 2018 **End of Brexit transition: Chemicals regulation (REACH).** [online] Available at: https://commonslibrary.parliament.uk/research-briefings/cbp-8403/ [Accessed 26 July 2024].
12. Scottish Government, 2022. **Marine litter strategy for Scotland**. [online] Available at: https://www.gov.scot/publications/marine-litter-strategy-scotland-2/pages/2/

[Accessed 26 July 2024].

13. Scottish Environment LINK, 2022. **Marine litter strategy: LINK consultation response**. [pdf] Available at: https://www.scotlink.org/wp-content/uploads/2022/04/Marine-litter-strategy-LINK-Consultation-Response-March-2022.pdf [Accessed 26 July 2024].

14. Marine Scotland, 2020. **Marine Litter. Scotland's Marine Assessment 2020** [online] Available at: https://marine.gov.scot/sma/assessment-theme/marine-litter [Accessed 27 July 2024]

15. Marine Conservation Society (2023). *Beachwatch Report 2023*. [pdf] Available at: https://s3.eu-west-1.amazonaws.com/media.mcsuk.org/documents/2023_Beachwatch_Report_with_hyperlinks.pdf [Accessed 18 December 2024].

16. Scottish Government, n.d. **Deposit Return Scheme**. [online] Available at: https://www.gov.scot/policies/managing-waste/deposit-return-scheme/ [Accessed 26 July 2024

17. Marine Scotland, 2020. **Microplastics in surface water. Scotland's Marine Assessment 2020**. Available at: https://marine.gov.scot/sma/assessment/microplastics-surface-water. [Accessed 26 October 2024]

18. NatureScot, n.d. **Marine protected areas (MPAs)**. [online] Available at: https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/marine-protected-areas-mpas [Accessed 26 July 2024].

19. Scottish Government, n.d. **Marine protected areas**. [online] Available at: https://www.gov.scot/policies/marine-environment/marine-protected-areas/ [Accessed 26 July 2024].

20. RSPB Scotland, **Wrapping up unfinished business – Scotland's marine birds receive long-awaited gift of protection.** Available at: https://community.rspb.org.uk/ourwork/b/scotland/posts/wrapping-up-unfinished-business-scotland-s-marine-birds-receive-long-awaited-gift-of-protection-294491676 [Accessed 29 January 2024]

21. UK Government, 2021. **Marine wildlife bycatch mitigation initiative**. [online] Available at: https://www.gov.uk/government/publications/marine-wildlife-bycatch-mitigation-initiative/marine-wildlife-bycatch-mitigation-initiative [Accessed 26 July 2024].

22. Marine Conservation Society, 2023. **What is remote electronic monitoring?** [online] Available at: https://www.mcsuk.org/news/what-is-remote-electronic-monitoring/ [Accessed 26 July 2024].

23. WWF UK, 2017. **Remote Electronic Monitoring: Why Camera technology is a cost-effective and robust solution to improving UK fisheries management.** [Online] Available at https://www.wwf.org.uk/sites/default/files/2017-10/Remote%20Electronic%20Monitoring%20in%20UK%20Fisheries%20Management_WWF.pdf [Accessed 31 March 2025]

24. UK Government, 2021. **Fisheries Act 2020**. [online] Available at: https://www.legislation.gov.uk/ukpga/2020/22/contents [Accessed 26 July 2024].

25. UK Government, 2022. **Joint Fisheries Statement (JFS)**. [online] Available at: https://www.gov.uk/government/publications/joint-fisheries-statement-jfs [Accessed 26 July 2024].

26. Cefas, n.d. **Introduction to UK Marine Strategy**. [online] Available at: https://moat.cefas.co.uk/introduction-to-uk-marine-strategy/ [Accessed 26 July 2024].

27. Scottish Government, 2020. **Scotland's Future Fisheries Management Strategy 2020-2030**. [online] Available at: https://www.gov.scot/publications/scotlands-future-fisheries-management-strategy-2020-2030/ [Accessed 26 July 2024].

28. Scottish Environment LINK, n.d. **FFA response to Scotland's REM consultation**. [pdf] Available at: https://www.scotlink.org/publication/consultation-response-remote-electronic-monitoring/ [Accessed 26 July 2024].

29. Scottish Government (2023). *Wild Wrasse Fishery 2021-22 Report*. [online] Available at: https://www.gov.scot/publications/wild-wrasse-fishery-2021-22-report/ [Accessed 18 December 2024].

30. Scottish Government, 2019. **The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019** [online] Available at https://www.legislation.gov.uk/asp/2019/15 [Accessed 30 March 2025]

31. Scottish Government, 2020. **Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update**. [Online] Available at: https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/ [Accessed 20 July 2024]

32. UK Parliament, 2023. Biodiversity in the UK: Bloom or Bust? [online] Available at: https://publications.parliament.uk/pa/cm5803/cmselect/cmenvfru/697/report.html [Accessed 26 July 2024].

33. Convention on Biological Diversity, n.d. **Home**. [online] Available at: https://www.cbd.int/ [Accessed 26 July 2024].

34. Convention on Biological Diversity, **Aichi Biodiversity Targets** [online] Available at: https://www.cbd.int/aichi-targets/ [Accessed 20 July 2024]

35. UK Government, 2021. **Prime Minister's statement on coronavirus (COVID-19): 15 January 2021**. [online] Available at: https://www.gov.uk/government/speeches/prime-ministers-statement-on-coronavirus-covid-19-15-january-2021 [Accessed 26 July 2024].

36. UK Government, 2021. COP26. [online] Available at: https://www.gov.uk/government/topical-events/cop26 [Accessed 26 July 2024].

37. Scottish Government, 2021. **UK dolphin and porpoise conservation strategy: high level strategy.** [online] Available at: https://www.gov.scot/publications/uk-dolphin-porpoise-conservation-strategy-high-level-report/documents/ [Accessed 30 March 2025]

38. Scottish Parliament, 2023. **Question to Parliament, Reference: S6W-19319** [online]. Available at : https://www.parliament.scot/chamber-and-committees/questions-and-answers/question?ref=S6W19319 [Accessed 20 February 2025]

39. UK Parliament, 2023. **Biodiversity loss: UK and international obligations**. [online] Available at: https://commonslibrary.parliament.uk/biodiversity-loss-uk-international-obligations/ [Accessed 26 July 2024]

40. UK Government, 2023. **Integrated Review Refresh 2023: Responding to a more contested and volatile world**. [online] Available at: https://www.gov.uk/government/publications/integrated-review-refresh-2023-responding-to-a-more-contested-and-volatile-world/integrated-review-refresh-2023-responding-to-a-more-contested-and-volatile-world [Accessed 26 July 2024].

41. Committee on Climate Change, 2023. **2023 Progress Report to Parliament**. [online] Available at: https://www.theccc.org.uk/publication/2023-progress-report-to-parliament/ [Accessed 26 July 2024].

42. Scottish Government, 2021. **Agreement with Scottish Green Party** [online] Available at: https://www.gov.scot/news/agreement-with-scottish-green-party/ [Accessed 26 July 2024]

43. Scottish Government, 2022. **Edinburgh Declaration on post-2020 global biodiversity framework.** [online] Available at: https://www.gov.scot/publications/edinburgh-declaration-on-post-2020-biodiversity-framework/ [Accessed 26 July 2024]

44. Scottish Parliament Information Centre, 2021. **How does Scotland's biodiversity measure up?** [online] Available at: https://spice-spotlight.scot/2021/06/04/how-does-scotlands-biodiversity-measure-up/ [Accessed 26 July 2024].

45. UK Government, 2019. **Maritime 2050: Navigating the Future**. [online] Available at: https://www.gov.uk/government/publications/maritime-2050-navigating-the-future [Accessed 26 July 2024]

46. Scottish Government, 2021. **Blue Economy Vision for Scotland**. [online] Available at: https://www.gov.scot/publications/blue-economy-vision-scotland/ [Accessed 26 July 2024].

47. UK Government, 2021. **Environment Act 2021** [online] Available at: https://www.legislation.gov.uk/ukpga/2021/30/contents [Accessed 25 February 2025]

48. REF Env Act

49. Scottish Government, 2021. **Scottish Government and Scottish Green Party: Shared Policy Programme**. [online] Available at: https://www.gov.scot/publications/scottish-government-and-scottish-green-party-shared-policy-programme/pages/our-natural-environment/ [Accessed 26 July 2024].

50. UK Government, n.d. **The Marine Strategy Regulations 2010**. [online] Available at: https://www.legislation.gov.uk/uksi/2010/1627/contents [Accessed 25 July 2025]

51. Department for Environment, Food and Rural Affairs, 2019**. Marine Strategy Part One: UK updated assessment and Good Environmental Status.** [online] Available at: https://assets.publishing.service.gov.uk/media/5f6c8369d3bf7f7238f23151/marine-strategy-part1-october19.pdf [Accessed 30 March 2025]

52. Department for Environment, Food and Rural Affairs,2015. **Marine Strategy Part Three: UK Programme of Measures**. [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486623/marine-strategy-part3-programme-of-measures.pdf [Accessed 30 March 2025]

53. UK Government, 2025. **Marine strategy part three: 2025 UK programme of measures.** [online] Available at: https://www.gov.uk/government/publications/marine-strategy-part-three-2025-uk-programme-of-measures [Accessed 30 March 2025]

54. UK Government, 2022. **Fisheries Management Plans**. [online] Available at: https://www.gov.uk/government/publications/fisheries-management-plans/fish [Accessed 26 July 2024].

55. Parliament of Scotland, 2024. **Inshore Interim Measures**. [online] Available at: https://www.parliament.scot/-/media/files/committees/rural-affairs-and-islands-committee/correspondence/2024/inshore-interim-measures.pdf [Accessed 31 October 2024]

56. RSPB, 2023. **Scotland's Seabirds in Crisis: RSPB's Emergency Appeal**. [online] Available at: https://www.rspb.org.uk/media-centre/scotlands-seabirds-emergency [Accessed 26 July 2024].

57. JNCC, 2023. **Seabirds Count – the fourth Breeding Seabird Census.** [Online] Available at: https://jncc.gov.uk/our-work/seabirds-count/ [Accessed 31 March 2025]

58. Scottish Government, 2020. **Sectoral marine plan for offshore wind energy** [online] Available at : https://www.gov.scot/publications/sectoral-marine-plan-offshore-wind-energy/pages/3/ [accessed 31 January 2025]

59. Scottish Government, 2023. **Initial Plan Framework: Sectoral Marine Plan for Offshore Wind Innovation and Targeted Oil and Gas Decarbonisation (INTOG)**. [online] Available at: https://www.gov.scot/publications/initial-plan-framework-sectoral-marine-plan-offshore-wind-innovation-targeted-oil-gas-decarbonisation-intog/ [Accessed 26 July 2024].

60. Scottish Parliament, 2024. **Sectoral Marine Plan Update for Offshore Wind**. [online] Available at: https://www.parliament.scot/-/media/files/committees/net-zero-energy-and-transport-committee/correspondence/2024/sectoral-marine-plan-update-offshore-wind-4-march-2024.pdf [Accessed 26 July 2024].

61. Scottish Environment Protection Agency , n.d. Protection of the Marine Environment, Discharges from Marine Pen Fish Farms: A Strengthened Regulatory Framework. [online]. Available at: https://www.sepa.org.uk/regulations/water/aquaculture/regulatory-framework/ [Accessed 31 March 2025]

62. Scottish Parliament, 2024. **Salmon Farming: SEPA**. [online] Available at: https://www.parliament.scot/-/media/files/committees/rural-affairs-and-islands-committee/correspondence/2024/salmon-farming-sepa.pdf [Accessed 26 July 2024].

63. Scottish Parliament, n.d. **Circular Economy (Scotland) Bill**. [online] Available at: https://www.parliament.scot/bills-and-laws/bills/circular-economy-scotland-bill/overview [Accessed 26 July 2024].

64. Scottish Government, 2023. **Circular Economy Bill published**. [online] Available at: https://www.gov.scot/publications/circular-economy-bill-published [Accessed 26 July 2024].

65. Scottish Government (2023). *Scotland's Circular Economy: Waste Route Map 2030*. [online] Available at: https://www.gov.scot/publications/scotlands-circular-economy-waste-route-map-2030/ [Accessed 18 December 2024].

66. Lincoln, S., Andrews, B., Birchenough, S.N.R., Chowdhury, P., Engelhard, G.H., Harrod, O., Pinnegar, J.K., and Townhill, B.L., 2022. **Marine litter and climate change: Inextricably connected threats to the world's oceans**. *Science of The Total Environment*, 837, 155709. Available at: https://doi.org/10.1016/j.scitotenv.2022.155709. [Accessed 26 October 2024].

67. EIA International, 2023. **A New Global Treaty: EU and UK Policy**. [online] Available at: https://reports.eia-international.org/a-new-global-treaty/eu-and-uk-policy/ [Accessed 26 July 2024].

68. British Standards Institution, 2024. **Plastic pellets, flakes, and powders — Handling and management throughout the supply chain to prevent their leakage to the environment. Specification**. BSI Knowledge. Available at: https://knowledge.bsigroup.com/products/plastic-pellets-flakes-and-powders-handling-and-management-throughout-the-supply-chain-to-prevent-their-leakage-to-the-environment-specification?version=standard [Accessed 23 July 2024]

69. Scottish Government, 2022. **Marine Litter Strategy.** [online] Available at: https://www.gov.scot/publications/marine-litter-strategy-scotland-2/ [Accessed 26 July 2024]

70. Scottish Government, n.d. **Marine Litter**. [online] Available at: https://www.gov.scot/policies/marine-environment/marine-litter/ [Accessed 26 July

2024].

71. Scottish Government, 2015. **Scotland's National Marine Plan**. [online] Available at: https://www.gov.scot/publications/scotlands-national-marine-plan/ [Accessed 25 July 2024]

72. Scottish Government, 2018. **National Marine Plan Review 2018: Three-Year Report on Implementation in Scotland**. [online] Available at: https://www.gov.scot/publications/national-marine-plan-review-2018-three-year-report-implementation-scotlands/ [Accessed 26 July 2024].

73. Marine Scotland, 2021. **National Marine Plan Review 2021**. [online] Available at: https://marine.gov.scot/data/national-marine-plan-review-2021 [Accessed 26 July 2024].

74. Scottish Environment LINK, 2021. **Consultation Response: National Marine Planning Review 2021**. [online] Available at: https://www.scotlink.org/publication/consultation-response-national-marine-planning-review-2021/ [Accessed 26 July 2024].

75. UK Government, 2022. **Maritime and Fisheries Fund (MFF): Apply for Funding**. [online] Available at: https://www.gov.uk/guidance/maritime-and-fisheries-fund-mff-apply-for-funding [Accessed 26 July 2024].

76. Scottish Tourism Alliance, 2020. **Giant Strides 2020-2025.** [online] Available at: https://scottishtourismalliance.co.uk/marine-tourism/ [Accessed 27 July 2024]

77. Nature Scot, n.d. **Scottish Marine Wildlife Watching Code.** [online] Available at: https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/scottish-marine-wildlife-watching-code [Accessed 27 July 2024]

78. Scottish Government, 2024. **Marine Protected Area Network: 2024 Report to Parliament.** [online] Available at: https://www.gov.scot/publications/marine-protected-area-network-2024-report-scottish-parliament/documents/ [Accessed 23 January 2025]

79. Scottish Environment LINK. (2024). *Scotland's marine protected area network in 2024: Where are we now?* Available at: https://www.scotlink.org/scotlands-marine-protected-area-network-in-2024-where-are-we-now/ (Accessed: 19 December 2024).

80. BatMap, n.d. **BatMap Information**. [online] Available at: https://info.batmap.co.uk/ [Accessed 26 July 2024].

81. UK Government, 2022. **Marine Wildlife Bycatch Mitigation Initiative.** [online] Available at: https://www.gov.uk/government/publications/marine-wildlife-bycatch-mitigation-initiative/marine-wildlife-bycatch-mitigation-initiative [Accessed 18 October 2024]

82. Parsons, E.C.M., Birks, I., Evans, P.G.H., Gordon, J.C.D., Shrimpton, J.H., and Pooley, S. (2000). **The possible impacts of military activity on cetaceans in West Scotland.** European Research on Cetaceans, 14, 185–190 Available at: https://seawatchfoundation.org.uk/wp-content/uploads/2012/08/40.-possible-impact-of-military-activity-on-cetacean-in-west-scotland-2000.pdf [Accessed 26 July 2024].

83. Scottish Parliament, 2023. **Regional Marine Plans in Scotland**. [online] Available at: https://www.parliament.scot/-/media/files/committees/net-zero-energy-and-transport-committee/correspondence/2023/regional-marine-plans-in-scotland-31-july-2023.pdf [Accessed 26 July 2024].

84. NatureScot, n.d. **Scottish Marine Environmental Enhancement Forum (SMEEF)**. [online] Available at: https://www.nature.scot/SMEEF [Accessed 26 July 2024].

85. Met Office, July 2023. **Record Breaking 2022 indicative of future UK climate.** [online] Available at: https://www.metoffice.gov.uk/about-us/news-and-media/media-centre/weather-and-climate-news/2023/record-breaking-2022-indicative-of-future-uk-

climate [Accessed 31 March 2025]

86.   Scottish Government (2024). *Next Steps for Marine Protection*. [online] Available at: https://www.gov.scot/news/next-steps-for-marine-protection/ [Accessed 18 December 2024].

87.   Scottish Environment LINK, n.d. **Deep Sea**. [online] Available at: https://www.scotlink.org/deepsea/ [Accessed 26 July 2024].

88.   Deep Sea Conservation Coalition, n.d. **Momentum for a Moratorium: Governments and Parliamentarians**. [online] Available at: https://deep-sea-conservation.org/solutions/no-deep-sea-mining/momentum-for-a-moratorium/governments-and-parliamentarians/ [Accessed 26 July 2024].

89.   JNCC, 2020**. Designation of the West of Scotland Marine Protected Area**. [online] Available at: https://jncc.gov.uk/news/west-of-scotland-mpa-designation/ [Accessed 23 July 2024]

90.   UK Government, 2024. **PM Recommits UK to Net Zero by 2050 and Pledges a Fairer Path to Achieving Target**. [online] Available at: https://www.gov.uk/government/news/pm-recommits-uk-to-net-zero-by-2050-and-pledges-a-fairer-path-to-achieving-target-to-ease-the-financial-burden-on-british-families [Accessed 26 July 2024].

91.   Scottish Government, n.d. **Deposit Return Scheme**. [online] Available at: https://www.gov.scot/policies/managing-waste/deposit-return-scheme/ [Accessed 26 July 2024].

92.   CHEM Trust, 2023. **Review of UK REACH three years on**. [online] Available at: https://chemtrust.org/review-of-uk-reach-three-years-on/ [Accessed 26 July 2024].

93.   European Chemicals Agency, 2023. **European Commission advances work on restrictions of harmful chemicals**. [online] Available at: https://echa.europa.eu/-/european-commission-advances-work-on-restrictions-of-harmful-chemicals [Accessed 26 July 2024].

94.   Marine Scotland, 2020. **Microplastics in surface water. Scotland's Marine Assessment 2020**. Available at: https://marine.gov.scot/sma/assessment/microplastics-surface-water. [Accessed 26 October 2024]

95.   Scottish Water, 2022. **Bathing Water Quality Improvement**. [online] Available at: https://www.scottishwater.co.uk/About-Us/News-and-Views/2022/11/151122-Bathing-Water-SEPA#:~:text=Scotland%E2%80%99s%20bathing%20water%20quality%20continues%20to%20improve%20with,in%20bathing%20water%20quality%2C%20achieved%20through%20partnership%20projects.%E2%80%9D [Accessed 26 July 2024].

96.   Scottish Government (2024). *Scottish Wild Salmon Strategy***.** [online] Available at: https://www.gov.scot/publications/scottish-wild-salmon-strategy/ [Accessed 18 December 2024].

97.   Atlantic Salmon Trust (2023). *Zooplankton Decline Paper***.** [online] Available at: https://atlanticsalmontrust.org/zooplankton-decline-paper/ [Accessed 18 December 2024].

98.   Scottish Government (2023). *Salmon Interactions Working Group Report: Scottish Government Response***.** [online] Available at: https://www.gov.scot/publications/salmon-interactions-working-group-report-scottish-government-response/documents/ [Accessed 18 December 2024].

99. Scottish Environment Protection Agency (2023). *Sea Lice Regulatory Framework: Implementation*. [online] Available at: https://www.sepa.org.uk/regulations/water/aquaculture/sea-lice-regulatory-framework-implementation [Accessed 18 December 2024].

100. Scottish Environment LINK, 2024. **Briefing on commissioned report "Ensuring the Effectiveness of the Marine Protected Area Network in Scotland"** [online] Available at: https://www.scotlink.org/publication/briefing-on-commissioned-report-ensuring-the-effectiveness-of-the-marine-protected-area-network-in-scotland/ [Accessed 20 July 2024]

101. M.R. Ryan, 2012. **Trawling and Dredging in the Clyde Sea Area: History, Impacts and Prospects for Recovery.** University of Glasgow. [Online] Available at https://www.arrancoast.com/wp-content/uploads/2019/02/Ryan-Bailey-2012-Trawling-and-Dredging-in-the-Clyde-Sea-Area.pdf [Accessed 30 March 2025]

102. Parliament of Scotland, 2023. **Our Seas Coalition**. [online] Available at: https://www.parliament.scot/-/media/files/committees/rural-affairs-and-islands-committee/correspondence/2023/our-seas-coalition.pdf [Accessed 31 October 2024]

103. Open Seas, 2024. **A Legal Victory for Scotland's Seas.** [online] Available at https://www.openseas.org.uk/news/a-legal-victory-for-scotlands-seas/ [Accessed 18 December 2024]

104. Nature Scot, n.d. **Red Rocks and Longay MPA.** [online] Available at: https://experience.arcgis.com/experience/16ed7e226777466392be78fef23c1ed2 [Accessed 20 December 2024]

105. Scottish Government, 2022. **Fisheries management strategy 2020 to 2030: delivery plan.** [online] Available at: https://www.gov.scot/publications/scotlands-fisheries-management-strategy-2020-2030-delivery-plan/ [accessed 12 October 2024]

106. Scottish Environment LINK (2023). *Consultation Response: Remote Electronic Monitoring*. [online] Available at: https://www.scotlink.org/publication/consultation-response-remote-electronic-monitoring/ [Accessed 18 December 2024].

107. Scottish Environment LINK (2023). *Consultation Response: Improving Inshore Fisheries Data Requiring Electronic Tracking and Monitoring Technology on Under 12-Metre Commercial Fishing Vessels*. [online] Available at: https://www.scotlink.org/publication/consultation-response-improving-inshore-fisheries-data-requiring-electronic-tracking-and-monitoring-technology-on-under-12-metre-commercial-fishing-vessels/ [Accessed 18 December 2024].

108. Johnson, Simon, March 2023. "Kate Forbes: I'm not afraid to govern Scotland without the Greens". [online] Available at: https://www.telegraph.co.uk/politics/2023/03/26/kate-forbes-not-afraid-govern-scotland-without-greens/ The Telegraph. ISSN 0307-1235. [accessed 01 April 2025]

109. Ocean Panel (2024). *Joint Declaration on Ocean and Climate Action*. [online] Available at: https://oceanpanel.org/joint-declaration-on-ocean-and-climate-action/ [Accessed 18 December 2024].

110. Global Seafood Alliance (2023). *Salmon Farmers in Scotland Cut Antibiotic Usage by More Than 50 % in 2022*. [online] Available at:

https://www.globalseafood.org/advocate/salmon-farmers-in-scotland-cut-antibiotic-usage-by-more-than-50-%-in-2022/ [Accessed 18 December 2024].

111. Scottish Government, 2023. **Highly Protected Marine Areas: Consultation Analysis, final report.** [online] Available at: https://www.gov.scot/publications/highly-protected-marine-areas-hpmas-analysis-consultation-responses-final-report/ [accessed 17 December 2024]

112. Jo Clarke, Rosanna J. Milligan, David M. Bailey, Francis C. Neat, 2015. **A Scientific Basis for Regulating Deep-Sea Fishing by Depth**, Current Biology, Volume 25, Issue 18,2015 ,Pages 2425-2429,ISSN 0960-9822, https://doi.org/10.1016/j.cub.2015.07.070. [online] Available at: https://www.sciencedirect.com/science/article/pii/S0960982215009380 [accessed 01 April 2025]

113. RSPB (2023). *Sandeel Closures: EU Challenge*. [online] Available at: https://www.rspb.org.uk/media-centre/sandeel-closures-eu-challenge [Accessed 18 December 2024].

114. Scottish Government (2024) The Sea Fisheries (Remote Electronic Monitoring and Regulation of Scallop Fishing) (Scotland) Regulations 2024 (online) Available at: https://www.legislation.gov.uk/ssi/2024/165/introduction/made [Accessed 17 February 2025]

115. Scottish Environment LINK, 2024.**Consultation response to fisheries management measures within offshore marine protected areas.** [online] Available at: https://www.scotlink.org/publication/link-consultation-response-to-fisheries-management-measures-within-offshore-marine-protected-areas/ [Accessed 18 July 2024]

116. Scottish Environment LINK (2023). *LINK Response to Raine Committee on Sea Fisheries REM and Regulation of Scallop Fishing*. [online] Available at: https://www.scotlink.org/publication/link-response-to-raine-committee-on-sea-fisheries-rem-and-regulation-of-scallop-fishing/ [Accessed 18 December 2024].

117. Scottish Government (2023). *Wild Wrasse Fishery 2021-22 Report.* [online] Available at: https://www.gov.scot/publications/wild-wrasse-fishery-2021-22-report/ [Accessed 18 December 2024].

118. Climate Change Committee (2024).**Progress in reducing emissions in Scotland – 2023 Report to Parliament** [Online] Available at: https://www.theccc.org.uk/publication/progress-in-reducing-emissions-in-scotland-2023-report-to-parliament/ [Accessed 8 May 2025]

119. House of Commons Environmental Audit Committee (2024) **Net Zer0 and UK Shipping, Seventh Report of Session 2023-24** [online] Available at: https://committees.parliament.uk/publications/45178/documents/223685/default/ [Accessed 8 May 2025]

120. International Maritime Organization (April 2025), **IMO approves net-zero regulations for global shipping.** (online) Available at : https://www.imo.org/en/MediaCentre/PressBriefings/pages/IMO-approves-netzero-regulations.aspx [Accessed 8 May 2025]

121. Esme Stallard, BBC UK (11 April 2025), **Global breakthrough to tackle shipping emissions** (online) Available at: https://www.bbc.co.uk/news/articles/c20xxv22wl9o [Accessed 9 May 2025]

122. Orkney Islands Council (2024) **Orkney Islands Regional Marine Plan – Consultation**

(online) Available at: https://www.orkney.gov.uk/our-services/planning-and-building/development-and-marine-planning-policy/marine-planning/orkney-islands-regional-marine-plan-consultation/ [Accessed 9 May 2025]

123. Orkney Islands Council (2024) **Orkney Islands Marine Region: Finfish Farming Spatial Guidance – Consultation.** (online) Available at: https://www.orkney.gov.uk/our-services/planning-and-building/development-and-marine-planning-policy/marine-planning/orkney-islands-marine-region-finfish-farming-spatial-guidance-consultation/ [Accessed 9 May 2025]

124. Scottish Government (2024) **National Marine Plan 2 – Planning position statement consultation** (online) Available at: https://www.gov.scot/publications/nmp2-planning-position-statement/documents/ [Accessed 9 May 2025]

125. Scottish Environment LINK (2025) **Consultation response – NMP2 planning position Statement.** (online) available at: https://www.scotlink.org/publication/consultation-response-national-marine-plan-2-planning-position-statement/ [Accessed May 2025]

126. Health and Safety Executive (2024) **UK REACH - PFAS firefighting foams - Call for evidence** (online) available at:https://consultations.hse.gov.uk/crd-reach/pfas-fire-fighting-foams/ [Accessed 12 May 2025]

127. Rachel Salvidge, Leana Hosea, The Guardian (17 Jan 2025). **Otters among UK wildlife carrying toxic "forever chemicals" analysis shows** (online) Available at: https://www.theguardian.com/environment/2025/jan/17/otters-among-uk-wildlife-carrying-toxic-forever-chemicals-analysis-shows [Accessed 9 May 2025]

128. Emily O'Rourke, Juliet Hynes, Sara Losada, Jonathan L. Barber, M. Glória Pereira, Eleanor F. Kean, Frank Hailer, and Elizabeth A. (2022) **Anthropogenic Drivers of Variation in Concentrations of Perfluoroalkyl Substances in Otters (Lutra lutra) from England and Wales** Chadwick Environmental Science & Technology 2022 56 (3), 1675-1687. DOI: 10.1021/acs.est.1c05410 Available at: https://pubs.acs.org/doi/full/10.1021/acs.est.1c05410 [Accessed 9 May 2025]

129. Marine Conservation Society (2025) **New YouGov survey shows most people unaware of 'forever chemicals'** (online) Available at: https://www.mcsuk.org/news/most-people-unaware-of-forever-chemicals/ [Accessed 9 May 2025]

130. European Commission (2024) **Commission restricts use of a sub-group of PFAS chemicals to protect human health and the environment** (online) Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_24_4763 [Accessed 9 May 2025]

131. Marine Conservation Society, n.d. **What are forever chemicals and why are they a problem?** (online) Available at: https://www.mcsuk.org/ocean-emergency/ocean-pollution/pfas-forever-chemicals/ [Accessed 9 May 2025]

132. UK Parliament (2022) **Microplastic Filters (Washing Machines) Bill** (online). Available at: https://bills.parliament.uk/bills/3077 [Accessed 9 May 2025]

133. Dive Magazine (2023) **MCS calls for mandatory microfibre filters in washing machines by 2024** (online) Available at: https://divemagazine.com/scuba-diving-news/mcs-calls-for-mandatory-washing-machine-microfibre-filters [Accessed 9 May 2025]

134. Marine Conservation Society (n.d.) **Stop Ocean Threads** (online). Available at: https://www.mcsuk.org/what-you-can-do/campaigns/stop-ocean-threads/ [Accessed 9 May 2025]

135. Scottish Waters n.d **Improving Urban Waters** (online) Available at: https://www.scottishwater.co.uk/Help-and-Resources/Document-Hub/Key-Publications/Urban-Waters-Improvements [Accessed 10 May 2025]

136. Scottish Water (2024) **Scottish Waters Installs 1000 new sewer monitors** (online) Available at: https://www.scottishwater.co.uk/About-Us/News-and-Views/2024/12/101224-1000-New-Overflow-Monitors [Accessed 10 May 2025]

137. Marine Conservation Society (2024) **Sewage Related Debris in Scotland** (online) Available at: https://s3.eu-west-1.amazonaws.com/media.mcsuk.org/documents/Sewage_Related_Debris_Scotland_MCS_briefing_Dec_2024.pdf [Accessed 10 May 2025]

138. Scottish Water, n.d. **Overflow Map** (online) Available at: https://www.scottishwater.co.uk/Your-Home/Your-Waste-Water/Overflows/Live-Overflow-Map [Accessed 25 May 2025]

139. Environmental Standards Scotland (2024) **News release – Major improvements required to sewer overflow monitoring and management.** (online) Available at: https://environmentalstandards.scot/keep-up-to-date/major-improvements-required-to-sewer-overflow-monitoring-and-management/ [Accessed 9 May 2025]

140. University of Edinburgh, 2023. **Professor James Harrison Publishes New MPA Report**. [online] Available at: https://www.law.ed.ac.uk/news-events/news/professor-james-harrison-publishes-new-MPA-report [Accessed 26 July 2024].

141. World Resources Institute (2023). How Ocean Health Affects Human Health. [online] Available at: https://www.wri.org/insights/how-ocean-health-affects-human-health [Accessed 18 December 2024].

142. ScienceDirect (2022). *Marine Conservation and Climate Change*. *The Lancet Planetary Health*, 6(9), pp. 891-900. [online] Available at: https://www.sciencedirect.com/science/article/pii/S2589811622000106 [Accessed 18 December 2024].

143. World Health Organization (2023). Climate Change and Health. [online] Available at: https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health [Accessed 18 December 2024].

144. Scottish Environment LINK. (2024). **Scotland must protect nature budgets**. [online] Available at: https://www.scotlink.org/scotland-must-protect-nature-budgets/ [Accessed: 19 December 2024]

145. ScienceDirect (2024). *Advances in Marine Biodiversity Research*. *Marine Pollution Bulletin*, 162, pp. 90-98. [online] Available at: https://www.sciencedirect.com/science/article/pii/S2590157524001962 [Accessed 18 December 2024].