

# Report to the Scottish Parliament on Progress to Identify a Scottish Network of Marine Protected Areas

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## Ministerial Foreword



Scotland's seas are extraordinary, and we are only just starting to get to know what is in them and how much we rely on them.

Our seas provide indirect and direct services, such as providing nurseries and feeding grounds for species critical to the marine ecosystem many of which are commercial stocks. Kelp and seagrass forests and offshore reefs help reduce the impacts of storms by acting as a physical buffer. Healthy seas also assist in protecting us from climate change. So it is important not just to protect rare, threatened or declining, or nationally representative species and habitats for their own sake, but also for these benefits we take for granted.

I want the protection of these services and Scotland's marine environment to mean something. Protecting rare, representative and productive species and habitats on the basis of sound science means we can keep on getting these benefits and enjoying the rich diversity of life in the waters around us.

Since 2007 we have had much more of a focus on marine conservation. We have been able to protect important marine habitats for seabirds. Special Areas of Conservation in Scottish offshore waters have been designated, of which we now have 11, where one is the largest in Europe. Before 2007 control of our seas did not extend further than 12 nautical miles, nor did we have community-led protected areas.

And the Marine (Scotland) Act in 2010 delivered new powers to protect other habitats and species of national and international importance through the designation of Marine Protected Areas, or MPAs.

We are working hard to achieve a well managed MPA network by 2016. The next step is to go to consultation on a number of proposals, and we aim to time this with the consultations on the draft National Marine Plan and draft sectoral marine plans for offshore renewable energy.

MPAs can also add to the protection of Scotland's outstanding marine cultural heritage through Historic MPAs, for example, providing a more flexible mechanism than is currently available to protect historical shipwrecks of


national importance. [Historic Scotland](#)<sup>1</sup> is identifying Historic MPAs to deliver another part of the Marine (Scotland) Act.

This Report to the Scottish Parliament on progress on the development of a Marine Protected Area (MPA) network for Scotland, is required under Section 103 of the Marine (Scotland) Act 2010 and Section 124 of the Marine and Coastal Access Act 2009, and has been laid in the Scottish Parliament. It reports on which sites are currently included in the network and outlines progress on Nature Conservation MPAs, Historic MPAs, and Demonstration and Research MPAs.

For further details on the identification of Nature Conservation MPAs, Scottish Natural Heritage and Joint Nature Conservation Committee's *Advice to the Scottish Government on the Selection of Nature Conservation Marine Protected Areas (MPAs) and the Development of the Scottish MPA Network* is now available on the [Scottish Natural Heritage](#)<sup>2</sup> and [Joint Nature Conservation Committee](#)<sup>3</sup> websites.

Finally I would like to take the opportunity to thank everyone who has been involved in the last two years to get to where we are today. I look forward to continuing to work with all of you as we move towards designation and management of Marine Protected Areas.

Our ecologically coherent MPA network will significantly contribute to the Scottish Government's efforts for clean, healthy, safe, productive and biologically diverse oceans and seas, and will, I believe, deliver for the environment as well as for the people of Scotland.



**Richard Lochhead MSP**

Cabinet Secretary for Rural Affairs and Environment

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<sup>1</sup> [www.historic-scotland.gov.uk/wrecksites](http://www.historic-scotland.gov.uk/wrecksites)

<sup>2</sup> [www.snh.gov.uk/MPAnetworkadvice](http://www.snh.gov.uk/MPAnetworkadvice)

<sup>3</sup> [www.jncc.defra.gov.uk/ScottishMPAs](http://www.jncc.defra.gov.uk/ScottishMPAs)

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## **Report to the Scottish Parliament on Progress to Identify a Scottish Network of Marine Protected Areas**

This document provides the Scottish Government's Report on progress to Parliament, as required under Section 103 of the Marine (Scotland) Act 2010 and Section 124 of the Marine and Coastal Access Act 2009, on the development of a Marine Protected Area (MPA) network. It outlines progress on Nature Conservation MPAs, Historic MPAs, and Demonstration and Research MPAs.

### **What is a Marine Protected Area (MPA) Network?**

A Marine Protected Area network is designed to conserve a scientific selection of both marine biodiversity (species and habitats) and geodiversity (the variety of landforms and natural processes that underpin the marine landscapes), offering long-term support for the services our seas provide to society.

We are developing Nature Conservation MPAs in Scotland to either protect a range of biodiversity or geodiversity features in their current state for the future, or to allow them the space from human activity to recover to the state they should be to remain healthy and productive. The benefits our seas provide are not limited to the environment; MPAs can also add to the protection of Scotland's outstanding marine cultural heritage through Historic MPAs.

In Scotland there are already many existing protected areas in our seas. These range from Special Protection Areas (SPAs) for seabirds such as puffins and kittiwakes, Special Areas of Conservation (SACs) for features such as bottlenose dolphin, coral reefs and seals, and Sites of Specific Scientific Interest (SSSI) for the further protection of seabirds and seals to sea caves and rocky shores.

Nature Conservation MPAs are being identified for features (the collective term for species, habitats and geology we are looking to protect in the MPA network) that we believe require more protection than what is offered by existing protected areas.

At the moment every type of protected area has a different name; from the SACs and SPAs, to the new MPAs we are working on now. The aim is once we have completed a well managed MPA network, every site in Scotland offering some sort of spatial protection to species, habitats or geology, be it an SAC, SPA or SSSI or Nature Conservation MPA, will be known as an MPA, and collectively as the MPA network.



## Why do we need Marine Protected Areas?

Scotland's seas support a huge diversity of marine life and habitats, with around 6,500 species of plants and animals, with plenty more no doubt to be found in the undiscovered deeps of the north and west of Scotland. These include species such as:

- Deeper water habitats comprising species such as cold water corals, sea fan communities. Off the Sound of Canna can be found the largest aggregation of fan mussels in UK waters and one of the deepest and most unusual examples of a horse mussel bed;
- 24 species of seabird living in breeding colonies around the Scottish coast;
- Sharks, rays and skates, including the world's second-largest fish, the basking shark, which can reach 8m long;
- In the past 25 years, 23 species of whales, dolphins and porpoises have been spotted around the Scottish coastline, of which 8, including minke and killer whale, are permanent residents;
- Many seals are also residents here, such as harbour and grey seals, and they spend most of their time at sea, sometimes coming ashore to breed, moult or simply to languish on rocks after a hard week's fishing;
- And, in proportion to its size, Scotland is the Earth's most geologically diverse country. Almost every period of geological time is captured in the rock record, and many of these can be found in our coastal waters.

The seas around Scotland are among the richest in Europe for marine mammals. Scotland holds about 70% of Europe's population of grey seals, over 100,000 individuals, and over 20,000 common seals or 35% of the EC population, emphasising the important role that seals have in Scottish waters. 14 SACs have so far been designated for grey and common seals.

Scotland is home to the most northerly pod of bottlenose dolphins which are found within the Moray Firth, which was designated an SAC in March 2005. These are larger and more blubbery than tropical bottlenose dolphins to survive the bitter cold of the North Sea, and the Moray Firth is one of only 3 SACs found in the UK for bottlenose dolphins.

Loch Creran is the only SAC in Europe designated to protect the delicate and colourful serpulid reefs built by the tube worm *serpula vermicularis*, and this is the largest discovery of this habitat in the world. And a recent survey in Loch Alsh commissioned by Marine Scotland in August 2012 for the identification of MPAs found what appear to be the most extensive and best developed flame shell beds in the UK.

Scotland's seas are also home to 45% of Europe's breeding seabirds with internationally important numbers of 24 breeding species. We have SPAs for the protection of seabird species, such as the great skua, of which more than half of the world's population return to Scotland each year to nest. With approximately 5 million seabirds in Scotland, all foraging in our seas, there is approximately one seabird per person in Scotland!

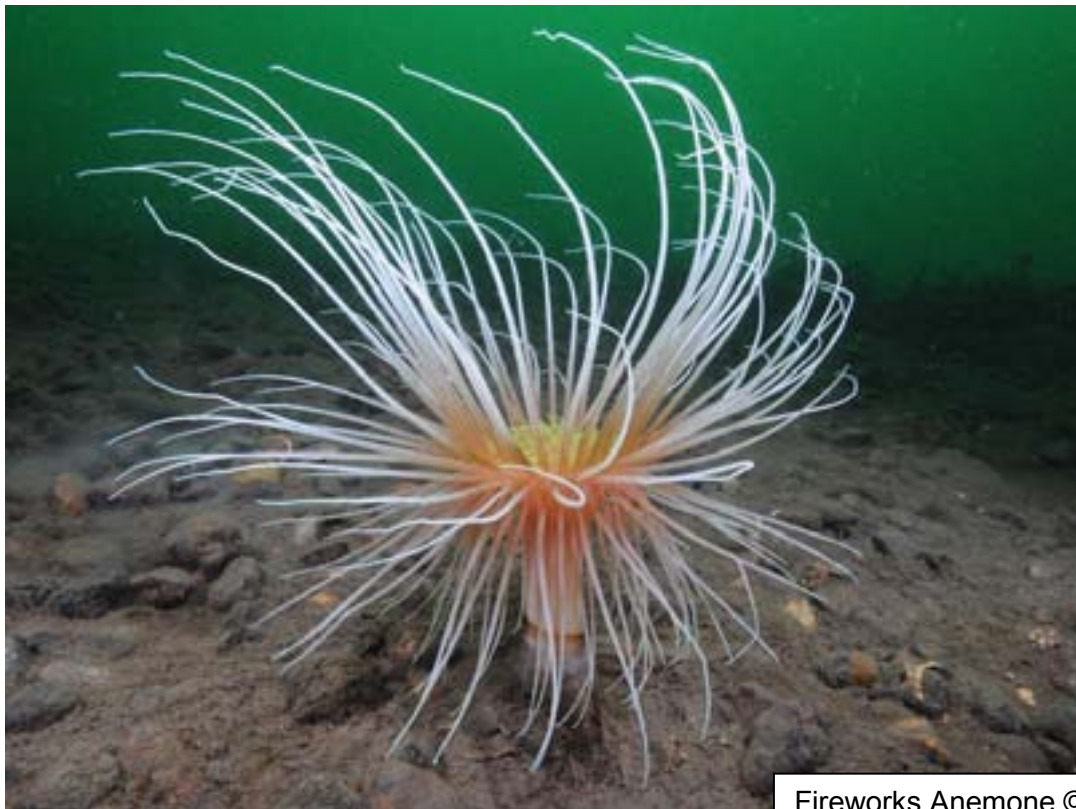
Our seas account for 61% of UK waters and remain at the forefront of our food and energy needs, through fishing, aquaculture, oil and gas, and new industries such as renewables, as well as recreation activities and eco-tourism.

We already have a network that includes existing protected areas for many of these species and habitats such as Special Protection Areas (SPAs) for almost every specie of seabird found in our seas and coastlines. Special Areas of Conservation (SACs) offer further spatial protection for features like bottlenose dolphin, coral reefs and seals. These protected areas are ones we are required by law to designate under European Union Directives.

However we do not believe we have enough protection in the marine environment from these marine protected areas to properly protect all the pieces of the complex marine ecosystem. We decided, with the aid of the Marine (Scotland) Act, to offer conservation measures to those features that needed protection through the designation of new MPAs. And these MPAs are for features which are considered by the country"s leading marine scientists and international studies to most deserve our protection, either because they are rare, threatened or declining, representative or because they are almost only found here.

An ecologically coherent network of well-managed marine protected areas is therefore vital to conserve and regenerate our seas, in turn protecting the many goods and services they provide now, and for generations to come.

Scotland"s coasts and seas also preserve a rich cultural heritage dating from early prehistory to the recent past including remains of coastal settlement (submerged landscapes) and thousands of wrecks of ships and aircraft. The marine cultural heritage helps us to appreciate the importance of our coasts and seas throughout Scotland"s history, contributes to our sense of place and wellbeing, enhances the distinctiveness of coastal areas and helps attract visitors to Scotland.



Fireworks Anemone ©Sue Scott

## What else can MPAs do?

While the main aim is to protect rare, threatened or declining, or representative species, habitats and geological features for their own sake under the principle of sustainable use, there are a number of other reasons we should work towards a well managed network of MPAs in the wider context. Some of these reasons are harder to be certain of as we are constantly learning about the natural and ecological processes of our seas, but we believe that MPAs as a whole can contribute to a degree for a range of other things we either depend upon or take for granted.

Take for example the direct benefits we gather from the sea. These are things that can be harvested, like the fish and shellfish we eat and export, or enjoyed, such as the already important and growing wildlife tourism sector. MPA networks can help protect the complex, biologically diverse habitats that provide hiding places or nurseries for juvenile fish and shellfish to grow and feed, without which there would be less of a foundation for life to continue in the sea as we know it. The same applies to protecting important areas for critical lifecycle stages of mobile species, such as basking sharks and cetaceans. In addition to MPAs simply for the protection of these species, many people are attracted to a sea that is rich and healthy enough to support resident or migrant populations of majestic creatures such as whales, dolphins and basking sharks. A direct benefit is that we can visit these species in the wild, through responsible wildlife tourism operators who can earn money for taking people on nature watching trips out to sea or on the coast.

Valuing and protecting places in the sea that are functionally important as part of the ecosystem, often created by other living organisms, can offer a two fold benefit to the seas. By protecting reefs and sea beds we not only provide breathing space for threatened or declining species and habitats but also give refuge for other species, some of which are commercially important, such as sandeel and herring. By protecting these areas we increase the chances that our seas continue to supply us with enough fish and shellfish to eat and export, thus supporting coastal communities by helping ensure there will always be enough fish to fill the nets.

The seas also offer us indirect benefits, such as nutrient cycling or reducing the effects of climate change. These are benefits that we currently gain no direct economic output from, but which provide services that would be very costly to manage ourselves if these services disappeared.

Habitats such as kelp forests, seagrass beds and saltmarshes are not only again important habitats for juvenile fish, but all are also recognised by the United Nations Environment Programme as important carbon sinks. Carbon sinks store carbon dioxide or CO<sub>2</sub>, helping to regulate climate and contribute to mitigating change, much as peat bogs do on land.

Species like the burrowing sea cucumber or sea urchin stimulate nutrient cycling by digging burrows into the sea bed. The holes they dig bring nutrients down into the sediment that would otherwise not be reached, much like earthworms in a garden. This helps release plankton larvae and nutrients into the water column which support the entire ecosystem, from small fish and corals to huge filter feeders like the 10 metre minke whale.

Other things we might forget is that some reefs and kelp beds also help protect the coast from storms, much like coral reefs and mangroves in the tropics, but these kelp forests and offshore reefs are much closer to home. Also some of these areas may contain organisms that have important biopharmaceutical uses yet to be discovered by science; if they disappear then we will never know if we could have benefitted from them.

Ecosystems are very complex, and it is thought that the more complex an ecosystem is the more resilient it is to change. Therefore, if it is damaged or if a species or habitat is removed from that ecosystem, the chances of survival for those services reduce as the ecosystem becomes weaker. However by conserving or allowing the species and habitats that make up that ecosystem to recover, we can be more confident of the continuation of the long term benefits the marine environment provides.

Finally there are what are known as non-use benefits. These are more to do with cultural values, protecting places simply to know that they are there to be enjoyed enriches us all. We take for granted many of the things we read about or watch, such as bright, colourful fish or reefs, or strange shaped deep sea curiosities, and to lose them would be a loss to future generations that will not be able to experience them. It is difficult to put a true value on this, but the high quality experience and increasing knowledge of Scotland's seas can be better preserved through measures such as MPAs.



Black Guillemot © SNH

## Summary of the evolving MPA network

The evolving MPA network in Scotland's seas includes 46 Special Areas of Conservation (and another possible SAC), 45 seabird colony Special Protected Areas, 61 Sites of Specific Scientific Interest, and 8 fisheries management areas (see Annexes B to E and Figures 7, 8, 9 and 10 for full lists and maps of these existing measures).

33 Nature Conservation MPA proposals have now been developed and a further 4 MPA search locations remain to be fully assessed.

27 of the Nature Conservation MPA proposals and 4 of the MPA search locations are for multiple species and habitats. Were every one of these proposals taken forward for designation, the new MPAs would represent 12% of the area of Scotland's seas, taking the total of all types of marine protected area to over 20%.

Of the 41 MPA search features listed in the MPA Selection Guidelines at the start of the process, 38 would be accounted for by the Scottish Natural Heritage and Joint Nature Conservation Committee proposals. Work to offer suitable spatial protection to the three remaining features, basking shark, white-beaked dolphin and common skate, will continue.

The key overall objective of the MPA network is to safeguard our most important natural and cultural heritage features in Scottish waters based on the principle of sustainable use.

Reef and urchins, Solan Bank SAC ©JNCC





## **Background to the Development of the MPA Network**

The protection of our seas is a responsibility we are taking very seriously, and the climate of conservation in Scotland has changed for the best in the past few years.

Before 2007, there was no legal power to designate Marine Protected Areas of national importance in Scottish waters and the only powers available to designate MPAs to contribute to our international obligations were the powers available under the EU Birds and Habitats Directives, which only protect a limited number of marine habitats and species. The Marine (Scotland) Act in 2010 delivered new powers to protect other habitats and species of national and international importance.

Before 2007 protection of seabirds was restricted to seabird colonies on the coast or islands. In 2009 Scottish Ministers designated 31 sites to protect important marine habitats for seabirds and are also funding SNH and JNCC to identify other sites to meet our obligations under the EU Birds Directive.

Before 2007 there were no Special Areas of Conservation in Scottish offshore waters. Since 2008, 11 SACs have been designated in Scottish offshore waters, 9 of which protect important reef habitats. Hatton Bank is the largest marine protected area in the EU. We have also designated Scotland's only discovered coral reef in inshore waters as a Special Area of Conservation, East Mingulay.

Before 2007 there were no community MPAs. Scottish Ministers supported the Isle of Arran community's proposal for Scotland's first No Take Zone, created by law in Lamlash Bay in 2008. Scottish Ministers only had responsibility for nature conservation out to 12 nautical miles. Scottish Ministers now lead on nature conservation for offshore waters out to 200 nautical miles and beyond, and this includes powers to designate MPAs.

### **Nature Conservation**

The Cabinet Secretary for Rural Affairs and Environment gave a Statement to Parliament on 1<sup>st</sup> September 2010, following Royal Assent of the Marine (Scotland) Act, on his intention to develop a network of MPAs. A well managed MPA network would be identified, designated and managed to play a crucial role in the conservation of both biodiversity and geodiversity, offering long-term support for the services our seas provide to society, and also to protect for Scotland's outstanding marine cultural heritage.

The network is now being developed for the protection of the diversity of rare, threatened or representative species and habitats in Scotland's seas, which will form a significant part of the UK contribution to the wider North East Atlantic network.

The three pillars of Scottish Ministers' approach to marine nature conservation are site protection, species protection and wider seas policies and measures. MPAs are a key element of the site protection pillar.

Marine Scotland is working in partnership with Scottish Natural Heritage (SNH), the Joint Nature Conservation Committee (JNCC), Scottish Environment Protection Agency (SEPA) and Historic Scotland (HS).

This report is accompanied by the Scottish Natural Heritage and the Joint Nature Conservation Committee's (2012) *Advice to the Scottish Government on the selection of Nature Conservation Marine Protected Areas (MPAs) and the development of the Scottish MPA network*, available on [Scottish Natural Heritage](http://www.snh.gov.uk/MPAnetworkadvice)<sup>4</sup> and [Joint Nature Conservation Committee](http://www.jncc.defra.gov.uk/ScottishMPAs)<sup>5</sup> websites. This provides the joint scientific advice from our Statutory Nature Conservation Bodies, SNH and JNCC, on existing protected areas and other area based measures that contribute to the network, as well as identification of Nature Conservation MPA proposals that could form part of a network to protect biodiversity and geodiversity. A significant part of the work behind the report has been based around ensuring that network and feature coverage satisfies the OSPAR (Oslo-Paris Convention for the Protection of the Marine Environment of the North-East Atlantic) principles of developing an ecologically coherent network, to then be able to say that within the network a feature has enough coverage.

A summary map (Figure 1) and table (Table 1) follows of the Nature Conservation MPA proposals and search locations, as well as an overview of all proposed and existing marine conservation measures.

This Report to Parliament does not serve as a signal to consult on all proposals and search locations described in this and SNH and JNCC's advice. An announcement will be made in 2013 as to the proposed MPAs that will be presented at consultation.

### **Historic Scotland**

Historic Scotland is taking forward the work on Historic MPAs as part of a range of actions to deliver its *Strategy For Protection, Management And Promotion Of Marine Heritage 2012-15*. This includes an objective of establishing a well-managed group of Historic MPAs in the seas around Scotland. To support this objective, Historic Scotland intend to take forward work to support three tranches of designation over the next three years.

### **Demonstration and Research MPAs**

2 Demonstration & Research MPA proposals have been received, and are currently being assessed for inclusion in the network.

Shetland surveys ©Paul Kay



<sup>4</sup> [www.snh.gov.uk/MPAnetworkadvice](http://www.snh.gov.uk/MPAnetworkadvice)

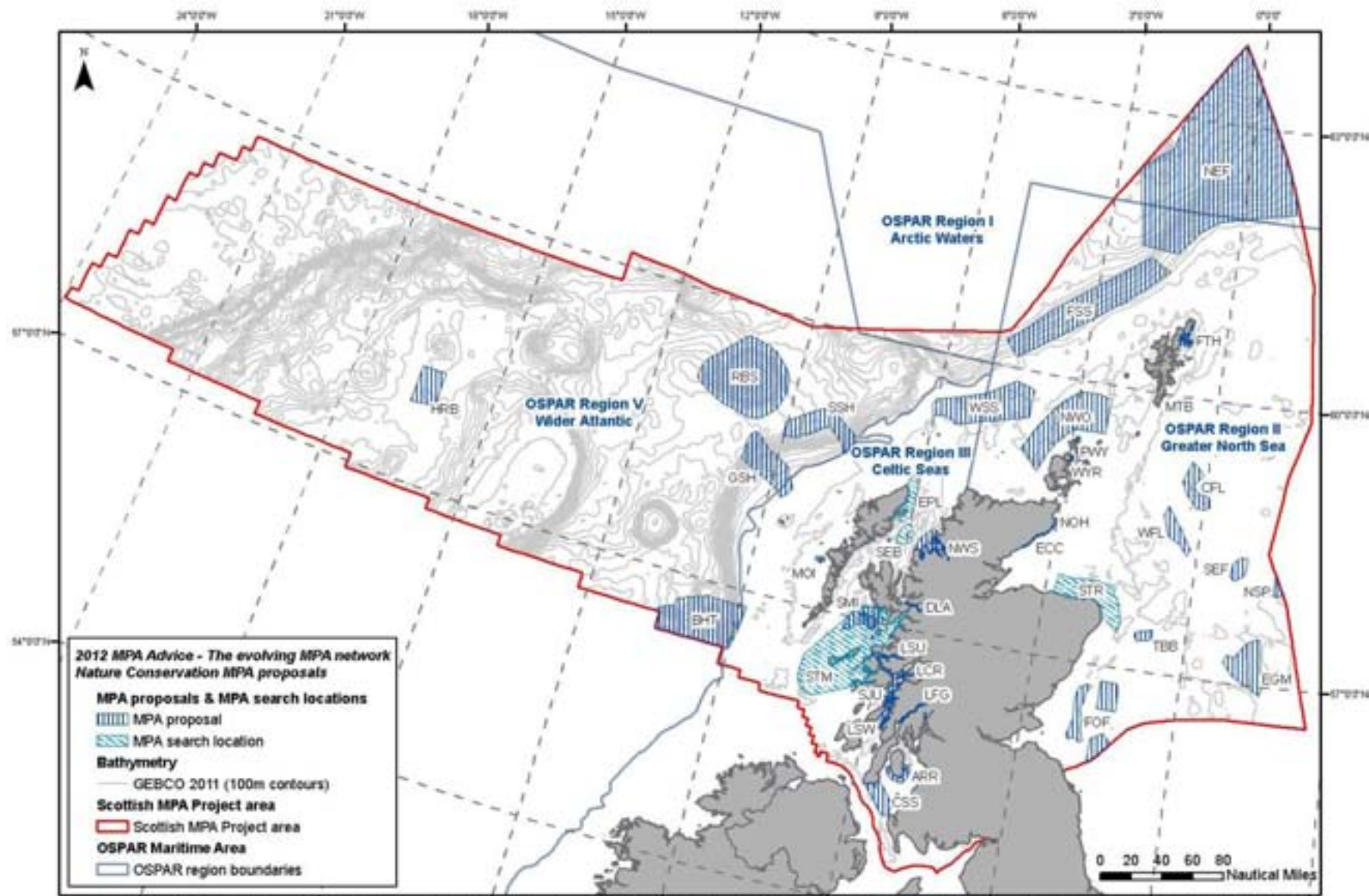
<sup>5</sup> [www.jncc.defra.gov.uk/ScottishMPAs](http://www.jncc.defra.gov.uk/ScottishMPAs)

**Table 1: Nature conservation MPA proposals and MPA search locations in Scottish waters (an asterisk denotes an area that is still at search location stage)**  
**Table 3 in Annex A provides detail on the features for protection.**

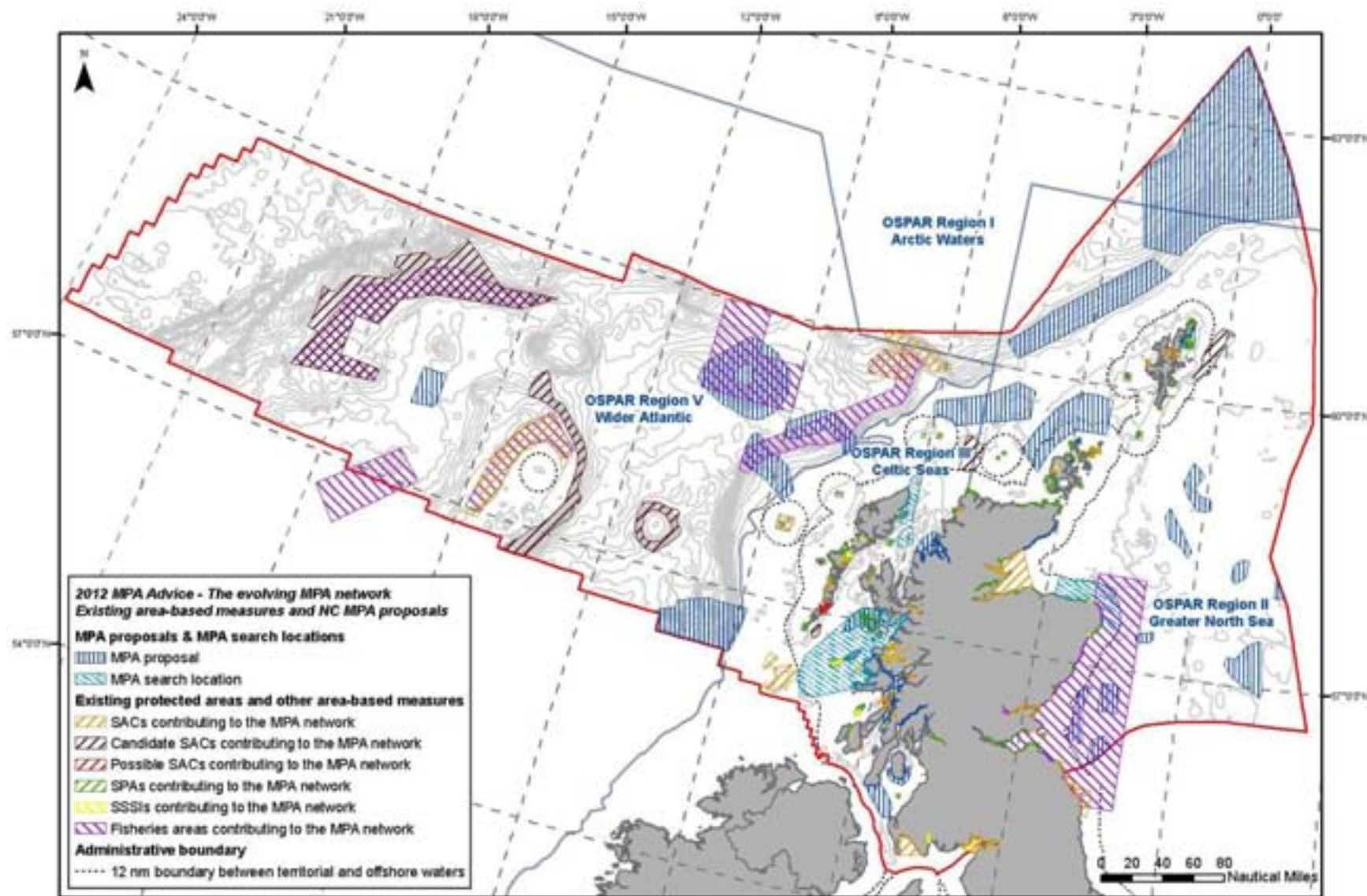
OSPAR Region(s)	MPA proposal/MPA search location	Code	Territorial / Offshore
I, II & V	Faroe-Shetland sponge belt	FSS	Offshore
I & II	North-east Faroe Shetland Channel	NEF	Offshore
II	Central Fladen	CFL	Offshore
	East Caithness Cliffs	ECC	Territorial
	East of Gannet and Montrose Fields	EGM	Offshore
	Fetlar to Haroldswick	FTH	Territorial
	Firth of Forth Banks Complex	FOF	Offshore
	Mousa to Boddam	MTB	Territorial
	North-west Orkney	NWO	Territorial
	Norwegian boundary sediment plain	NSP	Offshore
	Noss Head	NOH	Territorial
	Papa Westray	PWY	Territorial
	South-east Fladen	SEF	Offshore
	Southern Trench*	STR	Territorial
	Turbot Bank	TBB	Offshore
	Western Fladen	WFL	Offshore
	Wyre and Rousay Sounds	WYR	Territorial
II & III	West Shetland Shelf (formerly Windsock)	WSS	Offshore
III	Clyde Sea Sill	CSS	Territorial
	Eye Peninsula to Butt of Lewis*	EPL	Territorial
	Loch Creran	LCR	Territorial
	Lochs Duich, Long and Alsh	DLA	Territorial
	Loch Sunart	LSU	Territorial
	Loch Sunart to the Sound of Jura	SJU	Territorial
	Loch Sween	LSW	Territorial
	Monach Isles	MOI	Territorial
	North-west sea lochs and Summer Isles	NWS	Territorial
	Shiant East Bank*	SEB	Territorial
	Skye to Mull*	STM	Territorial
	Small Isles	SMI	Territorial
	South Arran	ARR	Territorial
	Upper Loch Fyne and Loch Goil	LFG	Territorial
III & V	Geike Slide and Hebridean Slope	GSH	Offshore
	South-west Sula Sgeir and Hebridean Slope	SSH	Offshore
	The Barra Fan and Hebrides Terrace Seamount	BHT	Offshore
V	Hatton-Rockall Basin	HRB	Offshore
	Rosemary Bank Seamount	RBS	Offshore



Figure 1: Nature Conservation MPA proposals and search locations in Scotland's seas



**Figure 2: Combined view of existing protected areas, other area-based measures, Nature Conservation MPA proposals and MPA search locations that could contribute to the Scottish MPA network**



Map projected in Europe Albers Equal Area Conic (Modified Standard Parallels - Standard Parallel 1 = 50.2; Standard Parallel 2 = 58.5). The exact limits of the UK Continental Shelf are set out in orders made under section 1(7) of the Continental Shelf Act 1964 (© Crown Copyright). Coastline © Crown copyright and database right [2012]. All rights reserved. Ordnance Survey Licence number 100017908. Bathymetry © GEBCO. NOT TO BE USED FOR NAVIGATION. MPA network © JNCC and Marine Scotland. 09.12.12. All rights reserved.

## MPAs in the wider context and the process of identification

MPAs are an internationally recognised tool, helping to contribute to Scottish Government's vision for "clean, healthy, safe, biologically diverse marine and coastal environments, managed to meet the long-term needs of both people and nature" and help meet international commitments to establish networks of MPAs under:

- the OSPAR convention;
- the World Summit on Sustainable Development;
- the Convention on Biological Diversity;
- the EU Marine Strategy Framework Directive

Sites designated in Scotland will contribute to UK and international networks of MPAs, forming a system of MPAs operating together, with a range of protection, to meet their conservation role more effectively than individual sites could alone.

Based on this vision and these international commitments [The Scottish MPA Selection Guidelines](#)<sup>6</sup> were developed and consulted upon, providing guidance on the identification of the network. It contains the 41 MPA search features representing a range of important features to Scotland, for which MPAs are considered to be a suitable measure, and for which sufficient data was considered likely to be available.

The identification of the MPA proposals was done on a regional basis based on OSPAR sub-regions<sup>7</sup>. Scotland's seas fall into four OSPAR sub-regions: Region I (Arctic waters), Region II (Greater North Sea), Region III (Celtic Seas), and Region V (Wider Atlantic).

### What did we look for?

[The Scottish MPA Selection Guidelines](#) set out a five-stage process for the selection of Nature Conservation MPAs in Scotland's seas:

- Stage 1 - Identification of search locations based on presence of key features
- Stage 2 - Prioritisation of search locations based on the qualities of their features
- Stage 3 – Assessment of the size an MPA needs to be effective
- Stage 4 – Assessment of the ability to manage features effectively
- Stage 5 - Prioritising potential areas according to their contribution to the network

Before applying these more detailed stages across Scotland's seas a series of reviews were undertaken that highlighted opportunities to recognise and develop the contribution of a number of existing protected areas and other area-based measures. The reviews also determined the potential contribution of locations that were assessed as being Least Damaged/More Natural by comparing these with existing data on the distribution of MPA search features.

An initial series of MPA search locations were derived from these existing measures and from within locations identified as Least Damaged/More Natural. Of the 33 MPA proposals and 4 search locations, 20 are based on existing measures, and 12 are

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<sup>6</sup> [www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/mpaguidelines](http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/mpaguidelines)

<sup>7</sup> <http://www.ospar.org/content/regions.asp?menu=00020200000000 000000 000000>



derived from Least Damaged/More Natural locations. Additional MPA search locations were subsequently identified to encompass remaining MPA search features.

Adequacy of the MPA network for representing the MPA search features against Stage 5 of the Selection Guidelines is based upon existing OSPAR principles for the development of an ecologically coherent network. These principles are as follows:

- Representation - Does representation of the feature reflect the OSPAR regions considered to be important for the feature?
- Replication - Is there more than one example of each feature within the Scottish MPA network? If yes, is there replication across the OSPAR regions in which the feature is recorded?
- Geographic range and variation - Does protection for the feature reflect what is known about the geographic range and ecological variation of the feature in Scotland's seas?
- Linkages –Does the network provide adequate linkages between species and habitats and their interdependent marine ecosystems? This will only be assessed where there is a good understanding of the relationship between features in different areas to help build connectivity into the network. The focus has been on areas of importance to the life histories of mobile species.
- Resilience - Is it considered necessary to include a greater proportion of some particularly threatened and/or declining features within the network?

The advice from SNH and JNCC on whether the guidelines have been met for each MPA search feature, and the evidence that was used to support these assessments, will be in the *Detailed Assessment against the MPA Selection Guidelines document* for each MPA proposal.

The approach for establishing Historic MPAs is set out in [Historic Scotland's MPA Guidelines](https://www.historic-scotland.gov.uk/historic-mpa-guidelines.pdf).<sup>8</sup>



Grey seal ©SNH

<sup>8</sup> [www.historic-scotland.gov.uk/historic-mpa-guidelines.pdf](https://www.historic-scotland.gov.uk/historic-mpa-guidelines.pdf)

## Socio-economics in the identification process

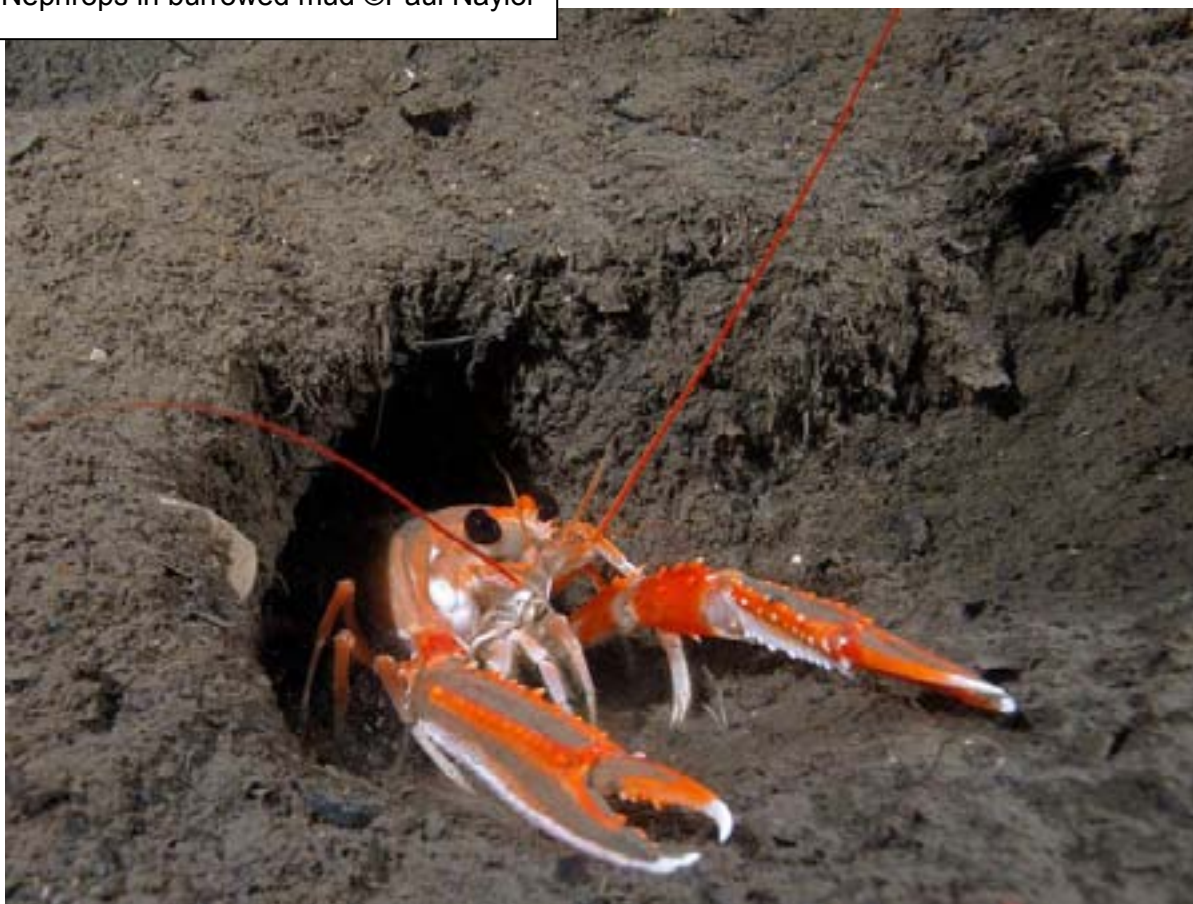
Nature Conservation MPAs in Scotland are being identified using a science-led approach, with provision for Scottish Ministers to have regard “to any social or economic consequences of designation”<sup>9</sup> when considering whether it is desirable to designate an area as a Nature Conservation MPA.

It has been possible to consider socio-economics where there are 2 sites of equal ecological value, but we have been adopting a science-led approach as far as possible to ensure we are getting the best environmental benefit from the network.

A Strategic Environmental Assessment and an Impact Assessment will be combined to form an overall Sustainability Appraisal to accompany the 2013 public consultation.

The purpose of the Sustainability Appraisal is to inform the scientific recommendations with the socio-economic and wider environmental considerations, without losing sight of the overall benefits of the network ahead of the public consultation. The Sustainability Appraisal will also consider questions of displacement and the approach to the use of search location alternatives.

Nephrops in burrowed mud ©Paul Naylor



<sup>9</sup> Marine (Scotland) Act 2010

## How will the network be managed

The general principles for management of Nature Conservation MPAs are derived from the Scottish MPA Selection Guidelines (Marine Scotland 2011) . The five principles listed below are those which relate directly to management:

1. Management of MPAs should be integrated with wider marine management. By providing the framework within which all marine management will occur, marine planning will help ensure better integration between the needs of Nature Conservation MPAs and those of surrounding areas.
2. In most situations, existing sectoral measures (such as fishery management measures) or marine planning are expected to be sufficient. Additional powers such as Marine Conservation Orders will be available where necessary to support management of activities affecting MPAs.
3. The best available scientific information will be used to select and manage Nature Conservation MPAs. Lack of scientific certainty should not be used as a reason for postponing MPA selection or taking action where there is a threat of damage to areas in the network.
4. As our understanding improves, and/or the environment changes, there may be a need to select additional new Nature Conservation MPAs, alter boundaries, and/or remove designations particularly in the longer term in response to climate change.
5. Nature Conservation MPAs will be subject to a range of protection levels, depending on the conservation objectives, management requirements of the MPA protected features for which they are designated and socio-economic factors. There will be an assumption of multiple-use of a site. However activities which are not compatible with the conservation objectives of a Nature Conservation MPA will be restricted.

MPAs will be managed to enable achievement of their conservation objectives. Conservation objectives will be produced for the protected features of all MPAs.

A risk-based approach to developing management options involves site-by-site consideration of the protected features, the conservation objectives, and the activities that take place in, adjacent to, or near the MPA. This will result in a management options paper for each site at consultation, detailing which activities may require some form of management to ensure conservation objectives are met.

The consideration of management at a site level will utilise the MPA toolkit in conjunction with discussions with stakeholders. The toolkit consists of all the documents, evidence, information and data to allow well-informed decisions about management requirements to be taken. In some cases the assessment may point to there being no requirement for specific site-based measures, or conversely indicate the need for a strict level of additional protection.

This process will provide opportunities for stakeholders to present their view, including their practical environmental knowledge and activity data. Stakeholders can contribute throughout this process as required through bi-lateral meetings, regional workshops and responding to formal consultation. The level of engagement for each MPA will depend on the complexity of the issues that need to be resolved.

The extent to which in the opinion of the Scottish Ministers the stated conservation objectives have been achieved are required to be reported on every six yearly cycle, and the most appropriate form of monitoring will be developed to inform this opinion on the MPAs. The results will also be used to inform future decisions on management of MPAs. Site-based measures may therefore change over time as our knowledge evolves with any new evidence being considered during the 6 year cycle as required.

### **Conservation Objectives**

Conservation objectives describe the desired ecological/geological state (or quality) of the protected feature(s) within each Nature Conservation MPA. They will either be set to „conserve“ or „recover“ as described below.

A Conserve objective will be used:

- where evidence exists that a protected feature of an MPA is in good condition the conservation objectives are likely to propose that the feature is conserved;
- OR, where limited evidence exists and therefore there is uncertainty concerning the condition of a feature, then the conservation objective for that feature is also likely to be conserve and qualified to express this uncertainty. This will be determined on a case by case basis, especially for cases where there is limited evidence due to the rarity of a feature.

A Recover objective will be used where evidence exists that a specie or habitat of an MPA is declining and/or damaged, to the point where it is not considered to be in good condition.



Flameshell Bed© SNH



## Principle of Best Available Evidence

The best available scientific evidence has been used to identify proposals for Nature Conservation MPAs in Scotland's seas. What constitutes „best available data“ varies by feature and by Nature Conservation MPA proposal, and is likely to be more detailed for areas closer to the coast than for offshore areas. The age, the source, and the type of data and its coverage will all contribute to an evaluation of data quality. At the start of the project SNH, JNCC and Marine Scotland identified the following principles for using evidence

- 1 We will use the best available evidence.
- 2 We will seek evidence from stakeholders, including users, of areas being considered as Nature Conservation MPAs and we will build on their knowledge where possible.
- 3 For some sites the requirement for detailed evidence could increase through the process, from selecting Nature Conservation MPAs to designation and management.
- 4 The level of evidence required to progress search locations to MPA proposals will vary depending on the nature of the search location and the features it supports.
- 5 More detailed data will be required for those features being used to delineate the boundary of a MPA.
- 6 The achievement of conservation objectives for protected features of Nature Conservation MPAs will be assessed through the implementation of a monitoring and surveillance strategy.
- 7 We will make our evidence available to others so as to ensure as much transparency as possible and maintain public confidence.
- 8 All evidence used to support Nature Conservation MPA selection will be subject to quality review before being incorporated into GeMS<sup>10</sup> (the Scottish MPA Project geodatabase).
- 9 We will use independent expert review at intervals during the project to examine the quality of the evidence and the scientific integrity of our gathering, synthesis and interpretation of evidence.
- 10 We will routinely publish background material and consultants' reports, to show how evidence has been gathered, analysed and applied

The advice from SNH and JNCC on whether the guidelines have been met for each MPA search feature, and the evidence that was used to support these assessments, will be in the *Detailed Assessment against the MPA Selection Guidelines* and the *Data Confidence Assessment* documents that are being produced for each MPA proposal. The *Data Confidence Assessments* will also provide a description and an evaluation of the type, age, source and extent of evidence used to support each of the Nature Conservation MPA proposals.

SNH and JNCC used the best available evidence and supporting guidance on MPA search features, applying expert judgement when assessing the MPA proposals against the MPA Selection Guidelines.

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<sup>10</sup> Geodatabase of Marine features in Scotland (GeMS)



## **Stakeholder Engagement**

While the identification of Marine Protected Areas (MPAs) is a science-led project, it necessarily involves a large degree of stakeholder engagement. Marine Scotland and the project partners are committed to engaging with stakeholders throughout the process, particularly those who have interest in or may be affected by MPA proposals. Stakeholder input is and will continue to be sought in providing information used to support the recommendations on the location of MPAs and conservation objectives, as well as highlighting options for potential management measures for any MPAs in their activity area.

The development of the MPA network and use of powers to designate MPAs is being undertaken in dialogue with marine stakeholders. The Marine Strategy Forum, which represents national marine interests, is the main forum for strategic level engagement on MPA network development. Further discussions with marine sectors provide opportunities to discuss the network design process in more detail.

In the early stages of network development, work focused on data collection, awareness raising and provision of updates. Existing forums, sectoral meetings and various media were used to reach a range of organisations and other interested parties and to encourage feedback. A series of 5 national level stakeholder workshops provided over 18 months an opportunity for stakeholder interests to input information and influence the design of the network, including proposed alternatives.

### **Third party Proposals**

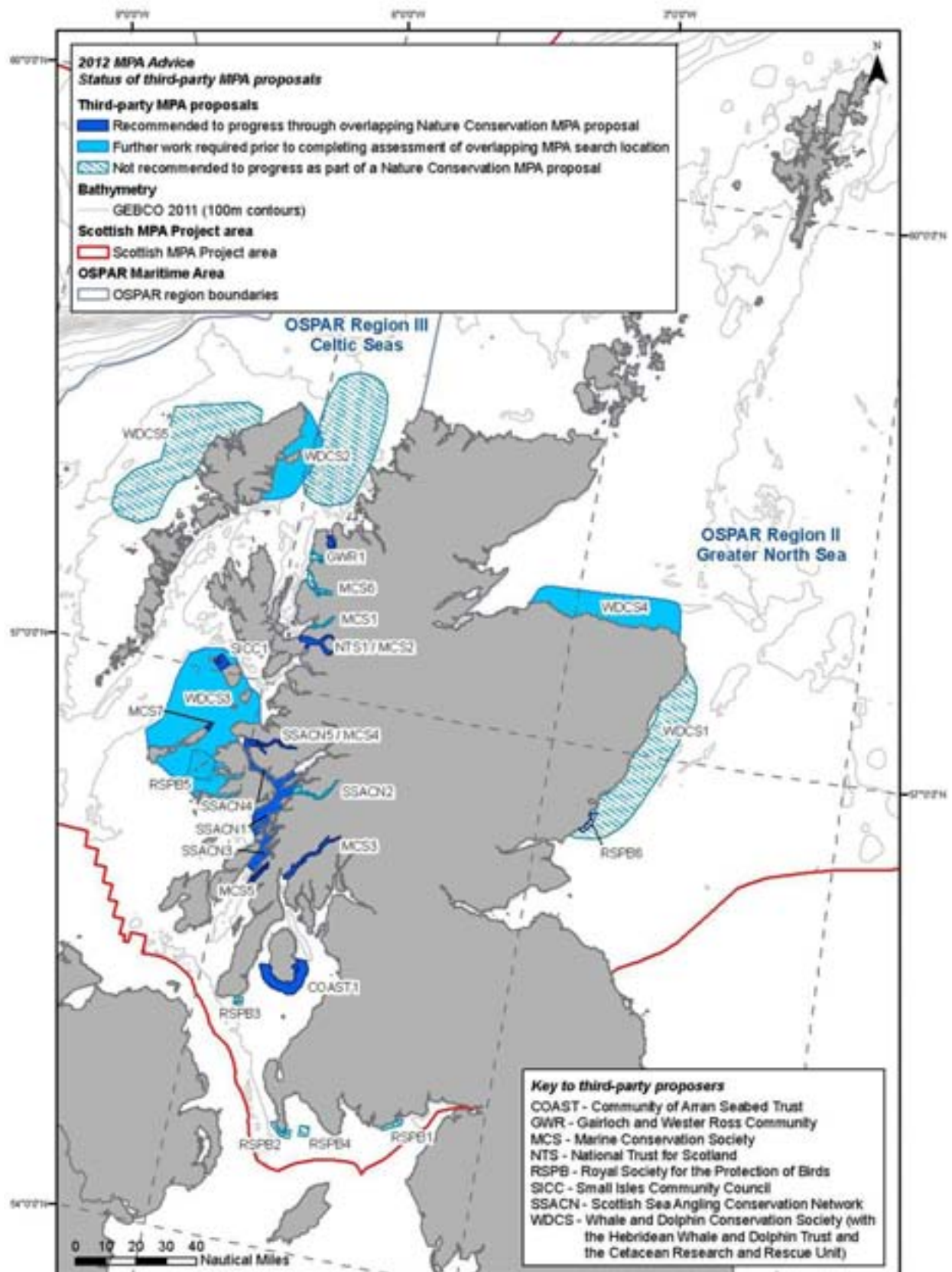
The Marine (Scotland) Act provides for anyone, referred to in this context as a third party, to submit proposals for Demonstration & Research and/or Nature Conservation MPAs within territorial waters.

A total of 27 proposals for third party Nature Conservation MPAs were received. Many of the third party Nature Conservation MPA proposals overlap with existing search locations and others are being taken forward as part of the overall process and have been put through the same guidelines. 12 proposals met all the relevant guidelines and have been recommended for further consideration, and have contributed to the development of eight Nature Conservation MPA proposals. A further three have contributed to the development of 3 of the remaining MPA search locations. Another 3 proposals have had their assessment delayed / deferred to enable completion of further work by SNH in 2013. 12 proposals were not recommended for further consideration as these proposals could not meet the test of importance or were not considered to make a significant contribution to the network for the features they were proposed for. The status of each proposal is shown in the accompanying network advice from SNH and JNCC, and a summary found can be found below in Figure 3.

Any future proposals from a third party will be accepted but may not be considered until the next review of the network in 2018.

2 Demonstration & Research MPAs have been received, and are currently being assessed for inclusion in the network.

Figure 3: Map of Third-Party MPA proposals



## **How the existing network protects Scotland's marine life**

In accordance with Section 103 (3) (j) of the Marine (Scotland) Act and the equivalent provision under Section 124 (1) (a) of the Marine and Coastal Access Act, the report serves to update Parliament on the extent to which other and existing conservation measures contribute to a network of MPAs. The network of sites already designated contribute to the aim under Sections 79 (3) and 123 (3) of the respective Scotland and UK Acts:

- a. That the network contributes to the conservation or improvement of the marine environment in the UK marine area,
- b. That the features which are protected by the sites comprised in the network represent the range of features present in the UK marine area,
- c. That the designation of sites comprised in the network reflects that the conservation of a feature may require designation of more than one site.

With additional Special Areas of Conservation, Special Protected Areas, Sites of Special Scientific Interest and Marine Protected Areas we are confident we can satisfy the requirements.

Existing protected areas along with other area-based conservation measures in Scotland's seas already make a significant contribution to the protection of our marine natural heritage and include, Special Areas of Conservation (SAC), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI) and fisheries management areas. The new Nature Conservation MPAs are being designed to build on this, thus maximising the possible conservation value from the network of protected areas.

### **Special Protection Areas (SPA)**

Special Protection Areas (SPAs) are identified under the EU Wild Birds Directive. SPAs provide spatial protection for species listed in Annex I of the Directive as well as all migratory species. The significance of a site for migratory species is based on the proportion of the biogeographic population that depend on the habitat. For non-migratory species, the national population is used. Scotland's seas, especially the coastal waters, are hugely important for many groups of species such as the auks, northern gannet, Manx shearwater and black-legged kittiwake. For some, such as the Manx shearwater, storm petrel and great skua Scotland hosts a very significant part of the world population.

85 Special Protection Areas (SPAs) support bird species that are dependent upon Scotland's marine environment (marine associations/components). Of these, 45 SPAs are either estuarine or truly coastal (i.e. they contain intertidal habitats upon which one or more of the qualifying bird species depend) and these 45 are considered to contribute to the MPA network.

31 of our existing breeding colony SPAs for species such as guillemot, Atlantic puffin, northern gannet, northern fulmar and Manx shearwater have

been extended into the marine environment to include the adjacent waters, important for behaviours such as preening, loafing and feeding.

SNH and JNCC are also currently assessing if data on the concentration of seabirds in the marine environment meet the selection guidelines for SPAs.

### **Special Areas of Conservation(SAC)**

Special Areas of Conservation (SACs) provide protection for a number of habitats and species of European Importance in Scotland's seas under the EU Habitats Directive. This includes reef habitats that make Scotland's marine environment special and distinctive such as the impressive biogenic reef formations of the cold water-coral *lophelia pertusa* in waters to the north and west of Scotland.

The Moray Firth SAC provides protection for our most northerly population of bottlenose dolphin and there are 14 SACs for grey and harbour seals for which Scotland is an important stronghold, which have also been designated. In total at present, there are 46 SACs and one more possible SAC in Scotland's Seas.

### **Sites of Special Scientific Interest (SSSI)**

At the national level, SNH has statutory powers to notify Sites of Special Scientific Interest (SSSIs). SSSIs have been used to protect nationally important species, habitats and geological features in Scotland's seas down to mean low water spring mark (see Table 6.2).

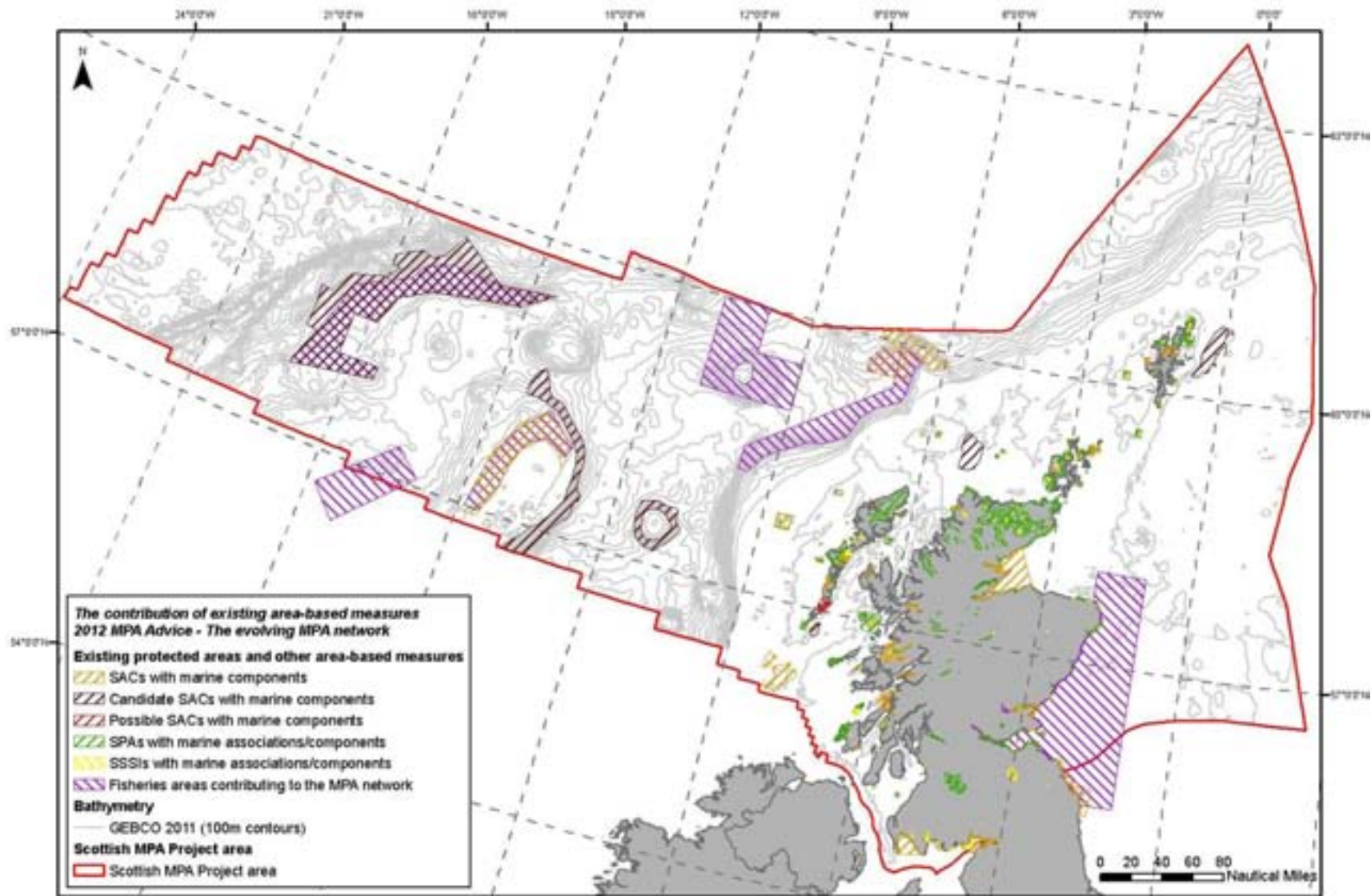
There are 188 SSSIs contributing to the protection of habitats and species dependent upon Scotland's marine environment. Of these, 61 have some overlap with the Scottish marine protection area and are considered to contribute to the MPA network. The remainder are for bird interests associated with the marine environment.

A map illustrating the coverage of existing protection measures in Scottish waters is shown on the next page (Figure 3), and a list of all the SACs, SPAs SSSIs and existing area based measures that contribute to the network are provided in annexes B to E.

### **River Basin Management Plans**

By contributing to management of human induced pressures on water quality, a MPA network can contribute to the effectiveness of River Basin Management Plans and related action under the EU Water Framework Directive to protect and improve the water environment out to 3 nautical miles. In turn River Basin Management Plans are already contributing to the standards and objectives for protected areas. SEPA's register of protected areas and the on-going monitoring of these areas are further examples of how SEPA's work can contribute to a well managed MPA network.

**Figure 4: Existing protected areas and other area-based measures contributing to the protection of Scotland's marine environment**



Map projected in Europe Adress Equal Area Conic (Modified Standard Parallels - Standard Parallel 1 = 60.2, Standard Parallel 2 = 58.5). The exact limits of the UK Continental Shelf are set out in orders made under section 1(7) of the Continental Shelf Act 1964 (© Crown Copyright). Coastline © Crown copyright and database right (2012). All rights reserved. Ordnance Survey Licence number 100017908. Bathymetry © GEBCO. NOT TO BE USED FOR NAVIGATION. MPA network © JNCC and Marine Scotland. 10.12.12. All rights reserved.



## Overview of Data Presentation and Survey Work

The Scottish Government has invested more than ever into surveying and studies. Through working with Northern Lighthouse Board, SEPA and Scottish universities on around 20 marine surveys we can be certain our distinctive Scottish approach is based on sound, robust and up-to-date science.

Application of the MPA Selection Guidelines to select areas as Nature Conservation MPA proposals required a robust scientific evidence-base detailing the distribution of biodiversity and geodiversity features in Scotland's seas. Building the evidence-base has involved mining a wealth of existing data held by SNH, JNCC and others as well as undertaking new field surveys in areas where data needs were greatest. Stakeholder engagement helped to support data compilation efforts, facilitating data sharing and identifying opportunities for future collaborative work.

### Geodatabase of Marine Features in Scotland

Data on the MPA search features and geodiversity features have been collated within a GIS database - the Geodatabase of Marine Features in Scotland (GeMS). GeMS is not a static database; it will continue to be populated with new data which will support the continual improvement of the evidence available. Biodiversity data within GeMS has been sourced from 721 separate surveys. These surveys often contain records relating to several different features of conservation interest.

All data within GeMS will be made publicly available in due course. SNH and JNCC have used the best available evidence when identifying the Nature Conservation MPA proposals. All datasets have been subject to review and quality checking before incorporating into GeMS.

### Surveys

The programme of new survey work, which started in 2010, has significantly enhanced our evidence-base. Over twenty surveys have taken place across Scottish waters. Highlights of the survey programme included sampling within the Sound of Canna which identified what is now believed to be the most extensive fan mussel beds in UK waters; and a remote operated vehicle survey to 2,000 m on the Hebrides Terrace seamount provided us with an amazing insight into the diversity of life in Scotland's deep seas, confirming the presence of communities of cold water corals and deep water sponges. The different surveys have collected data using a variety of techniques including remote video and photography, diver observations, grab sampling, acoustic mapping, fish trawls, and Marine Mammal Observations.



Sandeels ©Marine Scotland

## **What still needs to be done**

### **Nature Conservation MPAs**

In total, 33 Nature Conservation MPA proposals have been developed and a further 4 MPA search locations remain to be fully assessed. These areas are Southern Trench, Eye Peninsula to Butt of Lewis, Shiant East Bank and Skye to Mull. SNH and JNCC will continue work to clarify whether search locations which currently have a lower relative level of supporting evidence should be progressed to a full assessment against the guidelines. This is to enable further work to be completed on one or more of the relevant MPA search features before SNH provides its advice to Scottish Ministers. These have the potential to make a significant contribution to the network and should not be considered as substitutes for the recommended Nature Conservation MPA proposals.

Of these 33 proposals SNH and JNCC advise that at least 29 are needed to adequately represent search features in the network. We intend to announce in 2013 the MPAs that will be presented at consultation.

Of the 41 MPA search features listed in the MPA Selection Guidelines, SNH and JNCC have advised that 38 are adequately represented by the MPA proposals. Work intended to address the adequacy of the remaining 3 features (basking shark, common skate and white-beaked dolphin) is outlined below:

- Basking shark - Tagging work is currently being carried out on basking sharks within the Skye to Mull MPA search location and habitat modelling work is also underway but will not be complete until the results of the tagging work are available. A provisional reassessment of the underpinning data will be made by April 2013 with completion planned for April 2014.
- Common skate - Further tagging work is currently being carried out and there are plans to extend field work. The findings will be assessed as part of the first review of the Scottish MPA network in 2018.
- White-beaked dolphin - Habitat modelling work is also underway for white-beaked dolphin as well as Risso's dolphin and minke whale. This is planned for completion by April 2013.

These three features are considered to not achieve adequacy across the network, either under MPA proposals or search locations. While MPAs for minke whale and Risso's dolphin have not yet been identified under the proposals, were the search locations for them progressed they would be considered to achieve adequacy, whereas there is less certainty that the current search location for white-beaked dolphin would provide adequate protection.

Two Demonstration & Research MPA proposals have been received, and are currently being assessed for inclusion in the network.

Further work is currently underway to develop management documentation that will serve to inform stakeholders and ministers on the most effective ways to satisfy conservation objectives and the principle of sustainable use.

### **Sustainability Appraisal**

A Strategic Environmental Assessment and an Impact Assessment will be combined to form an overall Sustainability Appraisal to accompany the 2013 public

consultation. The purpose of the Sustainability Appraisal is to inform the scientific recommendations with the socio-economic and wider environmental considerations, without losing sight of the overall benefits of the network ahead of the public consultation. The Sustainability Appraisal will also consider questions of displacement and the approach to the use of search location alternatives.

### **Natura**

Work is continuing to identify additional SPAs for seabirds and waterbirds in the marine environment, in addition to the breeding colony sites that were extended into the marine environment in 2009 and is due to be completed by 2015. Maps of search locations to identify these additional SPAs can be found in SNH and JNCC's advice.

The SAC series for habitats is virtually complete with only the Sound of Barra pSAC to reach a conclusion. In terms of species the Sound of Barra pSAC would complete our network in terms of areas for breeding seals. However we do not yet have any SACs for harbour porpoise and this will be given further consideration going forward, along with foraging areas for seals.



Reef and featherstars,  
Hatton Bank©JNCC



## Historic MPAs

[Historic Scotland](http://www.historic-scotland.gov.uk/wrecksites)<sup>11</sup> is leading work on Historic MPAs which can be designated within Scottish territorial waters only. Since 2010, Historic Scotland has published *Historic MPA guidelines* and its operational priorities in a *Strategy for the protection, management and promotion of marine heritage 2012-15*. This includes an objective of establishing a well-managed group of Historic MPAs in the seas around Scotland. To this end, over the next three years Historic Scotland intends to assess all underwater sites currently designated (under the Protection of Wrecks Act 1973 or the Ancient Monuments and Archaeological Areas Act 1979) and, where appropriate, transfer them to Historic MPA status, as shown in the map in Figure 5. A small number of other high priority sites will be considered for designation. Progress is set out below in Table 2.

**Table 2: Progress in identifying Historic MPAs**

<i>Tranche</i>	<i>Provisional recommendations for MPA proposals</i>	<i>Provisional timetable</i>	<i>Progress to date</i>
Tranche 1 – review and where appropriate transition of historic wrecks currently designated under section 1 of the Protection of Wrecks Act 1973	<p>Progress proposals for</p> <ul style="list-style-type: none"> <li>• Duart Point;</li> <li>• HMS Dartmouth;</li> <li>• Mingary;</li> <li>• HMS Campania;</li> <li>• Kinlochbervie;</li> <li>• Out Skerries, Shetland</li> </ul> <p>(encompassing only the existing designated wrecks of Wrangels Palais and Kennemerland)</p> <p>Revoke protection for the designated wreck known as the Blessing of Burntisland</p>	Consultation early 2013	Proposals currently being finalised by Historic Scotland
Tranche 2 review and where appropriate transition of historic wrecks currently scheduled	Scapa Flow – in addition to looking at the existing scheduled German High Seas Fleet wrecks, Historic Scotland will also look at any other priority underwater sites within Scapa Flow relating to the use and	TBC but likely during 2013-14	In 2011, Orkney Research Centre for Archaeology completed a desk based research exercise to enhance data for Orkney waters; <sup>12</sup> Wessex Archaeology completed a multibeam survey of

<sup>11</sup> [www.historic-scotland.gov.uk/wrecksites](http://www.historic-scotland.gov.uk/wrecksites)

<sup>12</sup> See <http://www.orkney.uhi.ac.uk/studying-at-oc/departments/archaeology/archaeology-files/mapping-marine-heritage-sites-in-orkney-and-pentland-firth>

under the Ancient Monuments and Archaeological Areas Act 1979	defence of the wartime naval anchorage that should be considered for inclusion within a potential Historic MPA		sites within Scapa Flow, in conjunction with contractors working for the Ministry of Defence. <sup>13</sup>
Tranche 3 – any other high priority sites that are currently undesignated	A small number of sites may be recommended for consideration – details to be confirmed in due course.	2013-2015	Wessex Archaeology has completed an area assessment of Shetland, and three undesignated site assessments of archaeological sites in the Firth of Forth, Firth of Clyde and Minches which will be used to inform recommendations to Scottish Ministers at the appropriate time

To underpin decision making in relation to the development of Historic MPA proposals, Historic Scotland commissioned a national study *Characterising Scotland's marine archaeological resource (Wessex Archaeology 2011)*. This study has helped to provide an overview of the known marine archaeological resource, highlighting aspects of particular interest.

Data-sharing with other members of the Scottish MPA project has taken place and where specific archaeological surveys have been needed, these have been commissioned by Historic Scotland, principally through a UK-wide marine archaeology services contract shared with English Heritage, Cadw, and the Department of Environment, Northern Ireland.

Regular stakeholder engagement has taken place, through the Marine Strategy Forum, at workshops arranged by the Built Environment Forum of Scotland and with stakeholders in Orkney. A further workshop on progress with Historic MPAs is being planned to take place in March 2013. In order to promote the new system, Historic Scotland is in the process of updating its website and has published a new leaflet *Historic Marine Protected Areas, a guide for visitors, investigators and managers* in English and Gaelic.

Although the designation of Historic MPAs contributes to cultural and social values, the Scottish Government has also given consideration as to whether designations by Historic Scotland are likely to contribute to the network for biodiversity or geodiversity. An assessment of the biodiversity value of existing designated wrecks and the Scapa Flow scheduled monuments looked at available data. Most of this has been gathered for archaeological purposes within a very small, confined area of seabed. The report leads Scottish Natural Heritage to conclude that while some designated historic assets and the surrounding seabed may have a level of interest,

<sup>13</sup> See <http://www.scribd.com/doc/97523266/Scapa-Flow-Wreck-Surveys>

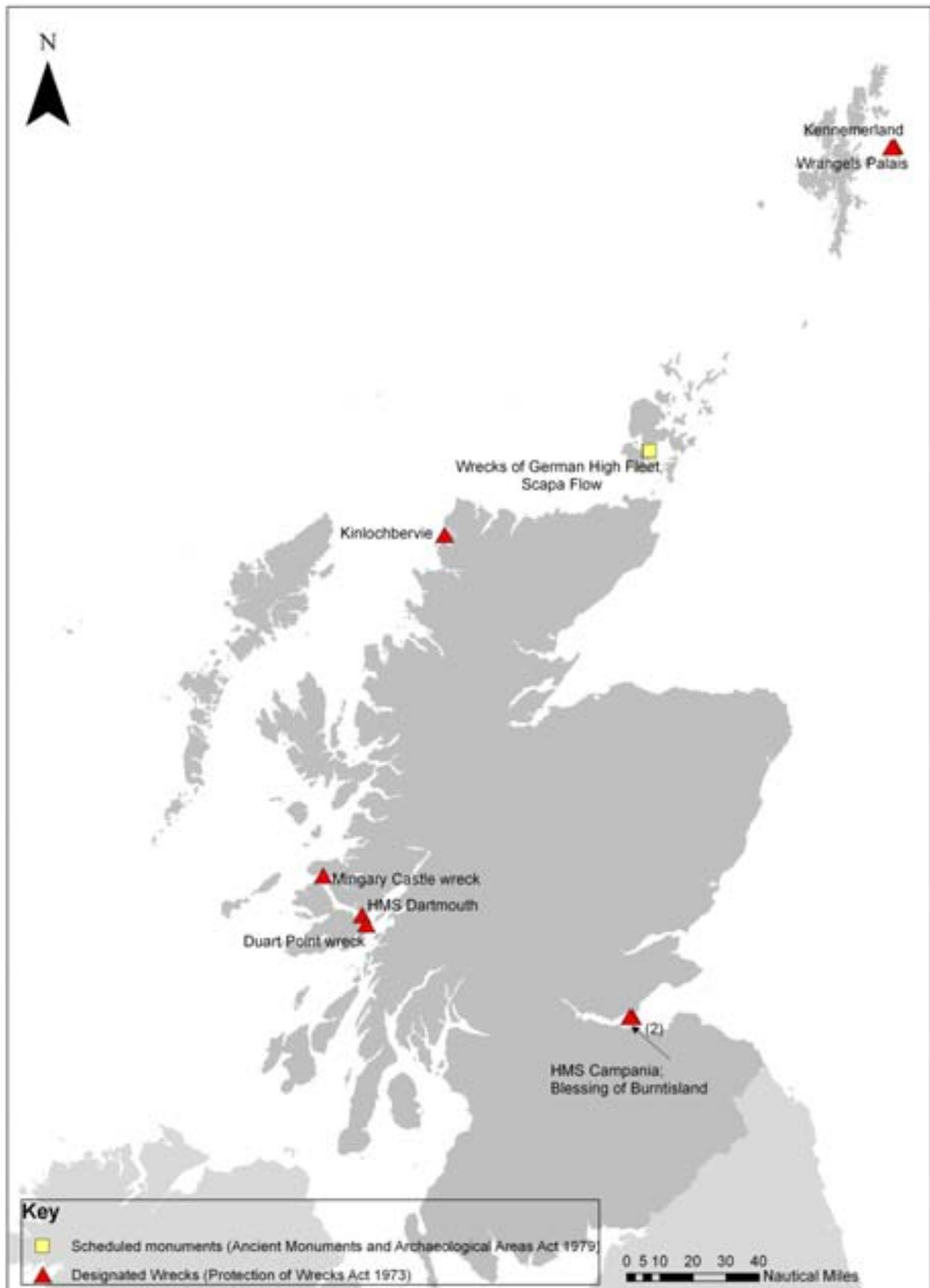
the biodiversity information currently available for individual sites is probably insufficient to enable an assessment to be made at this stage of a contribution to the network.

It is also recognised that some secondary benefit may be derived for marine historic assets located within the boundaries of Nature Conservation MPAs. A rapid audit by Historic Scotland has indicated that approximately 1220 records of known shipwrecks and documented losses are recorded within the Nature Conservation MPA proposals and search locations provided in this report. The extent to which a secondary benefit is realised will depend largely on the types of features for which each Nature Conservation MPA may be protected in the future, and the extent to which the conservation objectives and subsequent management of that area is also beneficial for cultural heritage. In the future, integrating nature conservation recording objectives alongside archaeological methodology may prove beneficial in supporting more detailed assessments of biodiversity value, and improving understanding of the common ground that exists between nature conservation and heritage protection.



Kinlochbervie: guns and anchors ©HS Crown

**Figure 5: Identifying Historic MPAs – Locations of existing designated wrecks and underwater scheduled monuments**



Basemapping © Crown Copyright 2012 Ordnance Survey [Licence Number 100021521]

## Frequently Asked Questions

### 1. What is a Marine Protected Area?

The International Union for the Conservation of Nature (IUCN) use the following description:

*‘any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment.’*

Nature Conservation Marine Protected Area, or more simply MPA, is the term used to refer to MPAs which will be established in Scotland's seas for biodiversity and geodiversity.

### 2. Why do we need MPAs and a network of sites?

The Marine (Scotland) Act 2010, as well as the Marine and Coastal Access Act 2009, requires that Scottish Ministers designate Nature Conservation MPAs as a contribution to a UK wide network. Our contribution must be representative of the features found in our seas.

We also have international commitments to deliver a network of MPAs under:

- the OSPAR convention;
- the World Summit on Sustainable Development;
- the Convention on Biological Diversity;
- the EU Marine Strategy Framework Directive

### 3. Which sites will make up the Scottish MPA network?

- The new Nature Conservation MPAs
- Special Areas of Conservation (SACs) as required by the EU Habitats Directive
- Special Protection Areas (SPAs), as required by the EU Wild Birds Directive
- Marine components of Sites of Special Scientific Interest (SSSIs)
- Area-based measures which are designed for purposes other than marine nature conservation may also contribute to the network.

### 4. Where can I get more information on the network?

In addition to information already contained on the Marine Scotland, SNH, JNCC, SEPA, and Historic Scotland websites, the *Advice to the Scottish Government on the Selection of Nature Conservation Marine Protected Areas (MPAs) and the Development of the Scottish MPA Network* is now available on the [Scottish Natural Heritage](#) and [Joint Nature Conservation Committee](#) websites.

### 5. What is the difference between Nature Conservation MPAs and European Marine Sites, such as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)?

Nature Conservation MPAs can be established under the Marine (Scotland) Act and the UK Marine and Coastal Access Act. SACs and SPAs, are established and managed under the EU Habitats and Wild Birds Directives. MPAs can protect species and habitats not protected by EU Directives.

### 6. What is a feature or search feature?

Feature is the collective term for species, habitats and geology we are looking to protect in the MPA network. Before we knew where the MPA proposals would likely

be, these same features were known as „search features“ as these are what were being searched for.

#### **7. Which seas are covered by the Scottish MPA Project?**

The Scottish MPA Project covers Scottish territorial waters and the Scottish offshore region from the coast out to median lines or the UK Continental Shelf limit where applicable.

#### **Selection process**

#### **8. Are the MPA selection guidelines the same as the guidelines for the UK's Marine Conservation Zones (MCZs)?**

No. However all the guidance documents have all been developed from the same OSPAR principles relating to an ecologically coherent network.

#### **9. Is the selection process in Scotland the same as the processes being used in England and Wales?**

No. The selection process in Scotland is being undertaken at a national level. Nature Conservation MPAs will be based primarily on scientific evidence using the [MPA selection guidelines](#).

#### **10. Has a target been set for the percentage of sea that should be included within MPAs?**

The Scottish Government has no such targets.

#### **11. What is the difference between the Marine (Scotland) Act and the Marine and Coastal Access Act?**

The Marine (Scotland) Act provides powers to designate MPAs out to 12nm, and Marine and Coastal Access Act provides powers to designate out to the rest of Scottish waters. The acts were respectively put in place in 2010 and 2009.

#### **12. Have targets been set for how much of each feature should be included within the MPA network?**

Individual targets have not been set for MPA species or habitats within the network. The assessment will take account of the geographic range and variation, of a feature, threatened and/or declining status, and the need for replication. For some features it will also consider connectivity or linkages between MPAs within the network.

#### **13. How is information being gathered to support the selection of MPAs?**

We have gathered data on biodiversity from a wide range of sources, and data mined existing data gathered for other purposes to extract biodiversity information. During 2010 and 2011 we also carried out surveys of a variety of locations in our seas.

#### **Stakeholder engagement**

#### **14. Can people put forward their own proposals for Nature Conservation MPAs?**

Third parties had the opportunity to propose Nature Conservation MPAs and these were considered alongside those proposed by SNH and JNCC as part of the national selection process.



**15. How many of these Third Party Proposals have been submitted and how have they been considered?**

A total of 27 proposals for third party Nature Conservation MPAs were received. Many of the 3rd party Nature Conservation MPA proposals overlap with existing search locations and others are being taken forward as part of the overall process and have been put through the same guidelines. 12 proposals met all the relevant guidelines and have been recommended for further consideration, and have contributed to the development of eight Nature Conservation MPA proposals. A further three have contributed to the development of 3 of the remaining MPA search locations.

**16. What opportunities have there been for people to have a say in the selection of MPAs?**

- 5 national stakeholder workshops between March 2011 and June 2012
- The Marine Strategy Forum has provided strategic views on progress
- Bi-laterals with stakeholder representatives

**17. What opportunities will there be for people to have a say in the selection of MPAs?**

We are still having meetings with stakeholders and the 2013 Consultation will allow them to comment further.

**Seabirds in the network**

**18. What is being done to protect seabirds in the network?**

There are currently 47 Special Protection Areas (SPAs), under the EU Wild Birds Directive, and a further 17 SSSIs already providing protection of seabirds in the MPA network. These protect every one of the 24 nationally important species of breeding seabird. Work is also progressing to identify further locations in the marine environment that meet the criteria for consideration as Special Protection Areas for seabirds and waterfowl for critical activities such as foraging.

**19. What seabirds will be protected in the network?**

The aim is to protect all seabird species in the network through SPAs, SSSIs or MPAs.

The only species of seabird in Scotland not covered by SPA provisions of the EU Wild Birds Directive is the Black Guillemot. Consequently Nature Conservation MPA proposals are being identified for this species.

There will be proposals for protection of sandeels, a key prey species for seabirds. It is envisaged that completion of all of these designations will provide a resilient MPA network for seabirds. The periodic reviews of the network as required by the Marine (Scotland) Act 2010 will provide an opportunity to ensure that this is the case.

**Cetacean and basking sharks in the network**

**20. What is a cetacean?**

The collective term for any marine mammal in the family of whales, dolphins, and porpoises.

**21. What work is being done to support the inclusion of cetaceans in the network?**

Work to identify key habitats for the cetacean species of minke whale and white-beaked and Risso's dolphin, as well as for basking shark, is ongoing and the habitat modelling work for both basking sharks and the cetacean species to support their inclusion is underway with a view to completing by the end of 2013.

**22. What work is being done to support the inclusion of basking sharks in the network?**

In July 2012 SNH and the University of Exeter launched a basking shark tagging project, focused on the Skye to Mull MPA search location. The aim of the project is to understand more about the fine-scale use of the search location by these animals. Some results will be available in early 2013, with the rest by the end of 2013.

**23. What will happen once these pieces of work are complete?**

Following completion of this work, SNH will provide advice to Scottish Ministers on whether the current search locations for cetaceans and basking shark should be taken forward as Nature Conservation MPA proposals.

**Other questions**

**24. Is an MPA the same thing as a no take zone (NTZ) or 'no go' area for fishing and other activities?**

No. MPAs will be managed using the principle of sustainable use.

**25. Can MPAs be used to manage fisheries?**

MPA measures are not a fisheries management tool. Mechanisms already exist for that purpose. However fisheries restrictions may be required at some MPAs.

**26. Could some MPAs be designated for fish?**

Yes, fish being used to underpin the selection of MPAs include orange roughy, blue ling, common skate and sandeels.

**27. Will fishing activity be restricted within MPAs?**

There will be a presumption of use within an MPA so long as the conservation objectives of a site can be met. However, specific activities which pose a significant risk to a protected feature may have to be managed.

**28. How will the effects on fishing of designating an MPA be considered?**

Throughout the Scottish MPA Project, discussions will be held with fishing interests to ensure there is good understanding of the features (habitats, wildlife, geology and undersea landforms) and fishing activities associated with specific search locations or potential MPAs. Alongside any advice that is given to Scottish Ministers on the natural heritage interest of a potential area will be an Impact Assessment which considers the potential effects (whether beneficial or adverse) on existing activities. Marine Scotland is responsible for the production of Impact Assessments.

**29. Is the aim of an MPA to restrict fishing activity?**

No. The aim of a MPA is to ensure that its conservation objectives are being met and that it continues to make its contribution to the wider MPA network.



**30. Can information from fishermen be considered during the selection of MPAs?**

Yes. Marine Scotland is currently developing a standard method for gathering information on inshore fishing activity in Scotland's seas. This will mean we can work with the industry to ensure there is a good understanding of fishing activity, particularly by those vessels not covered by VMS (i.e. those under 15m). JNCC is currently working to improve information on the activities undertaken by both UK and non-UK fishing fleets.

**31. Where new MPA designations restrict fishing activity, will these rules apply to non-UK fleets too?**

Under current arrangements in waters where EU fleets have access we would have to apply for non discriminatory fisheries restrictions via the Common Fisheries Policy if new fisheries management was needed to protect a MPA.

**32. Can MPAs and renewable energy developments co-exist?**

Yes. As with fishing or indeed any current activity, there is no presumption against use and co-location so long as the conservation objectives of a site can be met. Management may be required on a case by case basis depending on species or habitat sensitivity.

**33. What are the main management principles with regards to renewables?**

The current policy approach is that if developments have an insignificant effect on MPAs, developers will not be required to consider effects on Nature Conservation MPAs any further, and there would be no retrospective review of existing consents once MPAs are designated.

Since March 2012 Marine Scotland has requested that all EIAs from developers consider proposed MPAs and search locations.



Bottlenose dolphins ©SNH

## Glossary

**Adequate** - The conclusion reached when the coverage of an MPA search feature within the Scottish MPA network meets the five parts of Stage 5 of the MPA Selection Guidelines: representation, replication, geographic range and variation, linkages and resilience. If all parts of the Stage 5 guidelines are met then the Scottish MPA network is assessed as adequate for that feature.

**Cetacean** - In simple MPA terms, the collective term for any marine mammal in the family of whales, dolphins, and porpoises.

**Connectivity** - Measure to which component MPAs in the network, and the features which they support, are connected to one another.

**Ecologically coherent** - OSPAR states that an ecologically coherent network of MPAs:

- i. Interacts with and supports the wider environment;
- ii. Maintains the processes, functions and structures of the intended protected features across their natural range;
- iii. Functions synergistically as a whole, such that the individual protected sites benefit from each other in order to achieve the other two objectives.

**Ecosystem services** - Ecosystem services are processes by which the environment produces resources utilised by humans, such as clean air, water, food and materials.

**Essential areas for key life cycle stages** - this applies to mobile species such as basking sharks and cetaceans. Essential areas are considered to include habitats known to be important for example, for feeding, reproduction and nursery stages. The focus of work on MPAs is on these essential areas considered to be persistent over time.

**Habitat modelling** - The process involves using data on different environmental variables (e.g. depth, slope, chlorophyll concentrations etc.) to understand more about the importance of an area for mobile species. The most significant variables can then be used to clarify why animals are in an area and / or better predict where they might be.

**Insignificant** - In relation to Nature Conservation MPAs, Section 82 of the Marine (Scotland) Act 2010 requires public authorities to exercise any function capable of affecting (other than insignificantly) any protected feature in a manner which helps achieve the stated conservation objectives for the site. These principles also apply at the MPA network level. Determining whether an impact is „insignificant“ is a judgement which will need to be made in each case.

**Mobile species** – Any of the features that are not static or low mobility species. For Nature Conservation MPAs these are basking shark, common skate, minke whale, Risso's dolphin, white-beaked dolphin, black guillemot, European spiny lobster, blue ling, orange roughy, and sandeels,.

**MPA search feature** - Features are the collective term for species, habitats and geology we are looking to protect in the MPA network that we do not believe have enough current protection. Before we knew where the MPA proposals would likely be, these same features were known as „search features“ as these are what were being searched for.

**MPA search location** - An area that is identified as a result of the application of the Stage 1 guidelines. An area remains a search location until it passes through Stage 4 of the guidelines.

**MPA proposal** - The term MPA proposal refers to the package of advice submitted to Scottish Ministers outlining the case for the designation of an MPA. There will be a public consultation on each MPA proposal.

**OSPAR** - The Convention by which fifteen Governments of the western coasts and catchments of Europe, together with the European Community, cooperate to protect the marine environment of the North-East Atlantic.

**Representation** The MPA Selection Guidelines state that the sustainable use, protection and conservation of marine biological diversity and ecosystems mean areas which best represent the range of species, habitats and ecological processes (for which MPAs are a suitable measure) should be considered for inclusion in MPAs. Representation will be assessed primarily at the scale of Scotland's seas, with consideration given to the contribution to wider networks, particularly the UK.

**Replication** - Replication of features in separate MPAs in each biogeographic area is desirable where it is possible in order to contribute to the aims of the network. The Scottish MPA Selection Guidelines state that replication will be met if there is more than one example of each feature within the Scottish MPA network.

**SACs** - Special Areas of Conservation which protect habitats and species listed on the EC Habitats Directive, such as reefs, sandbanks and bottlenose dolphin.

**Sensitivity** - The degree to which species or habitats are resilient and resistant to pressure.

**SPAs** - Special Protection Areas, which protect wild birds listed on the EC Birds Directive, such as red-throated diver and common scoter.

**SSSIs** - Sites of Special Scientific Interest, which protect nationally important habitats, species and geological features and generally fall above the mean low water mark.

**Third-party proposal** - An MPA proposal submitted by a coastal community or marine interest group (essentially anyone other than the partners of the Scottish MPA Project e.g. Marine Scotland, SNH, JNCC, Historic Scotland and SEPA).

## Annex A Nature Conservation MPA proposals and MPA search locations

Table 3.1 The Nature Conservation MPA proposals and protected features (split by sea area)

Name	Code	Protected features
Territorial waters		
Clyde Sea Sill	CSS	<i>Biodiversity protected features</i> - Black guillemot, circalittoral sand and coarse sediment communities, fronts <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed - sand banks, sand ribbon fields, sand wave fields
East Caithness Cliffs	ECC	<i>Biodiversity protected features</i> - Black guillemot
Fetlar to Haroldswick	FTH	<i>Biodiversity protected features</i> - Black guillemot, circalittoral sand and coarse sediment communities, horse mussel beds, kelp and seaweed communities on sublittoral sediment, maerl beds, shallow tide-swept coarse sands with burrowing bivalves <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed (components to be confirmed)
Loch Creran	LCR	<i>Biodiversity protected features</i> - Flame shell beds <i>Geodiversity protected features</i> - Quaternary of Scotland (components to be confirmed)
Loch Sunart	LSU	<i>Biodiversity protected features</i> - Flame shell beds, northern feather star aggregations on mixed substrata, serpulid aggregations
Loch Sunart to the Sound of Jura	SJU	<i>Biodiversity protected features</i> - Common skate <i>Geodiversity protected features</i> - Quaternary of Scotland - glaciated channels/troughs (other components to be confirmed)
Loch Sween	LSW	<i>Biodiversity protected features</i> - Burrowed mud, inshore deep mud with burrowing heart urchins, maerl beds, native oysters, sublittoral mud and mixed sediment communities
Lochs Duich, Long and Alsh	DLA	<i>Biodiversity protected features</i> - Burrowed mud, inshore deep mud with burrowing heart urchins, flame shell beds
Monach Isles	MOI	<i>Biodiversity protected features</i> - Black guillemot <i>Geodiversity protected features</i> - Marine Geomorphology of Scottish Shelf (components to be confirmed); Quaternary of Scotland - landscape of areal glacial scour
Mousa to Boddam	MTB	<i>Biodiversity protected features</i> - Sandeels <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed (components to be confirmed)

<b>Name</b>	<b>Code</b>	<b>Protected features</b>
North-west sea lochs and Summer Isles	NWS	<p><i>Biodiversity protected features</i> - Burrowed mud, circalittoral muddy sand communities, flame shell beds, kelp and seaweed communities on sublittoral sediment, maerl beds, maerl or coarse shell gravel with burrowing sea cucumbers, native oysters, northern feather star aggregations on mixed substrata</p> <p><i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed - banks of unknown substrate; Quaternary of Scotland - glaciated channels/troughs, megascale glacial lineations, moraines; Seabed Fluid and Gas Seep - pockmarks; Submarine Mass Movement - slide scars</p>
Noss Head	NOH	<i>Biodiversity protected features</i> - Horse mussel beds
Papa Westray	PWY	<p><i>Biodiversity protected features</i> - Black guillemot</p> <p><i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed - sand wave field</p>
Small Isles	SMI	<p><i>Biodiversity protected features</i> - Black guillemot, burrowed mud, circalittoral sand and mud communities; fan mussel aggregations, horse mussel beds, northern sea fan and sponge communities, northern feather star aggregations on mixed substrata, shelf deeps; white cluster anemone</p> <p><i>Geodiversity protected features</i> - Quaternary of Scotland - glaciated channels/troughs, glacial lineations</p>
South Arran	ARR	<i>Biodiversity protected features</i> - Burrowed mud, herring spawning grounds, kelp and seaweed communities, maerl beds, maerl or coarse shell gravel with burrowing sea cucumbers, ocean quahog (species), seagrass beds, shallow tide-swept coarse sands with burrowing bivalves
Upper Loch Fyne and Loch Goil	LFG	<i>Biodiversity protected features</i> - Burrowed mud, flame shell beds, horse mussel beds, low or variable salinity habitats; ocean quahog (species), sublittoral mud and mixed sediment communities
Wyre and Rousay Sounds	WYR	<p><i>Biodiversity protected features</i> - Kelp and seaweed communities on sublittoral sediment, maerl beds</p> <p><i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed (components to be confirmed)</p>



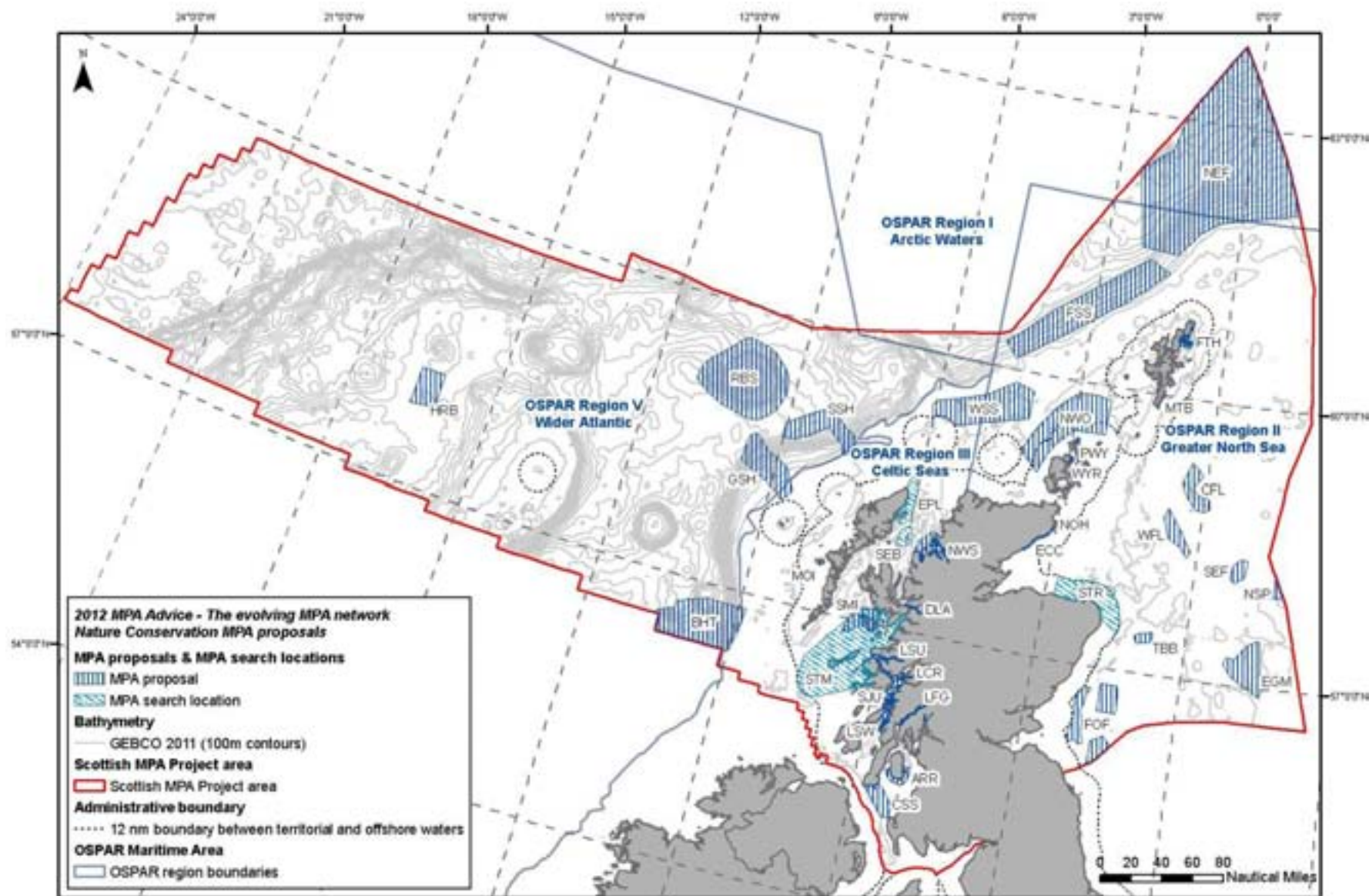
Offshore waters		
Central Fladen	CFL	<i>Biodiversity protected features</i> - Burrowed mud <i>Geodiversity protected features</i> - Quaternary of Scotland - sub-glacial tunnel valley
East of Gannet and Montrose Fields	EGM	<i>Biodiversity protected features</i> - Ocean quahog aggregations, offshore subtidal sands and gravels, offshore deep sea muds
Faroe-Shetland sponge belt	FSS	<i>Biodiversity protected features</i> - Continental slope, deep sea sponge aggregations; ocean quahog aggregations; offshore subtidal sands and gravels <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Deep Ocean Seabed - sand wave field, sediment wave field; Quaternary of Scotland - continental slope channels; iceberg ploughmark fields, prograding wedges; Submarine Mass Movement - slide deposits
Firth of Forth Banks Complex	FOF	<i>Biodiversity protected features</i> - Ocean quahog aggregations; offshore subtidal sands and gravels; shelf banks and mounds <i>Geodiversity protected features</i> - Quaternary of Scotland - moraines
Geikie Slide and Hebridean slope	GSH	<i>Biodiversity protected features</i> - Burrowed mud; continental slope, offshore deep sea muds, offshore subtidal sands and gravels <i>Geodiversity protected features</i> - Submarine Mass Movement - slide deposits, slide scars
Hatton-Rockall Basin	HRB	<i>Biodiversity protected features</i> - Deep sea sponge aggregations; offshore deep sea muds <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Deep Ocean Seabed - sediment drifts; Polygonal fault systems
North-east Faroe Shetland Channel	NEF	<i>Biodiversity protected features</i> - Continental slope, deep sea sponge aggregations; offshore deep sea muds; offshore subtidal sands and gravels <i>Geodiversity protected features</i> - Cenozoic Structures of the Atlantic Margin - mud diapirs; Marine Geomorphology of the Scottish Deep Ocean Seabed - contourite sand/silt; Quaternary of Scotland - prograding wedge; Submarine Mass Movement - slide deposits
West Shetland Shelf	WSS	<i>Biodiversity protected features</i> - Offshore subtidal sands and gravels
North-west Orkney	NWO	<i>Biodiversity protected features</i> – Sandeels <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed - sand bank, sand wave field, sediment wave fields
Norwegian boundary sediment plain	NSP	<i>Biodiversity protected features</i> - Ocean quahog aggregations, offshore subtidal sands and gravels

Rosemary Bank Seamount	RBS	<p><i>Biodiversity protected features</i> - Deep sea sponge aggregations; seamounts; seamount communities</p> <p><i>Geodiversity protected features</i> - Cenozoic Structures of the Atlantic Margin - Rosemary Bank Seamount; Marine Geomorphology of the Scottish Deep Ocean Seabed - scour moats, sediment drifts, sediment wave fields; Quaternary of Scotland - iceberg ploughmark field; Submarine Mass Movement - slide scars</p>
South-east Fladen	SEF	<p><i>Biodiversity protected features</i> - Burrowed mud</p> <p><i>Geodiversity protected features</i> - Seabed Fluid and Gas Seep - pockmarks</p>
South-west Sula Sgeir and Hebridean slope	SSH	<p><i>Biodiversity protected features</i> - Burrowed mud; continental slope; offshore deep sea muds; offshore subtidal sands and gravels</p> <p><i>Geodiversity protected features</i> - Quaternary of Scotland - iceberg ploughmark fields, prograding wedges; Submarine Mass Movement - slide deposits</p>
The Barra Fan and Hebrides Terrace Seamount	BHT	<p><i>Biodiversity protected features</i> - Burrowed mud; continental slope, coral gardens (suspected); offshore deep sea muds; offshore subtidal sands and gravels; orange roughy; seamounts; seamount communities (suspected)</p> <p><i>Geodiversity protected features</i> - Cenozoic Structures of the Atlantic Margin - continental slope, Hebrides Terrace Seamount; Marine Geomorphology of the Scottish Deep Ocean Seabed - scour moat; Quaternary of Scotland - iceberg ploughmark field, prograding wedges; Submarine Mass Movement - continental slope turbidite canyons, slide deposits</p>
Turbot Bank	TBB	<p><i>Biodiversity protected features</i> – Sandeels, offshore subtidal sands and gravels, shelf banks and mounds</p>
Western Fladen	WFL	<p><i>Biodiversity protected features</i> - Burrowed mud</p> <p><i>Geodiversity protected features</i> - Quaternary of Scotland - sub-glacial tunnel valleys</p>

**Table 3.2** *Nature Conservation MPA search locations in Scottish territorial waters with proposed protected features*

<b>Name</b>	<b>Code</b>	<b>Protected features</b>
Eye Peninsula to Butt of Lewis	EPL	<i>Biodiversity protected features</i> - Risso's dolphin, sandeels <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed - longitudinal bedform field; Quaternary of Scotland - glaciated channel/troughs, landscape of areal glacial scour, megascale glacial lineations
Shiant East Bank	SEB	<i>Biodiversity protected features</i> - Circalittoral sands and mixed sediment communities, northern sea fan and sponge communities, shelf banks and mounds <i>Geodiversity protected features</i> - Quaternary of Scotland (components to be confirmed)
Skye to Mull	STM	<i>Biodiversity protected features</i> - Basking shark, fronts, minke whale <i>Geodiversity protected features</i> - Marine Geomorphology of the Scottish Shelf Seabed (components to be confirmed)
Southern Trench	STR	<i>Biodiversity protected features</i> - Burrowed mud, fronts, minke whale, shelf deeps, white-beaked dolphin <i>Geodiversity protected features</i> - Quaternary of Scotland - sub-glacial tunnel valleys and moraines; Submarine Mass Movement - slide scars

Figure 6 Nature Conservation MPA proposals and search locations in Scotland's seas



## Annex B Special Areas of Conservation (SACs)

Table 4.1 Qualifying habitats and species features of marine Special Areas of Conservation

<b>Annex I habitats</b>	<b>Annex II species</b>
Estuaries	Bottlenose dolphin ( <i>Tursiops truncatus</i> )
Lagoons	Harbour porpoise ( <i>Phocoena phocoena</i> )
Large shallow inlets and bays	Grey seal ( <i>Halichoerus grypus</i> )
Mudflats and sandflats not covered by seawater at low tide	Common seal ( <i>Phoca vitulina</i> )
Reefs	
Sandbanks which are slightly covered by seawater all the time	
Submarine structures made by leaking gases	
Submerged or partially submerged sea caves	

Table 4.2 Possible<sup>14</sup> marine Special Areas of Conservation (pSACs) in Scottish waters

<b>OSPAR Region</b>	<b>Possible SAC name</b>	<b>Features</b>
III	Sound of Barra	Reefs, sandbanks which are slightly covered by seawater all the time, common seal

Table 4.3 Candidate marine Special Areas of Conservation (cSACs) in Scottish waters

<b>OSPAR Region</b>	<b>Candidate SAC name</b>	<b>Features</b>
II	Pobie Bank	Reefs
II & III	Solan Bank	Reefs
III	East Mingulay	Reefs
V	Anton Dhorn	Reefs
V	East Rockall Bank	Reefs
V	Hatton Bank	Reefs

Table 4.4 Marine Special Areas of Conservation (SACs) in Scottish waters

<b>OSPAR Region</b>	<b>SAC name</b>	<b>Features</b>
II	Berwickshire and North Northumberland Coast	Large shallow inlets and bays, mudflats and sandflats not covered by seawater at low tide, reefs, submerged or partially submerged sea caves, grey seal
II	Braemar Pockmarks	Submarine structures made by leaking gases

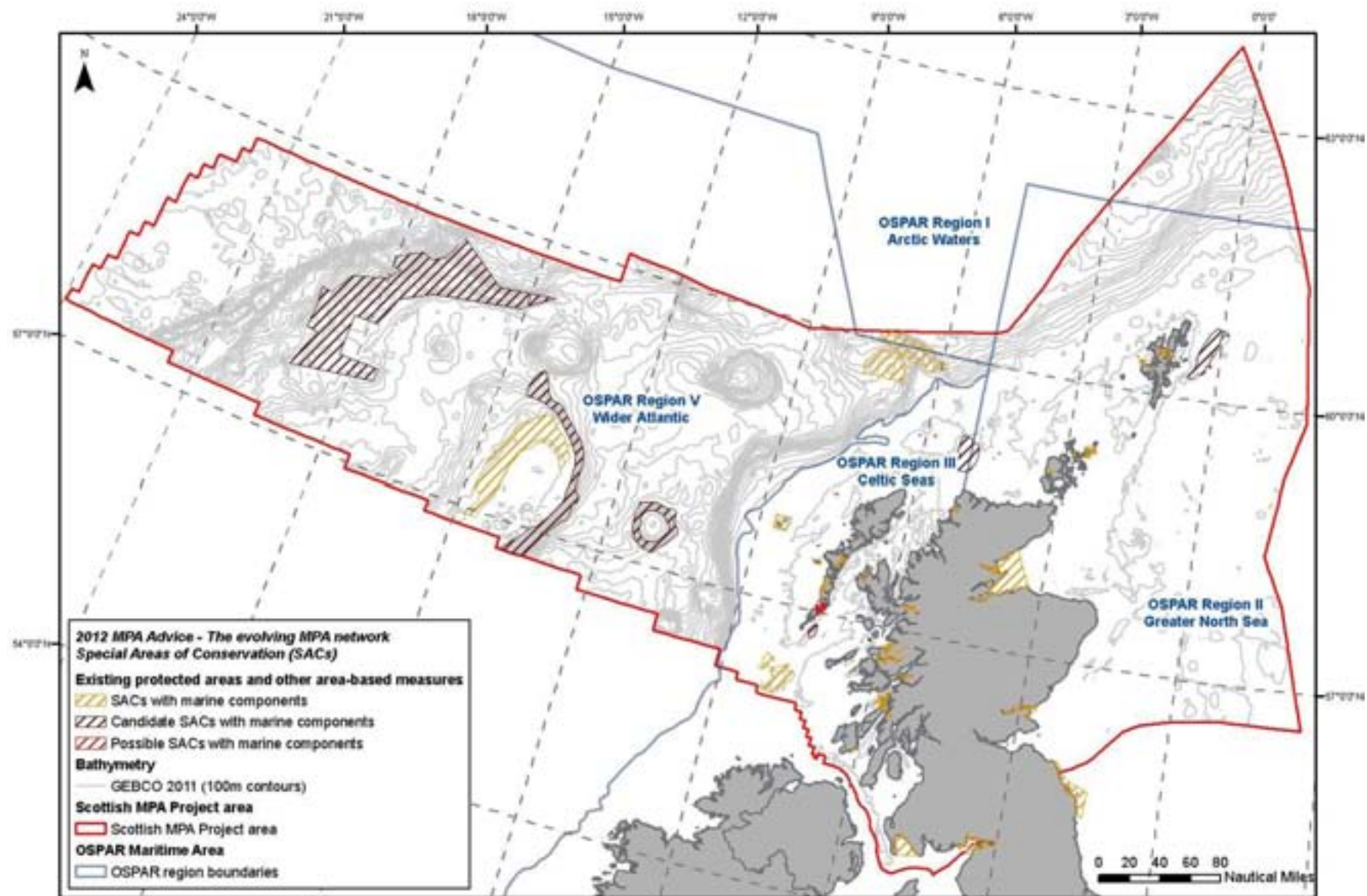
<sup>14</sup> SNH consulted on the Sound of Barra pSAC between the 16 September 2011 - 16 January 2012



<b>OSPAR Region</b>	<b>SAC name</b>	<b>Features</b>
II	Dornoch Firth and Morrich More	Estuaries, mudflats and sandflats not covered by seawater at low tide, reefs, sandbanks which are slightly covered by seawater all the time, common seal
II	Faray and Holm of Faray	Grey seal
II	Firth of Tay and Eden Estuary	Estuaries, mudflats and sandflats not covered by seawater at low tide, sandbanks which are slightly covered by seawater all the time, common seal
II	Isle of May	Reefs, grey seal
II	Loch of Stenness	Lagoons
II	Moray Firth	Sandbanks which are slightly covered by seawater all the time, bottlenose dolphin
II	Mousa	Reefs, submerged or partially submerged sea caves, common seal
II	Papa Stour	Reefs, submerged or partially submerged sea caves
II	Sanday	Mudflats and sandflats not covered by seawater at low tide, reefs, sandbanks which are slightly covered by seawater all the time, common seal
II	Scanner Pockmark	Submarine structures made by leaking gases
II	Sullom Voe	Lagoons, large shallow inlets and bays, reefs
II	The Vadills	Lagoons
II	Yell Sound Coast	Common seal
III	Ascrib, Isay and Dunvegan	Common seal
III	Eileanan agus Sgeiran Lios mor	Common seal
III	Firth of Lorn	Reefs
III	Loch Creran	Reefs
III	Lochs Duich, Long and Alsh Reefs	Reefs
III	Loch Laxford	Large shallow inlets and bays, reefs
III	Loch Moidart and Loch Shiel Woods	Mudflats and sandflats not covered by seawater at low tide
III	Loch nam Madadh	Large shallow inlets and bays, lagoons, mudflats and sandflats not covered by seawater at low tide, reefs, sandbanks which are slightly covered by seawater all the time
III	Loch Roag Lagoons	Lagoons
III	Luce Bay and Sands	Large shallow inlets and bays, mudflats and sandflats not covered by seawater at low tide reefs, sandbanks which are slightly covered by seawater all the time

<b>OSPAR Region</b>	<b>SAC name</b>	<b>Features</b>
III	Moine Mhor	Mudflats and sandflats not covered by seawater at low tide
III	Monach Islands	Grey seal
III	North Rona	Reefs, submerged or partially submerged sea caves, grey seal
III	Obain Loch Euphoirt	Lagoons
III	Solway Firth	Estuaries, mudflats and sandflats not covered by seawater at low tide, reefs, sandbanks which are slightly covered by seawater all the time
III	Sound of Arisaig (Loch Ailort to Loch Ceann Traigh)	Sandbanks which are slightly covered by seawater all the time
III	South Uist Machair	Lagoons
III	South-East Islay Skerries	Common seal
III	Stanton Banks	Reefs
III	St Kilda	Reefs, submerged or partially submerged sea caves
III	Sunart	Reefs
III	Treshnish Isles	Reefs, grey seal
V	Darwin Mounds	Reefs
V	North West Rockall Bank	Reefs
V	Wyville Thomson Ridge	Reefs

Figure 7 - Marine Special Areas of Conservation (SACs) in Scotland's seas



## Annex C Special Protection Areas (SPAs)

Table 5.1 List of bird species dependent on the marine environment that are qualifying interests/notified features of SPAs and/or SSSIs in Scotland

Species name	Species name
Arctic skua ( <i>Stercorarius parasiticus</i> )	Lesser black-backed gull ( <i>Larus fuscus</i> )
Arctic tern ( <i>Sterna paradisaea</i> )	Light-bellied brent goose ( <i>Branta bernicla hrota</i> )
Atlantic puffin ( <i>Fratercula arctica</i> )	Little tern ( <i>Sternula albifrons</i> )
Bar-tailed godwit ( <i>Limosa lapponica</i> )	Long-tailed duck ( <i>Clangula hyemalis</i> )
Black guillemot ( <i>Cephus grylle</i> )	Manx shearwater ( <i>Puffinus puffinus</i> )
Black-headed gull ( <i>Larus ridibundus</i> )	Northern pintail ( <i>Anas acuta</i> )
Black-legged kittiwake ( <i>Rissa tridactyla</i> )	Oystercatcher ( <i>Haematopus ostralegus</i> )
Black-tailed godwit ( <i>Limosa limosa</i> )	Purple sandpiper ( <i>Calidris maritima</i> )
Black-throated diver ( <i>Gavia arctica</i> )	Razorbill ( <i>Alca torda</i> )
Common gull ( <i>Larus canus</i> )	Red-breasted merganser ( <i>Mergus serrator</i> )
Common scoter ( <i>Melanitta nigra</i> )	Red-necked phalarope ( <i>Phalaropus lobatus</i> )
Common tern ( <i>Sterna hirundo</i> )	Redshank ( <i>Tringa tetanus</i> )
Cormorant ( <i>Phalacrocorax carbo</i> )	Red-throated diver ( <i>Gavia stellata</i> )
Curlew ( <i>Numenius arquata</i> )	Ringed plover ( <i>Charadrius hiaticula</i> )
Dunlin ( <i>Calidris alpina alpina</i> )	Roseate tern ( <i>Sterna dougallii</i> )
Eider ( <i>Somateria mollissima</i> )	Sanderling ( <i>Calidris alba</i> )
Northern fulmar ( <i>Fulmarus glacialis</i> )	Sandwich tern ( <i>Sterna sandvicensis</i> )
Northern gannet ( <i>Morus bassanus</i> )	Scaup ( <i>Aythya marila</i> )
Golden plover ( <i>Pluvialis apricaria</i> )	Shag ( <i>Phalacrocorax aristotelis</i> )
Goldeneye ( <i>Bucephala clangula</i> )	Shelduck ( <i>Tadorna tadorna</i> )
Goosander ( <i>Mergus merganser</i> )	Slavonian grebe ( <i>Podiceps auritus</i> )
Great black-backed gull ( <i>Larus marinus</i> )	Storm petrel ( <i>Hydrobates pelagicus</i> )
Great crested grebe ( <i>Podiceps cristatus</i> )	Teal ( <i>Anas crecca</i> )
Great skua ( <i>Stercorarius skua</i> )	Turnstone ( <i>Arenaria interpres</i> )
Greenshank ( <i>Tringa nebularia</i> )	Velvet scoter ( <i>Melanitta fusca</i> )
Grey plover ( <i>Pluvialis squatarola</i> )	Whimbrel ( <i>Numenius phaeopus</i> )
Guillemot ( <i>Uria aalge</i> )	Wigeon ( <i>Anas penelope</i> )
Herring gull ( <i>Larus argentatus</i> )	<b>Species assemblages -</b>
Knot ( <i>Calidris canutus</i> )	Seabird assemblage
Leach's petrel ( <i>Oceanodroma leucorhoa</i> )	Waterfowl assemblage

**Table 5.2** *Special Protection Areas (SPAs) supporting bird species that are dependent upon Scotland's marine environment (marine associations/components)*

Sites marked with an \* overlap with the Scottish marine protection area (x45 SPAs). These SPAs are either estuarine or truly coastal (i.e. they contain intertidal habitats upon which one or more of the qualifying bird species depend) and, through ongoing processes, have been recommended for progression as OSPAR MPAs

<b>OSPAR Region</b>	<b>SPA</b>	<b>Features</b>
II	Auskerry	Arctic tern (breeding), storm petrel (breeding)
II	Buchan Ness to Collieston Coast*	Fulmar (breeding), guillemot (breeding), herring gull (breeding), kittiwake (breeding), shag (breeding), seabird assemblage (breeding)
II	Calf of Eday*	Cormorant (breeding), fulmar (breeding), great black-backed gull (breeding), guillemot (breeding), kittiwake (breeding), seabird assemblage (breeding)
II	Copinsay*	Fulmar (breeding), great black-backed gull (breeding), guillemot (breeding), kittiwake (breeding), seabird assemblage (breeding)
II	Cromarty Firth*	Bar-tailed godwit (non-breeding), common tern (breeding), curlew (non-breeding), dunlin (non-breeding), knot (non-breeding), northern pintail (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), redshank (non-breeding), scaup (non-breeding), wigeon (non-breeding), waterfowl assemblage (non-breeding)
II	Dornoch Firth and Loch Fleet*	Bar-tailed godwit (non-breeding), curlew (non-breeding), dunlin (non-breeding), oystercatcher (non-breeding), teal (non-breeding), wigeon (non-breeding), waterfowl assemblage (non-breeding)
II	East Caithness Cliffs*	Cormorant (breeding), fulmar (breeding), great black-backed gull (breeding), guillemot (breeding), herring gull (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), shag (breeding), seabird assemblage (breeding)
II	East Sanday Coast*	Bar-tailed godwit (non-breeding), purple sandpiper (non-breeding), turnstone (non-breeding)
II	Fair Isle*	Arctic skua (breeding), Arctic tern (breeding), fulmar (breeding), gannet (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), shag (breeding), seabird assemblage (breeding)
II	Fetlar*	Arctic skua (breeding), Arctic tern (breeding), dunlin (breeding), fulmar (breeding), great skua (breeding), red-necked phalarope (breeding), whimbrel (breeding), seabird assemblage (breeding)



<b>OSPAR Region</b>	<b>SPA</b>	<b>Features</b>
II	Firth of Forth*	Bar-tailed godwit (non-breeding), common scoter, cormorant (non-breeding), curlew (non-breeding), dunlin (non-breeding), eider (non-breeding), golden plover (non-breeding), goldeneye (non-breeding), great crested grebe (non-breeding), grey plover (non-breeding), knot (non-breeding), long-tailed duck (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), redshank (non-breeding), red-throated diver (non-breeding), ringed plover (non-breeding), sandwich tern (passage), scaup (non-breeding), shelduck (non-breeding), Slavonian grebe (non-breeding), turnstone (non-breeding), velvet scoter (non-breeding), wigeon (non-breeding), waterfowl assemblage (non-breeding)
II	Firth of Tay and Eden Estuary*	Bar-tailed godwit (non-breeding), black-tailed godwit (non-breeding), common scoter (non-breeding), cormorant (non-breeding), dunlin (non-breeding), eider (non-breeding), goldeneye (non-breeding), goosander (non-breeding), grey plover (non-breeding), little tern (breeding), long-tailed duck (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), redshank (non-breeding), sanderling (non-breeding), shelduck (non-breeding), velvet scoter (non-breeding), waterfowl assemblage (non-breeding)
II	Forth Islands*	Arctic tern (breeding), common tern (breeding), cormorant (breeding), fulmar (breeding), gannet (breeding), guillemot (breeding), herring gull (breeding), kittiwake (breeding), lesser black-backed gull (breeding), puffin (breeding), razorbill (breeding), roseate tern (breeding), sandwich tern (breeding), shag (breeding), seabird assemblage (breeding)
II	Foula*	Arctic skua (breeding), Arctic tern (breeding), fulmar (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), Leach's petrel (breeding), puffin (breeding), razorbill (breeding), red-throated diver (breeding), shag (breeding), seabird assemblage (breeding)
II	Fowlsheugh*	Fulmar (breeding), guillemot (breeding), herring gull (breeding), kittiwake (breeding), razorbill (breeding), seabird assemblage (breeding)
II	Hermaness, Saxa Vord & Valla Field*	Fulmar (breeding), gannet (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), red-throated diver (breeding), shag (breeding), seabird assemblage (breeding)

<b>OSPAR Region</b>	<b>SPA</b>	<b>Features</b>
II	Hoy*	Arctic skua (breeding), fulmar (breeding), great black-backed gull (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), red-throated diver (breeding), seabird assemblage (breeding)
II	Imperial Dock Lock, Leith	Common tern (breeding)
II	Inner Moray Firth*	Bar-tailed godwit (non-breeding), common tern (breeding), cormorant (non-breeding), curlew (non-breeding), goldeneye (non-breeding), goosander (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), redshank (non-breeding), scaup (non-breeding), wigeon (non-breeding), teal (non-breeding), waterfowl assemblage (non-breeding)
II	Lairg & Strath Brora Lochs	Black throated diver (breeding)
II	Loch Ashie	Slavonian grebe (breeding and non-breeding)
II	Loch Flemington	Slavonian grebe (breeding)
II	Loch Leven	Cormorant (non-breeding), goldeneye (non-breeding), teal (non-breeding), waterfowl assemblage (non-breeding)
II	Loch of Strathbeg	Sandwich tern (breeding), teal (non-breeding), waterfowl assemblage (non-breeding)
II	Loch Ruthven	Slavonian grebe (breeding)
II	Loch Vaa	Slavonian grebe (breeding)
II	Marwick Head*	Guillemot (breeding), kittiwake (breeding), seabird assemblage (breeding)
II	Montrose Basin*	Dunlin (non-breeding), eider (non-breeding), knot (non-breeding), oystercatcher (non-breeding), redshank (non-breeding), shelduck (non-breeding), wigeon (non-breeding), waterfowl assemblage (non-breeding)
II	Moray and Nairn Coast*	Bar-tailed godwit (non-breeding), common scoter (non-breeding), dunlin (non-breeding), long-tailed duck (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), redshank (non-breeding) velvet scoter (non-breeding), wigeon (non-breeding), waterfowl assemblage (non-breeding)
II	Mousa	Arctic tern (breeding), storm petrel (breeding)
II	Muir of Dinnet	Waterfowl assemblage (non-breeding)
II	North Caithness Cliffs*	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), seabird assemblage (breeding)
II	North Inverness Lochs	Slavonian grebe (breeding)

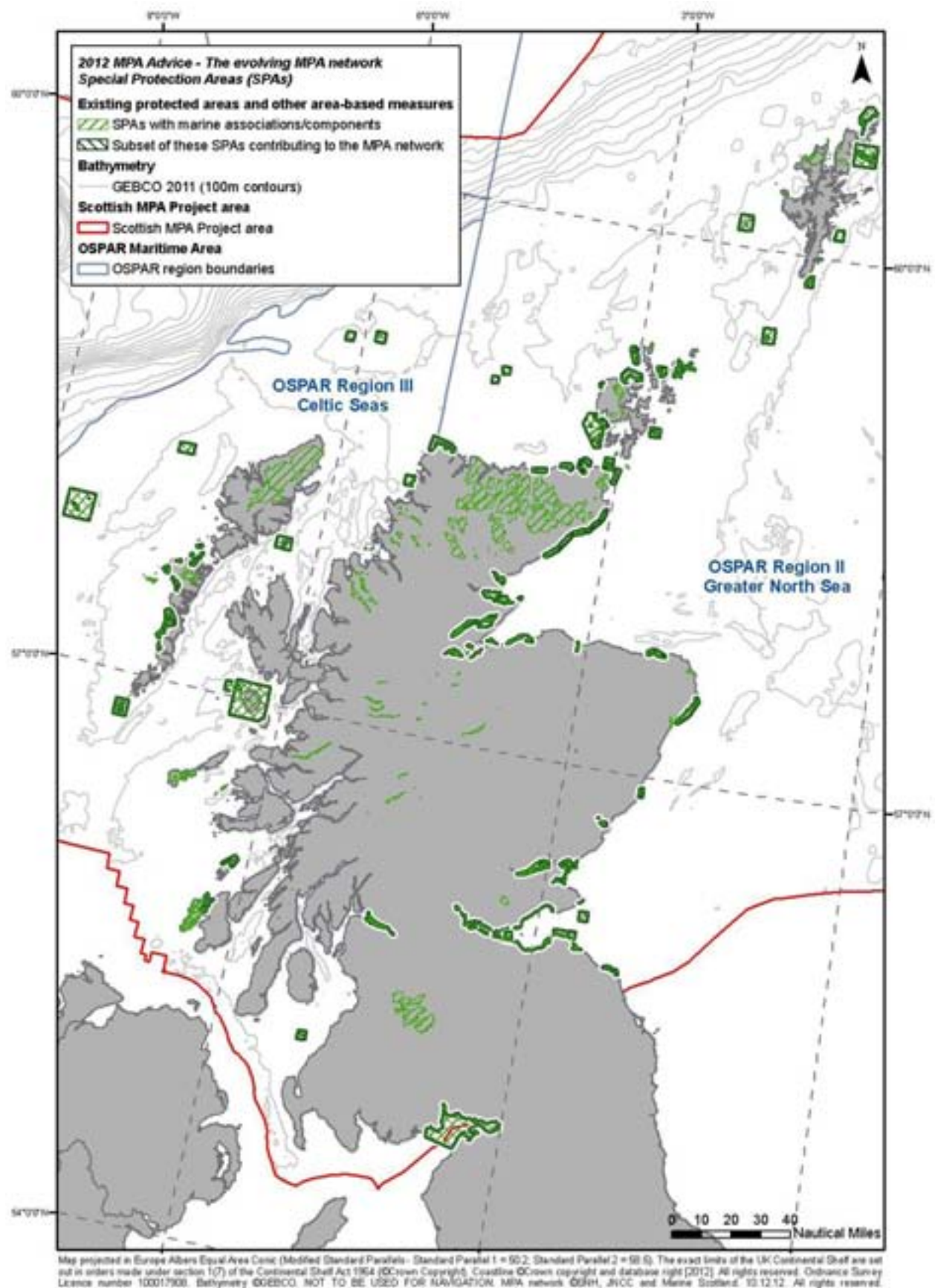
<b>OSPAR Region</b>	<b>SPA</b>	<b>Features</b>
II	Noss*	Fulmar (breeding), gannet (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), seabird assemblage (breeding)
II	Orkney Mainland Moors	Red-throated diver (breeding)
II	Otterswick and Graveland	Red-throated diver (breeding)
II	Papa Stour*	Arctic tern (breeding), ringed plover (breeding)
II	Papa Westray (North Hill and Holm)	Arctic skua (breeding), Arctic tern (breeding)
II	Pentland Firth Islands	Arctic tern (breeding)
II	Ramna Stacks & Gruney	Leach's petrel (breeding)
II	Rannoch Lochs	Black-throated diver (breeding)
II	Ronas Hill - North Roe and Tingon	Great skua (breeding), red-throated diver (breeding)
II	Rousay*	Arctic skua (breeding), Arctic tern (breeding), fulmar (breeding), guillemot (breeding), kittiwake (breeding), seabird assemblage (breeding)
II	St Abb's Head to Fast Castle*	Guillemot (breeding), herring gull (breeding), kittiwake (breeding), razorbill (breeding), shag (breeding), seabird assemblage (breeding),
II	Sule Skerry and Sule Stack*	Gannet (breeding), guillemot (breeding), Leach's petrel (breeding), puffin (breeding), shag (breeding), storm petrel (breeding), seabird assemblage (breeding)
II	Sumburgh Head*	Arctic tern (breeding), fulmar (breeding), guillemot (breeding), kittiwake (breeding), seabird assemblage (breeding)
II	Tips of Corsemaul and Tom Mor	Common gull (breeding)
II	Troup, Pennan and Lion's Head*	Fulmar (breeding), guillemot (breeding), herring gull (breeding), kittiwake (breeding), razorbill (breeding), seabird assemblage (breeding)
II	West Westray*	Arctic skua (breeding), Arctic tern (breeding), fulmar (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird assemblage
II	Ythan Estuary, Sands of Forvie and Meikle Loch	Common tern (breeding), eider (non-breeding), little tern (breeding), redshank (non-breeding), sandwich tern (breeding), waterfowl assemblage (non-breeding)

<b>OSPAR Region</b>	<b>SPA</b>	<b>Features</b>
II & III	Caithness and Sutherland Peatlands	Black-throated diver (breeding), common scoter (breeding), dunlin (breeding), golden plover (breeding), greenshank (breeding), red-throated diver (breeding), wigeon (breeding)
II & III	Loch Knockie and Nearby Lochs	Slavonian grebe (breeding)
II & III	River Spey-Insh Marshes	Wigeon (breeding)
III	Ailsa Craig*	Gannet (breeding), guillemot (breeding), herring gull (breeding), kittiwake (breeding), lesser black-backed gull (breeding), seabird assemblage (breeding)
III	Assynt Lochs	Black-throated diver (breeding)
III	Canna and Sanday*	Guillemot (breeding), herring gull (breeding), kittiwake (breeding), puffin (breeding), shag (breeding), seabird assemblage (breeding)
III	Cape Wrath*	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), seabird assemblage (breeding)
III	Flannan Isles*	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), Leach's petrel (breeding), puffin (breeding), razorbill (breeding), seabird assemblage (breeding)
III	Glas Eileanan	Common tern (breeding)
III	Gruinart Flats*	Light-bellied Brent goose (passage)
III	Handa*	Fulmar (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird assemblage (breeding)
III	Inner Clyde*	Redshank (non-breeding)
III	Inverpolly, Loch Urigill & nearby lochs	Black-throated diver (breeding)
III	Knapdale Lochs	Black-throated diver (breeding)
III	Lewis Peatlands	Black-throated diver (breeding), dunlin (breeding), golden plover (breeding), greenshank (breeding), red-throated diver (breeding)
III	Loch Maree	Black-throated diver (breeding)
III	Loch Shiel	Black-throated diver (breeding)
III	Mingulay and Berneray*	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), shag (breeding), seabird assemblage (breeding)
III	Mointeach Scadabhaigh	Black-throated diver (breeding), red-throated diver (breeding)
III	Monach Isles	Common tern (breeding), little tern (breeding)
III	Muirkirk and North Lowther Uplands	Golden plover (breeding)

<b>OSPAR Region</b>	<b>SPA</b>	<b>Features</b>
III	North Colonsay and Western Cliffs*	Guillemot (breeding), kittiwake (breeding), seabird assemblage (breeding)
III	North Rona and Sula Sgeir*	Fulmar (breeding), gannet (breeding), great black-backed gull (breeding), guillemot (breeding), kittiwake (breeding), Leach's petrel (breeding), puffin (breeding), razorbill (breeding), storm petrel (breeding), seabird assemblage (breeding)
III	North Uist Machair and Islands*	Dunlin (breeding), oystercatcher (breeding), purple sandpiper (non-breeding), redshank (breeding), ringed plover (breeding and non-breeding), turnstone (non-breeding)
III	Priest Island	Storm petrel (breeding)
III	Rinns of Islay	Common scoter (breeding)
III	Rum*	Guillemot (breeding), kittiwake (breeding), Manx shearwater (breeding), red-throated diver (breeding), seabird assemblage (breeding)
III	Shiant Isles*	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), shag (breeding), seabird assemblage (breeding)
III	Sleibhtean agus Cladach Thirodh	Dunlin (breeding), oystercatcher (breeding), redshank (breeding), ringed plover (breeding and non-breeding), turnstone (breeding)
III	South Uist Machair and Lochs*	Dunlin (breeding), little tern (breeding), oystercatcher (breeding), redshank (breeding), ringed plover (breeding and non-breeding), sanderling (non-breeding)
III	St Kilda*	Fulmar (breeding), gannet (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), Leach's petrel (breeding), Manx shearwater (breeding), puffin (breeding), razorbill (breeding), storm petrel (breeding), seabird assemblage (breeding)
III	Treshnish Isles	Storm petrel (breeding)
III	Upper Solway Flats and Marshes*	Bar-tailed godwit (non-breeding), cormorant (non-breeding), curlew (non-breeding), dunlin (non-breeding), goldeneye (non-breeding), golden plover (non-breeding), grey plover (non-breeding), great crested grebe (non-breeding), knot (non-breeding), northern pintail (non-breeding), oystercatcher (non-breeding), redshank (non-breeding), ringed plover (non-breeding and passage), scaup (non-breeding), shelduck (non-breeding), waterfowl assemblage (non-breeding)
III	West Inverness-shire Lochs	Black-throated diver (breeding), common scoter (breeding)
III	Wester Ross Lochs	Black-throated diver (breeding)



**Figure 8** Special Protection Areas (SPAs) supporting bird species that are dependent upon Scotland's marine environment (marine associations/components)



## Annex D Sites of Special Scientific Interest (SSSIs)

**Table 6.1** Marine notified habitats and species features of Sites of Special Scientific Interest (SSSIs) around the Scottish coastline. For a list of applicable bird species refer to Table 5.1

Habitats	Species
Eel grass bed	Brackish water cockle ( <i>Cerastoderma lamarki</i> )
Mudflats	Egg wrack ( <i>Ascophyllum nodosum</i> ecad <i>mackaii</i> )
Rocky shore	Common seal ( <i>Phoca vitulina</i> )
Saline lagoon	Grey seal ( <i>Halichoerus grypus</i> )
Sandflats	Stonewort ( <i>Lamprothamnium papulosum</i> )
Sea caves	Vascular plant assemblage [covers eel grass communities in some sites]
Tidal rapids	

**Table 6.2** Sites of Special Scientific Interest (SSSIs) contributing to the protection of habitats and species dependent upon Scotland's marine environment

Sites marked with an \* support bird species that are dependent upon Scotland's marine environment (marine associations/components) that overlap with the Scottish marine protection area (x24 SSSIs). These SSSIs are either estuarine or truly coastal (i.e. they contain intertidal habitats upon which one or more of the qualifying bird species depend). Sites marked with a # either support habitats that overlap with the Scottish marine protection area or seal notified features (marine components - x53 sites). A total of x61 SSSIs have some overlap with the Scottish marine protection area (allowing for sites with multiple habitat and bird interests) and are considered to contribute to the MPA network

OSPAR Region	SSSI	Features
II	A" Mhoine	Dunlin (breeding), golden plover (breeding), greenshank (breeding)
II	Alvie	Goldeneye (breeding)
II	Auskerry	Arctic tern (breeding), storm petrel (breeding)
II	Badanloch Bogs	Golden plover (breeding), greenshank (breeding)
II	Balnagrantach	Slavonian grebe (breeding)
II	Bass Rock	Gannet (breeding), seabird colony (breeding)
II	Beaully Firth*	Goosander (non-breeding), red-breasted merganser (non-breeding)
II	Bemersyde Moss	Black-headed gull (breeding)
II	Ben Griams	Golden plover (breeding), greenshank (breeding)
II	Berriedale Cliffs	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), shag (breeding), seabird colony (breeding)
II	Berwickshire Coast (intertidal)#	Rocky shore, sea caves
II	Bullers of Buchan Coast	Guillemot (breeding), kittiwake (breeding), shag (breeding), seabird colony (breeding)
II	Calf of Eday	Cormorant (breeding)

<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
II	Coir" an Eoin	Golden plover (breeding)
II	Collieston to Whinnyfold Coast	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird colony (breeding)
II	Copinsay	Guillemot (breeding), kittiwake (breeding), seabird colony (breeding)
II	Correen Hills	Common gull (breeding)
II	Craig Hammel to Sgaps Geo	Guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird colony (breeding)
II	Cromarty Firth**	Mudflats, sandflats, bar-tailed godwit (non-breeding), red breasted merganser (non-breeding), redshank (non-breeding), wigeon (non-breeding)
II	Crussa Field and the Heogs	Arctic skua (breeding), whimbrel (breeding)
II	Dalsetter	Arctic tern (breeding)
II	Doomy and Whitemaw Hill	Arctic skua (breeding), whimbrel (breeding)
II	Dornoch Firth**	Eel grass beds, bar-tailed godwit (non-breeding), wigeon (non-breeding)
II	Dubh Lochs	Slavonian grebe (breeding)
II	Dunbeath Peatlands	Dunlin (breeding), golden plover (breeding), greenshank (breeding)
II	Duncansby Head	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), seabird colony (breeding)
II	Dunnet Head	Guillemot (breeding), seabird colony (breeding)
II	East Halladale	Dunlin (breeding), golden plover (breeding)
II	East Sanday Coast**	Rocky shore, sandflats, common seal, bar-tailed godwit (non-breeding), purple sandpiper (non-breeding), ringed plover (non-breeding), sanderling (non-breeding), turnstone (non-breeding & passage)
II	Eden Estuary**	Mudflats, bar-tailed godwit (non-breeding), black-tailed godwit (non-breeding), common scoter (non-breeding), eider (non-breeding), grey plover (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), redshank (non-breeding), ringed plover (non-breeding), scaup (non-breeding), shelduck (non-breeding), velvet scoter (non-breeding)
II	Eilean Hoan	Great black-backed gull (breeding)
II	Eynhallow <sup>#</sup>	Common seal
II	Fair Isle	Arctic skua (breeding), fulmar (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), shag (breeding), seabird colony (breeding)

<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
II	Faray and Holm of Faray <sup>#</sup>	Grey seal
II	Firth of Forth* <sup>#</sup>	Saline lagoon, bar-tailed godwit (non-breeding), common scoter (non-breeding), cormorant (non-breeding), curlew (non-breeding), dunlin (non-breeding), eider (breeding and non-breeding), goldeneye (non-breeding), golden plover (non-breeding), great crested grebe (non-breeding), grey plover (non-breeding), knot (non-breeding), long-tailed duck (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), red-throated diver (non-breeding), redshank (non-breeding), ringed plover (breeding and non-breeding), sandwich tern (passage), scaup (non-breeding), shelduck (breeding and non-breeding), Slavonian grebe (non-breeding), turnstone (non-breeding), velvet scoter (non-breeding), wigeon (non-breeding)
II	Forsinard Bogs	Common scoter (breeding), golden plover (breeding), greenshank (breeding)
II	Forth Islands	Cormorant (breeding), puffin (breeding), seabird colony (breeding)
II	Foula	Arctic skua (breeding), fulmar (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), Leach's petrel (breeding), puffin (breeding), razorbill (breeding), shag (breeding), storm petrel (breeding), seabird colony (breeding)
II	Fowlsheugh	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), seabird colony (breeding)
II	Gamrie and Pennan Coast	Fulmar (breeding), gannet (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding) razorbill (breeding), seabird colony (breeding)
II	Graveland	Red-throated diver (breeding)
II	Hascosay	Dunlin (breeding)
II	Hermaness	Fulmar (breeding), gannet (breeding), great skua (breeding), guillemot (breeding), puffin (breeding), seabird colony (breeding)
II	Hill of Colvadale and Sobul	Arctic skua (breeding), whimbrel (breeding)
II	Holm of Papa Westray	Black guillemot (breeding)
II	Hoy	Arctic skua (breeding), fulmar (breeding), great black-backed gull (breeding), great skua (breeding), guillemot (breeding), red-throated diver (breeding), seabird colony (breeding)

<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
II	Inchmickery	Fulmar (breeding), herring gull (breeding), lesser black-backed gull (breeding), shag (breeding)
II	Inner Tay Estuary*	Cormorant (non-breeding), goldeneye (non-breeding)
II	Isle of May**	Grey seal, eider (breeding), guillemot (breeding), kittiwake (breeding), puffin (breeding), purple sandpiper (non-breeding), shag (breeding), seabird colony (breeding), turnstone (non-breeding)
II	Knockie Lochs	Slavonian grebe (breeding)
II	Lairg and Strath Brora Lochs	Black-throated diver (breeding)
II	Lamb Hoga	Arctic skua (breeding), great skua (breeding), Manx shearwater (breeding), storm petrel (breeding)
II	Loch Ashie	Slavonian grebe (non-breeding)
II	Loch Fleet**	Eel grass bed, sandflats, eider (non-breeding)
II	Loch Leven	Cormorant (non-breeding), goldeneye (non-breeding), teal (non-breeding)
II	Loch of Isbister and the Loons	Northern pintail (breeding)
II	Loch of Skene	Common gull (non-breeding), goldeneye (non-breeding)
II	Loch of Strathbeg	Goldeneye (non-breeding)
II	Loch Ruthven	Slavonian grebe (breeding)
II	Loch Vaa	Slavonian grebe (breeding), goldeneye (breeding)
II	Lochs of Harray and Stenness**	Saline lagoon, goldeneye (non-breeding), scaup (non-breeding)
II	Lon a' Chuil	Greenshank (breeding)
II	Long Craig Island	Roseate tern (breeding)
II	Longman and Castle Stuart Bays**	Eel grass beds, mudflats, cormorant (non-breeding), goldeneye (non-breeding), red-breasted merganser (non-breeding), redshank (non-breeding), wigeon (non-breeding)
II	Marwick Head	Guillemot (breeding), kittiwake (breeding), seabird colony (breeding)
II	Mill Loch	Red-throated diver (breeding)
II	Monifieth Bay*	Sanderling (non-breeding)
II	Montrose Basin**	Mudflats, eider (breeding and non-breeding), knot (non-breeding), oystercatcher (non-breeding), redshank (non-breeding), wigeon (non-breeding)
II	Moorfoot Hills	Golden plover (breeding)

<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
II	Morrich More*	Bar-tailed godwit (non-breeding), curlew (non-breeding), teal (non-breeding), wigeon (non-breeding)
II	Morton Lochs	Teal (non-breeding)
II	Mound Alderwoods <sup>#</sup>	Saline lagoon
II	Mousa <sup>#</sup>	Common seal, Arctic tern (breeding), black guillemot (breeding), storm petrel (breeding)
II	Muckle and Little Green Holm <sup>#</sup>	Grey seal
II	Munlochy Bay* <sup>#</sup>	Mudflats, wigeon (non-breeding)
II	North Fetlar <sup>#</sup>	Common seal, grey seal, Arctic skua (breeding), Arctic tern (breeding), great skua (breeding), red-necked phalarope (breeding), whimbrel (breeding)
II	North Hill	Arctic skua (breeding), Arctic tern (breeding)
II	Noss	Arctic skua (breeding), gannet (breeding), great skua (breeding), guillemot (breeding), kittiwake (breeding), seabird colony (breeding)
II	Otterswick	Red-throated diver (breeding)
II	Papa Stour* <sup>#</sup>	Rocky shore, Arctic skua (breeding), Arctic tern (breeding), ringed plover (breeding)
II	Pentland Firth Islands	Arctic tern (breeding)
II	Pool of Virkie <sup>#</sup>	Mudflats
II	Ramna Stacks and Gruney	Guillemot (breeding), Leach's petrel (breeding), seabird colony (breeding)
II	Rannoch Lochs	Black-throated diver (breeding)
II	Red Point Coast	Guillemot (breeding)
II	Ronas Hill - North Roe	Red-throated diver (breeding)
II	Roseheart to Fraserburgh Coast*	Curlew (non-breeding), eider (non-breeding), purple sandpiper (non-breeding), turnstone (breeding)
II	Rosemarkie to Shandwick Coast	Cormorant (breeding)
II	Rousay	Arctic skua (breeding), Arctic tern (breeding), guillemot (breeding), kittiwake (breeding), seabird colony (breeding)
II	Rumsdale Peatlands	Dunlin (breeding), golden plover (breeding), greenshank (breeding)
II	Sandness Coast <sup>#</sup>	Rocky shore
II	Sands of Forvie and Ythan Estuary	Arctic tern (breeding), common tern (breeding), eider (non-breeding and breeding), little tern (breeding), sandwich tern (breeding)



<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
II	Saxa Vord	Fulmar (breeding), guillemot (breeding), seabird colony (breeding)
II	Skinsdale Peatlands	Dublin (breeding), golden plover (breeding), greenshank (breeding)
II	Sletill Peatlands	Common scoter (breeding), dunlin (breeding), golden plover (breeding), greenshank (breeding)
II	St Abb's Head to Fast Castle	Guillemot (breeding), kittiwake (breeding), seabird colony (breeding)
II	Strathmore Peatlands	Common scoter (breeding), dunlin (breeding), golden plover (breeding), greenshank (breeding), wigeon (breeding)
II	Stroma	Arctic tern (breeding), guillemot (breeding), sandwich tern (breeding), seabird colony (breeding)
II	Sule Skerry	Puffin (breeding), shag (breeding), storm petrel (breeding), seabird colony (breeding)
II	Sule Stack	Gannet (breeding)
II	Sumburgh Head	Guillemot (breeding), puffin (breeding), seabird colony (breeding), shag (breeding)
II	Syre Peatlands	Black-throated diver (breeding), greenshank (breeding), wigeon (breeding)
II	Tayport - Tenstmuir Coast <sup>*#</sup>	Mudflats, common seal, bar-tailed godwit (non-breeding), common scoter (non-breeding), eider (non-breeding), goosander (non-breeding), long-tailed duck (non-breeding), red-breasted merganser (non-breeding)
II	The Hirsell	Goosander (non-breeding)
II	The Vadills <sup>#</sup>	Egg wrack, saline lagoon, tidal rapids
II	Tingon	Red-throated diver (breeding), whimbrel (breeding)
II	Tips of Corsemaul and Tom Mor	Common gull (breeding)
II	Trona Mires	Arctic tern (breeding), red-necked phalarope (breeding)
II	Truderscaig	Greenshank (breeding)
II	Valla Field	Great skua (breeding), red-throated diver (breeding)
II	Ward of Culswick	Arctic skua (breeding), whimbrel (breeding)
II	West Halladale	Black-throated diver (breeding), common scoter (breeding)
II	West Mainland Moorlands	Red-throated diver (breeding)
II	West Westray	Arctic skua (breeding), Arctic tern (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird colony (breeding)

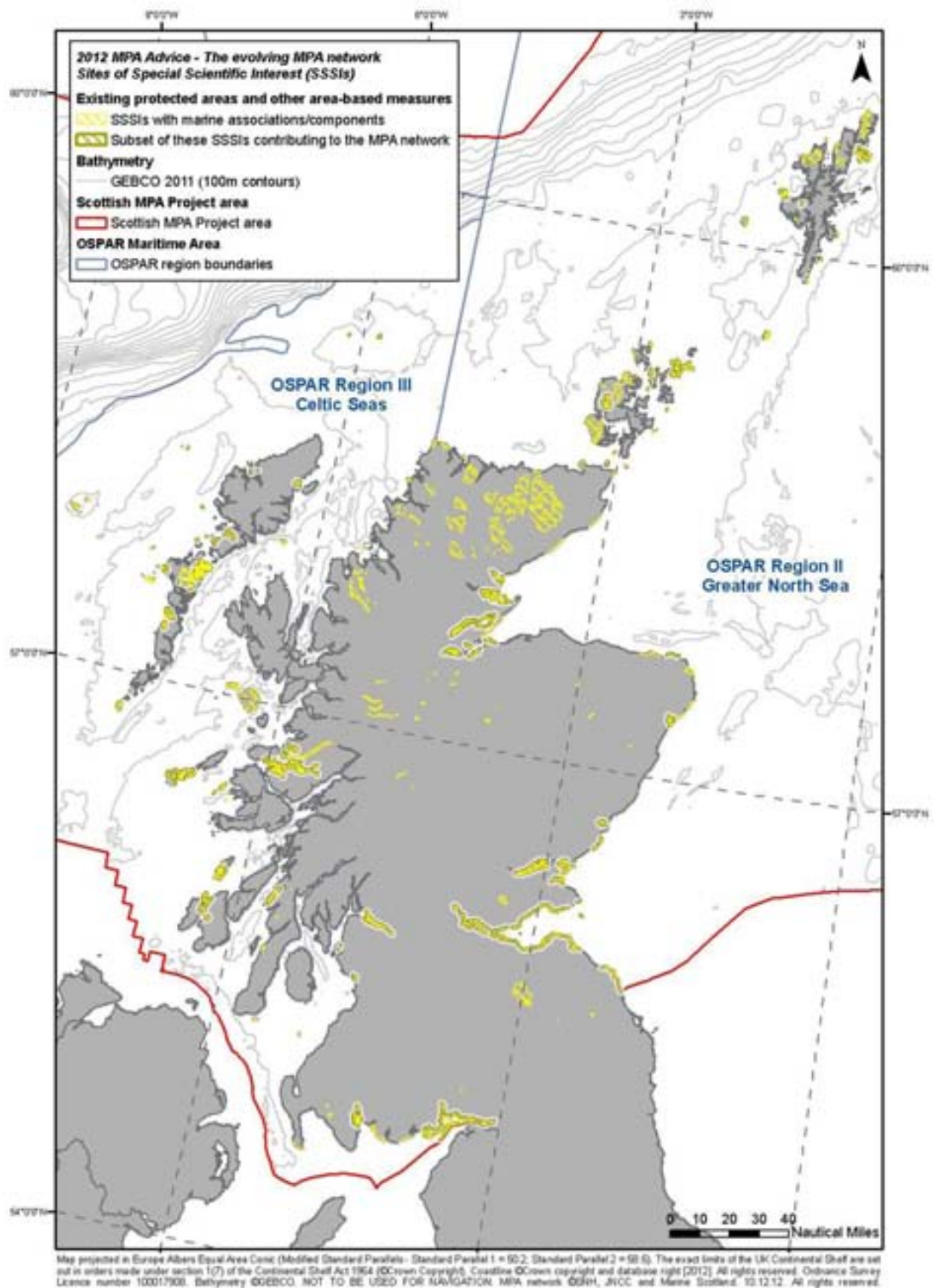
<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
II	Whiteness Head* <sup>#</sup>	Mudflats, bar-tailed godwit (non-breeding), knot (non-breeding)
II	Whiting Ness - Ethie Haven*	Fulmar (breeding), kittiwake (breeding), puffin (breeding), purple sandpiper (non-breeding), shag (breeding), turnstone (non-breeding)
II & III	Glendoe Lochans	Common scoter (breeding), Slavonian grebe (breeding)
III	Abbey Burn Foot to Balcary Point	Cormorant (breeding), fulmar (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding)
III	Ailsa Craig	Gannet (breeding), seabird colony (breeding)
III	Assynt Lochs	Black-throated diver (breeding)
III	Ballochmartin Bay <sup>#</sup>	Sandflats
III	Balranald Bog and Loch nam Feithean <sup>#</sup>	Mudflats
III	Bogside Flats <sup>#</sup>	Mudflats
III	Borgue Coast	Common gull (breeding), great black-backed gull (breeding)
III	Bridgend Flats <sup>#</sup>	Sandflats
III	Canna and Sanday	Shag (breeding), seabird colony (breeding)
III	Cape Wrath	Guillemot (breeding), kittiwake (breeding), puffin (breeding), razorbill (breeding), seabird colony (breeding)
III	Castle Loch	Goosander (non-breeding)
III	Cnoc an Alaskie	Greenshank (breeding)
III	Cree Estuary <sup>#</sup>	Mudflats
III	Derskelpin Moss	Dunlin (breeding)
III	Druim nam Bad	Dunlin (breeding), golden plover (breeding), greenshank (breeding)
III	Flannan Isles	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), Leach's petrel (breeding), puffin (breeding), razorbill (breeding), seabird colony (breeding)
III	Glas Eileanan	Common tern (breeding)
III	Grudie Peatlands	Dunlin (breeding), golden plover (breeding), greenshank (breeding)
III	Gruinart Flats* <sup>#</sup>	Mudflats, light-bellied Brent goose (passage)
III	Handa Island	Arctic skua (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird colony (breeding)
III	Howmore Estuary, Lochs Roag and Fada <sup>#</sup>	Saline lagoon

<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
III	Inner Clyde*	Cormorant (non-breeding), eider (non-breeding), goldeneye (non-breeding), oystercatcher (non-breeding), red-breasted merganser (non-breeding), red-throated diver (non-breeding), redshank (non-breeding)
III	Kames Bay <sup>#</sup>	Sandflats
III	Kentra Bay and Moss <sup>#</sup>	Mudflats
III	Knapdale Lochs	Black-throated diver (breeding)
III	Loch an Duin <sup>#</sup>	Saline lagoon, tidal rapids, brackish water cockle
III	Loch Awe and Loch Ailsh	Black-throated diver (breeding)
III	Loch Bee <sup>#</sup>	Saline lagoon, brackish water cockle
III	Loch Bee Machair	Dunlin (breeding)
III	Loch Caluim Flows	Dunlin (breeding), golden plover (breeding), greenshank (breeding)
III	Loch Maree	Black-throated diver (breeding)
III	Loch Moidart <sup>#</sup>	Mudflats
III	Loch nam Madadh <sup>#</sup>	Mudflats, rocky shore, saline lagoons, stoneworts, tidal rapids
III	Loch Obisary <sup>#</sup>	Saline lagoon
III	Loch Shiel	Black-throated diver (breeding)
III	Loch Siadar <sup>#</sup>	Saline lagoon, tidal rapids
III	Loch Stack and River Laxford	Black-throated diver (breeding)
III	Loch Urigill	Black-throated diver (breeding)
III	Lochs at Clachan <sup>#</sup>	Saline lagoon
III	Luskentyre Banks and Saltings <sup>#</sup>	Sandflat
III	Mingulay and Bernaray	Fulmar (breeding), guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird colony (breeding)
III	Mointeach Scadabhaigh	Black-throated diver (breeding), red-throated diver (breeding)
III	Monach Isles	Black guillemot (breeding)
III	Mochrum Lochs	Cormorant (breeding)
III	Mull of Galloway	Fulmar (breeding), kittiwake (breeding), razorbill (breeding)
III	North Rona and Sula Sgeir <sup>#</sup>	Grey seal, fulmar (breeding), gannet (breeding), great black-backed gull (breeding), guillemot (breeding), kittiwake (breeding), Leach's petrel (breeding), puffin (breeding), razorbill (breeding), seabird colony (breeding), storm petrel (breeding)

<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
III	Northton Bay <sup>#</sup>	Saline lagoon, sandflats
III	Obain Loch Euphoirt <sup>#</sup>	Saline lagoon, stoneworts
III	Oronsay and South Colonsay <sup>#</sup>	Grey seal
III	Port o' Warren	Cormorant (breeding)
III	Priest Island	Storm petrel (breeding)
III	Rhunahaorine Point	Little tern (breeding)
III	Rum	Manx shearwater (breeding)
III	Sanda Islands	Black guillemot (breeding), cormorant (breeding), fulmar (breeding), great black-backed gull (breeding), guillemot (breeding), kittiwake (breeding), Manx shearwater (breeding), puffin (breeding), razorbill (breeding), shag (breeding), storm petrel (breeding)
III	Scare Rocks	Gannet (breeding), guillemot (breeding), shag (breeding)
III	Shiant Islands	Fulmar (breeding), guillemot (breeding), puffin (breeding), razorbill (breeding), shag (breeding), seabird colony (breeding)
III	Sleibhtean agus Cladach Thiriodh*	Dunlin (breeding), oystercatcher (breeding), purple sandpiper (non-breeding), redshank (breeding), ringed plover (breeding and non-breeding), sanderling (non-breeding), turnstone (non-breeding)
III	Small Seal Islands <sup>#</sup>	Grey seal
III	St Kilda	Gannet (breeding), guillemot (breeding), Leach's petrel (breeding), puffin (breeding), razorbill (breeding), storm petrel (breeding), seabird colony (breeding)
III	Staffa	Fulmar (breeding), puffin (breeding), shag (breeding)
III	Strath Duchally	Dunlin (breeding), golden plover (breeding), greenshank (breeding)
III	Sunart <sup>#</sup>	Eel grass bed, egg wrack, rocky shore
III	Taynish Woods <sup>#</sup>	Rocky shore, tidal rapids
III	Tob Valasay <sup>#</sup>	Saline lagoon, tidal rapids
III	Tong Saltings <sup>#</sup>	Mudflats
III	Treshnish Isles <sup>#</sup>	Grey seal, seabird colony (breeding)
III	Ulva, Danna and the McCormaig Isles <sup>#</sup>	Mudflats, saline lagoon, tidal rapids, vascular plant assemblage, cormorant (breeding), shag (breeding)

<b>OSPAR Region</b>	<b>SSSI</b>	<b>Features</b>
III	Upper Solway Flats and Marshes <sup>**</sup>	Mudflats, bar-tailed godwit (non-breeding), curlew (non-breeding), dunlin (non-breeding), golden plover (non-breeding), goldeneye (non-breeding), grey plover (non-breeding), knot (non-breeding), northern pintail (non-breeding), oystercatcher (non-breeding), redshank (non-breeding), ringed plover (non-breeding), sanderling (non-breeding), scaup (non-breeding), shelduck (non-breeding)
III	West Colonsay Seabird Cliffs	Guillemot (breeding), kittiwake (breeding), razorbill (breeding), seabird colony (breeding)
III	West Inverness-shire Lochs	Black-throated diver (breeding), common scoter (breeding)
III	Wester Ross Lochs	Black-throated diver (breeding)

**Figure 9 Sites of Special Scientific Interest (SSSIs) with marine associations/components**





## Annex E Other area-based measures

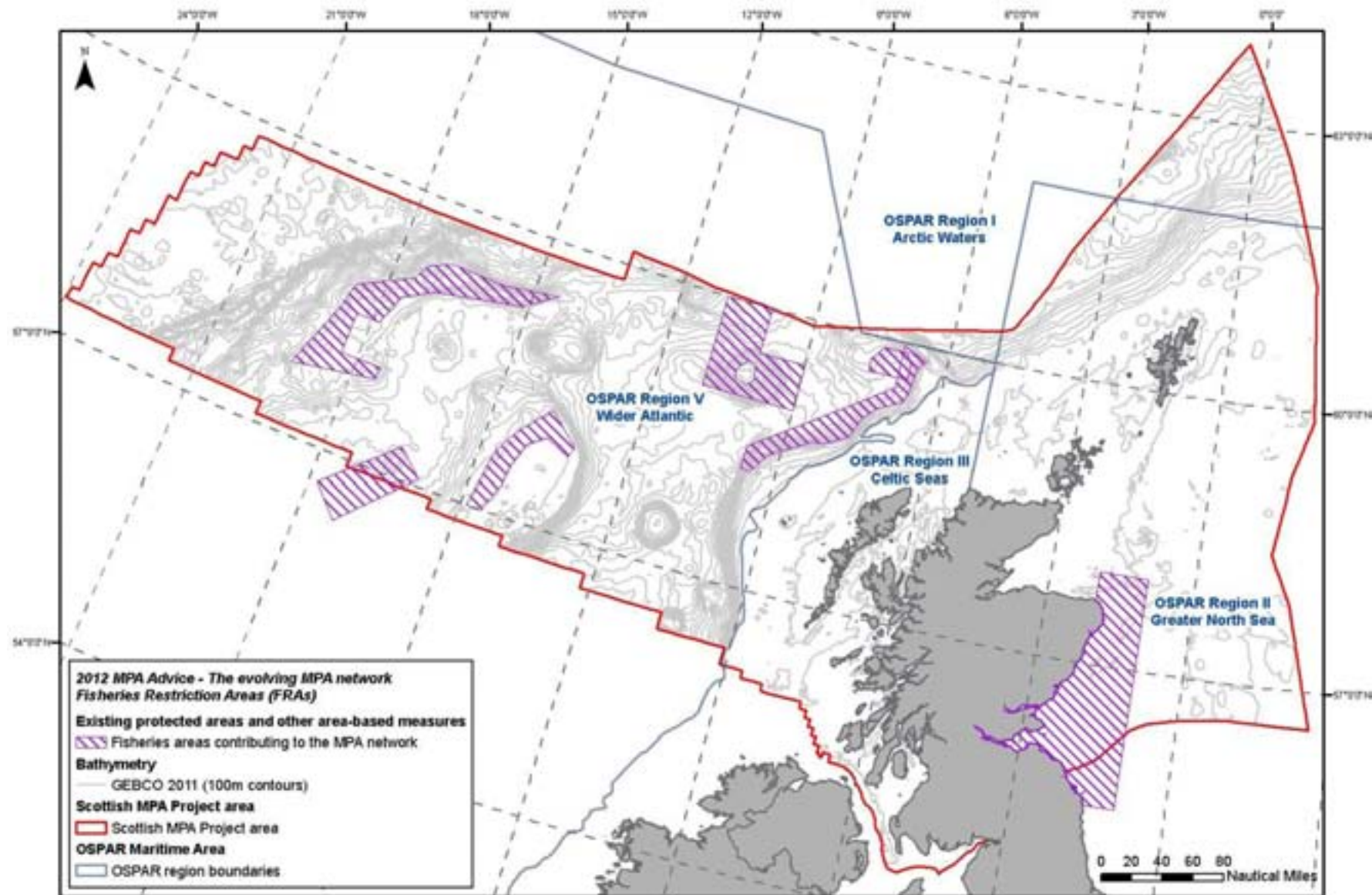
*Table 7.1 Fisheries management areas established for nature conservation purposes considered to be contributing to the Scottish MPA network*

<b>OSPAR Region</b>	<b>Fisheries management area</b>	<b>Restriction summary</b>
II	North-east UK sandeel closure (CA1)	Year round closure on sandeel fishing with the exception of a commercial monitoring fishery with a precautionary Total Allowable Catch. Sandeel fishery. EC No. 40/2008
III	Lamlash Bay	Year round prohibition of all fishing for sea fish within Lamlash Bay, Isle of Arran, regardless of the method of fishing employed. SSI No. 317/2008
V	North West Rockall	Vessels are prohibited from bottom trawling and fishing with static gear, including bottom set gill-nets and long-lines, for the protection of vulnerable deep-sea habitats such as corals and sponges. EC regulation No. 40 2008
V	Darwin Mounds	Vessels are prohibited from using any bottom trawl or similar towed nets operating in contact with the bottom of the sea for the protection of deepwater coral reefs. EC regulation No. 602/2004
V	West Rockall Mound	Vessels are prohibited from bottom trawling and fishing with static gear, including bottom set gill-nets and long-lines, for the protection of vulnerable deep-sea habitats such as corals and sponges. EC regulation No. 40 2008
V	Hatton Bank	

*Table 7.2 Other existing fisheries management areas considered to be contributing to the Scottish MPA network*

<b>OSPAR Region</b>	<b>Fisheries management area</b>	<b>Restriction summary</b>
V	Blue Ling Management Area - edge of Rosemary Bank (FRA)	Restriction of blue ling catch during the spawning season
V	Blue Ling Management Area - edge of continental slope (FRA)	Restriction of blue ling catch during the spawning season

Figure 10 Other area-based measures considered to afford protection to marine habitats and species



Map projected in Europe Albers Equal Area Conic (Modified Standard Parallels - Standard Parallel 1 = 50.2; Standard Parallel 2 = 58.5). The exact limits of the UK Continental Shelf are set out in orders made under section 1(7) of the Continental Shelf Act 1964 (© Crown Copyright). Coastline © Crown copyright and database right [2012]. All rights reserved. Ordnance Survey Licence number 100017908. Bathymetry © GEBCO. NOT TO BE USED FOR NAVIGATION. MPA network © GRIH, JNCC and Marine Scotland. 05.10.12. All rights reserved.



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