

CONSULTATION QUESTIONS

1. Do you support the development of an MPA network in Scotland's Seas?

Yes No

Summary

WDC strongly supports the development of a coherent network of nature conservation marine protected areas that includes porpoises, dolphins and whales.

A well-designed network of MPAs, with appropriate management, has the potential to make a huge contribution to recovering the health of Scotland's Seas. We support the Scottish Government's commitment to a science-based approach to selection, designation and management of the MPA network.

However, the Marine Protected Area and Priority Marine Feature processes have not adequately addressed the protection needs of migratory and mobile species such as seabirds, basking sharks and whales, dolphins and porpoises.

Whilst we acknowledge the progress made to date in identifying an ecologically coherent MPA network, the currently proposed network is incomplete, will not achieve ecological coherence, and will fail to meet obligations under the OSPAR¹ convention and the EU Habitats Directive.

We note that JNCC is currently commissioning a piece of work to identify Special Areas of Conservation (SACs) for harbour porpoise and offshore bottlenose dolphin in UK waters. We welcome this, particularly as Scotland contains some of the highest densities of harbour porpoises in Europe. These areas will need to be designated, along with consideration of west coast bottlenose dolphins (including in east Mingulay SAC), before the wider network may be considered complete.

Towards a coherent network of whale, dolphin and porpoise MPAs

We have attached a new WDC report titled '*Making space for porpoises, dolphins and whales in UK seas: Harbour porpoise Special Areas of Conservation as part of a coherent network of marine protected areas for cetaceans*' to this submission. The report identifies that a two pronged approach to conservation of cetaceans should include both MPAs and wider measures to meet the requirements of the key European Directives.

This new report builds upon a previous WDC report '*Towards marine protected areas for whales, dolphins and porpoises in England, Scotland and Wales*' (Clark, Dolman and Hoyt, 2010) and also work undertaken by WWF in 'Protecting harbour porpoise in UK seas' (Evans and Prior, 2012). It also builds upon *Marine Protected Areas for*

¹ OSPAR Commission for the protection of the marine environment of the North-East Atlantic. More information at: <http://www.ospar.org/>

Whales, Dolphins and Porpoises: A world handbook for cetacean habitat conservation and planning (Hoyt, 2011).

In addition, ClientEarth has been working on behalf of Whale and Dolphin Conservation in relation to the selection of harbour porpoise SACs in UK waters. The attached legal report produced by ClientEarth provides an in-depth analysis of the approach that has been pursued by JNCC in selecting harbour porpoise SACs for the UK Government, and highlights how that approach is not compatible with the legal and scientific obligations under the Habitats Directive. We hope that this legal review will assist in the work that is currently being undertaken towards designation of harbour porpoise SACs.

Search locations

The four MPA search locations—Southern Trench, Skye to Mull, Eye Peninsula to Butt of Lewis and Shiant East Bank—are still to be assessed and we strongly support progress towards MPAs derived from these.

For at least Southern Trench, Skye to Mull and Eye Peninsula to Butt of Lewis, a combination of information should be used in the assessment, not only on species abundance, but also spatio-temporal distribution, ecological connectivity, habitat use and precautionary principle.

In addition, search locations for a further three MPA Search Features—basking shark, white-beaked dolphin (as their core habitats on the east and west coasts have been excluded) and common skate—are still to be identified.

In its advice to the Scottish Government, SNH and JNCC stated “*The four MPA search locations are Southern Trench, Eye Peninsula to Butt of Lewis, Shiant East Bank and Skye to Mull. In our view these areas could make a significant contribution to the Scottish MPA network and we propose to provide advice in 2013 and 2014 to Scottish Ministers on whether to progress them. These locations should not be considered as substitutes for Nature Conservation MPAs already recommended. They are being assessed for features (primarily mobile species) that would **otherwise not be adequately protected within the network** according to the Selection Guidelines.*”

A coherent network

We remain concerned that the proposals may be insufficient to provide the required protection, noting that key areas provided as third party proposals have been excluded, that some features, such as common skate and prospective Risso’s dolphin, are only protected in a single site and that the science of site connectivity is in its infancy.

WDC supports the designation of at least 29 of the possible Nature Conservation MPAs, in accordance with the JNCC/SNH scientific advice. If fewer MPAs are designated, individual Priority Marine Features will be inadequately protected and the coherence of the network will be compromised.

In addition to the existing search locations, it is essential for the future coherence of the network that the Firth of Forth Banks Complex possible Nature Conservation MPA is designated and sandeels included as a protected feature.

Commitment to protection of a wider range of features

While we acknowledge the addition of six other biological features (circalittoral sand and coarse sediment communities, circalittoral muddy sand communities, serpulid aggregations, white cluster anemone, ocean quahog and herring spawning grounds) as protected features, we believe that a “wider range of features” must consider many more species and habitats in poor, or uncertain, status in Scotland’s seas if the network is to achieve its full potential and help protect and recover the health of Scotland’s seas overall.

Socioeconomic impacts

WDC are concerned that the socioeconomic impact data presented concentrates almost entirely on the possible impact on revenue from sectors such as fisheries and oil and gas. WDC recommends a more balanced socioeconomic assessment using an ecosystem goods and services approach to also present the socioeconomic benefits of marine protected areas and a consideration of the socioeconomic costs of not designating MPAs.

Network management

Management options must be chosen that will provide the most effective protection and enhancement outcomes for the marine conservation objectives of habitats and species of each possible MPA, and the network more broadly. Zonal management that puts in place measures to protect only the remaining coverage of species and habitats is not enough, given the context of ecological decline documented by Scotland's Marine Atlas.

If the network of MPAs is to meet the objectives set out in section 79.3 of the Marine (Scotland) Act 2010, it is vital that effective management measures are established for the entire network, including existing European Marine Sites, many of which are still lacking management measures, and those to come. Appropriate management measures must be established for the network to contribute to protecting and enhancing Scotland’s seas. We believe that activities that do not damage the features and ecological function of a site may be permitted and that there is no reason to suppose that activities and MPAs could not co-exist; this view is supported by the conclusions in the “Making the case for the sound management of Marine Protected Areas²” report. However, we are concerned that the management options presented will not manage all activities in MPAs in ways that protect and recover its constituent species, habitats and ecosystem function.

² Bell, E.; Brennan, R.; Nickell, T.; Potts, T.; Valcic, B.; Wilson, H. (2011). Making the Case for the Sound Management of Marine Protected Areas. (Scottish Environment LINK, Trans.) (pp. 99), Scottish Association for Marine Science.

More detailed discussions will need to take place regarding site management. All comments on management options submitted here are in relation to current understanding. As new science emerges, WDC views on management options appropriate for the different MPAs may evolve.

Third Party proposals

WDC were pleased to have the opportunity to contribute to and to assist in the formation of the MPA network by submission of third party proposals as possible MPAs. We would also like to acknowledge the contributions made by local communities in their submissions.

We would welcome the opportunity and consideration of future third party proposals in the lead up to the next review of the network in 2018, and ask for confirmation that there is an opportunity within this period to submit further third party MPA proposals.

References

Clark, J., Dolman, S.J. and Hoyt, E. 2010. Towards Marine Protected Areas for cetaceans in Scotland, England and Wales: A scientific review identifying critical habitat with key recommendations. Whale and Dolphin Conservation Society. Chippenham, UK. 178 pp.

ClientEarth. 2013. Harbour porpoise Special Areas of Conservation. A Legal Report prepared for Whale and Dolphin Conservation.

Dolman, S.J., Champion, A., Clark, J., Einfeld-Pierantonio, S., Green, M., Gregerson, S., Hodgins, N., Ritter, F., Tetley, M. and Hoyt, E. 2013. Making space for porpoises, dolphins and whales in UK seas: Harbour Porpoise Special Areas of Conservation as part of a coherent network of marine protected areas for cetaceans. A WDC Report.

Hoyt, E. 2011. Marine Protected Areas for Whales, Dolphins and Porpoises. A World Handbook for Cetacean Habitat Conservation and Planning. Earthscan.

Individual possible Nature Conservation MPAs

2. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Clyde Sea Sill* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Clyde Sea Sill possible Nature Conservation MPA to protect black guillemot, fronts and circalittoral sand and coarse sediment communities.

We support the conservation objectives for the protected features within the Clyde Sea Sill possible MPA of 'conserve' for all features.

The Clyde Sea Sill possible MPA region is also known to be used by bottlenose dolphin, harbour porpoise and basking shark. These species should be taken into account when developing management measures for this site.

We recommend that further work be carried out to better understand the effects of the front in the Clyde Sea Sill possible MPA. Oceanic fronts should be considered as 'proxy' features suggesting the presence of other species and habitats. The effect of the front can be to create nutrient rich conditions in the surface water, beneficial to different marine organisms.

The consultation document states "fronts can concentrate nutrients and plankton creating feeding hotspots for fish which in turn attract other higher marine predators". The species that benefit from the effects of the front, particularly including mobile species, should be afforded protection where qualifying criteria dictate.

Management Options:

Yes No

The Clyde Sea Sill possible MPA region is known to be used by bottlenose dolphin, harbour porpoise and basking shark. Wave and tidal stream devices with rotating turbines are likely to pose a greater threat to such mobile species than those without such blades.

Monitoring work will help expand knowledge of interactions between wildlife and renewable developments to better inform developers, the Government (and associated bodies), as well as conservation organisations.

If, through adequate monitoring and mitigation, this development is shown not to have an effect on marine species it could serve as a good example of how renewable developments can exist within a protected area and have no impact on the features for which the site is designated.

Other factors to consider are the moorings and cables used to tether renewable developments. These are particularly important considerations for foraging birds and for basking sharks and minke whales that can become entangled. Entanglement of minke whales is a considerable issue in Scottish waters, where half of stranded minke whales show signs of having been entangled, is within the possible foraging range for this species and should be considered. Minke whale and basking shark entanglements are undoubtedly underreported.

Socioeconomic Assessment:

Yes No

WDC supports the management option to remove or avoid set nets from within the site, and throughout the site. Monitoring and compliance of set net activity in this site will be of paramount importance to ensure the conservation objectives are achieved.

We agree that reducing or limiting pressures from demersal mobile/active gear should be considered to meet guidelines on circalittoral sand and coarse sediment. This should be fully discussed with skippers in the area and other stakeholders (including environmental and wider community stakeholders).

All of the above:

Yes No

Comments

3. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *East Caithness Cliffs* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the East Caithness Cliffs possible Nature Conservation MPA to protect black guillemot populations. The proposed site boundaries hold a significant proportion of Scotland's black guillemot population and have been established based on scientific evidence endorsed by RSPB.

We support the conservation objective of 'conserve'.

Management Options:

Yes No

WDC strongly supports the management option to remove set nets from, or avoid their introduction to, the whole possible MPA site.

Socioeconomic Assessment:

Yes No

Costs have been identified in the BRIA which relate to port and harbour activities. However, management of these activities have not been proposed in the management options paper. The link between these must be clarified if these cost estimates are to be used in ministerial decisions about the designation of this site.

All of the above:

Yes No

Comments

4. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *East of Gannet and Montrose Fields* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the East of Gannet and Montrose Fields possible Nature Conservation MPA for the protection of ocean quahog aggregations (including sands and gravels as their supporting habitat) and offshore deep-sea muds. The boundary of the possible MPA is fully supported. The southern part of the possible MPA includes one of very few examples of deep-sea mud on the continental shelf in the North Sea. We note that offshore sands and gravels have been included as a proxy for ocean quahog (but not a selection feature in their own right).

We accept the conservation objective of 'conserve - feature condition uncertain'. However, we note that selection guideline 2d was not considered to be met for the protected biodiversity features in this site as sensitivity analyses concluded that there is a risk that features have been modified by human activity.

Management Options:

Yes No

Management options for protected features of uncertain condition must be evidence-based, account for the known vulnerability of the protected features to human activities and make appropriate use of the precautionary principle.

We support the application of large zones prohibiting all forms of disturbance by bottom contact fishing gear to ensure sizable proportions of the features and supporting habitat are fully protected from disturbance and have opportunity for future enhancement. This position is heightened by the 'many concerns' status assessment of shelf subtidal sediments in the Forties area of the North Sea, in which this possible MPA sits, highlighted by Scotland's Marine Atlas.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

5. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Faroe-Shetland sponge belt* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Faroe-Shetland sponge belt possible Nature Conservation MPA for the protection of deep-sea sponge aggregations, ocean quahog aggregations (including sands and gravels as their supporting habitat), offshore subtidal sands and gravels and geodiversity interests (including continental slope channels, iceberg ploughmark fields, prograding wedges, slide deposits, sand wave fields and sediment wave fields). The boundary of the possible MPA is fully supported. This possible MPA has no ecological equivalent for the features and offers the only representation of the particular variant of deep sea sponge aggregations in OSPAR II as well as ocean quahog at the northern extend of its range in OSPAR II.

We accept the conservation objective of 'conserve - feature condition uncertain'. However, we note that selection guideline 2d was not considered to be met for the protected biodiversity features in this site as sensitivity analyses concluded that there is a risk that features have been modified by human activity.

Management Options:

Yes No

Management options for protected features of uncertain condition must be evidence-based, account for the known vulnerability of the protected features to human activities and make appropriate use of the precautionary principle.

We fully support the removal of pressures associated with bottom contact (static and mobile) fishing gear to achieve protection and enhancement of the features. This position is reinforced by the 'declining' status assessment of deep sea habitats and 'many concerns' and 'declining' status of shallow and shelf subtidal sediments in the Faroe-Shetland Channel, in which this possible MPA sits, as highlighted by Scotland's Marine Atlas.

Socioeconomic Assessment:

Yes No

This site potentially represents critical habitats of white-sided dolphin, sperm whale, long-finned pilot whale and fin whale. These species should be considered when developing management options and in the socioeconomic assessment.

All of the above:

Yes No

This site potentially represents critical habitats of white-sided dolphin, sperm whale, long-finned pilot whale and fin whale. These species should be considered when developing management options and in the socioeconomic assessment.

6. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Fetlar to Haroldswick* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Fetlar to Haroldswick possible Nature Conservation MPA for the protection of biodiversity features: black guillemot; circalittoral sand and coarse sediment communities; horse mussel beds; kelp and seaweed communities on sublittoral sediments; maerl beds; and shallow tide-swept coarse sands with burrowing bivalves; and geodiversity features: marine geomorphology of the Scottish shelf seabed. The boundary of the site is supported.

The management options paper notes that *'maerl beds and horse mussel beds are considered highly sensitive to certain pressures associated with finfish farming'* and *'any impacts to the horse mussel beds, maerl beds, and kelp and seaweed communities on sublittoral sediment will have already occurred'*. On this basis, and following the MPA guidelines, the conservation objective for these features should be set to 'recover' to reverse some of these historic impacts.

We support the conservation objectives of conserve for the other features.

Management Options:

Yes No

Management should ensure no new finfish and shellfish aquaculture sites are developed within the possible MPA and, where there is risk of damage to protected features, existing facilities should be relocated. In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

Towed/active gear should be removed from areas with the following features to ensure their protection and enable their recovery: maerl beds, horse mussel beds, shallow tide-swept coarse sands with burrowing bivalves, kelp and seaweed communities on sublittoral sediment, shallow tide-swept coarse sands and circalittoral sand and coarse sediment communities. The existing scallop dredging restrictions are welcome but in line with the above preference should be extended to cover the known extent of the features listed with a buffer area to enable their recovery.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

7. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Hatton-Rockall Basin* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Hatton-Rockall Basin possible Nature Conservation MPA for the protection of deep-sea sponge aggregations, offshore deep-sea muds and sediment drift and polygonal fault system geodiversity features

The documents provide good evidence of the presence of some extremely important examples of features that require protection, but not very good evidence of their distribution. It is therefore difficult to comment on the exact boundaries of the site. However it is clear that the precautionary principle would demand protection for this area.

We accept the conservation objective of 'conserve - feature condition uncertain'. However, we note that selection guideline 2d was not considered to be met for the protected biodiversity features in this site as sensitivity analyses concluded that there is a risk that features have been modified by human activity.

Management Options:

Yes No

Management options for protected features of uncertain condition must be evidence-based, account for the known vulnerability of the protected features to human activities and make appropriate use of the precautionary principle.

The management options suggested (fishery closure) are appropriate and necessary to achieve conservation of the features. However, as the area lies outside the UK fishery limits and does not include Annex 1 Habitats it will be necessary to rely on NEAFC³ to introduce the measures necessary to enforce this closure. The reliability of this process remains to be tested.

Socioeconomic Assessment:

Yes No

Long-finned pilot whale and northern bottlenose whale are known to occur in this site, it potentially represents critical habitat and should be included in the management options and socioeconomic assessment.

All of the above:

Yes No

Long-finned pilot whale and northern bottlenose whale are known to occur in this

³ NEAFC – North East Atlantic Fisheries Commission.

site, it potentially represents critical habitat and should be included in the management options and socioeconomic assessment.

8. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Loch Creran* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Loch Creran possible Nature Conservation MPA for the protection of flame shell beds and geodiversity feature, quaternary of Scotland. The boundary and area of the possible MPA is fully supported. This possible MPA (overlying the existing SAC for biogenic reefs) will be important to protect and enhance Serpulid aggregations, flame shell beds and horse mussels. The area has already been declared an SAC and management will need to refer to, and align with, the objectives of the SAC. The congruence of the boundaries will simplify this.

Without better resolution data of fishing effort, it is impossible to determine whether the extant distribution of flameshell beds is likely to have been in any way constrained by pressure to date. Furthermore, the modelled distribution west of Creagan narrows is surprisingly small and, based on flameshell distribution in other sea loch narrows, might be expected to be larger in extent given the chance to recover. On the basis of lack of pressure data and expected potential extent, we recommend a conservation objective of 'recover' for flameshell beds.

Management Options:

Yes No

The management options to remove or avoid impact to these benthic communities are supported. We support and encourage designation of zones prohibiting all forms of disturbance by mobile and static gear, diver-operated hydraulic methods and expansion of new aquaculture ventures. As well as the direct impact of finfish aquaculture we would draw attention to the need to limit overall nutrient input to a loch with such limited circulation as Loch Creran as this is particularly likely to affect communities in the Shian Narrows.

In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

9. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Loch Sunart* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Loch Sunart possible Nature Conservation MPA for the protection of flame shell beds; northern feather star aggregations on mixed substrata and serpulid aggregations. The boundary and area of the Loch Sunart possible MPA is fully supported. The area has already been declared SAC for the reefs habitats and management will need to refer to, and align with, the objectives of the SAC.

Until a clearer understanding of historic pressures and current extent is arrived at, we would conclude that the status of the features in their historic context is uncertain and should not default to 'conserve'.

Management Options:

Yes No

We support advice to remove damaging pressures from the proposed protected features. The management options to regulate and minimise impact to these benthic communities are supported. We support and encourage designation of zones prohibiting all forms of disturbance by mechanical and static fishing gear, anchors, moorings, diver-operated hydraulic methods and expansion of new aquaculture ventures, to ensure the full known extent of these sensitive communities are fully protected from disturbance and, with a suitable buffer zone around them, have opportunity for future enhancement.

Existing aquaculture ventures will need to ensure they are compliant with updated or revised Environmental Management Systems to ensure operations minimise local and diffuse cumulative impacts, particularly with respect to water quality, erosion, sedimentation and disease. In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

Socioeconomic Assessment:

Yes No

Harbour porpoise, known to occur in this site, should be protected in the MPA and considered in the management options, under Guideline 1b of the selection criteria for PMFs and the socioeconomic assessment. Porpoises are also on the OSPAR Threatened and Declining list and as an Annex II species under the EU Habitats Directive, they should also be given full consideration for designation as part of the Natura 2000 SAC network.

All of the above:

Yes No

Harbour porpoise, known to occur in this site, should be protected in the MPA and considered in the management options, under Guideline 1b of the selection criteria for PMFs and the socioeconomic assessment. Porpoises are also on the OSPAR Threatened and Declining list and as an Annex II species under the EU Habitats Directive, they should also be given full consideration for designation as part of the Natura 2000 SAC network.

10. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Loch Sunart to the Sound of Jura* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Loch Sunart to Sound of Jura possible MPA for common skate. We understand that common skate are found throughout Scottish waters, certainly off the west and northern coasts and islands, but that the data supporting the Loch Sunart to Sound of Jura possible MPA suggests a core of resident animals meriting area-based protection. However, further scientific study of common skate throughout Scottish waters is urgently needed to find at least one other possible MPA to contribute toward replication for this MPA search feature. Protecting Loch Sunart to Sound of Jura alone will not provide sufficient area-based protection for this rare and vulnerable giant.

The conservation objective of conserve (feature condition uncertain) is supported.

Management Options:

Yes No

Further information on the impact of aquaculture (finfish and shellfish), mooring and anchoring on common skate eggs is needed before management recommendations can be made, therefore it is premature to state that 'No additional management' will be needed for these activities. On the contrary, additional management may be

needed for some or all of these preceding activities if new impact data arises. We support the management options for fishing as presented, particularly the recommendation to remove bottom set-nets and long lines from the possible MPA. We would recommend capping existing bottom-towed fishing effort, until more information is gathered on towed/active fishing gear effort and its interaction with common skate in the area.

Socioeconomic Assessment: Yes No

The proposed site overlaps with areas critical for harbour porpoise (currently grade D in overlapping SAC). However no consideration is given to them regarding management or socioeconomic assessment.

All of the above: Yes No

The proposed site overlaps with areas critical for harbour porpoise (currently grade D in overlapping SAC). However no consideration is given to them regarding management or socioeconomic assessment.

11. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Loch Sween* possible Nature Conservation MPA?

Designation: Yes No

WDC supports the designation of the Loch Sween possible Nature Conservation MPA for the protection of burrowed mud, maerl beds, native oysters and sublittoral mud and mixed sediment communities. The boundary is fully supported though the information pertaining to the seaward part (Keillmore, Loch na Cille, Macormaic Isles) is not well presented. This is a region of complex underwater topography and very high tidal streams, in marked contrast to the rest of the site. It is likely that maerl beds are more extensive than shown here.

We support the conservation objectives.

Management Options: Yes No

The management options discussed need a more realistic assessment of fishing levels.

Socioeconomic Assessment: Yes No

Comments

All of the above:

Yes No

Comments

12. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Lochs Duich, Long and Alsh* possible Nature Conservation MPA?

Designation:

Yes No

We support the conservation objective for the flameshell beds within the Lochs Duich, Long and Alsh pMPA to be 'conserve', due to its already great extent. However, fishing pressure from towed/active gear should be removed, not just reduced, from the most sensitive burrowed mud features, particularly fireworks anemones. Burrowed mud should therefore be set to 'recover' since given the high sensitivity of this species to mobile fishing gear (Scotland's Marine Atlas), historic fishing pressure is likely to have reduced the extent of this local population of nationally scarce species. Fan mussel needs to be added to the protected features list for this pMPA and a conservation objective set to 'recover', both for this local individual/ population (we cannot confirm whether the record is isolated or not) and to contribute to population recovery throughout Scotland. Although not an aggregation, addition of the species would be in line with the case for adding native oyster to Loch Sween and Northwest Scotland sea lochs.

Management Options:

Yes No

Management activities associated with deep water burrowed mud habitat requires revision. We support and encourage designation of zones prohibiting all forms of disturbance by mechanical and static gear, anchors, moorings diver-operated hydraulic methods, and expansion of new aquaculture ventures, to ensure sizable proportions of flame shell, fan mussel and burrowed mud communities are fully protected from disturbance and have opportunity for future enhancement. We particularly support closure of activities that impact on flame shell beds in the Kyle Akin area, and this management regime should be extended to deeper water habitats.

In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

13. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Monach Isles* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Monach Isles possible Nature Conservation MPA for the protection of black guillemot and geodiversity features marine geomorphology of the Scottish shelf seabed and quaternary of Scotland. The proposed site boundaries hold a significant proportion of Scotland's black guillemot population.

We support the conservation objective of 'conserve'.

Management Options:

Yes No

WDC supports the management option to remove set nets from, or avoid their introduction to, the site.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

14. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Mousa to Boddam* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Mousa to Boddam possible Nature Conservation MPA for the protection of sandeels and geodiversity features marine geomorphology of the Scottish shelf seabed.

However, WDC does not support the proposed site boundaries. Acoustic data indicate the distribution of suitable sandeel habitat beyond the proposed site boundary, and no known absence data has been used to establish its limits. Most fundamentally, historic data indicate that this area is a component of a larger population. By protecting part of the population, the site may not be able to manage the protected features effectively and could therefore fail to meet MPA selection guideline stage 4. MPA site boundaries must be reconsidered to ensure the site is effective for the population which it seeks to protect.

The conservation objective for the sandeel feature should be set to recover. The status of the species in this site is not known and as a result, the conservation objective has been set as 'conserve (uncertain)'. Seabird breeding success has been so poor that the sandeels population must be in poor condition – long term and significant declines have been observed for seabird species that feed largely on sandeels. There has also been a decrease in harbour seals. Latest advice from SNH indicates that prey availability is the principal cause in the decline of Scotland's seabirds⁴ and WDC believe that this is enough evidence to show that the sandeel population in this possible MPA must be recovered.

We suggest this is proxy evidence that sandeels in the site are in poor condition, potentially undersize as has been in other parts of the North Sea (Wanless et al., 2004; Frederiksen et al, 2011). The conservation objective of this feature should be set to recover to ensure the benefits this site provides to the wider seas are restored.

Management Options:

Yes No

WDC strongly supports the statement made by Marine Scotland Science and SNH that a targeted sandeel fishery should not be permitted within the possible MPA.

We strongly support the proposal to remove or avoid demersal hydraulic gear from this possible MPA.

Research is required to investigate the impact of demersal dredge on sandeel. The SNH advice states "Whilst the use of other types of dredges do cause sub-surface abrasion, given the high energy environments that sandeels live within, their use is not considered likely to affect the conservation objective for sandeels within the possible MPA". Sandeels require the presence of oxygen to survive in the sediment, and the oxic layer in the seabed sediment is rarely more than 8 cm deep in the North Sea (Lohse et al. 1996), so it can be assumed that sandeels exist in the sediment within the top 8cm. Currie and Parry (1996) found that dredge penetrated to 6cm in

⁴ Scottish Natural Heritage Biodiversity Indicator S005 – October 2013
<http://www.snh.gov.uk/docs/B424907.pdf>

sandy sediment and Hall-Spencer et al (1999) found that a significant change in suspended sediment following similar activity on sandy sediment lasted for 15 hours. Before this pressure can be dismissed in this site, robust evidence must be presented that shows that it is not impacting on the achievement of the conservation objective for sandeels.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

15. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *North-east Faroe Shetland Channel* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the North-east Faroe Shetland Channel possible Nature Conservation MPA for the protection of deep-sea sponge aggregations, offshore deep-sea muds, offshore subtidal sands and gravels, continental slope and a wide range of features of geological importance, including the Pilot Whale Diapirs - a series of deep-water mud volcanos which measure 2-3km across and rise more than 70m above the surrounding seafloor in places. The proposed boundary is supported.

We accept the conservation objective of 'conserve - feature condition uncertain'. However, we note that selection guideline 2d was not considered to be met for the protected biodiversity features in this site as sensitivity analyses concluded that there is a risk that features have been modified by human activity.

Management Options:

Yes No

Management options for protected features of uncertain condition must be evidence-based, account for the known vulnerability of the protected features to human activities and make appropriate use of the precautionary principle.

Towed/active gear should be removed from areas with deep-sea sponge aggregations and be reduced in areas with offshore deep-sea mud and offshore subtidal sands and gravels in order to ensure their protection. As part of the reduction in effort across the much larger areas with offshore deep-sea mud and offshore subtidal sands and gravels, it is important that some areas of those more broadscale habitat are also fully protected from towed/active gear in order for them to attain a full climax

community, providing more productive larval sources for the surrounding extent of the habitat which will remain subject to some pressure from active gear. Static gear should be removed from all areas with deep sea sponge aggregations.

Licensed activities such as oil and gas exploration should not be consented where they overlap the very limited extent of deep-sea sponge aggregations, or where they are sufficiently in the vicinity of those aggregations to risk their conservation status from down or up-current events. For offshore deep-sea muds, offshore subtidal sands and gravels, it is critical that licenses e.g. for oil and gas development, are only granted where the licensing authority are sufficiently satisfied that there is no significant risk of the activity hindering the conservation status of those more widespread features.

Socioeconomic Assessment:

Yes No

The benefits of conserving deep sea biodiversity in an area of this degree of richness far outweigh the minimal and short lived benefits of trawling in such areas. We are concerned about the inappropriate assumptions made in the socioeconomic assessment when calculating the costs of designation.

This area is potentially critical habitat for white-sided dolphin, sperm whale, long-finned pilot whale and fin whale and these species should be included in the setting of management options and assessing the socioeconomic effects of designation and management. Furthermore, fin and sperm whales are mentioned specifically in all documents pertaining to this site for 'migration' purposes, yet no assessment has been made of the effects that industry (i.e. oil and gas) may have on them. Should the area be designated, there needs to be greater coherence between spatial and wider protection measures here regarding the interaction between the oil and gas industry and marine mammals.

All of the above:

Yes No

This area is potentially critical habitat for white-sided dolphin, sperm whale, long-finned pilot whale and fin whale and these species should be included in the setting of management options and assessing the socioeconomic effects of designation and management. Furthermore, fin and sperm whales are mentioned specifically in all documents pertaining to this site for 'migration' purposes, yet no assessment has been made of the effects that industry (i.e. oil and gas) may have on them. Should the area be designated, there needs to be greater coherence between spatial and wider protection measures here regarding the interaction between the oil and gas industry and marine mammals.

16. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *North-west Orkney* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the North-west Orkney possible Nature Conservation MPA for the protection of newly emergent sandeel larvae and a range of geological features formed by the action of tides and currents, including sand banks, sand wave fields and sediment wave fields.

The JNCC advice has already indicated that the area holds one of the largest sandeel spawning grounds in Scottish waters, and Proctor et al (1998) show that many of the spawning fish are swept into the wider North Sea where they contribute to the ecosystem function and to the prey available to foraging seabirds. The JNCC advice states that “No other possible MPAs for which sandeels are being considered are thought to be of equal ecological value”. Deciding to not designate this site would contradict this advice and the Scottish Government’s Marine Protected Areas and Sandeels position paper⁵.

The conservation objective for the sandeel feature should be set to recover. No strategic sandeel monitoring has taken place in the area and consequently the status of the species is not known. As a result, the conservation objective for the site has been set as ‘conserve (feature condition uncertain)’. However, we suggest that seabird breeding success has been so poor that the sandeels – a prey species many species are particularly well adapted to predating – must be in poor condition. Poor prey availability is acknowledged as the issue in SNH’s latest trend report⁶.

The conservation objective of this feature should be set to recover to ensure the benefits this site provides to the wider seas are restored.

Management Options:

Yes No

WDC supports the statement made by Marine Scotland Science and SNH that a targeted sandeel fishery should not be permitted within the possible MPA.

The proposal currently suggests no additional management. This will mean that the site’s designation will not have any impact, good or bad, on the health of the feature or the wider marine environment. This contradicts the ambition set out in the introduction to the Management Option Paper which states “The development of appropriate management will ensure the North-west Orkney possible MPA makes a genuine and long-lasting contribution to the protection of Scotland’s marine environment” and also the duty in the Marine Act to protect and where appropriate

⁵ Marine Protected Areas and Sandeels (*Ammodytes marinus* & *A. tobianus*) Position paper.
<http://www.scotland.gov.uk/Resource/0038/00389460.doc>

⁶ Scottish Natural Heritage Biodiversity Indicator S005 – October 2013
<http://www.snh.gov.uk/docs/B424907.pdf>

enhance the health of the marine environment.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

17. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *North-west sea lochs and Summer Isles* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the North-west sea lochs and Summer Isles possible Nature Conservation MPA for the protection of burrowed mud, circalittoral muddy sand communities, flame shell beds; kelp and seaweed communities on sublittoral sediments, maerl beds, maerl or coarse shell gravel with burrowing sea cucumbers and northern feather star aggregations on mixed substrata, and for geodiversity features – marine geomorphology of the Scottish shelf seabed, seabed fluid and gas seep, submarine mass movement, and quaternary of Scotland.

The boundary is fully supported - as is the inclusion of the circalittoral muddy sand communities to ensure representation of broad-scale habitats in the network. This possible MPA contains an extraordinarily wide range of species and habitats at diverse scales, including the most northerly records of flame shell bed in UK waters and all three types of sea pen.

Seagrass beds should be added as a protected feature in the possible MPA. Although the distribution of *zostera marina* in south-east Gruinard Bay is patchy, together with the beds in Loch Gairloch these are described as 'possibly the richest examples on the mainland coastline of northern Scotland from at least Loch Alsh to the Moray Firth'⁷. Additionally the seagrass records in Gruinard Bay were identified as having the potential to be protected through enhancing the existing Little Loch Broom and Gruinard Bay Fisheries restriction Area (CA59) with MPA designation⁸.

We support the conservation objectives. We note that flame shell beds are not covered in the introduction to the management options paper – but from the

⁷ Moore, C. G., Harries, D. B., Trigg, C., Porter, J. S. and Lyndon, A. R. (2011). The distribution of Priority Marine Features and MPA search features within the Ullapool Approaches: a broadscale validation survey. Scottish Natural Heritage Commissioned Report No. 422. http://www.snh.org.uk/pdfs/publications/commissioned_reports/422.pdf

⁸ <http://www.snh.gov.uk/docs/B1000612.pdf>

consultation document are set to recover along with maerl beds.

Management Options:

Yes No

We support the exclusion mobile /active gear types and diver hydraulic methods from flame shell beds, maerl beds and maerl or coarse gravel with burrowing sea cucumbers. Management to reduce the pressure on maerl and burrowed mud by static gear is also supported. We support proposals to relocate the disposal site to an area of less sensitivity and further assessments to determine impact of the Loggie Bay anchorage and moorings in Loch Broom on flame shells beds.

In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

Socioeconomic Assessment:

Yes No

Harbour porpoise, known to occur in this site, should be protected in the MPA and considered in the management options, under Guideline 1b of the selection criteria for PMFs and socioeconomic assessment. Porpoises are also on the OSPAR Threatened and Declining list and as an Annex II species under the EU Habitats Directive, they should also be given full consideration for designation as part of the Natura 2000 SAC network.

All of the above:

Yes No

Harbour porpoise, known to occur in this site, should be protected in the MPA and considered in the management options, under Guideline 1b of the selection criteria for PMFs and socioeconomic assessment. Porpoises are also on the OSPAR Threatened and Declining list and as an Annex II species under the EU Habitats Directive, they should also be given full consideration for designation as part of the Natura 2000 SAC network.

18. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Noss Head* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Noss Head possible Nature Conservation MPA

to protect horse mussel beds. We support the position of the boundary. We note that the extent is currently predictive and therefore, given the importance of this site as the largest known UK horse mussel bed, support the boundary providing a buffer around the predicted distribution.

The conservation objective of 'conserve' is supported.

Management Options: Yes No

Spoil dredge disposal and use of towed/active gears is incompatible with the health of the horse mussel beds and should be excluded from the possible MPA. Recent findings of the damaging impact of towed/active gear on horse mussel beds in the Isle of Man provide further compelling evidence of the need to exclude such gear. Static gear activity should be limited, subject to further study, for both shellfish stock management and biodiversity (horse mussel bed) protection purposes.

Socioeconomic Assessment: Yes No

Comments

All of the above: Yes No

Comments

19. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Papa Westray* possible Nature Conservation MPA?

Designation: Yes No

WDC supports the designation of the Papa Westray possible Nature Conservation MPA for the protection of black guillemot and geodiversity features – marine geomorphology of the Scottish shelf seabed. The proposed site holds a significant proportion of Scotland's black guillemot population and has been established based on scientific evidence endorsed by the RSPB.

WDC supports the conservation objective 'conserve' for the above features.

Management Options: Yes No

WDC supports the management option to remove set nets from, or avoid their introduction to, the site.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

20. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Rosemary Bank Seamount* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Rosemary Bank Seamount possible Nature Conservation MPA to protect deep-sea sponge aggregations, seamount communities and the Rosemary Bank Seamount and associated geodiversity features (including the seamount scour moat, sediment drifts, sediment drifts and the Rosemary Bank Seamount itself). The boundary and area of the Rosemary Bank Seamount possible MPA is fully supported on the basis of the information provided. The area represents only one of three seamount habitat ecosystems detected in Scotland's offshore water, and is reported to comprise a rich diversity of deep-sea sponge aggregations, cold-water corals and deep water fish (e.g. orange roughy and blue ling PMFs). Such an area is likely to be highly productive, indicated by observations of migratory sperm and pilot whales in high numbers.

We accept the conservation objective of 'conserve - feature condition uncertain'. However, we note that selection guideline 2d was not considered to be met for the protected biodiversity features in this site as sensitivity analyses concluded that there is a risk that features have been modified by human activity.

Management Options:

Yes No

Management options for protected features of uncertain condition must be evidence-based, account for the known vulnerability of the protected features to human activities and make appropriate use of the precautionary principle.

Although we acknowledge uncertainty in the evidence of the condition of the seamount habitat, the area is likely to be enhanced by restriction of damaging activities (i.e. otter trawling, set netting), and unsustainable harvesting from activities such as line fishing, creeling and potting. We further support and encourage prohibiting all forms of disturbance by mechanical and static gear, including any

future proposals for mining and exploration and new oil and gas facilities. Limiting these activities will to ensure the Rosemary Bank Seamount communities are fully protected from disturbance in perpetuity, and have opportunity for future enhancement.

Socioeconomic Assessment:

Yes No

Sperm and long-finned pilot whale PMFs should be considered in assessment of socioeconomic impacts for this possible MPA.

All of the above:

Yes No

The documents for the possible MPA specifically describe the great importance this site has for marine mammals referring to 'The aggregations of blue whiting at the Rosemary Bank Seamount may be linked to the occurrence of large schools of marine mammals (Weir et al., 2001)⁹. In fact, the greatest number of marine mammal species have been recorded at or near Rosemary Bank compared to any other Scottish seamount. For the cetaceans found in the vicinity of Scottish seamounts, the migration route through the Rockall Trough through the Faroe-Shetland Channel is considered important (Evans, 1997¹⁰; Swift et al., 2002¹¹; Macleod et al., 2003¹²).¹ However they have not been considered either as features, or as additional PMFs, for assessment of socioeconomic impacts or of management options.

This fact seems contrary to the ecological coherence aspects of the MPA project, and sperm and long-finned pilot whale PMFs should be considered in future assessment for this possible MPA, as well as in the management plan for the current MPA proposal.

21. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Small Isles* possible Nature Conservation MPA?

Designation:

Yes No

⁹ Weir, C.R., Pollock, C., Cronin, C., and Taylor, S. (2001). Cetaceans of the Atlantic Frontier, north and west of Scotland. *Continental Shelf Research*, 21, 1047–1071.

¹⁰ Evans, P.G.H. (1997). Ecology of sperm whales (*Physeter macrocephalus*) in the Eastern North Atlantic, with special reference to sightings and strandings records from the British Isles. *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique, Biologie*, 67 (Supplement), 37–46.

¹¹ Swift, R.J., Hastie, G.D., Barton, T.R., Clark, C.W., Tasker, M.L., and Thompson, P.M. (2002). Studying the distribution and behaviour of cetaceans in the northeast Atlantic using passive acoustic techniques. Report for the Atlantic Frontier Environmental Network.

¹² Macleod, K., Simmonds, M.P., and Murray, E. (2003). Summer distributions and relative abundance of cetacean populations off north-west Scotland. *Journal of the Marine Biological Association of the UK*, 83, 1187–1192.

WDC supports the designation of the Small Isles possible Nature Conservation MPA to protect black guillemot, burrowed mud, circalittoral sand and mud communities, fan mussel aggregations, horse mussel beds, northern feather star aggregations on mixed substrata, northern sea fan and sponge communities, shelf deeps and white cluster anemones, and geodiversity features - quaternary of Scotland.

The boundary and area of Small Isles possible MPA is fully supported.

We also recommend that the future designation should include basking shark and minke whale as protected features. We note this possible MPA overlaps with two designated SPAs and management will need to refer to, and align with, the objectives of the SPAs.

We support the setting of conservation objectives for the protected features within the Small Isles possible MPA to 'conserve' for all features.

Management Options:

Yes No

We support and encourage designation of large zones in the Sound of Canna prohibiting all forms of disturbance by mechanical and static gear, anchors, moorings and expansion of new aquaculture ventures, to ensure sizable proportions of sensitive communities are fully protected from disturbance and have opportunity for future enhancement, particularly northern sea star, feather star, sponge communities, horse mussel and array of burrowed mud community PMFs. For the Sound of Canna, we also recommend that the licensed dredge spoil sites be rescinded.

In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

Socioeconomic Assessment:

Yes No

Harbour porpoise, known to occur in this site, should be protected in the MPA and considered in the management options, under Guideline 1b of the selection criteria for PMFs and considered in the socioeconomic assessment.

All of the above:

Yes No

Harbour porpoise, known to occur in this site, should be protected in the MPA and considered in the management options, under Guideline 1b of the selection criteria

for PMFs and considered in the socioeconomic assessment. Porpoises are also on the OSPAR Threatened and Declining list and as an Annex II species under the EU Habitats Directive, they should also be given full consideration for designation as part of the Natura 2000 SAC network.

22. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *South Arran* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the South Arran possible Nature Conservation MPA to protect burrowed mud, herring spawning grounds, kelp and seaweed communities on sublittoral sediments, maerl beds, maerl or coarse shell gravel with burrowing sea cucumbers, ocean quahog, seagrass beds, shallow tide-swept coarse sands with burrowing bivalves. We support the boundary of the possible MPA. This MPA will make a valuable contribution to protecting habitats representative of the areas of the Clyde more exposed to prevailing wind, wave and tidal action.

WDC has some concerns over the conservation objectives for this site. Seagrass beds should be set to 'recover' as they will have likely suffered some damage from the existing anchorage in Whiting Bay. All habitats should be set to 'recover' since the ecological status of the possible MPA is only 'moderate' as a result of morphological alteration from commercial fishing.

Management Options:

Yes No

Anchorage should be removed from seagrass beds in Whiting Bay; creel pressure should be reduced or limited on burrowed mud, maerl beds and seagrass beds. Hydraulic fishing methods should be removed from the entire MPA, use of towed/active gear should be removed from maerl beds, maerl or coarse shell gravel with burrowing sea cucumbers and seagrass beds and targeted fishing for ocean quahog and use of towed/active gear in ocean quahog habitat should be excluded.

In order to ensure that burrowed mud features are protected and enhanced, towed/active gear should be removed from those features. The waters of South Arran are considered of 'moderate' ecological status¹³ as a result of 'Morphological alterations' from commercial fishing¹⁴. Since all the surrounding waters of Arran are also 'moderate' ecological status as result of commercial fishing altering the morphology of the seabed, removal of towed/active gear from South Arran MPA would contribute to both the possible MPA meeting its conservation objectives and

¹³ http://www.environment.scotland.gov.uk/our_environment/water/water_body_classification.aspx

¹⁴ <http://apps.sepa.org.uk/wbody/2011/200019.pdf>

the water body meeting Good Ecological Status. As the latter is currently 'moderate' it is also likely to rank similarly with regard to 'seafloor integrity' under the forthcoming Marine Strategy Framework Directive if this pressure is not removed.

In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

23. Do you have any comments on the case for designation, management options and socioeconomic assessment for *The Barra Fan and Hebrides Terrace Seamount* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Barra Fan and Hebrides Terrace Seamount possible Nature Conservation MPA to protect burrowed mud, offshore subtidal sands and gravels, offshore deep-sea muds, an area of the Hebridean continental slope, the Hebrides Terrace Seamount and associated features, including orange roughy and seamount communities and geodiversity features representative of the The Barra Fan and Peaches Slide Complex Key Geodiversity Areas.

The boundary and area of the possible MPA is fully supported on the basis of the information provided. It should be noted that the possible MPA lies right on the boundary between the Scottish and Irish marine areas. The Hebrides Terrace Seamount, while mostly in Scottish waters, straddles the boundary.

The seamount rises from the seafloor to a height of 1 km, and supports a diverse range of sea life, including cold-water corals, deep sea sponges, and fish species such as orange roughy. The seamount is thought to be significant to the health of Scotland's seas due to its effect on movement of underwater currents, which bring food to the area. The resulting rich diversity supports many fish species, which in turn attract larger marine animals, such as sharks and cetaceans.

We accept the conservation objective of 'conserve - feature condition uncertain'. However, we note that selection guideline 2d was not considered to be met for the

protected biodiversity features in this site as sensitivity analyses concluded that there is a risk that features have been modified by human activity.

Management Options:

Yes No

Management options for protected features of uncertain condition must be evidence-based, account for the known vulnerability of the protected features to human activities and make appropriate use of the precautionary principle.

Although we acknowledge uncertainty in the evidence of the condition of the seamount habitat, the area is likely to be enhanced by restriction of damaging activities by mechanical and static gear (e.g. otter trawling). We also advocate that these activities do impact on PMFs such as burrowed mud, offshore deep sea muds, and offshore subtidal sands and gravels and their constituent species.

There is limited attention in the management options document concerning pelagic trawling and purse seining activity, and as such no informed assessment can be made regarding sustainable harvesting of associated pelagic and demersal fish species. We support and encourage designation that prohibits all forms of future disturbance by mining and exploration, and new oil and gas facilities, particularly with respect to Scotland's vision for a full shift to sustainable electricity production and reduction in carbon footprint.

Limiting these activities will to ensure the Barra Fan & Hebridean Terrace Seamount communities are fully protected from disturbance in perpetuity, and have opportunity for future enhancement. For any proposed licensed activities, they must be managed through a stringent consenting process, as directed by the Marine and Coastal Access Act and Marine (Scotland) Act. However, we emphasise that the expansion of licence activities in possible MPAs should be avoided if alternative sites can be located.

It is important that management of this possible MPA takes account of its position on the Scottish/Irish waters boundary. Every effort should be made to make sure that management of activities, particularly over the seamount, are consistent across the boundary.

Sperm whales are known to occur in this region and should be considered in the management options.

Socioeconomic Assessment:

Yes No

Sperm whales are known to use this region and should be considered in the socioeconomic assessment.

All of the above:

Yes No

Representative seamount habitat ecosystems are essential for Scotland's MPA network due to their biological diversity and important ecosystem drivers. Seamount ecosystems are relatively uncommon worldwide. There are concerns on the negative impact of fishing on seamount ecosystems, with well-documented cases of stock decline, for example orange roughy decline due to overfishing in the vicinity of seamounts off Tasmania. Ecological damage is mainly caused by bottom trawling, and large demersal netting which exploit populations of fish that exhibit mass aggregation behaviour in the vicinity of seamount seascapes.

Sperm whales are known to use this region and should be considered in the management options and socioeconomic assessment.

24. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Turbot Bank* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Turbot Bank possible Nature Conservation MPA to protect sandeels.

The JNCC advice indicates that the spawning sandeels from the site may be dispersed widely throughout the North Sea, where they will provide a key component of the prey availability for species including seabirds.

The site includes a population of sandeels outside of the North-east Sandeel Closure (CA1) which would benefit from the additional protection provided by this MPA.

WDC also endorses the importance of this area for offshore subtidal sands and gravels, and welcomes the addition of this protected feature. However, it must not be added here as an alternative to the Firth of Forth Banks Complex which is fundamentally required for the utility of this network.

The conservation objective for the sandeel feature should be set to recover. No strategic sandeel monitoring has taken place in the area and consequently the status of the species is not known. However, group-0 sandeels have been shown to be undersize in other parts of the North Sea (Wanless et al., 2004; Frederiksen et al, 2011) and so they should be set to recover on a precautionary basis.

Management Options:

Yes No

WDC supports the statement made by Marine Scotland Science and SNH that a targeted sandeel fishery should not be permitted within the possible MPA. The management option paper for Mousa to Boddam, which has also been proposed for

sandeel indicates that dredges cause a sub-surface abrasion pressure, and this pressure needs to be further understood to assist in the conservation of sandeel within these possible MPA. The Turbot Bank management option paper does not discuss bottom impact on sandeels despite the fact that dredging takes place within the site. Before this pressure can be dismissed, robust evidence must be presented that shows that it is not impacting on the achievement of the conservation objective for sandeels.

WDC supports the proposal to remove/avoid pressures associated with oil and gas activities.

Were offshore subtidal sands and gravels to be added as a protected feature, WDC would support the management options that reduce the risk of not achieving its conservation objective to the lowest possible level.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

25. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Upper Loch Fyne and Loch Goil* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Upper Loch Fyne and Loch Goil possible Nature Conservation MPA to protect burrowed mud, flame shell beds, horse mussel beds, ocean quahog, sublittoral mud and mixed sediment communities.

The presence of fireworks anemones in Loch Goil is confirmed and needs to be added to the protected features. Loch Goil is also the only known location where the Arctic relic seasquirt *Styela gelatinosa* has been recorded and merits recognition as a feature that would get consequential protection. Both sea lochs also have excellent examples of sheltered rock reefs which merit listing as protected features.

WDC supports the conservation objective of 'recover' for flame shell beds. Conservation objectives for all other features, listed as conserve (feature condition uncertain) should also be set to recover following a precautionary approach.

Management Options:

Yes No

We support the options for finfish aquaculture, caveated by uncertainty over the carrying capacity of the sea loch (we believe a precautionary presumption against further finfish sites regardless of their potential impact on protected features would be appropriate).

In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management measures must be precautionary.

We support the removal of fishing pressure from flame shell beds and horse mussel beds, but also from ocean quahog areas and muds which may contain fireworks anemones. Simpler in management terms would be to exclude mobile gear from the MPA.

Static gear and diver collection should be removed from flame shell beds, horse mussel beds and fireworks anemone aggregations.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

26. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *West Shetland Shelf (formerly Windssock)* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the West Shetland Shelf (formerly Windssock) possible Nature Conservation MPA to protect a wide variety of offshore subtidal sand and gravel habitats.

The boundary and area are supported based on the advice provided that the area represents a rich mosaic of offshore sand and gravel biotope habitats, and a resident constituency of diverse marine fauna, at the northern extent of their range on the continental shelf in Scotland's seas. This possible MPA will provide vital protection for nursery grounds for a whole range of fish species associated with sand and gravel beds, such as flatfish, bass, skates, and rays. A number of the species are

recognised as PMF for conservation protection, including the commercial cod (*Gadus morhua*) which has been protected from fishing in the overlapping Windstock Fisheries area since 2001.

We accept the conservation objective of 'conserve - feature condition uncertain'. However, we note that selection guideline 2d was not considered to be met for the protected biodiversity features in this site as sensitivity analyses concluded that there is a risk that features have been modified by human activity.

Management Options:

Yes No

Management options for protected features of uncertain condition must be evidence-based, account for the known vulnerability of the protected features to human activities and make appropriate use of the precautionary principle.

We note that the possible MPA overlaps with the current Windsock Fisheries Area which is managed for the recovery of the commercial cod industry which effectively prohibits the use of bottom-contact mobile fishing gear, but static fishing gear (e.g. creels and pots) are still in use. We recommend that the prohibition of this fishing gear be maintained, and designated through a marine conservation order. Furthermore, we encourage designation of zones within the possible MPA prohibiting static gear to ensure sizable proportions of marine fauna have reduced pressure from harvesting and have opportunity for future enhancement. We further support and encourage designation prohibiting all forms of possible future disturbance by mining and exploration, and new oil and gas facilities.

Limiting these activities will to ensure the West Shetland Shelf communities are fully protected from disturbance in perpetuity, and have opportunity for future enhancement. For any proposed licensed activities, they must be managed through a stringent consenting process, as directed by the Marine and Coastal Access Act and Marine (Scotland) Act. However, we emphasise that the expansion of licence activities in possible MPAs should be avoided if alternative sites can be located.

Socioeconomic Assessment:

Yes No

The socioeconomic impact data presented in the BRIA indicates a relatively small displacement impact (£1.4 - £2.6 million) in relation to the ecological and natural value gains offered by the possible MPA. It is noted that as fisheries closures were implemented in the Woodstock Fisheries Area in 2001, so there would be no foreseeable additional displacement costs with the designation of this possible MPA. The BRIA report indicates minimal impacts are only expected to costs of undertaking additional stringent environmental impact assessment procedures for proposed oil and gas sector proposals. In any case, the relative cost of undertaking industry EIA reports and consents would be absorbed by the economic value and wealth of this

industry, with likely alternative sites and opportunities being accessible in the short to medium term. Overall, the relatively small displacement costs by restricting damaging activities will be outweighed by the medium to long term benefit of protecting the ecological integrity of the possible MPA so it can continue to provide ecosystem services to Scotland's offshore waters.

All of the above:

Yes No

All forms of industry licence proposals, decommissioning and maintenance must be regulated under the direction of Marine Scotland (or equivalent responsible public authority) and meet best practice EIA protocols and consents, supported by transparent monitoring and reporting requirements. We do not support licenced activities of any nature within MPAs that are undertaken by voluntary industry standards.

27. Do you have any comments on the case for designation, management options and socioeconomic assessment for the *Wyre and Rousay Sounds* possible Nature Conservation MPA?

Designation:

Yes No

WDC supports the designation of the Wyre and Rousay Sounds possible Nature Conservation MPA to protect kelp and seaweed communities on sublittoral sediment and maerl beds, and geodiversity feature marine geomorphology of the Scottish shelf seabed.

The boundary is fully supported. The proposed MPA contains excellent examples of maerl in an area of the largest discontinuous extent of the feature anywhere in the UK, in largely unmodified condition forming an important habitat mosaic with kelp and seaweed communities.

The conservation objective 'conserve' for all features is supported.

Management Options:

Yes No

We note that the distribution of features within the site limits the ability to apply zoned management. We support the prohibition of maerl extraction from the site and the exclusion of mobile/active fishing gear within the entirety of the site. Careful monitoring of the static gear and hand-derived bivalve fishery will be required to ensure no impact on conservation objectives.

In the absence of detailed information relating to the impacts of aquaculture on proposed protected features within an MPA it is imperative that the precautionary approach be applied. Discussions with finfish farming interests cannot be used as a proxy for specific, detailed information and where doubt exists management

measures must be precautionary.

Socioeconomic Assessment:

Yes No

Comments

All of the above:

Yes No

Comments

Choices to represent features in the MPA Network

28. Recognising the scientific advice from JNCC included alternatives for representing offshore subtidal sands and gravels, ocean quahog and shelf banks and mounds in the Southern North Sea, do you have a preference or comments on the following combinations to represent these features, bearing in mind Turbot Bank will need to be designated to represent sandeel in this region:

- Firth of Forth Banks Complex
- Turbot bank and Norwegian Boundary Sedimentary Plain
- Or Firth of Forth Banks Complex, Turbot bank and Norwegian Boundary Sedimentary Plain

WDC supports the designation of the Firth of Forth Banks Complex possible Nature Conservation MPA.

We draw attention to the JNCC advice, repeated in the management options paper, that the two 'science-based' alternatives "do not make equivalent contributions to the network to that made by the Firth of Forth Banks Complex possible MPA" and that "the Firth of Forth Banks Complex is JNCC's preferred possible MPA to go forward for designation". We strongly support this position.

This possible MPA represents a more diverse habitat mosaic and wider range of constituent marine species compared to the alternative possible MPA options presented. The geographic location and local physico-chemical drivers of the Firth of Forth Banks Complex have also led to the evolution of an ecosystem that is not replicated by the alternative possible MPA options.

The possible MPA contains significant ocean quahog aggregations and offshore subtidal sands and gravels PMFs. The resident sandeel population PMF is a central component to the ecosystem function and trophic food chain of the area and requires high levels of protection and must be added to the list of protected species.

The area is also particularly important for seabirds and harbour seals, which have been in decline locally for the last 10 years. Minke whales, harbour porpoises and dolphins also occur in the area. It is recommended that PMFs to be added to this possible MPA include seals, cetaceans and seabirds. A further recommendation for the addition of minke whale PMF may be made pending forthcoming data.

29. Do you have any comments on the case for designation, management options and socioeconomic assessments for the preference you have indicated in the question above, regarding alternatives for representing offshore subtidal sands and gravels, ocean quahog and shelf banks and mounds in the Southern North Sea?

Yes No

We support the conservation objectives for the protected features within the Firth of Forth Banks Complex possible MPA of 'conserve' for all features. We further support and encourage designation of large zones prohibiting those forms of disturbance by mechanical and static gear that could have a significant impact on the conservation objectives to ensure sizable proportions of sensitive communities are fully protected from disturbance and have opportunity for future enhancement. Proposed offshore renewable licences for wind farm construction must be undertaken on basis of a stringent and transparent EIA and appropriate consent conditions. Currently, there is minimal information on the impact of wind farms on this ecosystem type and its constituent features. Aside from the impact to benthic PMFs due to the ecological footprint of these built assets, aerial turbine blades may impact populations of seabird species such as gannets and impacts on marine mammals are largely unknown.

The Guidelines for designation of MPAs state that socioeconomics should only be used to select between 'ecologically equivalent' alternatives. We believe the JNCC advice clearly states that the alternatives are not ecologically equivalent. So socioeconomics should not influence the designation decision. However, we acknowledge that socioeconomics remain important when evaluating the management options which best meet the conservation objectives.

The Firth of Forth Banks Complex possible MPA is the preferred option and is the only fully supported option for designation as a MPA. Proposed wind farm development areas/sites should be explored outside the possible MPA boundaries to minimise impact to the possible MPAs unique and irreplaceable PMFs and closed ecosystem processes. The EIA/SEA/HRA must meet the conservation objectives of the possible MPA. This will be determined by the construction and technology options presented by the developers, it is not possible for the community to make informed comment without this information at this time.

30. Recognising the scientific advice from JNCC included alternatives for representing the burrowed mud feature in the Fladens, do you have a preference or comments on the following combinations to represent these features, bearing in mind the part of Central Fladen (known as Central Fladen (Core)) containing tall seapen (*Funiculina quadrangularis*) will need to be designated to represent tall seapen in this region:

Central Fladen pMPA only

The tall sea-pen component of Central Fladen, plus Western Fladen

Or the tall sea-pen component of Central Fladen, plus South-East Fladen.

WDC supports the designation of the Central Fladen (core) and Central Fladen possible Nature Conservation MPA.

The boundary of this possible MPA offers best opportunity for the protection, and possible expansion, of the Burrowed mud – tall seapen (*Funiculina quadrangularis*) PMF population. The adjacent Central Fladen option exhibiting the burrowed mud – seapens and burrowing megafauna PMF, if adequately protected, offers the best opportunity for buffering and possible enhancement of the tall seapen species.

31. Do you have any comments on the case for designation, management options and socioeconomic assessments for the preference you have indicated in the question above, regarding alternatives for representing the burrowed mud feature in the Fladens?

Yes No

We support conservation objectives for the protected features within the Central Fladen possible MPA to 'conserve' for all features.

We further support and encourage designation of large zones prohibiting all forms of disturbance by mechanical and static gear to ensure sizable proportions of sensitive communities are fully protected from disturbance and have opportunity for future enhancement. This possible MPA, if highly protected, offers opportunity to benchmark against and compare gear activity and catch effort in the adjacent option areas which we recommend be declared Designated Research MPAs.

We further support and encourage designation prohibiting all forms of possible future disturbance by mining and exploration, and new oil and gas facilities, particularly with respect to Scotland's vision for a full shift to sustainable energy and reduction in carbon footprint. Limiting these activities will ensure the Central Fladen and Central Fladen (core) PMFs are fully protected from disturbance, and have opportunity for future enhancement. For any proposed licensed activities, they must be managed through a stringent consenting process, as directed by the Marine and Coastal Access Act and Marine (Scotland) Act. However, we emphasise that the expansion of licence activities in possible MPAs should be avoided if alternative sites can be located.

32. Recognising the scientific advice from JNCC included alternatives for representing offshore subtidal sands and gravels, offshore deep sea mud, and burrowed mud in OSPAR Regions III and V, do you have a preference or comments on the following combinations to represent these features:

South-West Sula Sgeir and Hebridean slope
Or Geikie slide and Hebridean slope

WDC supports the designation of the Geikie Slide & Hebridean Slope possible Nature Conservation MPA.

This possible MPA offers the most significant representation of NW continental shelf slope species and communities, in such as burrowed mud, offshore deep sea muds, and offshore subtidal sands and gravels. The region also exhibits greater sighting records for cetaceans.

The area is historically subjected to lower fishing activity. Protection designation is supported for pelagic features, and provides benefits for adjacent internationally listed seabird colonies.

33. Do you have any comments on the case for designation, management options and socioeconomic assessments for the preference you have indicated in the question above, regarding alternatives for representing offshore subtidal sands and gravels, offshore deep sea mud, and burrowed mud in OSPAR Regions III and V?

Yes No

We support conservation objectives for the protected features within the Geikie Slide & Hebridean Slope possible MPA to 'conserve' for all features. We further support and encourage designation of large zones prohibiting those forms of disturbance by mechanical and static gear that could have a significant impact on the conservation objectives to ensure sizable proportions of sensitive communities are fully protected from disturbance and have opportunity for future enhancement. The information presented to the possible impacts (if any) of gill netting and line fishing is insufficient to make informed comment. However, this highlights the need for greatly improved fisheries management protocols, monitoring and surveillance for these activities.

The area is potentially critical habitat for white-sided dolphin and sperm whale which should be included as protected features and considered in developing management options and assessing socioeconomic impacts.

Sustainability Appraisal

34. Do you have any comments on the Sustainability Appraisal of the MPA network as a whole?

Yes No

Much of the information provided in the Sustainability Appraisal is flawed and, as written, should not be used to inform the ministerial decisions regarding individual site designations.

Attempts to assess the socio-economic costs of the MPAs proposals are based on some false assumptions, and little effort has gone into quantifying the potential benefits of a well-managed marine environment.

Final Thoughts

35. On the basis of your preferences on which pMPAs should be designated, do you view this to form a complete or ecologically coherent network, subject to the completion and recommendations of SNH's further work on the 4 remaining search locations?

Yes No

We acknowledge the progress made to date in identifying an ecologically coherent MPA network, however the currently proposed network is incomplete, will not achieve ecological coherence, and will fail to meet obligations under the OSPAR¹⁵ convention and the EU Birds and Habitats Directives.

Even when considered alongside existing European Marine Sites and existing fisheries measures, the proposed network of sites fails to include and protect a representative range of Scottish marine species and habitats. This is not our contention alone, the SNH and JNCC advice and the report to Parliament clearly indicate these gaps remain.

For at least Southern Trench, Skye to Mull and Eye Peninsula to Butt of Lewis, a combination of information should be used in the assessment, not only on species abundance, but also spatio-temporal distribution, ecological connectivity, habitat use and precautionary principle.

Sites derived from these search locations are needed for adequate protection of

¹⁵ OSPAR Commission for the protection of the marine environment of the North-East Atlantic. More information at: <http://www.ospar.org/>

minke whale, Risso's dolphin, white-beaked dolphin, basking shark, and other species and habitats. We remain concerned that the proposals may still be insufficient to provide the required protection, noting that key areas provided as third party proposals have been ignored, that some features, such as common skate and prospective Risso's dolphin, are only protected in a single site and that the science of site connectivity is in its infancy.

For the network to be ecologically coherent, in addition to the search locations, the Natura 2000 network should be complete. Harbour porpoise and bottlenose dolphin are not currently adequately represented in the network.

We note that JNCC is currently commissioning a piece of work to identify Special Areas of Conservation for harbour porpoise and offshore bottlenose dolphin in UK waters and we welcome this, particularly when considering that Scotland contains some of the highest densities of harbour porpoises in Europe. These areas will also need to be designated, along with consideration of west coast bottlenose dolphins (including in east Mingulay SAC), before the wider network may be considered complete.

As a result, these ncMPA sites, in addition to a complete SAC network for harbour porpoise and bottlenose dolphins, coupled with increased management options consideration of marine mammal features in Rosemary Bank, Hatton-Rockall and Northwest Faroe-Shetland Channel, should provide a realistic ecological coherent component for mobile species to the wider Scottish, UK and OSPAR MPA network.

We refer you to the previously mention WDC report titled '*Making space for porpoises, dolphins and whales in UK seas: Harbour porpoise Special Areas of Conservation as part of a coherent network of marine protected areas for cetaceans*' to this submission. The report identifies that a two pronged approach to conservation of cetaceans should include both MPAs and wider measures to meet the requirements of the key European Directives.

JNCC is carrying out work to evaluate the contribution of UK's MPAs to an ecologically coherent network at the OSPAR level. We recommend that the outcome of this work is considered with a view that additional MPAs could be designated in Scottish waters if required as part of the UK's contribution to an ecologically coherent network. We note that the selection guidelines for Nature Conservation MPAs state that

'as our understanding improves, and/or the environment changes, there may be a need to select additional new Nature Conservation MPAs...'

36. Do you have any other comments on the case for designation, management options, environmental or socioeconomic assessments of the pMPAs, or the network as a whole?

Yes No

Monitoring surveillance

The consultation documentation states that work to offer suitable spatial protection to white-beaked dolphins, as well as basking shark and common skate, will continue (page 13).

In future, there should be a focus on additional collection of baseline data for white-beaked dolphins, as well as for harbour porpoises, bottlenose dolphins, Risso's dolphins and minke whales with a view to completing the network for these species, and other cetacean species may benefit from MPA protection should better baseline data exist.

This work should be focused through the implementation of a monitoring and surveillance strategy, as identified as bullet 6 in the section on Principle of Best Available Evidence (page 26).

Benefits of protection and assigning buffer areas

WDC strongly advocates that PMFs within our future MPAs be afforded protection compatible with meeting their conservation objective, and that protected zones be adequate in size and shape so that species and habitats have the opportunity to recover and enhance beyond their present range.

Management

If the network of Marine Protected Areas is to meet the objectives set out in section 79.3 of the Marine (Scotland) Act 2010, it is vital that effective management measures are established for the entire network, including existing and future European Marine Sites. Appropriate management measures must be established for the network to contribute to protecting and enhancing Scotland's seas.

We believe that activities that do not damage the features and ecological function of a site may be permitted and that there is no reason to suppose that activities and MPAs could not co-exist; this view is supported by the conclusions in the "Making the case for the sound management of Marine Protected Areas¹⁶" report. However, we are concerned that the management options presented will not manage all activities in MPAs in ways that protect and recover its constituent species, habitats and ecosystem function.

1. Protecting Scotland's Species and Habitats

MPA search features were identified in the MPA Guidelines because they were "considered likely to be representative of a wider range of features which would also benefit from spatial protection and inclusion in the network". While we acknowledge the addition of six other biological features (circalittoral sand and coarse sediment

¹⁶ Bell, E.; Brennan, R.; Nickell, T.; Potts, T.; Valcic, B.; Wilson, H. (2011). Making the Case for the Sound Management of Marine Protected Areas. (Scottish Environment LINK, Trans.) (pp. 99), Scottish Association for Marine Science.

communities, circalittoral muddy sand communities, serpulid aggregations, white cluster anemone, ocean quahog and herring spawning grounds) as protected features, we believe that a “wider range of features” must consider many more species and habitats in poor, or uncertain, status in Scotland’s seas if the network is to achieve its full potential and help protect and recover the health of Scotland’s seas overall. We believe that the present proposals could provide protection and benefits to a much wider group of species and habitats, if those were included as MPA protected features (as specifically allowed for in the MPA Selection Guidance) and in the management options currently being developed. As an example, we have evidence showing the importance of the Firth of Forth Banks Complex for sandeels, kittiwake, guillemot, gannet, puffin, harbour porpoise, minke whale and other cetacean species.

2. Network coherence

The MPA selection guidelines make it clear that, as part of meeting the OSPAR guidelines for an ecologically coherent network that

“An assessment will also be made of other marine habitats and species which may be present within the potential areas in terms of the contribution that could be made to the broader representivity of the network.”

The management options must account for each site’s ecological function’ so that its protection and possible enhancement may contribute to the overall health of Scotland’s seas.

To achieve the MPA network goal of achieving ecological coherence, the further step of management considerations should be included for how these MPAs, in conjunction with other, wider and species specific measures, would assist in the protection of all listed Scottish PMFs. These management considerations should include how the proposed management objectives in the MPA documents could affect other PMF habitats and species, in particular the presence of marine mammals and sea birds which have, by and large, been absent from most of the assessments made in the proposed Scottish MPA network.

3. Conservation Objectives

We have some specific concerns over the setting of individual conservation objectives, particularly in some of the inshore possible MPAs, and these are detailed in the individual site responses.

We also strongly recommend that conservation objectives are set with appropriate consideration of both the species’ overall status and the site based population. For example, the Sound of Canna fan mussel bed in the Small Isles MPA proposal is singularly in good condition and is set as ‘conserve’. However, the species itself is in overall poor condition in Scotland’s seas and needs strong management measures in this site as well as elsewhere for its recovery in Scotland’s seas. For mobile species the situation can also be complicated. For example, there are differences between the vocalisations of east and west coast populations of white-beaked dolphins, indicating

these are separate populations and may need to be treated as such.

4. Managing Activities

The Marine Protected Areas draft management handbook¹⁷ indicates the process for defining management options will be based on the risk current activities place on a site's protected features - "Management options will be developed by considering the risk of not achieving the conservation objectives of the protected features by looking at the likely interaction between protected features and activities". It is unclear how this accounts for activities that may increase in intensity in the future, new activities that may expand into a site in the future but that do not need licensing, resulting in combined and cumulative impacts, and increased overlap that may occur if the habitat expands once properly protected. We would like these considered as part of each site's management plans, particularly given that the sectoral ambitions indicated in the National Marine Plan consultation documents will increase pressures on the marine environment either directly or indirectly through the displacement of other activities.

The draft management handbook cites the first five of the 'general principles' identified in the MPA selection Guidelines¹⁸. However, we note nine exist in the original guidelines and urge that the 9th principle ("Activities which are not compatible with the conservation objectives of a nature conservation MPA will be restricted") is a key consideration as management options are drafted. This is particularly pertinent based on comments made by Cabinet Secretary Richard Lochhead stating "the number one priority to be protecting the marine environment".

We recognise the role of zonal management within MPAs. However, we would emphasise that zonal management should not be used to allow an activity to operate up to the absolute limit of a protected feature's geographic extent, since the network's ability to meet the enhancement duty set out in the Marine Act may be inhibited by such a *de minimis* approach. In particular, utilising zonal management in this parsimonious way may fail to diminish pressures on the feature, will prevent its geographical recovery, and will make management difficult to establish and costly to enforce.

¹⁷ Planning Scotland's Seas: Marine Protected Areas Draft Management Handbook.
<http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/handbook>

¹⁸ Guidelines for selecting & developing MPAs. (2011) Marine Scotland
<http://www.scotland.gov.uk/Resource/Doc/295194/0114024.pdf>