Response of the Friends of the Sound of Jura to Marine Scotland - Improving protection given to PMFs outside the MPA network

We appreciate that this consultation is not asking whether measures should be implemented, that another consultation will follow where measures will be proposed and that it will be accompanied by a Sustainability Appraisal.

The Friends of the Sound of Jura represents coastal communities in mid-Argyll, concerned about impacts on the marine environment which affect the health of the seas, on which our sustainable jobs and quality of life depend.
Friends of the Sound of Jura is a member of the Coastal Communities Network.

Our views on the Scoping Report, which sets the scope for the Strategic Environmental Assessment

We agree with the conclusion of the Strategic Environmental Assessment Screening and Scoping Report for Proposed Inshore PMF Management Measures, that the proposals for management measures in PMFs are likely to give rise to significant environmental effects and as such, a full SEA is required.
We also agree with the Cabinet Secretary for Environment, Climate Change, and Land Reform, that steps must be taken to ensure that Priority Marine Features (PMFs) are being protected in accordance with policy 'GEN 9 Natural Heritage' of the National Marine Plan, such that the *'development and use of the marine environment must not result in significant impact on the national status of Priority Marine Features'.*
This is consistent with the Marine (Scotland) Act 2010, which requires decision makers to act in the way best calculated *'to further the achievement of sustainable development and use, including the protection and, where appropriate, enhancement of the health of the Scottish marine area.'*

Q 3. Do you have any comments on the approach taken by SNH to develop the advice?

We agree with the themes scoped in, in the Scoping Report for the Strategic Environmental Assessment, but we feel strongly that the scope of the present review is too narrow.

Choice of PMFs
The stated principal aim of the project is to ensure that the necessary fisheries management measures are in place to ensure protection of 11 PMFs, and to comply with the relevant policy in the National Marine Plan, but the current PMF list has 81 habitats and species on it and the prioritisation exercise undertaken by SNH has filtered out many that are also affected by bottom contacting fishing methods, as well as many others that are not adequately protected from other impacts which act cumulatively with these forms of fishing.

SNH is obliged to provide advice on potential harm to PMFs but it is hampered by not knowing where all the PMFs are, also severely limiting the scope of the project.

The Cabinet Secretary sought to *'ensure that Priority Marine Features (PMFs) were being protected in accordance with the National Marine Plan'* and to ensure that *'Development and use of the marine environment must not result in significant impact on the national status of Priority Marine Features'.*

She did not specify that only 11 PMFs should be chosen.

In section 2.1.3, the SEA consultation document says*: 'a phased approach to implementation of measures for PMFs will be taken, beginning with the 11 most vulnerable PMFs. These will be the subject of this SEA, and further assessments will be undertaken should other PMFs be considered in future.'*

We are pleased to see that the review of protection of PMFs will not necessarily stop with the chosen 11 species but we feel it is essential that further assessments of the protection afforded to other PMFs should be undertaken now as well, in order to achieve the *'protection and, where appropriate, enhancement of the health of the Scottish marine area'*.

It will not be possible to assess the Ecological Status of Water Bodies (as detailed in section 4.3.7) without collecting and collating baseline information on other priority species, besides the 11 PMFs targeted in this review.

Other MPFs are vulnerable to bottom contacting mobile fishing gear.
The flapper skate is on the OSPAR list and IUCN's list of species *'currently susceptible to extinction without protection or management occurring',* which rates it as Critically Endangered (at greater risk of extinction than the giant panda). The Scottish Government agrees with IUCN that, despite being a mobile species, the flapper skate is threatened by bottom contact fishing methods. Experimental dredge tows in Shetland found 'parts of' two flapper skate in the 57 tows, as well as two skate eggs.

The Loch Sunart to the Sound of Jura MPA has a straight line as its southern boundary that does not reflect the actual distribution of flapper skate. Their deep glacial trench habitat also continues beyond the MPA's southern boundary. Outside the boundary the skate are exposed to dredging pressure. This boundary was drawn because no skate tagging data had been collected further south during previous studies. However, Dr James Thorburn of St Andrew's University (*p comm*), says that flapper skate are very likely to occur outside the MPA in this direction. He expects that male skate migrate from the south in order to mate with resident females in the Sound of Jura. There is clear evidence that the skate also breed in the area outside the MPA. The currents have a net northwards flow in this area and flapper skate egg cases are found washed up at least as far south as Danna, at the mouth of Loch Sween. Dr Thorburn has also stated that flapper skate eggs may be vulnerable to the chemicals and organic waste discharged by aquaculture. The Government's FEAST tool also reflects this concern. Their crustacean prey may also be impacted.
The UK has a key international responsibility for flapper skate yet they are not included in this review of PMF protection outside of MPAs.
Why is the flapper skate not included in this review?

As this species is protected by only one MPA at present there is also an urgent need to seek distribution data in the Northern Isles, as a first step to protecting it there as well.

Meanwhile, in the absence of better information about flapper skate distribution, it would be appropriate to apply the precautionary principle and to prohibit dredging where there is suitable skate habitat outside the MPA, and to fully protect them in the areas within the MPA where dredging is allowed at present.

Scope of the review, including only bottom contacting mobile fishing

The cumulative effects of different pressures on PMFs cannot be easily separated from each other. Bottom contacting mobile fishing is not the only threat to PMFs. For instance aquaculture and mechanical seaweed harvesting also threaten static and mobile PMFs.

The proposed and necessary overview of *'key pressures to marine biodiversity, flora, and fauna in Scotland'*, should include baseline information about the location of all PMFs and all the pressures on them, not only pressures from fishing activities.

The consultation document does obliquely recognise this need, saying: *'It is expected that the advice in the assessment of each PMF will have relevance to all industries and regulators'*, and we welcome SNH's development of *'more detailed guidance on those habitats and species which are regularly assessed in relation to development proposals'* but there is clearly a need to have this information now.

Many of the 11 specific PMF documents produced by SNH for this review show that these species/habitats are impacted by other industries, in particular aquaculture. Here are some examples from SNH's *'PRIORITY MARINE FEATURE (PMF) - FISHERIES MANAGEMENT REVIEW*' documents, which have been well researched:

*'**Maerl beds** are highly sensitive to physical disturbance, particularly in the form of abrasion and habitat removal / change, organic enrichment, siltation and changes in water flow. Activities associated with these pressures include bottom-contacting fishing, **aquaculture** and coastal development.' 'The impacts from smothering have also been demonstrated experimentally.' 'Current evidence suggests that if maerl is removed, fragmented or killed then it has almost no ability to recover.' 'Where maerl is fragmented, species richness is likely to decrease.'*

*'**Seagrass beds** are sensitive habitats, particularly to smothering, organic enrichment, nutrient enrichment, physical disturbance, changes in water flow and clarity, and non-indigenous invasive species. Anthropogenic stresses may increase susceptibility to disease. Activities associated with these pressures include coastal development, **aquaculture**, anchoring and bottom-contacting fishing.' 'if lost completely (they) may not recover.'*

***'Flame shell beds** are highly sensitive to physical damage, particularly in the form of abrasion and habitat removal/change but also to changes in siltation, smothering, water flow and wave action. The species is highly sensitive to contamination. Activities associated with these pressures include bottom-contacting fishing (including creels), **aquaculture** and anchoring/moorings.'*

*'Scottish **northern sea fan and sponge communities** are of global importance'*
*'Northern sea fan and sponge communities are sensitive to organic enrichment, siltation changes, abrasion and physical disturbance, synthetic and non-synthetic compound contamination and changes in water flow, wave exposure and water clarity. Activities associated with these pressures are known to include mobile demersal fishing, high levels of demersal static fishing, **aquaculture** and pollution.'*
'Northern sea fans have a low ability to recover from smothering. If lost, northern sea fan communities may take many years or decades to recover.'

Cumulative effects and SEAs of other industries

The consultation document says that, *'the SEA will assess the cumulative effects of the implementation of all the proposed management measures for PMFs as a whole. The in-combination effects with other management measures from previous plans will also be considered, including the Phase 1 and Phase 2 fisheries management measures for MPAs/SACs.'*
Section 4.1.2 of the consultation document also says*: 'It is also a requirement of the 2005 Act that Responsible Authorities provide details of the character of the environment which may be affected, **including any existing environmental problems**. The baseline information is intended to help demonstrate how the receiving environment may be impacted by the implementation of the proposals.'*

The planning permission application 18/01561/MFF for a new fish farm at East Tarbert Bay, Isle of Gigha, Argyll, is an example of such cumulative impacts. Its Seabed Video Report states that:
'Habitats where aggregated clumps of mussels are found in an area greater than 10m^2 may be classified as 'bed' as long as the total mussel cover is over 30% (OSPAR Commission 2009). Table 11 demonstrates that mussel cover is estimated at 5.67% of the whole survey and a maximum estimate of 7.76% cover on Transect 2. These values indicate this area is of no significant conservation interest, when assessed against this parameter. The OSPAR guidance also states that 'scattered populations of isolated full-grown adults or of spat at high densities are not classified here as beds'. Although no spat can be identified in the footage, numerous isolated individual can be seen over the survey area.
Amongst the small sporadic aggregations of mussels there is also evidence of physical damage by fishing gear. As the fishing gear is towed/trawled along the seabed large proportions of mussels are torn from the sea bed and smashed, many of which will then re-settle on the seabed. From the footage it can be seen that the more open areas between the M.modiolus clumps are filled with broken and dead shells. Scavenging species are often seen near damaged mussel aggregations.'

This is aquaculture using the damage caused by dredging as an excuse to argue that a PMF is no longer worth preserving.

SEAs have been done for other damaging industries, for instance mechanical seaweed harvesting, but the aquaculture section of the National Marine Plan has not been assessed in this way, even though it is a legal requirement. Its impact on PMFs should have been subject to a Strategic Environmental Assessment, including the plan's support for the industry's expansion.

Nor has a Sustainability Appraisal been done for aquaculture as a whole, regarding its impact on PMF species/habitats, or any other species and habitats across the 'aquaculture zone'.

SNH and Marine Scotland are supposed to protect these species/habitats from all impacts, and from their cumulative effects. How can they do so without this information?

The National Trust for Scotland submitted evidence to the ECCLR Committee's inquiry that, in February 2018, 32% of active salmon farms were within protected areas.

SEPA are responsible for assessing the risk posed to PMFs, MPAs and SACs when considering proposals for new marine cage fish farms or proposals to change the operation of existing farms, but the impact of existing farms, pre-dating MPAs, has not been so carefully scrutinised.
We question why new fish farms would be consented within protected areas for sensitive organisms anyway, but many older existing farms may be in this situation.

The condition of PMFs outwith MPAs designated for them is not regularly monitored for the impacts of aquaculture. SEPA had told us it *'does not determine the location, extent, status nor condition of maerl beds.'* and that *'…SNH is the organisation with the best available information re location, extent, status and conditions of maerl beds in Scotland'*, but on 18th April SNH had told the Scottish Parliament's Rural Economy and Connectivity Committee's inquiry into salmon farming that SNH avoids fish farms when monitoring the condition of MPAs.
(http://www.parliament.scot/parliamentarybusiness/report.aspx?r=11469&mode=pdf - see page 8): *'Our role in relation to MPAs is on site condition monitoring—monitoring the condition of the features within protected areas. We do that on quite a long cycle, because of the resourcing costs: marine monitoring is very expensive and we do not have a lot of resource to monitor those sites regularly.*
We deliberately select stations for the survey points for monitoring that are away from things such as fish farms, because otherwise the results would not be representative of the site as a whole.
It is very unlikely that our routine site condition monitoring on that lengthy cycle will pick up issues relating to change and damage to features from a fish farm.'

We emailed SNH to ask who monitors the condition of maerl when it occurs outside an MPA, or inside an MPA that was not designated for it.
SNH's Unit Manager of Coastal & Marine Ecosystems & Use said that discussions are currently underway between SNH and SEPA about better sharing of information between SNH and SEPA over modelling and monitoring of benthic impacts relating to fish farming, but added that: *'the Scottish MPA monitoring strategy provides the framework for monitoring MPA features – this includes provision for some monitoring of habitats outside those MPAs where they are part of the designation. As you recognise in your email, we have to make sure that we prioritise*

our resources. ***Realistically, this means that SNH will not monitor most maerl beds in the situation you describe.'***
Given that neither SNH nor SEPA monitors the impacts of aquaculture on maerl, outside MPAs designated for maerl, how is it possible to tell whether it is being protected?

Including the impacts of aquaculture on these PMFs would be consistent with the SEA's biodiversity objectives: To safeguard marine and coastal ecosystems, including species and habitats, and their interactions; and 'to avoid pollution of the coastal and marine water environment.'

Why are the impacts of aquaculture not being included in this review?

In order to achieve the UK Marine Policy's vision of *'clean, healthy, safe, productive, and biologically diverse oceans and seas'* and for the Scottish Government to fulfill its duty under the Marine (Scotland) Act (2010), to protect and enhance the marine natural and historic environment, the Environmental Report resulting from this Screening and Scoping exercise should address the impacts of all industries on all PMFs, not just the impact of bottom contact fishing gear on 11 out of 81 (less than 14%) of them.

Unless there is a comprehensive review of the protection of 'Priority' Scottish marine organisms and habitats, the PMF designation means little. Surely this small subset of all Scottish marine life has been selected to be on the priority list because these species have the greatest need of protection.

Q 5. Do you have any comments on the identification of areas for management consideration?

<u>Spatial limitations of the review</u>
The Cabinet Secretary does not seem to have specified that this review should exclude MPAs, yet its scope includes only the PMFs that live outwith MPAs.

By excluding PMFs living inside MPAs the review's spatial scope is too limited.
The flapper skate is an example of this: not all of them live inside the MPA created to protect them and some move in and out of the protected area.

In addition, while many MPAs were created to protect a particular PMF, such as the skate, they may also contain other PMFs that have been overlooked and are therefore unprotected. Some of these areas have been identified in the 'Knowledge Gaps' map in the consultation document. The Sound of Jura is one of them.

In the 'Areas for Management Consideration' map (Figure 2), SNH has defined PMF records as follows, which does not give the whole picture:
'Managed *- subtidal PMF records within the MPA network and/or fisheries management areas where bottom contacting mobile fishing gears currently are, or are proposed to be, prohibited year round.'*
or

***'Unmanaged** - subtidal PMF records not within the MPA network and/or fisheries management areas where bottom contacting mobile fishing gears currently are, or are not proposed to be, prohibited year round.'*

This clean split ignores the intermediate areas inside MPAs where bottom contacting fishing methods are allowed. For instance in parts of the Loch Sunart to Sound of Jura MPA bottom contacting fishing is allowed for six months of the year, and in part of the Loch Sween MPA from 07:00 to 21:00, on weekdays - surely one of the strangest seabed protection measures adopted in an MPA.

The Sound of Jura is identified as a 'knowledge gap' area (Fig 3) for the northern sea fan - its distribution there is largely unknown - so how can the fisheries orders applied to the Loch Sunart to Sound of Jura and the Loch Sween MPAs ensure that there is no significant impact on the national status of the PMF habitats and species within these areas, including northern sea fans, when these damaging forms of fishing are still allowed for part of the year?

In addition, clusters of PMFs at single sites can represent a significant part of the national population: for instance SNH objected to a single fish farm proposal within the Loch Sunart to Sound of Jura MPA (at Dounie, Sound of Jura), on the basis that the effluent at that site would have a significant impact on the national status of northern sea fans.

It is clear that PMFs occurring at low numbers or in isolated sites, can also be at risk even within MPAs and we urge you to include them in this review.

Q 4. Do you have any comments on the specific advice for any of the PMFs?

Northern sea fans concern us directly as they occur in the Sound of Jura. We have specific comments on the data and the evidence sources to be used in the assessment.

SNH's Northern sea fan document says that: *'Northern sea fan and sponge communities are a protected feature of 8 MPAs in Scottish territorial waters: Small Isles; Firth of Lorn; Loch nam Madadh; St Kilda; East Mingulay; Loch Laxford; Lochs Duich, Long and Alsh; and, Sunart'.*
The Loch Sunart to Sound of Jura MPA was not designated for northern sea fans, although the SNH document acknowledges that they do occur within it:
'Northern sea fan and sponge communities are afforded protection by virtue of existing or proposed fisheries measures with other designated features in a further 2 MPAs (Loch Sunart to Sound of Jura [multiple records]; and Wester Ross.)'
The same document adds that there are also, *'a large number of unprotected records of northern sea fan and sponge communities across the west coast. Clusters of records are present around - including: Sound of Jura - at the mouths of Lochs Craignish and Crinan and down the SE coast of the sound.'*

We disagree with the document's conclusion that only four areas need further measures to adequately protect northern sea fans: *'In a fisheries context, further*

protection measures from pressures associated with towed bottom-contacting gear are most easily focused on discrete areas that hold good examples of northern sea fan and sponge communities. There are four areas considered of particular importance: Shiant East Bank; Little Minch; Sea of Hebrides (Mingulay 4) and, South of Eigg.'

Whether it is easier to focus these efforts in those four areas is immaterial, because the same document also says that *'Assessment against National Marine Plan General Policy 9: Development and use of the marine environment, must not result in significant impact on the national status of Priority Marine Features'* and we know from Dounie that the loss of a single site can have this effect.

The document explains that *'Northern sea fan and sponge communities in Scotland are of global importance. They are functionally important, biodiverse and sensitive. If lost, they would take many years or decades to recover due to the short pelagic larval duration of characterising species and the limited potential for dispersal.* ***Therefore any activities that lead to the loss of entire patches of feature or where they are damaged to the extent that their function or provision of ecosystem services cannot be maintained should be considered a significant impact on national status.'***

SNH justifies only protecting northern sea fans in the four areas it identified above, *where 'additional fisheries management should be considered to avoid significant impact on the national status of this PMF'* because these areas *'cover a range of environmental conditions; encompassing variation in seabed topography and substrates, wave exposure, tidal currents, depth and geographic range. Areas have been designed around clusters of records in preference to isolated observations, and around more extensive areas where this information in known or may be inferred from predictive mapping. Information on existing levels of fishing pressure has also informed the recommendations. A greater biological diversity of associated faunal and floral communities across an extensive area with a higher abundance of northern sea fans, cup corals, and sponges, are factors which increase the conservation importance of examples of this habitat.'*
But it adds that: *'Information on these characteristics does not exist for all records in Scottish waters, precluding their detailed application in this assessment. However, such information will be sought and used in development licensing and consenting processes.'*

SNH should certainly seek that additional information, but a lack of scientific certainty is not a reason not to protect areas where there is a high likelihood of these PMFs occurring, especially given that a threat to their population at a single site (Dounie) was deemed to put their national status at risk.

This is a familiar situation: The decision to protect only the 'best' examples of a rare and sensitive Priority Marine Feature is what caused the problem with flame shells. Loch Carron's flame shell bed had been deemed less important than others and it was not afforded MPA status, hence it could be and was dredged, causing a public outcry.

Where survey data is lacking, SNH see it as reasonable to deduce the likely presence of a PMF by other means and to act on that deduction until surveys are done: *'Many locations will lack good spatial information on PMFs; specialist advisers may therefore consider the likelihood of occurrence of PMFs based on the physical environment, predictive modelling and any other indicators/proxies of likely PMF presence or quality/condition'* (Section 6 of SNH *PMF Guidance May 2016*: 'Requests for additional information or survey'), adding: *'If there is a risk of significant impact on national status of PMFs but uncertainties cannot be resolved by additional survey or information, consider an adaptive management approach with phased development and/or monitoring. This can allow impacts to be measured to inform further mitigation or phased consenting stages.'*

Where there is a reasonable likelihood of harm to the national status of an organism or habitat, but not yet enough scientific data to be certain, the precautionary principle should apply, as laid down in Scottish Planning law and elsewhere.

There is an urgent need to confirm the exact distribution of these species and other PMFs but the end of this consultation period gives very little time for this. Surveying all PMFs should be a Marine Scotland and SNH priority. While survey information is lacking, we urge you to take a precautionary approach; to protect all areas where these PMFs are found, or are likely to be found, and only to reopen those areas for bottom contact fishing methods once seabed surveys have shown that there is no risk to their national status.

We also urge that this review should not be a one-off opportunity but that it should be the start of a rolling process whereby all PMFs mapped subsequently can be quickly given the same level of protection from harm as those that are known about at the time of the review.

Our views on the methodology to be used in the economic assessment

The Sustainability Appraisal will include a Socio-Economic Impact Assessment that aims to *'identify and assess the potential economic and social effects of a proposed development or policy on the lives and circumstances of people, their families and their communities'.*

We represent coastal communities. PMF species and habitats provide us with valuable ecosystem services as well as with tangible benefits such as commercially caught fish and crustaceans.
They have an even larger value in their own right, which cannot be evaluated in financial terms. It is not reasonable to judge the economic case entirely on calculations of losses to the fishing industry versus less well-defined benefits, such as ecosystem services.

There would be tangible economic gains from protecting PMFs as well, for instance no-take zones offer substantial spillover benefits to the same industry because they restock adjacent areas that can then be fished. Other fishery sectors also benefit

from the protection of the PMF species and habitats that shelter juvenile fish, crustaceans and molluscs. Scallop divers have thrived in the Firth of Lorn since dredging was banned there.
Having rich marine life in areas protected from damaging forms of fishing gives other concrete as well as intangible benefits to coastal communities, such as jobs and recreational opportunities in sea angling.
Creel fishing does substantially less harm to benthic PMFs and susceptible mobile PMFs such as the flapper skate. Last year the Scottish Creel Fishermen's Federation published an analysis of the question; *'Which sector will make best economic use of each and every live weight tonne of Nephrops?'*
(http://www.scottishcreelfishermensfederation.co.uk/report.htm)
It found that creeling delivers more jobs and greater profit per tonne caught, rather than trawling the seabed. This kind of fishing can support more jobs, higher total household incomes, higher total profits and a larger number of individual fishing businesses in coastal areas. Conflict between static and mobile gear means that creel boats are normally limited to fishing in areas where their creels will not be towed away. Protecting areas from dredging increases access to these fishing grounds for creel boats.
How will this economic benefit be included in the analysis?

Adopting an ecosystem approach to the protection of areas, as well as key species, is consistent with European and Scottish policy. It is also consistent with the United Nations (UN) Aichi Targets for 2020, the EU Biodiversity Strategy to 2020 and the 2020 Challenge for Scotland's Biodiversity, which aims to preserve and restore the health of Scotland's ecosystems at large scales. It would also help Scotland's seas achieve 'Good Environmental Status' under the Marine Strategy Framework Directive.

The SEA Screening and Scoping report says: *'The Scottish Government is committed to maintaining a healthy and biologically diverse marine and coastal environment that continues to provide economic, social and wider benefits to meet the long term needs of people and nature.'* As with the economic losses, these tangible and intangible social and wider benefits should be assessed over a period of 20 years following implementation of management measures.

<u>Monitoring and enforcement</u>
PMFs will not be fully protected until there is effective monitoring of the location and quantity of fishing effort. Breaches of protected areas are frequent and in these cases the prosecution of the skippers and owners of boats is essential.

The SEA Screening and Scoping report's discussion of the use of Vessel Monitoring System (VMS) data to assess fishing effort is telling in this respect. Regarding its mapping of the footprint of this type of fishing, it says that: *'In 2016 inshore MPA management measures were introduced which affected this footprint, and therefore* ***areas where fishing can no longer take place have been erased****.'*
This assumes that any boats shown by VMS to be inside those areas since 2016 are not fishing. However, 12m+ boats that wish to avoid such scrutiny need only put a

bucket over the VMS antenna for an hour or so, allowing a boat to tow right through a protected area.

VMS is only obligatory on boats over 12m, when in fact many dredgers are smaller than this. These may do the greatest harm to PMFs, by working close inshore; around groups of small islands for instance. This information gap is acknowledged (*'Assistance to identify any areas of missing footprint for these smaller vessels is a key part of this consultation. We would very much like to hear from stakeholders who can provide evidence that can fill any gaps in the footprints'*), but having to resort to asking the public where the smaller boats fish is hardly a good basis for deciding on the impact of a damaging fishing method. Marine Scotland should monitor the areas fished by these boats.

It is essential that all boats using bottom contacting mobile gear are equipped with VMS and that these devices relay information, in a way that cannot be tampered with, showing when the boat is towing its gear.

Q 6. Do you agree that 12 hours per year is a suitable level to define the fishing footprint?

As the sensitivity of PMFs to this kind of fishing varies, and given that some PMFs occur in small clusters that could be wiped out in an hour, and that smaller boats are not shown on the VMS plots, it would be better to have no lower limit on dredging effort per year when defining the fishing footprint.

Q 7. Do you have any evidence of fishing activity out with the footprint, in particular for vessels under 12m in length?

This happens frequently, for example recently a scallop dredger was reported by another boat to be working in the protected part of the Sound of Jura. On this occasion MS compliance sent a fisheries spotter plane but many similar events go unrecorded.

<u>Our views on the management approach that will be assessed, and potential reasonable alternative management approaches</u>

The proposed management approach aims to start *'by looking within the areas for management consideration identified in the SNH advice. Zones are then drawn around the records of habitats and species using activity data, environmental factors, and where necessary geographic points of interest…The precautionary principle is applied by zoning off PMFs even where they are not subject to current fishing pressure.'*

It will also assess *'a reasonable alternative in which all demersal mobile fishing activity at locations of the 11 PMFs is prohibited and displaced.'*
This measure is the minimum needed to achieve a reasonable degree of protection for these PMFs and should be adopted.

The Inshore Fisheries (Scotland) Act 1984 includes the power to restrict fishing or prohibit the use of certain kinds of net in order to conserve the natural beauty or amenity, flora, and fauna of a marine area, and is applicable to any location within 6 nautical miles. It would be reasonable to require that fishing should do no harm to PMFs within the 6 nautical mile limit of the 1984 Act.

In the absence of complete knowledge of their distribution, a lesser but still quite effective measure that would be consistent with the precautionary principle (the application of which is a legal obligation on all public bodies in Scotland, wherever significant harm may occur to the environment and when there is not enough scientific evidence to be sure that it will not occur), would be to prevent damaging forms of fishing within 0.5 nautical miles of all coasts. This would protect the area where c.90% of the 11 PMFs occur (except for cold water corals). Since some PMFs fall outside that narrow band, those whose location is known but not included in the 0.5 nm coastal strip should be protected by their own circular zone of 1 nautical mile radius.

We recommend this option, as a compromise. It would address the problem foreseen in the SEA that *'In terms of displacement of activities, there may also be a potential intensification of other activities in areas with PMFs that are not affected by any proposed management measures',* although we understand that the creation of MPAs has not resulted in a substantially increased impact of fishing on areas outside the MPAs, suggesting that the risk of harm through displacement of fishing activities may have been overstated.

The Marine Strategy Framework Directive has the overarching aims of protecting biodiversity and ensuring the sustainable use of the marine environment. Under this directive, Good Environmental Status means that *'the sea floor integrity ensures functioning of the ecosystem and benthic ecosystems, in particular, are not adversely affected'.* The definition of 'Sea-floor integrity' includes biological (i.e. species composition) characteristics.

The Water Framework Directive sets out a requirement for an assessment of both chemical and ecological status of each individual waterbody and has a goal of bringing all European waters to 'good ecological and chemical status'.
The Marine Strategy Framework Directive (2008/56/EC) extends the requirements of the WFD into seas beyond 1 nautical miles.
This therefore applies to waterbodies such as the Sound of Jura.

Scotland cannot fulfill its obligations under the WFD unless it maintains good ecological status, which means it must protect all its PMFs and its other species and habitats from deterioration.