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Dear Helena

## **Comments on Welsh Assembly's Strategy for Marine Protected Areas: Protecting Welsh Seas**

Thank you for the opportunity to comment on your draft strategy for Marine Protected Areas. Here is our contribution.

### **Introduction**

Seafish is a non-departmental public body that provides support to all sectors of the seafood industry. It has no official role in resource or environmental management but has an obvious interest in the outcomes of the management processes. Seafish has a publicly stated commitment to "the sustainable and efficient harvesting of those resources on which the UK seafood industry depends, the protection of marine ecosystems, and the development of marine aquaculture based on sustainable resource utilisation and best environmental practice".

We have identified and we will comment on the following 5 key areas of interest to Seafish:

1. Stakeholder engagement
2. Flexible planning
3. Socio-economic considerations
4. Conservation objectives
5. Site management

## 1. Stakeholder engagement

We welcome the Welsh Assembly Government's (WAG) commitment to engage with all stakeholders in the delivery of an MPA network and in particular the designation of MCZs:

*p3: We want the network to be well understood and supported by sea users and other stakeholders, to make a major contribution to the protection and recovery of the richness of our marine environment.*

However a single fishing industry representative on the Stakeholder Group (Welsh Coastal Management Partnership - WCMP) does not reflect the importance of the commercial fishing and aquaculture sectors in Wales.

Wales supports a diverse fishing industry, comprising a multitude of inshore fisheries targeting a variety of species in different areas, at different times of the year using a variety of gear, for example bass are targeted using long lines, nets and trawls. Wales also supports an offshore fleet targeting scallops and demersal fish, a substantial aquaculture industry and a number of inter-tidal hand gathering fisheries. In addition to the Welsh fishing industry, Scottish and English boats fish in Welsh waters and Belgium and French fishing fleets have historical rights to fish in the Welsh 6 -12nm zone.

We object to the proposal to appoint the WCMP as the Stakeholder Group in the MCZ process as the group membership (total of 30) does not provide proportionate representation according to socio-economic value, distribution, intensity, knowledge and vulnerability. For example, one third of the membership is local Government / Regulators, there are two land farming representatives and only five marine industry representatives, only one of which represents the fishing and aquaculture industry. In its present form the WCMP will not achieve WAG's stated aim that is:

*Annex: 'The Stakeholder Group will ensure that all relevant stakeholder interests are represented in order to inform the site selection criteria and decisions regarding the location of MCZs'*

The wide range of fishing interests in Welsh waters clearly requires more than one representative and we strongly encourage WAG to follow the Regional MCZ model in England to ensure such diversity is adequately represented.

Stakeholder participation is critical to the success of marine conservation policy, particularly in the marine environment where there are inherent enforcement difficulties and an incomplete scientific understanding of the marine ecosystem. Moreover, we include as stakeholders, not only fishermen's representatives, but also fishing communities and fishermen<sup>1</sup> themselves.

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<sup>1</sup> The term fishermen includes shellfish and finfish farmers

The Wales Fisheries Strategy<sup>2</sup> acknowledges the need stakeholder support to achieve its aim for sustainable (environmentally, socially and economically) fisheries

*'It will be difficult to achieve this aim without the active support and participation of stakeholders and partner organisations' (Foreword by Elin Jones AM Minister for Rural Affairs. Wales Fisheries Strategy 2008)*

Fishermen probably know more about the seabed conditions around Wales than most scientists. Probably less than 5% of the Welsh seabed (BGS data 2009) has been properly mapped in respect of ground conditions, habitat types and species assemblages. This work is urgently required in order to provide a sound basis for marine planning and site designations.

Such valuable contributions, however, will only be made if fishermen believe WAG's MPA policy is fair, proportionate and inclusive. Building trust is very hard to create but very easy to destroy, and developing meaningful engagement with fishermen takes time. Trust is founded on transparency, understanding, appreciation, respect and collaboration.

The following initiatives may help build up trust, and in some cases help to rebuild trust:

- Extensive communication with industry (not just industry representatives) on the need to protect marine biodiversity, including the potential benefits afforded by MPAs to commercial species. This could involve Countryside Council for Wales (CCW) making presentations on local marine biodiversity interests to local fishermen's groups;
- A commitment by WAG and CCW to proactively consider how existing and future fisheries can continue in MPAs, and to encourage industry initiatives to safeguard marine biodiversity - initiatives of the kind that we have seen in fisheries management to great effect (eg real-time closure agreements to protect cod and juvenile whitefish);
- A commitment to compensate those fishermen who lose fishing opportunities as a result of designation of MPAs, by financial assistance, training to diversify, and involvement in the management of MPAs, such as fisheries and environmental monitoring work.

We would welcome the opportunity to discuss these trust-building and communication activities and look forward to develop further initiatives to improve stakeholder engagement with WAG and CCW.

## **2. Flexible planning**

The distribution of species and some habitats, such as biogenic reefs will change in

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<sup>2</sup> Welsh Assembly Government's Wales Fisheries Strategy published in 2008

response to rising sea temperatures and ocean acidification. The spatial and temporal nature of fishing constantly alters in response to many factors, including fishing regulations, markets for new species, new markets for existing species, development of new gear, and first sale value.

Versatility, in particular the ability to alternate between commercial species and different fishing methods, is key to the survival of the Welsh inshore fishing fleet. Seafish is very concerned that a rigid marine spatial planning system could seriously disadvantage the fishing industry and we call for as much flexibility as possible in the siting and managing of MPAs.

Because so little of the Welsh seabed is adequately mapped, it is highly likely that we will not have a comprehensive map of the Welsh seabed by 2012, and therefore habitats and species that qualify for MPA designation will undoubtedly be discovered following the designation of MPAs. Alternative MPAs may therefore be beneficial for both marine biodiversity and fisheries interests.

Because we believe the designation and management of MPAs must be flexible to take account of future knowledge, we urge WAG to clearly set out a de-designation process. We note that such a process has been established by Defra for MPAs designated in English and UK offshore waters. We hope that Seafish and the industry would be consulted and involved in the development of guidance on such de-designations.

We would like to see a presumption in favour of existing and future fishing and aquaculture activities that are compatible with MPA conservation objectives to ensure that the development of new fisheries and aquaculture is not unnecessarily constrained in MPAs. Such a system exists in the Australian Great Barrier Reef (GBR), where the emphasis is on providing a spectrum of zones with differing objectives, which then clarify what activities are appropriate in the zone. Also, there is also a special “catch-all” permit provision in the GBR Zoning Plan (“*any other purpose consistent with the objective of the zone...*”) that provides for permission to use new technology or activities that were not known when the Zoning Plan was approved but which are compatible with its conservation objectives (Day, 2008).

### **3. Socio-economic considerations**

We are encouraged by WAG’s commitment to support ‘*vibrant marine economies*’ (WAG’s vision for Wales’ marine environment) and take account of economic activity in the MCZ designation process to minimise conflict with existing marine users:

*p14: Criteria for the identification and selection of MCZs in Welsh waters will be developed, agreed and used through a robust site selection process, incorporating ecological information, socio-economic information and stakeholder dialogue. This will ensure that sites are chosen to maximise ecological and socio-economic benefits while minimising any conflicts with different uses of the sea as far as possible.*

Taking adequate account of socio-economic information in the MCZ designation and selection process will require a comprehensive survey of fishing activity in Welsh waters. However, socio-economic fishery assessments are notoriously difficult because data is not readily available; the assessments may depend on a number of scenarios driven by a variety of complex factors such as the ability to diversify; there are many onshore costs to consider; and problems arise from the spatial nature of fishing and the constant fluctuations in economic circumstances.

To deal with some of these difficulties, below are some suggestions on how to ensure socio-economic information is comprehensive, accurate and respected. Note that the reliability of socio-economic information will very much depend on the involvement of industry.

#### *A consistent approach*

In May 2009, Seafish identified a number of initiatives that were collecting information from the fishing industry to inform the Regional MCZ projects in England, European Marine Site work and for the purposes of spatial planning. The key programmes were believed to be: Finding Sanctuary (SW England), Natural England's Regional MCZ work, CEFAS VMS project, Sea Fisheries Committee Observation mapping, as well as some industry initiatives.

Seafish was concerned that an uncoordinated and disjointed effort to collect data could lead to costly and unnecessary duplication of effort and a missed opportunity to standardise approaches. To that end, Seafish initiated a review of those current initiatives to help bring some cohesion to those efforts and to ensure that industry engages more positively. The review took the form of a workshop hosted by Defra on the 28<sup>th</sup> July 2009 bringing together all relevant parties to discuss the following issues:

- Who is doing what and how are they doing it?
- What questions do we want to answer with this information?
- Are we missing opportunities to collect additional information?
- Can we agree a MOU whereby all parties share the data?
- Can we agree a common means of standardising methodology and data presentation?

Of the above initiatives to collect information from the fishing industry, Finding Sanctuary's (FS) FisherMap survey was the most prominent and was the model that would be rolled out to the other England MCZ regions. As our contacts with the fishing industry suggested that FS's approach had some shortcomings either for reasons of perception of FS (as a 'green' focussed entity) or because of the substance of some of the approaches that FS had adopted) we asked experts to peer review the published 'FisherMap' protocol in May 2009. The purpose of the peer review was not to undermine the current efforts of FS, but to determine whether the FS approach was robust and whether there were any shortcomings. The three experts identified both positive and negative attributes, suggesting how the approach could be improved and the results of

the peer review were discussed at the workshop Seafish organised with support from Defra on the 28<sup>th</sup> July 2009.

In September 2009, Seafish commissioned Sophie Des Clers (who developed FisherMap for Finding Sanctuary) to revise the FisherMap protocol in light of comments from the peer review; following a second workshop in October 2009; and, following feedback thereafter. The revised questionnaire is currently being subject to a second peer review and a final methodology is expected to be released in early January 2010.

We recommend that a similar mapping exercise to the one being carried out in England to inform the regional MCZ projects is undertaken in Wales and suggest using the revised and independently assessed FisherMap protocol for consistency and credibility.

#### *Social-economic expertise on the Technical Advisory Group*

Ecosystem based management underpins the objectives for marine spatial planning; for sustainable fisheries and aquaculture in Wales; and, the reform of the Common Fisheries Policy. Ecosystem-Based Management (EBM) is a management approach that:

- Integrates ecological, social, and economic goals and recognizes humans as key components of the ecosystem.
- Considers ecological- not just political- boundaries.
- Addresses the complexity of natural processes and social systems and uses an adaptive management approach in the face of resulting uncertainties.
- Engages multiple stakeholders in a collaborative process to define problems and find solutions.
- Incorporates understanding of ecosystem processes and how ecosystems respond to environmental perturbations.
- Is concerned with the ecological integrity of coastal-marine systems and the sustainability of both human and ecological systems.

The MCZ Technical Advisory Group must comprise at least one social scientist and an economist to comply with the objectives laid down for the MCZs and other marine policies in Wales that will be integrate with the MCZ approach.

#### *Continual monitoring*

Given that the spatial and temporal nature of UK fishing can change frequently, for the reasons outlined above, then the corresponding spatial change in socio-economic value needs to be monitored. Up-to-date information will be required by WAG for accurate assessments, management and licensing decisions.

## **4. Conservation objectives**

The management of activities within and close by an MPA will be driven by the site's conservation objectives. We assume that the conservation objectives for MCZs will be

similar to those set for current European marine sites. That is, the nature conservation aspirations for a site will be expressed in terms of the desired conservation status (i.e. favourable) for each feature for which a site is designated.

These conservation objectives must be clear, measurable and reasonable for the reasons outlined below.

*Objectives must be clear*

As stated in the strategy, the success of an MPA in terms of increasing the biomass and diversity of marine species, including commercial species depends on a number of factors including the location and size of an MPA.

We therefore believe that the key objectives for MPAs should not incorporate uncertain outcomes, but acknowledge from the onset that, for example, the protection of an area deemed to be an important spawning and / or nursery area for commercial shellfish and / or finfish species, may not necessarily lead to an increase in population size. Unlike tropical waters where finfish tend to be more territorial, most commercial finfish targeted by UK fishermen in temperate waters are highly mobile. So MPAs covering spawning and nursery areas, whilst a good thing, would not necessarily increase the spawning stock biomass. A recent study by Polunin 2009 found no effect of protection (*through an MPA*) on finfish abundance off the Yorkshire coast.

There was no evidence in any of the studies reported in a special issue of the ICES Journal of Marine Science in 2009 that reported on a European Symposium on Marine Protected Areas as a Tool for Fisheries Management and Ecosystem Conservation (Vol 66, No. 1, January 2009) to demonstrate that MPAs benefited finfish populations in temperate waters. Similarly, the authors of a Defra study on MPAs for management of temperate North Atlantic fisheries in 2005 concluded '*evidence for benefits to temperate finfish inside MPAs is inconsistent*' and '*in no case examined has spill over compensated for loss of fishing area*' (Sweeting & Polunin 2005).

Even for more sessile species such as scallops there is evidence to suggest that protection through MPAs can lead to mass mortality of old cohorts. For example, a study of the scallop population in an MPA near Georges Bank found that scallop density had declined by 50% (in a 500km<sup>2</sup> area) between 2004 & 2005 following the closure of the area in 1994, and that the scallops that perished were large and probably old, as 80% had shell heights greater than 130mm (Stokesbury 2007). Anecdotal reports from Lundy Marine Nature Reserve suggest that the local lobster populations could be suffering from over crowding.

*Objectives must be measurable*

Conservation objectives must be measurable to be able to determine whether favourable conservation status is being achieved. Global environmental influence such as rising sea temperature may, for example, prevent a site feature attaining Favourable Conservation Status (FCS) and we need to be able to identify whether this is the case or not.

### *Objectives must be reasonable*

The nature conservation aspirations for a site which will determine a site's FCS, need to be reasonable and take account of past economic activity. There needs to be clear benchmarks and reference points to describe the desired status of MPAs. For example, will the favoured population size of a particular species or extent of a habitat be set at levels known to have occurred before the industrial revolution? Or after the second world war? It must be remembered that marine ecosystems may have been fundamentally altered in structure by fishing, making a return to pre-closure conditions impossible (Sweeting & Polunin 2005).

The fishing industry has experienced inadequate advice and management within UK European marine sites as a result of unreasonable conservation objectives. For example, designated as features of the Wash SAC and SPA, the conservation objectives first set for cockles and mussels were unrealistic. Pressure from the local fisheries management body (Eastern Sea Fisheries Committee) and local fishermen led to a series of workshops with Natural England to re-evaluate the conservation objectives and determine how best to manage both stocks. The management policy took several years to agree (but it was agreed!).

A 2005 report of a Wildlife and Countryside Link workshop (supported by NGOs such as RSPB, WWF-UK and The Wildlife Trusts) stated, with respect to the UK, that *'There remains some uncertainty, for example, as to the reference point for defining favourable conservation status and hence a baseline against which to identify and monitor areas in need of restoration and recovery'*.

The lessons learnt from the Wash and other UK European marine sites are that conservation objectives and site management plans need to be developed with stakeholders to stand the best chance of being accepted and ensure they reflect what is happening on the ground. Fishermen are best placed to observe seasonal and annual trends in the distribution, size and behaviour of habitats and species of conservation interest. Seafish could help facilitate such discussion and collaboration.

## **5. Site management**

Many fishery and aquaculture management decisions in UK European marine sites over the past five years have ended acrimoniously and led to fishing and aquaculture restrictions, including unacceptable delays and sometimes refusal to grant aquaculture authorizations, and Prohibition Orders on capture fisheries that have discouraged the fishermen from taking any further part in biodiversity protection, probably for many years to come. As mentioned under Stakeholder Engagement, support and compliance from the fishing industry is critical for the success of WAG MPA policy

Demonstrating proportionate use of the precautionary principle, adopting adaptive management techniques, taking account of vessel displacement, and considering how best to mitigate the impact of MPAs on current fishing activities, could improve the



current level of support and involvement from fishermen. These four are described in more detail below:

#### *Proportionate use of the Precautionary Principle*

Advice from the European Court of Justice (C-127/02, September 2004) has provided a very precautionary interpretation of Article 6 of the EC Habitat's Directive, for example on deciding when an Appropriate Assessment is required and the level of certainty required before permitting certain activities following appropriate assessment.

The need to demonstrate 'certainty' that there will be no adverse effect on the integrity of a site, and 'no reasonable scientific doubt' of adverse effect, means that fishery and aquaculture authorities must be 'convinced' that there will not be an adverse effect, and that where any doubt remains as to the absence of adverse effects, the activity must not be authorised. But providing certainty of no adverse effect (proving a negative) can be extremely onerous and even impossible given our current understanding of the marine environment. It has led to obscure concerns being raised by the UK's Statutory Nature Conservation Bodies (SNCB) in EMS which the fishing industry have sometimes found (a) too difficult to answer owing to a lack of information on site features and on the potential impacts, or (b) to have incurred disproportionate time and cost, and as a result has led to good proposals being abandoned.

A 2006 survey of fishing and aquaculture activities subject to environmental Appropriate Assessments in UK European marine sites found 75% of existing fishing and cultivation activities were restricted and 87.5% of proposed activities were restricted or prevented (Lake 2006). A 2007 survey of shellfish farm environmental impact assessments in UK European marine sites (Appropriate Assessments) and SSSIs (for SSSI consent) found environmental information shortfalls incurred time delays of over 2 years for 60% of shellfish farm proposals and delays exceeded 4 years in 20% of cases (Woolmer 2007).

We hope management of Welsh MCZs will be not be hampered by such extreme precaution and draconian regulation, but will ensure that environmental concerns are based on sound judgement and bear scientific or expert scrutiny, adopting a more proportionate use of the precautionary principle based on internationally recognised management techniques such as adaptive management.

#### *Adaptive management*

Given the dynamic and resilient nature of the marine environment, an adaptive approach to managing fisheries and shellfish cultivation, for example agreeing monitoring programs and allowing experimental fisheries under strict guidelines, would be a more reasonable way of interpreting the precautionary principle. At present we do not have (and we may never have) a complete understanding of the marine environment - how it functions and how it copes with anthropogenic effects.

Ecosystem based management advocates an adaptive management approach when faced with uncertainties of both a natural and social nature.

Preventing sustainable fisheries and shellfish cultivation in European sites on grounds of less than perfect knowledge, contravenes European, UK Government and Welsh Assembly Government policies on sustainable development, which is a concept that accepts the need for reasonable trade-offs between environmental and economic goods.

#### *Vessel displacement*

Displacing fishing activity from MPAs could negate the ecological benefits afforded by an MPA network. The effects of fishing pressure displacement can be assessed by combining (i) information on habitat distribution; (ii) predicted change in the spatial distribution of effort following management action; and (iii) predicted impact of fishing on habitat (Jennings 2008).

Jennings (2008) reported on modelling work to assess the effect of MPA designs on biomass, production and species richness of benthic communities at the scale of the management region (which included MPAs and unprotected areas) undertaken by Hiddink *et al* (2006), which demonstrated that '*MPA closures of different sizes and in different locations could have positive or negative effects on the aggregate state of benthic communities*'. In the absence of fishing effort control, Hiddink predicted that the use of MPAs in lightly fished areas would lead to the largest increases in biomass, production and species richness.

The potential consequences of fishing effort displacement highlights the need for a holistic consideration of the benefits and ramifications of MPA designation and management in regional management systems, such as the one proposed in the MCZ project. MPAs that meet local management objectives may not contribute to meeting objectives set at a regional scale (Jennings 2008).

Fishermen's response to fishing effort restrictions in MPAs and knowledge of fishing intensity in a management region are two critical areas of information that can be provided by the fishing industry. Seafish has assisted in the revision of the 'FisherMap' project described above, to help gather such information for the regional MCZ projects in England.

#### *Mitigation measures*

We are encouraged by WAG's commitment to minimise '*any conflicts with different uses of the sea as far as possible* (p14) caused by the designation of MCZs

We believe, where there is good reason to restrict or even curtail current fishing activities following adequate consideration of the socio-economic and wider ecological impacts of doing so, WAGs' assistance in helping fishermen to diversify, and in using fishermen and their vessels for surveying and monitoring sites, should be encouraged.

Diversification is often presented as a viable alternative when an existing fishery is being challenged in an MPA. The ability of fishermen (in terms of skill and cost), the capability of vessels, marketing opportunities and regulations are just some of the issues facing

those considering diversification. Government assistance in shouldering the financial burden of training and guidance on how to deal with novel forms of fishing and aquaculture would make diversification a real option.

Using fishermen and their fishing vessels to collect environmental information in UK MPAs is becoming increasingly popular. Fishermen are working with Natural England to monitor the effects of a no-take zone off Flamborough Head, and Seafish has developed guidelines with the SNCBs on how industry can collect environmental information to inform environmental assessments, particularly in European marine sites where an absence of data can cause delays (as described above).

The Seafish 'environmental data gathering' guidelines were successfully trialled with industry during 2008, informing current proposals for shellfish farm development and management plans for mobile gear fisheries, and are now used by industry and encouraged by the sea fisheries committees. The guidelines are part of the 'Environmental Toolkit' that Seafish has developed for industry. For more information go to: <http://www.seafish.org/b2b/subject.asp?p=326>

Using fishermen in MPAs surveys and monitoring work will ultimately save money by avoiding high vessel chartering costs and photography, and drop-down video techniques assures data quality. It would also help to instill a sense of ownership and responsibility.

## **Conclusion**

Fishermen will be an integral part of both MPA designation and management. Meaningful engagement and information flow is imperative to the success of WAG's MPA policy and objectives. Seafish is currently helping the UK industry to collaborate with MPA work, but in order to ensure that marine biodiversity receives the best level of protection, the fishing communities and fishermen themselves have to be committed to the cause.

Winning the hearts and minds of fishermen will take time, but by nurturing industry's green endeavours and avoiding acrimonious fishing / environmental disputes that have tarnished relations and led to disillusionment and distrust, then our task of delivering WAG's vision for the marine environment: *'Our seas will be clean, support vibrant economies and healthy and functioning ecosystems* will be made easier.

We hope that these comments are useful and we look forward to continuing working with WAG and CCW on MPA policy, designation and management, and helping the industry engage and support this unprecedented plan to protect marine biodiversity. Should you have any questions please do not hesitate to contact either Phil MacMullen or Mark Gray.

Yours sincerely



Mark Gray

(Environmental Assessment Support Officer)

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