Question 1

<table>
<thead>
<tr>
<th>Has the management of Welsh seas received sufficient resource and strategic direction to enable sustainable management that supports the well-being of current and future generations?</th>
</tr>
</thead>
</table>

The policy and legislative framework that provides strategic direction to enable sustainable management of Welsh seas has undergone significant positive development, providing greater opportunity to deliver sustainable environmental, social, economic and cultural benefit.


The Environment Act (2015) and the Well-being of Future Generations (Wales) Act (2015) (WBFG) introduced a new legislative approach for sustainable development and the sustainable management of natural resources. The benefits derived from the marine environment are critical for human well-being but not always as readily recognised as terrestrial/freshwater-derived benefits. NRW’s State of Natural Resources Report (SoNaRR), however, demonstrates the link between management of natural resources and wellbeing.

In relation to delivery of the WBFG Act requirements in the marine environment there are, however, challenges due to the fact that NRW is the only member of the Public Service Boards with a significant remit below low water. As a result, the drivers for current wellbeing assessments do not easily enable the 43% of Wales that is sea to be adequately addressed. The Welsh National Marine Plan and Area Statements could potentially provide the mechanisms for breaching this gap.

The creation of NRW also provides a key opportunity to address the sustainable management of Welsh seas in a joined up manner, bringing together responsibility for nature conservation, water quality, marine licensing and other regulation, flood management etc. into one advisory and delivery body. NRW works closely with Welsh Government to ensure our marine programmes are well aligned to a shared strategic direction.

In relation to the management of MPAs, strategic oversight is now provided by the Wales MPA Management Steering Group, set up as a result of recommendations in a previous CCW/NRW review of MPA management. This group has established MPA network objectives to assist in setting strategic direction. (Please see accompanying Annex 1 for further details on the MPA network.)

Resources to deliver the above framework continue to be a specific challenge at a time when resources are constrained across all parts of the public sector in Wales. Of critical importance,
therefore, is the need to work in collaboration with Welsh Government and other partners to inform decisions on prioritisation of both work programmes and allocation of resources. For NRW, improving the condition of the network of MPAs through effective management continues to be a key priority in our marine programme and we are committed to working with Welsh Government and partners to achieve this aim.

In summary, whilst the current management regime provides the tools for sustainable management of the marine environment, there remain delivery challenges in relation to resources and prioritisation, and also the application of new legislation in the marine environment.

**Question 2**

How should Area Statements, to be developed by Natural Resources Wales, cover Welsh seas? *(For example should the sea adjoining each Welsh Local Authority be included in its Area Statement, or should the marine environment be considered separately in one or more marine Area Statements?)*

NRW is currently engaging with stakeholders to develop our thinking on establishing a process for producing Area Statements (AS). This includes considering the most appropriate spatial scale to develop ASs across Wales, including the marine environment. We await the publication of the National Natural Resources Policy in March 2017 before we finalise our approach.

There are differences between land and marine ecosystems and related management regimes that need to be recognised and may lead to ASs being developed differently for the marine environment to support sustainable management of marine resources. For example, the scale at which marine ecosystems function, and the dynamic and interconnected nature of the environment is very different to that on land. In addition, the planning, management, use and ownership of the marine environment is fundamentally different, with ownership of the sea bed largely lying with a single owner, The Crown Estate, and responsibility for the planning and management of Welsh marine resources lying predominantly with Welsh Government and, in some cases, with UK Government. On land we consider the plans prepared by Public Services Boards and Local and National Park Planning Authorities will have a particularly important role in informing and being informed by ASs, although the role of these authorities will be proportionally less for the marine environment (see also question 1).

For different issues affecting the sustainable management of marine resources there will be a mix of land and marine based solutions at both national and local scales that draw on a variety of planning and management regimes.

For these reasons set out above, we currently foresee the need for overlapping boundaries between a single marine AS that sits alongside, and integrates with, a number of terrestrial AS that also look out to sea providing catchment to coast management approaches. This would enable issues to be dealt with at the appropriate scale and working with the relevant stakeholders and management authorities.

The spatial relationship between marine and terrestrial planning systems and natural resource management regime across land, shore and sea, is illustrated in the diagram in Figure 1, over leaf.
Figure 1. Spatial relationship between marine and terrestrial planning systems and natural resource management regime across land, shore and sea to 12 nm and the midline.

Question 3

How well are Wales’ MPAs currently being managed?

(This can include aspects such as the condition of sites, staffing to deliver management, surveillance and enforcement activities and the data on the extent of activities taking place in MPAs)

The overall purpose of MPA management is to achieve and sustain favourable condition of the features and sites; this in turn has an impact on the health and functioning of the whole marine environment.

No single organisation has responsibility for management of MPAs in Wales. Management is a shared responsibility with the management of the different types of MPAs directly influenced by their associated legislative frameworks.

NRW has a range of statutory functions relevant to MPA management including statutory advice (local and national), evidence, regulation, flood risk management and incident response. Although not always “visible”, much of the management of protected sites is carried out through dealing with the impacts of licensable activities which are regulated through licensing and permitting processes (e.g. Habitats Regulation Assessments processes, consents and marine licences). There are, however, activities that may impact on MPAs that are not regulated for which other management approaches are needed.

We have a number of sources of information on how sites should be managed and how well we are doing in Wales:

- **Conservation objectives** are contained in management plans for all European marine sites (EMS) in Wales.
Priority pressures, threats and actions have been identified through NRW’s LIFE N2K Project (completed in 2015). The current NRW MPA Condition Improvement Project is focussed on taking forward the actions arising from the LIFE N2K project that NRW believe will have most impact on the condition of our network of sites. This includes a combination of network-wide and local site specific actions (see accompanying Annex 2 for more information).

Current condition of network of sites is variable, as is evidence on the relationship between some activities and site condition. NRW is currently engaged in the production of a full suite of indicative reports on site condition for all our European marine sites, and these will be published in summer 2017.

In 2016 all EMS in Wales were assessed for their management effectiveness as part of a very high-level assessment of the management of MPA across the whole of the OSPAR network. All Welsh sites were assessed at a level of ‘partial’ in the overall assessment, which reflects the fact that some management mechanisms are in place but there is still progress to be made variably across the network. This result was in line with other sites across the UK. This information has fed into an OSPAR wide report which will be published later in 2017 (see accompanying Annex 3 for more information). There are many projects currently underway, or planned, at a national and local scale that directly address effective management of Welsh MPAs, examples include:

- Welsh Assessing Fisheries Activities Project
- Potential coastal and marine recreation project (currently applying for funding)
- Marine litter projects in Pen Llyn a’r Sarnau & Cardigan Bay SACs
- Porthdindlaen Seagrass Project (restoration of seagrass habitat)
- Gwynnedd marine code (focussed on sustainable recreation)
- Installation of visitor moorings in Pembrokeshire Marine SAC to protect vulnerable habitats
- Impacts of bait digging project in the Gann in Pembrokeshire Marine SAC

Further details on the above initiatives can be provided on request.

In summary, management of Welsh MPAs is generally effective where activities are regulated but challenges remain in terms of (a) evidence to understand causal impacts on site condition and appropriate management responses, (b) development of tools to manage currently unregulated activities and (c) prioritisation of resources to tackle management issues.

Question 4

What are the key issues affecting the effective management of multi-use MPAs?

All MPAs in Wales are multi-use sites and a shared responsibility between a number of management authorities. There are a number of issues affecting the effective management of multi-use MPAs.

Threats and pressures

As part of the LIFE N2K project (completed in 2015), NRW staff and EMS officers (with input from other stakeholders and partners) determined the pressures and threats affecting the condition of features in EMS and identified the actions required to address them. Subsequent work has identified five key work areas (not presented in any order of impact):

- access and recreation
- marine fisheries
- invasive species
- water management and issues, and
- pollution and waste.
Many of the actions identified in the LIFE N2K Project were “investigation” actions that detail a need to gather evidence and develop a better understanding of the extent and potential severity of impacts on N2K features which can then be used to create management measures that will move features towards favourable condition and sustainable management.

NRW has put in place the MPA Condition Improvement Project to prioritise and take forward actions that can deliver tangible benefits in terms of improvement in feature condition for these key issues (see Annex 2 for further details on the LIFE N2K and MPA Condition Improvement Projects).

*Resources*

The marine environment is a technically challenging and expensive environment in which to work, and hence it can be resource-intensive to collect evidence to inform management and also to coordinate and implement management action. The number of organisations with a responsibility for MPA management can mean that it is also resource-intensive to tackle mixed-responsibility issues.

*Responsibility for MPA management*

There is no single organisation responsible for managing our MPAs (see also Question 3); MPAs are managed by placing duties and responsibilities on organisations that have a role in the marine environment. These are generally known as management authorities. The different types of legislation and duties can lead to confusion or lack of understanding of an organisation’s responsibilities.

*New technologies*

A particular challenge is posed by new technologies in the marine environment, e.g. new renewable energy technology like tidal stream devices and tidal lagoons. These create new issues that are difficult to assess, such as loss of habitat or impact on mobile species such as fish, birds and mammals. A proportionate risk-based approach is needed via the regulatory process, steered by the Welsh National Marine Plan and a marine Area Statement, to support sustainable development of these new sectors, whilst ensuring that MPAs are not adversely affected.

**Question 5**

Do existing Welsh MPAs currently provide the right protection for the conservation of Welsh marine biodiversity?
The Welsh MPA network is a key tool for delivering conservation of Welsh marine biodiversity alongside the new biodiversity duty in the Environment Act. Recent work has assessed how well the MPA network protects the range of marine biodiversity in Wales; to achieve this Welsh Government commissioned JNCC, with technical support from NRW, to undertake an analysis of the ecological coherence of the network of Welsh MPAs.

Using principles adopted by the UK government, the analysis assessed the range, resilience, proportion and connectivity of 22 broadscale habitats, 19 habitats of conservation importance, and 15 sessile and limited mobility species of conservation importance. It specifically assessed whether MPAs with similar habitat types are no more than 80km apart, and that they include at least:

- 10% of each broadscale habitat
- 2 replicates of each broadscale habitat
- 3 replicates of each habitat or species of conservation importance

The analysis found that Welsh MPAs make a substantial contribution towards an ecologically coherent network and hence makes a significant contribution to the conservation of marine biodiversity in Welsh waters and wider biogeographic seas. There are only a few incidences where the targets listed above have not been met for all biodiversity features assessed and these are predominantly for offshore features. Work is due to commence this year on how best to address these shortfalls to ensure a fully ecologically coherent MPA network. Further details of this gap analysis are contained in the accompanying Annex 4.

The identification of features in MPAs is only one step; effective management and monitoring is also needed to ensure appropriate conservation measures are in place.

Beyond MPAs, mechanisms to support the wider conservation and sustainable management of marine biodiversity exist through the Marine Strategy Framework Directive, Welsh National Marine Plan (in draft) and Environment Act, including Area Statements. NRW’s State of Natural Resources report (SoNARR) published in 2016 also identifies pressures and opportunities for the sustainable management of all natural resources. Key opportunities identified for sustainable management of marine natural resources include managed realignment at the coast, and a plan led (via the Welsh National Marine Plan) and integrated approach to management of marine activities with specific opportunities for sustainable growth in certain sectors (SoNaRR link).

Question 6

What lessons can be learnt from current MPA management activity in Wales (including designation, implementation and enforcement)?
There are a number of lessons to be learnt from the last ten years of MPA designation and management activity. In summary the key messages are that:

- management activity needs to be at the appropriate scale;
- stakeholders and management authorities need to be actively engaged; and
- available resources need to be prioritised to areas of greatest need / impact.

The ways of working in the WBFG Act provide a framework to apply to MPA management, and include: integration, long-term, prevention, inclusion and collaboration.

Further detail on specific lessons are provided below:

- The need for good public engagement, both locally and nationally, is key to MPA management, with strong clear transparent messages and open dialogue. Early, active engagement on the possible new SACs for harbour porpoise created an open dialogue with stakeholders, locally and nationally, and ensured people were well-informed once the consultation commenced and potential issues were readily resolved.

- It is important that management is carried out at the appropriate scale. For example, local problems should be dealt with at the local level, whilst cross-site issues should be dealt with across the network allowing for efficiency of scale and also consistency of approach for national organisations engaged in using or managing multiple sites.

- With diminishing resources across the public sector, a difficult lesson has been that it is not possible to pursue all management action that could improve site condition. Prioritisation of action, such as that being undertaken through NRW’s MPA Condition Improvement Project, is increasingly necessary to ensure we can have a positive impact on issues that have the greatest impact on the condition of our MPAs.

- The benefit of collaboration across sites is also seen in the recent harbour porpoise SAC consultation. Site identification was carried out, conservation objectives were developed, and consultation was synchronised, at a UK scale. For wide-ranging mobile species such as harbour porpoise, cooperation and consistency of approach to designation is of benefit to stakeholders and managers and also to the conservation of the species.

- Engagement with management authorities is also critical to effective MPA management. Following a review of management in 2013 Welsh Government established a Wales MPA management steering group. This group provides a steer on the management of the MPA network in Wales against a suit of network objectives supported by recent work on the roles and responsibilities of MPA management authorities.

- Enforcement is challenging in the marine environment and a number of activities that have the potential to impact on the condition of MPAs are unregulated. In some areas, such as Skomer MCZ, local “policing” is effective, but further offshore enforcement is more challenging and prioritisation of resources and joint working is needed in this area as with other areas of MPA management.
### Question 7

**Are there MPA examples or practices elsewhere that Wales can learn from?**

MPAs are managed in similar ways across the world focussing on protecting the features contained within the site and managing any potentially damaging activities. How exactly the sites are managed depends on the underpinning legislation.

Some examples of management from outside Wales that offer direct and indirect opportunities to learn from include:

1. In France, a single agency was set up to manage MPAs and the wider marine environment across France, providing central coordination and prioritisation of effort. Whilst we do not have such an organisation in Wales, there are lessons to be learnt from the **effectiveness of a central coordination approach** and **focused commitment from a single organisation/body**.

2. In Denmark management of protected areas makes no distinction between terrestrial or marine sites; all are managed in the same way using the same legislation and management planning. There may be **more we can learn from how terrestrial sites are managed** in Wales, the UK and elsewhere.

3. In Australia the Great Barrier Reef is managed by the Great Barrier Reef Marine Park Authority (GBPMPA). The GBR like Welsh MPAs is multi-use but it is carefully planned with sophisticated **zonation** and a **25 year long-term marine plan**. The zonation creates **different level of protection based on the vulnerability of the habitats and species**; an approach in keeping with the recommendations from the Wales MCZ task and Finish Group. Tourism is very important with a **tourist tax** paid by all people using the park which is used by the GBPMPA to run the park.

4. New Zealand have created a network of MPAs which includes 44 marine reserves established in areas that contain underwater scenery, natural features, or marine life whose distinctive or typical nature it is considered in the national interest to conserve. This echoes the zoned approach Australia where **different approaches to protection are taken across the network creating a mosaic of different uses and social, economic and environmental benefits**.

5. The designation of the MPAs around the Isle of Man has been a key element in a package of measures aimed at providing a stable, successful and sustainable Manx scallop fishery. Progress has been achieved as a result of the **collaborative working** between all parties involved who have recognised the benefits for conservation purposes and also to commercial fishing by protecting spawning areas and nursery grounds for commercial fish and shellfish.

### Question 8

**The majority of Wales’ MPAs are designated under the EU Habitats Directive. How should the Welsh Government’s approach to MPA management take account of the UK’s decision to leave the European Union?**
The current legislative framework for MPAs provides the necessary tools for securing an ecologically coherent and well manged network. As noted in the response to other answers, various challenges around implementation of these measures remain but broadly the existing framework is fit for purpose. In exiting the EU, consistency and certainty will be important to ensure continued progress towards effective management of the network of MPAs as well as securing the network of sites that are predominantly created via EU Directives. Allied to this, exiting the EU should not result in any lowering of environmental standards/quality.

In Wales we will benefit from strong domestic legislation that supports sustainable management of MPAs, including the Marine and Coastal Access Act, Environment Act and WBFG Act. The WBFG ways of working, the primary purpose of SMNR, and the new integrated management frameworks provided by the Welsh National Marine Plan and Area Statements, collectively provide a key opportunity to enhance the sustainable management of MPAs and the wider marine environment. Legislative change post EU should maximise the opportunities the above legislation offers.

As the Common Fisheries Policy is not underpinned by domestic legislation this will be one area where careful consideration is needed to ensure a sustainable management framework is put in place.

Exiting the EU will clearly present challenges for the management of MPAs given the predominance of EU derived legislation currently underpinning the management regime for MPAs. However, there is also an opportunity, if carefully planned, to allow even further integration of existing management regimes together with the key domestic legislation referred to above, to create a stronger regime for the sustainable management of MPAs and marine natural resources.

Question 9

If you had to make one recommendation to the Welsh Government from all the points you have made, what would that recommendation be? (250 words)

As previously mentioned, management of Welsh MPAs is generally effective where activities are regulated but challenges remain for the sustainable management of our MPAs, including:

(a) Effective prioritisation of resources to tackle key management issues/impacts.
(b) Evidence to understand causal impacts on site condition and appropriate management responses
(c) Development of tools to manage currently unregulated activities.

Some management issues require a network-wide approach to management, and others require a local solution. Increasingly, the Welsh National Marine Plan and Area Statements should provide the framework for improving the management of Welsh MPAs.

NRW therefore recommends a strong focus on prioritised and collaborative action to improve site and network condition, at the appropriate scale, focusing on action that can deliver the greatest benefits for sustainable management of marine natural resources and wellbeing, now and in the future.
Question 10

Do you have any other comments or issues you wish to raise that have not been covered by the specific questions? (250 words)

**MPA management cycle**

In working towards ongoing improvement of MPA management, it is helpful to understand that management of MPAs, ideally, follows a simple cycle, as set out below. Each of the stages are important to successful management and the it is clearly a "cycle" rather than a linear process:

![Figure 2. MPA Management cycle (OSPAR)](image)

All elements of the above cycle require resourcing for the aim of securing and sustaining effective MPA managing to be realised. It may take multiple cycles of the above to achieve favourable condition of a site and the wider network, especially given the time it may take for changes in the marine environment to be identified or effected. In applying the cycle, the emphasis should be on delivering outcomes for site and network condition, rather than creating resource-intensive process.

In Wales, all steps of the above cycle are addressed to some degree, but NRW advises that the current priorities are:

- “Control pressures” - putting in place measures to secure effective, sustainable management (we are currently addressing this through the MPA Condition Improvement Project and a variety of local initiatives)
- “Assess progress” - Assessing and understanding condition of sites to inform management objectives and action (we are currently addressing a key aspect of this through the development of a full suite of indicative site condition reports)

A clear steer to support the above will help (a) prioritise resources (b) encourage collaborative management and (c) bring about improvements in MPA management in Wales that will benefit the sustainable management of the wider environment and wellbeing of current and future generations.
Annex 1

Welsh Marine Protected Areas Network

Summary
There are 132 marine protected areas (MPAs) in Wales covering an area of 69% of Welsh inshore waters (to 12nm) and 50% of all Welsh waters (to midline). These sites rely on different underpinning legislation and they include:

- Special Areas of Conservations (SAC)
- Special Protection Areas (SPA)
- Sites of Special Scientific Interest (SSSI)
- Ramsar (Wetlands of international importance)
- Marine Conservation Zones (MCZ)

Background
The term MPA is generally used for any area of sea or shore designated by law for the conservation of habitats, species or other natural features. MPAs are one of the tools to help protect and manage the marine environment and hence work towards the shared UK vision of clean, healthy, safe, productive and biologically diverse seas.

Until early February 2017 there were 128 MPAs in Wales covering 35% of Welsh seas. Following the submission of new harbour porpoise SACs and marine SPAs that number has now risen to 132 MPAs in Wales covering an area of 69% of Welsh inshore waters (to 12nm) and 50% of all Welsh waters (to midline). A draft1 map of Welsh MPAs is provided in Figure 1.

Although each MPA exists as an independently qualifying site, in practice many of the sites overlap reflecting the differing legislative frameworks for protecting marine biodiversity.

A network of MPAs
All of the different types of MPAs taken together form a network of sites around Wales. These sites also form part of a wider network of MPAs around the UK, and wider still in the north east Atlantic. The UK Government and devolved administrations are committed by various international agreements, European and domestic legislation, to create an ecologically coherent and well managed network of MPAs. Legislative MPA network drivers includes Marine Strategy Framework Directive and the requirements under Part V of the Marine and Coastal Access Act.

A complete list of the sites incorporating the network and their features (to 2014) can be found in the following report laid before the National Assembly for Wales in February 2014: MPA report

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1 The map is draft due to the recent addition of new sites and it needs to be verified and standardised.
Figure 1: Draft MPA Network in Wales, incorporating recently submitted sites (identified in the key as 'proposed sites')
Annex 2

Marine elements of the LIFE Natura 2000 Programme for Wales and the MPA Condition Improvement Project

Summary

As part of the Welsh Government and EU funded LIFE Natura 2000 Programme for Wales (completed in 2015), NRW staff and European Marine Sites (EMS) Officers (with input from other stakeholders and partners) assessed the pressures and threats on European marine sites (EMS) in Wales and identified the actions required to address them.

NRW have initiated the MPA Condition Improvement Project and are developing a work programme to prioritise and take forward actions that can deliver tangible benefits in terms of improvement in marine feature condition, sites and the network as a whole. Five priority work areas have been identified, around which the programme is being developed (please note, not in order of impact):

- access and recreation;
- marine fisheries;
- invasive species;
- water management and issues;
- pollution and waste.

Background: the LIFE Natura 2000 Programme

The LIFE Natura 2000 Programme for Wales developed a strategic forward plan which sets out the requirements for the management and restoration of the Natura 2000 (N2K) network in Wales. The marine element of the N2K network makes up the core components of the wider network of marine protected areas in Wales. The project was led by NRW and supported by the European Union LIFE+ Nature fund. Working with specialists and other stakeholders the Programme determined the key challenges facing N2K habitats and species, and identified the actions required to address them. The overarching purpose of the Programme was to enable Wales to make significant progress towards bringing N2K habitats and species into favourable condition and help meet commitments under the EU Habitats and Birds Directives.

The LIFE N2K Programme produced Prioritised Improvement Plans (PIPs) for all N2K sites. PIPs are prioritised, costed action plans which summarise the actions needed to help improve the condition of the designated habitat and species features of the site. For EMS, NRW Conservation Officers and EMS Officers (with input from other stakeholders and partners) prioritised pressures and threats against site features and identified actions to address these based on current evidence and understanding.

In addition to site level PIPs, the LIFE N2K Programme created 11 Thematic Action Plans (TAPs) which identify priority strategic actions to address major issues and risks which have an adverse impact on N2K features across the network. Strategic actions include actions that need to be delivered, or require coordination, at national or regional level, and are designed to complement site-level actions within the PIPs.

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2 European marine sites (EMS) refers to SACs and SPAs in the marine environment.
Next steps: MPA Condition Improvement Project

Building upon the information gathered in the LIFE N2K Programme, the overarching aim of the MPA Condition Improvement Project is to develop and deliver a prioritised work programme to focus NRW and other organisations efforts on actions that should have the greatest impact on the condition of marine features, sites and the network as a whole. The project has identified five priority work areas (Box 1), utilising information from PIPs and TAPs, around which the work programme is being developed.

**Box 1 Priority work areas for the MPA Condition Improvement Project**

1. Access and Recreation (e.g. damage to habitat features or disturbance of species features)
2. Water management and issues (e.g. coastal squeeze, flood & coastal erosion risk management)
3. Pollution and waste (e.g. marine litter and diffuse water pollution)
4. Marine fisheries (e.g. potting and netting activities)
5. Invasive species (e.g. marine non-natives)

Given the breadth of organisations identified against actions in these priority work areas, NRW staff will need to work collaboratively nationally and regionally with the identified organisations to influence, advise on, and support management action.

A key consideration in the development of the work programme is on prioritising and progressing actions under the priority work areas that can:

1. deliver **tangible benefits** and shared outcomes in terms of improvement in feature condition through collaborative working; and
2. be **delivered with existing staff resources**, given the current resource constraints and uncertainty over services within partners

Given the current resourcing challenges, sources of external grant funding are key to successful delivery of the work programme, particularly to enable the delivery of more costly / complex actions. Prioritised project proposals for external funding are currently being developed.

Progress has already been made on the delivery of actions, many of which are being taken forward through existing partnerships and some are being funded through NRW’s competitive grant fund (e.g. development and dissemination of the Gwynedd marine code – Pen Llyn A’r Sarnau SAC) or directly by Welsh Government (e.g. Welsh Assessing Fisheries Activities Project).
Annex 3

Marine protected area management effectiveness reporting to OSPAR

Background

OSPAR³ defines management effectiveness as the degree to which management actions are achieving the goals and objectives agreed for a protected area. The approach proposed by OSPAR reviews the implementation of management actions, recognising that, ultimately, the success of management of the OSPAR marine protected area (MPA) network will be linked to the achievement of the conservation objectives for the features of individual MPAs.

The management effectiveness reporting takes the form of a questionnaire. The questionnaire is completed for every MPA that forms part of the OSPAR NE Atlantic MPA network. In Wales this includes marine SACs and SPAs (see Table 1). There are two broad themes addressed in the questionnaire, each with two main questions:

- Consider implementation of the MPA management cycle:
  - a. Is the MPA management documented?
  - b. Are the measures to achieve the conservation objectives being implemented?
- Review whether the MPA is meeting its conservation objectives:
  - c. Is monitoring in place to assess if measures are working?
  - d. Is the MPA moving towards or has it reached the conservation objectives?

This is a new management effectiveness assessment and reporting process with the first report to OSPAR submitted in 2016. The approach was designed to be a light touch and high level assessment. The assessment is co-ordinated for the UK by JNCC and guidance has been produced at the UK level for Statutory Nature Conservation Bodies (SNCBs), with direct input from NRW.

Delivering the management effectiveness assessment

The first assessment was carried out by a task and finish group of NRW staff. The assessment format was limited to four possible one word answers to the questions and a comment section of 250 characters only.

Wales shares two cross-border site with England. For these sites, NRW reported on the Dee SPA and SAC while Natural England (NE) is reported on Liverpool Bay SPA, and the Severn SAC and SPA.

The summary assessment for Welsh sites is contained in Table 1.

The Welsh assessment was submitted to JNCC by the end of July 2016 with the UK response submitted to OSPAR by October 2016. No follow-on reporting cycle has been defined.

Conclusion

The overall conclusion of the assessment was that Welsh sites are being ‘partially’ managed, meaning that we could not answer yes to all four questions. NRW is satisfied that this is a fair representation of how Welsh OSPAR MPAs are currently managed. The ‘partial’ result reflects the

³ OSR (the Oslo and Paris convention) is the mechanism by which 15 Governments & the EU cooperate to protect the marine environment of the North-East Atlantic. The UK have signed up to the OSPAR convention, which commits us to certain reporting and assessment obligations including reporting on the effectiveness of MPA management.
The fact that some management mechanisms are in place but there is still progress to be made variably across the network. This result was in line with other sites across the UK. This information has fed into an OSPAR wide report which will be published later in 2017.

It is not known exactly how OSPAR will present this information in their report later in 2017, however JNCC have indicated that it is likely to be very high level with no individual site data being displayed. As this is the very first assessment of management effectiveness of OSPAR sites, future iterations may change dependant on how the various countries complete the assessment and the reaction to the results.

Table 1: Summary table of OSPAR assessment for Welsh Sites (without comments section).

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<thead>
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<th>Welsh OSPAR Sites</th>
<th>a. Is the MPA management documented?</th>
<th>b. Are the measures to achieve the conservation objectives being implemented?</th>
<th>c. Is monitoring in place to assess if measures are working?</th>
<th>d. Is the MPA moving towards or has it reached its conservation objectives?</th>
</tr>
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<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
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<tr>
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<td>Cardigan Bay / Bae Ceredigion</td>
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<td>Partial</td>
<td>Partial</td>
<td>Yes</td>
</tr>
<tr>
<td>Location</td>
<td>Answer</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Pembroke and River / Sir Benfro Forol</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
<tr>
<td>Pen Llyn a’r Sarnau / Lleyn Peninsula and the Sarnau</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
<tr>
<td>The Dee Estuary</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
<tr>
<td>Traeth Lafan / Lavan Sands, Conway Bay</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
<tr>
<td>Y Fenai a Bae Conwy / Menai Strait and Conwy Bay</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Partial</td>
</tr>
</tbody>
</table>

*Allowed answers to questions: Yes, No, partial, Unknown, No response. A Yes or No for question d was usually where there was one marine feature.*
Annex 4

Marine Protected Areas Network: Gap Analysis 2016

Summary
An analysis of the marine protected area (MPA) network has recently been carried out by JNCC to identify whether it meets criteria for an ecologically coherent network. The results, including gaps in the current network, was presented to Welsh Government’s Wales Marine Strategic Advice Group, which includes a number of marine stakeholders, on the 6th October 2016.

Introduction
Wales, alongside the rest of the UK, has a number of obligations for the protection of marine habitats and species that require us to contribute to a network of MPAs. They include:
- The Oslo and Paris Convention (OSPAR).
- The Convention on Biological Diversity.

Welsh Government commissioned JNCC to carry out an analysis of the contribution Welsh MPAs make to an ecologically coherent network of MPAs in waters around Wales.

NRW worked with JNCC to ensure the most up to date data was used and to identify which habitats and species were considered protected within the existing network of MPAs in Welsh waters.

The gap analysis used principles adopted by the UK government to assess whether our current network of MPAs is sufficient. These principles include range, resilience, proportion and connectivity. Specifically the gap analysis assessed whether the current network includes:
- At least 10% of each broadscale habitat
- At least 2 replicates of each broadscale habitat
- At least 3 replicates of each habitat or species of conservation importance
- MPAs with similar habitat types are less than 80km apart

The assessment was done for several different regional and administrative boundaries:
- Regional Seas
- Wales inshore and offshore waters
- Wales inshore territorial waters (to 12nm)

Methods
Data analysis was complex and involved using multiple GIS datasets including habitat maps and MPA feature maps. Additional MPA site level knowledge was also required to ascertain whether each habitat or species was offered protection by each MPA.

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4 Marine protected areas include the sites: Special Conservation Areas (SAC), Special Protection Areas (SPA), Special Sites of Scientific Interest (SSSI), Ramsar sites and Marine Conservation Zones (MCZ)
5 Broadscale habitats are determined at the habitat classification level of ‘subtidal sand’, ‘high energy deep water rock’ etc.
6 These are derived from Section 42 habitats and species (NERC Act) now transposed into Section 7 of Environment Act (Wales), and OSPAR threatened and declining habitats and species
Gaps

Overall the MPA network in Welsh waters has very good coverage with some gaps in habitats and species that are relatively small in terms of both number and area coverage targets compared to the existing network. The table below shows the habitats and species for which there are gaps at both regional seas level and in Welsh waters (either inshore waters to 12nm or both inshore and offshore waters), where these gaps could be filled using new MPAs in Welsh waters. The gaps vary in size from 1.5 km$^2$ for sublittoral mixed sediments in inshore areas to 624.1 km$^2$ for sublittoral coarse sediment in all Welsh waters (to the midline). The role of mobile species within the network is being considered separately and therefore they did not form part of this network assessment.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Common name</th>
<th>Which Regional Sea is the gap in?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate energy circalittoral rock</td>
<td></td>
<td>Irish Sea</td>
</tr>
<tr>
<td>Sublittoral coarse sediment</td>
<td></td>
<td>Irish Sea &amp; Western Channel and Celtic Seas</td>
</tr>
<tr>
<td>Sublittoral mixed sediments</td>
<td></td>
<td>Irish Sea</td>
</tr>
<tr>
<td>Sublittoral sand</td>
<td></td>
<td>Western Channel and Celtic Seas</td>
</tr>
<tr>
<td>Sublittoral mud</td>
<td></td>
<td>Western Channel and Celtic Seas</td>
</tr>
<tr>
<td>Estuarine rocky habitat</td>
<td></td>
<td>Irish Sea</td>
</tr>
<tr>
<td>Fragile sponge and anthozoan communities on subtidal rocky habitats</td>
<td></td>
<td>Irish Sea</td>
</tr>
<tr>
<td>Mud habitats in deep water</td>
<td></td>
<td>Irish Sea &amp; Western Channel and Celtic Seas</td>
</tr>
<tr>
<td><em>Musculus discors</em> beds</td>
<td>Green crenella (carpet mussel) beds</td>
<td>Irish Sea</td>
</tr>
<tr>
<td>Sea-pen and burrowing megafauna communities</td>
<td></td>
<td>Western Channel and Celtic Seas</td>
</tr>
<tr>
<td>Sheltered muddy gravels</td>
<td></td>
<td>Western Channel and Celtic Seas</td>
</tr>
<tr>
<td><em>Eunicella verrucosa</em></td>
<td>Pink sea-fan</td>
<td>Irish Sea</td>
</tr>
<tr>
<td><em>Lucernariopsis campanulata</em></td>
<td>Stalked jellyfish</td>
<td>Irish Sea</td>
</tr>
<tr>
<td><em>Ostrea edulis</em></td>
<td>Native oyster</td>
<td>Irish Sea &amp; Western Channel and Celtic Seas</td>
</tr>
<tr>
<td><em>Palinurus elephas</em></td>
<td>Spiny Lobster/ crawfish</td>
<td>Irish Sea</td>
</tr>
<tr>
<td><em>Arctica islandica</em></td>
<td>Ocean quahog</td>
<td>Western Channel and Celtic Seas</td>
</tr>
</tbody>
</table>

* Poor quality options – in these cases the only options available in Welsh waters are considered to be of poor quality, so it may be recommended that no further action is taken at this stage. Further investigation would be needed.
** Limited data – in these cases our knowledge of the habitat or species distribution is poor and further survey work may be required before a site could be identified.