



## Wales National Marine Plan

IDENTIFYING  
OPPORTUNITIES TO  
DELIVER  
ENVIRONMENTAL  
BENEFITS THROUGH  
PLAN DEVELOPMENT

Prepared for:

Cyfoeth Naturiol  
Cymru/Natural Resource  
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## CRYNODEB GWEITHREDOL

### Y comisiwn a'r cyd-destun

Mae Llywodraeth Cymru wrthi ar hyn o bryd yn paratoi ei chynllun morol cyntaf, sef Cynllun Morol Cenedlaethol Cymru. Ym mis Awst 2014, comisiynodd Cyfoeth Naturiol Cymru (CNC) URS i nodi **cyfleoedd ar gyfer sicrhau budd amgylcheddol** drwy ddatblygu CMCC. Mae CNC yn cydweithio'n agos â Llywodraeth Cymru i helpu i ddatblygu Cynllun Morol Cenedlaethol Cymru.

Mae'r prosiect hwn yn anelu at helpu CNC i gyflawni ei ddiben allweddol, sef sicrhau y caiff amgylchedd ac adnoddau naturiol Cymru eu cynnal a'u cadw, eu gwella a'u defnyddio mewn modd cynaliadwy.

### Cyfleoedd amgylcheddol ym maes cynllunio morol

Mae angen i unrhyw gynllun morol sy'n anelu at sicrhau buddiannau amgylcheddol nodi cyfleoedd ar gyfer gwneud hynny, gan anelu ar yr un pryd at reoli achosion o wrthdaro a manteisio i'r eithaf ar natur ategol anghenion a dyheadau amrywiaeth o ddefnyddwyr morol, gan gynnwys y potensial ar gyfer cyd-leoli gweithgareddau neu sectorau morol. Mae angen i unrhyw gynllun morol a gaiff ei baratoi o dan Ddeddf Mynediad Morol ac Arfordirol y DU hefyd gymhwyso'r dull gweithredu ecosystemau, sef y fframwaith trawsbynciol ar gyfer sicrhau buddiannau amgylcheddol.

### Ymrwymiadau amgylcheddol presennol Llywodraeth Cymru

Rhaid i unrhyw gynlluniau morol a gaiff eu paratoi gan Lywodraeth Cymru gydymffurfio â Datganiad Polisi Morol (DPM) y DU, sy'n cynnwys Amcanion Morol Lefel Uchel (AMLU) Llywodraeth y DU. Yng nghyd-destun y gwaith hwn, mae'r AMLU hynny sy'n canolbwyntio ar 'fyw o fewn terfynau amgylcheddol' o ddiddordeb arbennig, fel a ganlyn:

- Caiff bioamrywiaeth ei ddiogelu, ei warchod a, lle y bo'n briodol, ei adfer ac ni cheir enghreifftiau o golli bioamrywiaeth bellach.
- Ceir cynefinoedd morol ac arfordirol iach ar draws eu hamrediad naturiol a gallant gefnogi cymunedau biolegol amrywiol, cryf a gweithredu ecosystemau morol iach, gwydn â'r gallu i addasu.
- Mae ein cefnforoedd yn cefnogi poblogaethau hyfyw o rywogaethau cynrychioliadol, prin, agored i niwedd a gwerthfawr.

Gan ategu'r AMLU, mae uchelgais datganedig Llywodraeth Cymru yn ei Hymgyngghoriad drafft yn ddiweddar ar Gynllun Adfer Natur Cymru fel a ganlyn:

*'Gwrthdroi'r dirywiad mewn bioamrywiaeth a sicrhau manteision parhaol i gymdeithas drwy wella cadernid ein hecosystemau, drwy ganolbwyntio ar reoli adnoddau naturiol yn effeithiol.'*

### Adolygu Llenyddiaeth

Er mwyn deall cystal â phosibl ystyr posibl 'buddiannau amgylcheddol' at ddibenion cynllunio morol, gwnaethom gynnal adolygiad eang o lenyddiaeth a oedd yn cynnwys nifer o ddogfennau, strategaethau a chynlluniau o Gymru, gweddill y DU a ledled y byd.

Wrth gynnal yr adolygiad, gwnaethom nodi a) sut y cyflawnwyd neu yr awgrymwyd y cyflawnwyd buddiannau amgylcheddol ym maes cynllunio morol neu b) testun a arweiniodd at

nodi budd amgylcheddol a fyddai'n berthnasol i ardal forol Cymru mewn modd mwy anuniongyrchol.

## Allbynnau'r adolygiad o lenyddiaeth

Prif allbwn yr adolygiad o lenyddiaeth oedd rhestr o 67 o gyfleoedd i sicrhau buddiannau amgylcheddol drwy gynlluniau morol yn gyffredinol a thrwy Gynllun Morol Cenedlaethol Cymru yn arbennig. Rhannwyd y 67 o gyfleoedd yn bum maes allweddol:

Mae **cyfleoedd cyd-destun (C)** yn ymwneud â'r gydberthynas rhwng proses CMCC a pholisïau, strategaethau, prosesau a mentrau sy'n bodoli eisoes.

Mae **cyfleoedd yn seiliedig ar dystiolaeth (E)** yn cynnwys y rheini sy'n ymwneud â'r sail dystiolaeth - sef y data presennol a'r data posibl ar ardal y cynllun.

**Cyfleoedd polisi (PO)** yw'r rheini sy'n berthnasol i bolisïau CMCC sy'n ymddangos yn y Cynllun.

**Cyfleoedd proses (P)** yw'r rheini sy'n adlewyrchu'r ffaith mai cyfres barhaus o weithgareddau a phrosesau yw'r cynllun yn hytrach na dogfen unigol.

Mae **cyfleoedd strwythur (S)** yn ymwneud â'r ffordd y caiff y cynllun ei drefnu a'i strwythuro.

Ceir manylion y cyfleoedd a nodwyd yn **Nhabl 1** yr adroddiad hwn.

## Gweithdy prosiect

Cynhaliwyd gweithdy undydd er mwyn a) codi ymwybyddiaeth o fewn y sefydliad am y broses o ddatblygu CMCC a b) er mwyn cael mwy o fewnbwn ar y cyfleoedd posibl i sicrhau buddiannau amgylcheddol drwy Gynllun Morol Cenedlaethol Cymru (CMCC). Daeth y cyfranogwyr yn bennaf o amrywiol adrannau o fewn CNC er mwyn darparu amrywiaeth o safbwyntiau sectoraidd. Roedd cyfranogwyr eraill yn cynnwys cynrychiolwyr o gyrff y trydydd sector â diddordeb yn yr amgylchedd yng Nghymru, Llywodraeth Cymru, a chynrychiolydd o'r Sefydliad Rheoli Morol yn Lloegr.

## Rhestr fer derfynol o gyfleoedd

Yn seiliedig ar y meini prawf uchod, datblygwyd system sgorio cyfleoedd er mwyn gallu llunio rhestr fer o gyfleoedd â blaenoriaeth. Yn ystod y broses hon, unwyd rhai o'r 67 o gyfleoedd gwreiddiol gydag eraill. Mewn rhai achosion, diwygiwyd neu newidiwyd y testun a oedd yn cyfeirio at gyfle yn sylweddol er mwyn egluro'r amcan yng nghyd-destun Cymru.

Roedd y rhestr fer derfynol o gyfleoedd yn cynnwys y rhestr ganlynol, y nodir manylion amdani yn Nhabl 2 yr adroddiad llawn:

**Cyfleoedd ar gyfer sicrhau buddiannau amgylcheddol drwy bennu'r Cyd-destun priodol ar gyfer Cynllun Morol Cenedlaethol Cymru**

Cyfeirio at gynlluniau, polisïau a strategaethau eraill

Diffiniad o ddull ecosystemau o fewn CMCC

Cyfeirio at yr Ymarfer Pennu Cwmpas Strategol o fewn CMCC

Integreiddio CMCC a chynlluniau daearol er mwyn helpu i roi trefniadau Rheoli Ardaloedd Arfordirol Integredig ar waith
Ystyried trafod datblygiadau yn y dyfodol o fewn CMCC ar gyfer meysydd polisi dethol
Rhoi polisi adnoddau naturiol cenedlaethol ar waith drwy CMCC
Nodi amcanion amgylcheddol o fewn CMCC er mwyn llywio/annog Talu am Wasanaethau Ecosystemau (PES)
Cynnwys trefniadau cyfrifyddu cyfalaf naturiol
<b>Cyfleoedd ar gyfer sicrhau buddiannau amgylcheddol drwy ddefnyddio a datblygu'r sail <u>Tystiolaeth</u> briodol ar gyfer Cynllun Morol Cenedlaethol Cymru</b>
Cynnal dadansoddiad o'r bylchau
Cefnogi asesiad o'r effaith gronnol
Defnyddio data mapio a data gofodol lle y bo'n bosibl
Crybwyll lleoliadau, rhywogaethau a nodweddion yn ôl eu henw
Nodi'r dull gweithredu os bydd diffyg tystiolaeth
Nodi Nodweddion Morol â Blaenoriaeth
Effeithiau a dylanwad trawsffiniol
Gwella ansawdd y sail tystiolaeth drwy helpu i feithrin sgiliau
<b>Cyfleoedd ar gyfer sicrhau buddiannau amgylcheddol drwy <u>Bolisïau</u>'r Cynllun Morol</b>
Ystyried y morlun
Cefnogi a hyrwyddo trefniadau i adfer a gwella bioamrywiaeth
Eglurder o ran canlyniadau polisi
Defnyddio polisïau dethol sy'n seiliedig ar feini prawf, gan gynnwys y potensial ar gyfer gwrthbwyso
Nodi polisïau ar gyfer ardaloedd penodol lle y bo'n bosibl
Cyfeirio at drefniadau monitro a gweithredu
Ystyried effeithiau cyfuno polisïau
Croesgyfeirio'r amgylchedd o fewn nodau economaidd a chymdeithasol CMCC
Cynnwys trefniadau i wella'r sail tystiolaeth fel un o amcanion CMCC
<b>Cyfleoedd ar gyfer sicrhau buddiannau amgylcheddol drwy <u>Broses</u> y Cynllun Morol</b>
Sicrhau bod y nodau strategol yn canolbwyntio ar sicrhau cymaint o fuddiannau

amgylcheddol â phosibl
Rhagdybiaeth o blaid datblygu cynaliadwy
Datblygu fframwaith ar gyfer sicrhau y gall gweithgareddau morol gyd-fodoli
Ystyried 'cydlynid ecolegol'
Casglu tystiolaeth amgylcheddol a buddiannau posibl drwy ymgysylltu â rhanddeiliaid
Cynnwys ystyriaethau sy'n gysylltiedig â newid yn yr hinsawdd
Ystyried nodi 'Materion Allweddol ar gyfer Cynllunio Morol' neu rywbeth tebyg

### Rhoi'r rhestr fer derfynol ar waith fel rhan o broses CMCC

Daw'r adroddiad i ben drwy fapio'r cyfleoedd uchod i'r cam priodol yn y broses cynllunio morol. Mae angen ystyried llawer o'r cyfleoedd a'u rhoi ar waith yn ystod camau gwahanol o'r broses. Nodir y broses fapio hon yn **Ffigur 1** ar dudalen 47 o'r prif adroddiad.

## EXECUTIVE SUMMARY

### The commission and context

The Welsh Government (WG) is currently preparing its first marine plan, the Wales National Marine Plan (WNMP). In August 2014, Natural Resources Wales (NRW) commissioned URS to identify **opportunities to deliver environmental benefit** through the development of the WNMP. NRW are working closely with WG to support the development of the Wales National Marine Plan.

This project aims to support NRW in its key purpose of ensuring the environment and natural resources of Wales are sustainably maintained, enhanced and used.

### Environmental opportunities in marine planning

Any marine plan seeking to deliver environmental benefit needs to identify opportunities for doing so, while still aiming to manage conflicts and maximise complementarity between the needs and aspirations of a range of marine users, including the potential for co-location of marine activities or sectors. Any marine plan prepared under the UK Marine and Coastal Access Act also needs to apply the ecosystem approach, which is the overarching framework within which environmental benefits will be delivered.

### Existing Welsh Government environmental commitments

Any marine plans prepared by the Welsh Government must be in conformity with the UK Marine Policy Statement (MPS), which incorporates the UK Government's High Level Marine Objectives (HLMOs). Of particular interest in the context of this work are those HLMOs that focus on 'living within environmental limits', which are as follows:

- Biodiversity is protected, conserved and where appropriate recovered and loss has been halted.



- Healthy marine and coastal habitats occur across their natural range and are able to support strong, diverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.
- Our oceans support viable populations of representative, rare, vulnerable, and valued species.

Complementing the HLMOs, the Welsh Government's stated ambition in its recent Consultation Draft Nature Recovery Plan for Wales is as follows:

*'To reverse the decline in biodiversity and ensure lasting benefits to society by building the resilience of our ecosystems, by focusing on effective natural resource management.'*

### Literature Review

In order to understand as clearly as possible what might constitute 'environmental benefits' for the purposes of marine planning, we carried out a wide-ranging literature review of a number of documents, strategies and plans from Wales, the rest of the UK and across the world.

In carrying out the review we identified a) ways in which environmental benefits had delivered or suggested been within marine planning or b) text that inspired a more indirect identification of an environmental benefit applicable to the Wales marine area.

### Outputs of literature review

The main output of the literature review was a list of sixty-seven opportunities for delivering environmental benefits through marine plans in general and the Wales National Marine Plan in particular. The 67 opportunities were divided into five key areas:

**Context opportunities (C)** relate to the relationship between the WNMP process and existing policies, strategies, processes and initiatives.

**Evidence base opportunities (E)** comprise those relating to the evidence base- namely, the existing and potential data on the plan area.

**Policy opportunities (PO)** are those applying to the policies of the WNMP that appear in the Plan document.

**Process opportunities (P)** are those reflecting the fact that the plan is an ongoing series of activities and processes rather than a single document.

**Structure opportunities (S)** relate to how the plan is organised and structured.

The opportunities identified are detailed in **Table 1** of this report.

### Project workshop

A one day workshop was held in order to a) raise awareness within the organisation about the development of the WNMP and b) to gain wider input on the potential opportunities to deliver environmental benefits through the Welsh National Marine Plan (WNMP). Attendees were primarily drawn from various departments within NRW to provide a range of sectoral viewpoints. Other attendees included representatives from third sector bodies with an interest in the Welsh Environment, Welsh Government, and a representative of the Marine Management Organisation in England.

## Final shortlist of opportunities

Based on the above criteria, an opportunity scoring system was developed to allow for a priority shortlist. In this process, some of the original sixty-seven opportunities were merged with others. In some cases, the text relating to an opportunity was substantially revised or amended to clarify the objective in the Welsh context.

The final shortlist of opportunities comprised the following list, the details of which are set out in Table 2 of the full report:

<b>Opportunities for delivering environmental benefits through setting the appropriate <u>Context</u> for the Wales National Marine Plan</b>
Signposting other plans, policies and strategies
Definition of ecosystem approach within WNMP
Reference Strategic Scoping Exercise within WNMP
Integration between WNMP and terrestrial plans to support delivery of Integrated Coastal Zone Management
Consider discussing future developments within WNMP for selected policy areas
Deliver national natural resources policy through the WNMP
Set out environmental objectives within WNMP to inform/encourage Payment for Ecosystem Services (PES)
Build in natural capital accounting
<b>Opportunities for delivering environmental benefits through using and developing the appropriate <u>Evidence</u> base for the Wales National Marine Plan</b>
Carry out a gap analysis
Support cumulative impact assessment
Use mapping and spatial data where possible
Mention locations, species and features by name
Set out the approach to absence of evidence
Identify Priority Marine Features
Trans-boundary impacts and influence
Improving quality of evidence base through supporting skills development
<b>Opportunities for delivering environmental benefits through Marine Plan <u>Policies</u></b>
Consider seascape
Support and promote biodiversity recovery and enhancement

Clarity on policy outcomes
Use selected criteria-based policies, including potential for offsetting
Identify area-specific policies where possible
Reference monitoring and implementation arrangements
Consider effects of policy combination
Cross-reference environment within economic and social goals of the WNMP
Include improvement of evidence base as WNMP objective
<b>Opportunities for delivering environmental benefits through Marine Plan <u>Process</u></b>
Ensure SA focuses on maximising environmental benefit
Presumption in favour of sustainable development
Develop a framework for co-existence of marine activities
Take 'ecological coherence' into account
Gather environmental evidence and potential benefits through stakeholder engagement
Embedding climate change considerations
Consider setting out 'Key Issues for Marine Planning' or similar

### Applying the final shortlist to the WNMP process

The report concludes by mapping the above opportunities to the appropriate stage in the marine planning process. Many of the opportunities need consideration and implementation at multiple stages in the process. This mapping process is illustrated in **Figure 1** on Page 47 of the main report.

## 1. INTRODUCTION

### 1.1 The commission and context

The Welsh Government is currently preparing its first marine plan, the Wales National Marine Plan (WNMP). It consulted on the Statement of Public Participation for the WNMP in early 2014. A Strategic Scoping Study has also been produced to inform the development of the WNMP, in particular the evidence base it will draw from.

In August 2014, Natural Resources Wales (NRW) commissioned URS to identify **opportunities to deliver environmental benefit** through the development of the WNMP. Although the WNMP is being developed by the Welsh Government itself, NRW are key stakeholders and statutory advisors to Government on environmental issues. NRW are working closely with the Welsh Government to support the development of the Wales National Marine Plan.

This project aims to support NRW in its key purpose of ensuring the environment and natural resources of Wales are sustainably maintained, enhanced and used. The development of the WNMP provides a clear opportunity to further these aims through developing and presenting appropriate and deliverable recommendations to the Welsh Government during plan development, monitoring and implementation.

### 1.2 Environmental opportunities in marine planning

*'The UK's marine environment is extremely rich and varied, supporting a wide range of species of national and international importance. It provides vital ecosystem goods and services including provision of food and regulation of the climate. A healthy marine ecosystem is fundamental to supporting sustainable development, thus ensuring wide social and economic benefits'* (UK Marine Policy Statement, 2011)

Any marine plan seeking to deliver environmental benefit needs to identify opportunities for doing so, while still aiming to manage conflicts and maximise complementarity between the needs and aspirations of a range of marine users, including the potential for co-location of marine activities or sectors. Any marine plan prepared under the UK Marine and Coastal Access Act also needs to apply the ecosystem approach, which is the overarching framework within which environmental benefits will be delivered. The UK Marine Policy Statement (MPS), which guides all UK marine plans, states that plans will 'Manage competing demands on the marine area, taking an ecosystem-based approach'. There is also a statutory driver for delivering an Ecosystem based Approach to the management of the marine environment through the Marine Strategy Framework Directive (MSFD). The Marine Strategy Regulations, which transpose the Directive into UK law, define an ecosystem based approach as one that

(a) ensures that the collective pressure of human activities within the marine strategy area is kept within levels compatible with the achievement of good environmental status; and

(b) does not compromise the capacity of marine ecosystems to respond to human-induced changes.

### 1.3 Existing Welsh Government environmental commitments

For the purposes of UK marine planning, the Welsh Government forms one of four Administrations, along with England, Scotland and Northern Ireland, preparing marine plan(s) for their waters under the Marine and Coastal Access Act. Any marine plans prepared by the Welsh Government must be in conformity with the UK Marine Policy Statement (MPS), which

incorporates the UK Government's High Level Marine Objectives (HLMOs). Of particular interest in the context of this work are those HLMOs that focus on 'living within environmental limits', which are as follows:

- Biodiversity is protected, conserved and where appropriate recovered and loss has been halted.
- Healthy marine and coastal habitats occur across their natural range and are able to support strong, diverse biological communities and the functioning of healthy, resilient and adaptable marine ecosystems.
- Our oceans support viable populations of representative, rare, vulnerable, and valued species.

Complementing the HLMOs, the Welsh Government's stated ambition in its recent Consultation Draft Nature Recovery Plan for Wales is as follows:

*'To reverse the decline in biodiversity and ensure lasting benefits to society by building the resilience of our ecosystems, by focusing on effective natural resource management.'*

The MPS and the Nature Recovery Plan for Wales both seek to balance sometimes conflicting economic, social and environmental policy objectives, reflecting the fact that planning in the UK traditionally does not prioritise any single sector over and above any other.

In acting to incorporate the commitments outlined above, plans need to consider:

- *Protection of the marine environment* (ensuring measures are in place to assess and if necessary mitigate negative impacts of human activities, including cumulative impacts)
- *Enhancement of the marine environment* (including conservation objectives and measures and management arrangements, both protecting existing features and where possible creating or encouraging the development of new features through measures such as habitat restoration)

The measures that any marine plan might consider incorporating to achieve these depend on the natural features, ecosystem goods and services and human activities present within the area being planned and/or neighbouring areas. For the marine plan to be effective and capable of being implemented, the right delivery mechanisms must be employed.

## 2. APPROACH

### 2.1 Project structure

We have structured the research report around the headings set out below, which reflect the fact that this is a largely research-driven commission. Our approach was to identify opportunities for delivering environmental benefit from a wide range of sources and then test those opportunities in terms of their suitability, deliverability and applicability to Wales.

### 2.2 Literature review

The project started with a wide-ranging literature review aimed at identifying opportunities for environmental benefit in existing marine plans, the academic literature on marine planning, and the implications of existing Wales environmental policy and UK marine policy. The output of the literature review was a list of sixty-seven opportunities for delivering environmental benefit through marine planning, aggregated from all sources. The literature review and its outcomes are presented in **Chapter 3**.

### 2.3 Project workshop

NRW and URS then hosted a project workshop, to which NRW staff and other key stakeholders were invited. A key objective of the workshop was to discuss and test the list of sixty-seven opportunities for delivering environmental benefit, with a particular focus on how and where those opportunities might be most relevant for the Wales marine area and on whether there were any further opportunities not already identified by the literature review. The workshop and its outputs are discussed in **Chapter 4**.

### 2.4 Towards a final shortlist

Following URS and NRW review of the workshop outputs, a client-consultant teleconference was held to decide which of the opportunities should be taken forward to a final shortlist, on the basis of workshop comments and a set of criteria developed by NRW, taking into account NRW's remit, their role in the marine planning process, the extent to which each opportunity might add value to the WNMP, whether or not it had been previously identified in the Strategic Scoping Exercise and its deliverability. The process of developing a final shortlist is covered in **Chapter 5**.

Finally, our conclusions section presents two shortlists of opportunities considered the most important for NRW and others to prioritise in seeking to maximise the environmental benefits delivered through the WNMP. The opportunities appearing on the final shortlist are then mapped to the plan development process to show at what stages of the process each might deliver most benefit. All conclusions are presented in **Chapter 6**.

### **3. LITERATURE REVIEW**

#### **3.1 Introduction**

In order to understand as clearly as possible what might constitute 'environmental benefits' for the purposes of marine planning, we carried out a wide-ranging literature review of a number of documents, strategies and plans from Wales, the rest of the UK and across the world.

We present below an overview of the literature reviewed arranged by geographic scope. We considered it important to cover fully both the theoretical and the practical dimensions of marine planning; as such, we have reviewed academic articles and UNESCO international marine planning guidance as well as existing marine plans and environmental policy. In the case of Wales, we have also deliberately included a review of existing environmental objectives; even if not explicitly formulated as marine objectives, many have the potential to offer environmental benefit in the marine area, thus strengthening the connection between terrestrial and marine planning, itself one way of delivering environmental benefit.

The literature review was not exhaustive; instead it was targeted on those documents and strategies considered of most relevance to marine planning in Wales. This means that not every adopted marine plan from across the world was reviewed; for example, although marine plans in Australia are strong on environmental objectives, significant differences in governance and administrative arrangements, not to mention in the features and species being protected, combine to limit their transferability to the Welsh context.

We have deliberately kept this chapter concise; rather than provide a detailed summary of each source consulted, the aim being to extract just the key points from each one. However, NRW may find it useful to refer back to the documents themselves in future, and we have therefore cited each one in full. A full list of all documents consulted during the literature review appears in Appendix A.

#### **3.2 Commentary on the literature review**

While carrying out a review of the documents listed in Appendix A, we identified within them either a) ways in which they had delivered or suggested environmental benefits within marine planning or b) text that inspired a more indirect identification of an environmental benefit applicable to the Wales marine area. This resulted in a list of sixty-seven opportunities to deliver environmental benefit, which are presented in Table One below, including the source of each opportunity within the literature.

In general, and perhaps not surprisingly, the more UK and Wales-specific the literature, the more we found it to be useful and applicable to the Wales marine area. Despite this, the international and theoretical literature still helped generate additional ideas, and was important to review, as it helped ensure that the WNMP reflects best practice and common standards from marine planning around the world. However, to a significant extent, the primacy of the Marine Policy Statement in the UK marine planning system effectively carries forward and indeed supersedes much of the work carried out by, for example, UNESCO<sup>1</sup>, which was written at a time when very few countries (including the UK) had a marine planning system in operation.

As the WNMP and all other adopted marine plans must be in conformity with the MPS, this raises significantly the relative importance of the East of England Marine Plan and (to a lesser extent as it is not yet adopted) the Scotland National Marine Plan for the purposes of our

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<sup>1</sup> 'Marine Spatial Planning: A Step-by-Step Approach' (reference provided above).

literature review. Effectively, this means that any ways in which adopted UK marine plans have identified opportunities to deliver environmental benefit could, theoretically, be transferred directly to the WNMP with the knowledge that those opportunities are considered in conformity with the MPS. It was for this reason that Hannah Marriott, Marine Planner at the Marine Management Organisation, and one of the team that developed the East of England Marine Plan, was invited to present at the project workshop on the process of delivering environmental benefit through marine plans (see Chapter 4 below).

At the same time as being in conformity with the MPS (i.e. the 'top down' requirement), the WNMP should also reflect the 'bottom up' element. In previous work with Defra and the MMO defining the marine planning system and marine plans, it was generally acknowledged that marine plan policies are ideally written at the point where the top-down requirements of national policy interact with or apply spatially to the Plan area's specific features, circumstances and characteristics.

Another useful document is considered to be the Wales chapter of the UK National Ecosystem Assessment. The chapter identified continued or accelerated decline across 60% of marine habitats in Wales compared to only 8% for terrestrial habitats and 33% for freshwater habitats, and highlights that seven in every eight hectares of European designated Natura 2000 sites in Wales (0.5 million ha) are marine areas, reflecting their high importance for conservation. However, 60% of these sites have been classified as being in 'continued or accelerated decline'. However, the National Ecosystem Assessment does not attempt to identify the drivers behind this decline, which complicates efforts to respond to this assessment from a policy perspective.

The Nature Recovery Plan for Wales references this conclusion, but is unable to add more detail on why marine habitats are in such decline relative to terrestrial habitats. It sets out some measures, including the production of the WNMP, that could help address this decline, and mentions that NRW will 'review and strengthen the approach to site management plans' for Natura 2000 sites. However, in the absence of detail on the drivers behind the 'continued or accelerated decline', it is difficult to know if review of site management plans will on its own deliver the required changes that may be needed.

Another area where further work may be needed is in the integration of marine and terrestrial planning. There is no mention of marine planning or the WNMP in the Draft Planning (Wales) Bill, which is a missed opportunity to integrate the two planning systems and means integrated coastal management (and, ultimately, the delivery of environmental benefit at the coast) will be harder to achieve.

The ISLES Southern Concept Report was useful, as it provides an insight from the perspective of a marine developer rather than a regulator or administrator. It suggests that marine developers are aware of and willing to work with the various environmental designations around the Welsh coast. However, as it is primarily a constraints analysis, the document was less useful in terms of identifying opportunities for environmental benefit.

We have not commented specifically on the WNMP Draft Vision and Objectives as NRW have submitted their own representations to the consultation. However, we advised NRW that the conclusions of our literature review and of the project more widely could and should inform future NRW representations to the Welsh Government on the WNMP.



### 3.3 Outputs of literature review

The main output of the literature review was a list of sixty-seven opportunities for delivering environmental benefits through marine plans in general and the Wales National Marine Plan in particular.

The sixty-seven opportunities were then reviewed with the aim of classifying them into a number of broad themes based on where and how they could apply. In carrying out this exercise it became clear that the WNMP should not be thought of as a single document- rather, it is a process which, once started, will continue indefinitely as it is implemented, monitored and reviewed.

On this basis, the 67 opportunities were divided into five key areas:

- **Context;**
- **Evidence base;**
- **Process;**
- **Policy; and**
- **Structure.**

**Context opportunities** relate to the relationship between the WNMP process and existing policies, strategies, processes and initiatives. No marine plan, even a first marine plan, ever starts from a blank sheet of paper, as there are already so many existing initiatives and strategies with a marine dimension or marine coverage. The more a marine plan acknowledges and references existing strategies and policies of relevance (and avoids restating them), the more it can help marine users and the greater the potential for environmental benefits to be delivered.

For example, the East of England Marine Plan has ‘signposting’ sections directing users to other relevant documents and makes clear the relationship between those documents and the Marine Plan.

We identified fifteen context opportunities, which have been designated with the prefix ‘C’ in **Table 1** below.

**Evidence base opportunities** comprise those relating to the evidence base- namely, the existing and potential data on the plan area, including work such as the Strategic Scoping Exercise and other relevant surveys, reports, papers, spreadsheets and projects. Marine plans need to be based on the best, most up-to-date marine data available. The better the quality of the data, the greater will be the opportunities for the plan to deliver environmental benefit.

As well as underpinning the Plan document itself, the evidence base feeds into individual licensing decisions made against Plan policies as well as into the process of plan-making itself. The evidence base is constantly updated, including by monitoring the effects of licensing decisions made under the plan.

We identified eighteen evidence base opportunities, which have been designated with the prefix ‘E’ in **Table 1** below.

**Policy opportunities** are those applying to the policies of the WNMP that appear in the Plan document. Policies are a fundamental part of any effective marine (or indeed terrestrial) plan,

and as such will form the WNMP's primary mechanism setting out what is expected within the plan area over the plan period. As an adopted UK marine plan, WNMP policies will have to be in accordance with the Marine Policy Statement, but will still have significant freedom and opportunities to deliver environmental benefit in the context of Wales-specific features and activities.

A key part of the policy debate will be to define what kind of policies could or should be used-how prescriptive should they be? How area-specific could they be? How might unintended effects be avoided? How might policies support existing initiatives?

We identified eighteen policy opportunities, which have been designated with the prefix 'PO' in **Table 1** below.

**Process opportunities** are those reflecting the fact that the plan is an ongoing series of activities and processes rather than a single document. Some of the most important of these activities/processes include plan-making itself, licensing decisions made under the plan, implementation of the plan, monitoring of its effects and its eventual review. For example, licensing decisions made under the adopted Plan can be monitored to determine their impact on the Plan area. Information from that monitoring process can then inform future iterations of the WNMP.

We identified eleven process opportunities, which have been designated with the prefix 'PR' in **Table 1** below.

**Structure opportunities** relate to how the plan is organised and structured. Although marine plans (and terrestrial plans) usually contain policies, other than this, there is significant freedom in how the plan text might be structured, with opportunities for the structure to assist in the delivery of environmental benefit.

Most marine plans, including the WNMP, start with a vision, which breaks down into objectives, which then break down into policies. Even at the policy level, there is a significant degree of freedom in how text is presented and structured- many plans, for example, discuss the policy's context first, then present the policy itself, then supporting text justifies the policy choice made.

The best-structured plans are those that provide the greatest clarity for plan users, including on how the plan will deliver environmental benefits.

We identified five structure opportunities, which have been designated with the prefix 'S' in **Table 1** below.

In **Table 1**, note that when the source given is URS, this indicates an opportunity generated indirectly through the literature review, based on URS' own experience in and knowledge of the marine planning process.

**Table 1: Opportunities for the delivery of environmental benefit in the WNMP identified through project literature review**

Opportunity number	Identified opportunity	Source of opportunity (with reference)
C1	<p><b>Signposting other plans, policies and strategies</b></p> <p>Review of and signposting within WNMP of a full range of existing plans, policies and strategies offering environmental benefit; recognition that no marine plan, even first iterations, start from a blank sheet of paper. WNMP specific examples include the Future Generations and Wellbeing Bill, the (emerging) Environment Bill, Planning (Wales) Bill, Nature Recovery Plan, MPS, and MSFD.</p>	EEMP <sup>2</sup> Objective 10; SNMP SA <sup>3</sup> pages 4 and 5
C2	<p><b>Identify existing targets and milestones</b></p> <p>Identify existing targets/milestones in other plans or strategies and use the WNMP as a roadmap to get there- for example explicit reference to those targets in monitoring and implementation chapters. Examples would include MSFD and WFD.</p>	EEMP, para. 53
C3	<p><b>Definition of ecosystem approach within WNMP</b></p> <p>Upfront definition of the ecosystem approach, the benefits of this approach, and the benefits of ecosystems to people.</p>	EEMP Objective 6
C4	<p><b>Reference Strategic Scoping Exercise</b></p> <p>Signpost the Strategic Scoping Exercise in the WNMP, including its content, purpose and conclusions, and the relationship between its findings and Plan Policy, monitoring and implementation.</p>	URS
C5	<p><b>Reference structures and processes supporting ecosystems</b></p> <p>Identify and reference underlying structures and processes that support healthy marine ecosystems within the WNMP, such as interactions between species, nutrient and carbon cycling, functional redundancy (i.e. the degree to which multiple species perform similar ecological functions), habitat diversity, water quality and coastal processes; these structures and processes need to function properly if the objective is to protect and enhance biodiversity.</p>	EEMP, para 184; Managing the Marine Mosaic page 14

<sup>2</sup> East of England Marine Plan

<sup>3</sup> Scotland National Marine Plan Sustainability Appraisal

Opportunity number	Identified opportunity	Source of opportunity (with reference)
C6	<p><b>Detailed approach to MPAs</b></p> <p>Apply a strategic, forward looking approach to future/ongoing MPA designation in the Welsh marine area and reference social and economic consequences alongside those affecting the environment. This will help to build buy-in for designation among other plan area users. Set out clearly the varying procedures and processes needed for development proposals affecting the different types of MPA, e.g. Ramsar versus SPA versus SAC etc.</p>	EEMP Policy MPA1
C7	<p><b>Interaction between WNMP and Shoreline Management Plans</b></p> <p>Encourage interaction between the WNMP and relevant Shoreline Management Plans - signpost users to SMPs to ensure proposals have no negative impact on SMP requirements/provisions and therefore environmental objectives are not compromised. This point also applies to RBMPs, flood risk strategies and Estuary Management Plans.</p>	EEMP, para.251
C8	<p><b>Integration between WNMP and terrestrial plans</b></p> <p>The WNMP should integrate well with the environmental objectives of overlapping and neighbouring terrestrial plans and coastal strategies. Environmental benefits can be realised or reinforced through a cross-coastal approach of policy matching or proofing. These neighbouring plans and strategies can be explicitly listed in the WNMP, helping ensure coastal planning bodies are named and aware of their potential to assist.</p>	EEMP Policy GOV1 and para 258
C9	<p><b>Reference Shellfisheries Management Plans</b></p> <p>The Environment Bill White Paper proposes to embed shellfisheries management plans into legislation and develop an enforcement regime likely to offer environmental benefits, which could be referenced in the WNMP.</p>	Environment Bill White Paper Proposal SM2
C10	<p><b>Consider discussing future sectoral developments within WNMP</b></p> <p>For each sectoral policy, the Scotland National Marine Plan includes a 'Future' section setting out in far more detail than the Plan vision statement the Government's understanding and expectation of how each sector could/should develop in future, including opportunities for delivering environmental benefit. Including this section may help shape the future direction of each sector in a way that aligns with the goals of the WNMP and/or the MPS, MSFD, WFD etc.</p>	SNMP <sup>4</sup> sectoral policies

<sup>4</sup> Scotland national marine plan

Opportunity number	Identified opportunity	Source of opportunity (with reference)
C11	<p><b>Deliver national natural resources policy through the WNMP</b></p> <p>Marine plan policies will form the basis of the marine natural resource policy- as such the WNMP is expected to be the mechanism for delivering natural resources policy at sea. This will assist in alignment of natural resources planning across the land/sea boundary.</p>	Environment Bill White Paper para 2.22
C12	<p><b>Use WNMP as driver of NRW's area-based approach</b></p> <p>NRW is required to develop and implement an area-based approach for managing and gathering evidence on natural resources. The area-based approach could be aligned with the WNMP's spatial approach (or vice versa, whichever is developed first) to make best use of resources by aligning the WNMP and its evidence base with NRW work and its evidence base.</p>	Environment Bill White Paper Proposal NRM3
C13	<p><b>Set out environmental objectives within WNMP to inform/encourage Payment for Ecosystem Services</b></p> <p>The Environment Bill White Paper seeks to stimulate the use of market mechanisms to pay for ecosystem services, and this aim is also referenced in the Nature Recovery Plan for Wales. Payments for Ecosystem Services schemes involve voluntary payment in exchange for the provision of ecosystem services, and so obligations could not be included in the WNMP. However, the Plan can encourage PES by setting out environmental objectives that such schemes could contribute towards (e.g. the Defra PES Best Practice Guide calls for an opportunity assessment to inform PES-scheme design, including the review of relevant Marine Plan objectives).</p>	Environment Bill White Paper Proposal NRM8; Nature Recovery Plan for Wales, page 20; Defra PES Best Practice Guide, pages 9 and 48
C14	<p><b>Reflect Nature Recovery Plan for Wales goals</b></p> <p>As a first step, the WNMP could be aligned with/based on the goals presented in the Nature Recovery Plan for Wales, with all environmental policies and/or measures flowing from those goals, namely 'to improve degraded habitats at scale', 'to address key negative factors of biodiversity loss and increase connectivity significantly', 'to improve management of our highest quality environments', 'to achieve 'no net loss' of biodiversity' and 'to put in place a framework of governance to support delivery, working together across sectors and strengthening our collective evidence base'.</p>	Nature Recovery Plan for Wales, page 14

Opportunity number	Identified opportunity	Source of opportunity (with reference)
C15	<p><b>Build in natural capital accounting</b></p> <p>Natural capital accounts can help to inform decision making by taking into consideration the physical assets measured in 'conventional' approaches to accounting (e.g. fish landings), plus the value of the wider services provided by ecosystems (e.g. the habitat supporting productive fisheries). Development has begun of initial Government accounts for the UK's marine environment comprising physical and monetary stock (asset) and flow accounts. These are due by the end of 2015, but conceptual and data challenges means that they are expected to be weak in the first instance. Coastal margin accounts are to be developed by 2018.</p>	ONS Roadmap for the development of natural capital accounts, pages 4, 8, 11, and 14
E1	<p><b>Carry out a gap analysis</b></p> <p>Gap analysis to inform WNMP policies based on a review of a full range of existing plans, policies and strategies. Investigate existing evidence gathering processes or exercises to determine what work is ongoing or scheduled in the near future to give plan users confidence and knowledge of a) where the evidence gaps are b) which evidence gaps will be filled soonest. State where other projects (e.g. Round 3, ISLES, Marine Renewable Energy Strategic Framework) may be collecting relevant data and highlighting gaps that could also be used as appropriate.</p>	EEMP, paras. 210 and 211
E2	<p><b>Identify and support emerging technologies</b></p> <p>Identify and support emerging technologies or activities (with appropriate caveats) with the potential to bring environmental benefit, such as wave and tidal energy and carbon capture and storage. Even if those technologies have not yet been deployed, this will help 'future-proof' the plan.</p>	EEMP, para. 54
E3	<p><b>Support cumulative impact assessment</b></p> <p>Ensure WNMP covers the impact of activities on MPAs, including cumulative impact, and including activities seemingly remote from MPAs. Mapping the cumulative impact of human activities is possible (this was carried out for the Massachusetts marine plan) and could be added to the WNMP evidence base. This opportunity includes supporting current cumulative impacts work, for example through mapping project impacts.</p>	EEMP para 222; Managing the Marine Mosaic page 34
E4	<p><b>Use mapping and spatial data where possible</b></p> <p>Where possible, support Plan area-wide policies with appropriate mapping within the WNMP, even if indicative. For example, Policies FISH1 and FISH2 in the East of England Marine Plan are supported by broad spatial data, even if caveated. This will assist in their application to specific projects and support the precautionary principle.</p>	EEMP, para.106

Opportunity number	Identified opportunity	Source of opportunity (with reference)
E5	<p><b>Summarise main pressures and problems</b></p> <p>Aggregate and summarise the main pressures and problems faced by the Wales marine ecosystem based on the best available evidence, which can be used as a ready reference to understand if new proposals will make the problems worse. These might include seabed habitat loss or change, fishing techniques, reductions in water quality, reduction in air quality, non-native species, noise, climate change and litter. The Nature Recovery Plan for Wales states that 'habitats within the marine environment exhibit the greatest deterioration, with continued or accelerated decline across 60% of marine habitats compared to only 8% for terrestrial habitats and 33% for freshwater habitats.' Prioritise the most significant environmental damage.</p>	<p>EEMP para 185; SNMP SA Box 1; Environment Strategy for Wales page 38; Nature Recovery Plan for Wales annexes; Wales-UK National Ecosystem Assessment, pages 988 and 1006, Strategic Scoping Exercise (all sectoral text)</p>
E6	<p><b>Mention locations, species and features by name</b></p> <p>Wherever sufficient evidence exists to do so, mention significant locations, species and features by name in the WNMP. This maximises the chances of them being considered and protected during the decision-making process. This also adds value and specificity by going beyond the MPS and other existing strategies, protocols and conventions. Where possible, identify and reference areas linked functionally in terms of biodiversity and the nature of these linkages, e.g. fish spawning areas with fisheries, offshore foraging areas for shoreline birds, etc.</p>	<p>EEMP, para.215</p>
E7	<p><b>Approach to absence of evidence</b></p> <p>The WNMP should make clear that the absence of evidence does not equate to the absence of sensitive features and that proposal specific evidence may be required where the evidence is otherwise unclear. Again, this is in line with the precautionary principle and highlights the onus on developers to demonstrate that their proposals will lead to no net harm to the environment.</p>	<p>EEMP, para.216</p>
E8	<p><b>Focus on building fishing/fisheries evidence base</b></p> <p>Building up the fishing and fisheries evidence base through WNMP monitoring and implementation has the potential to help reverse the habitat degradation identified in the Wales Nature Recovery Plan and will provide certainty and clarity on the impacts of the sector even if fishing activity continues to be regulated by the CFP/quota system rather than marine planning/the WNMP. The continued existence of the quota system does not rule out or diminish the necessity of addressing negative fishing impacts on habitats or features through the marine plan.</p>	<p>EEMP, para.433; Wales Nature Recovery Plan, page 9 and Annexes</p>

Opportunity number	Identified opportunity	Source of opportunity (with reference)
E9	<p><b>Use live trials or pilots</b></p> <p>As part of building the WNMP evidence base, live trials or pilots can be used to provide useful information that may be otherwise unavailable. For example, the North Hoyle wind farm in Welsh waters is currently being used to test the potential for co-location of wind farms with other activities, the Clyde 2020 project is testing how fishing activity in Scotland could support biodiversity goals, and Wave Hub off north Cornwall is a government-sponsored tidal energy testing site.</p>	MMO Marine Developments, 13 May 2014- 'Wave Energy Trial Gets Green Light'
E10	<p><b>Potential for identifying Priority Marine Features</b></p> <p>The Scotland National Marine Plan identified and listed Priority Marine Features (PMF), as identified by JNCC and Scottish National Heritage- a list of named features and species that should be accorded higher levels of protection in decision-making. Some, but not all of these features are already mentioned in the Biodiversity Action Plan, so PMF goes further than existing measures in offering protection. NRW/Welsh Government could take a similar approach.</p>	Planning Scotland's Seas: Consultation on Priority Marine Features: Whole document
E11	<p><b>Research non-native invasive species</b></p> <p>The WNMP should identify features, sectors and activities most at risk from non-native invasive species and reference management measures that can be taken to minimise risk. One such example is the code of good practice recently implemented for the Menai Strait mussel fishery that uses a traffic light system to minimise risk of accidental introduction of non-native species.</p>	Countryside Council for Wales presentation at Marine Protected Areas workshop, 27-29 October 2008
E12	<p><b>Seek to understand drivers for SAC unfavourable condition</b></p> <p>The last strategic assessment of European marine SACs in Wales showed that about half the features of these SACs were in unfavourable condition and that their future prospects were, in general, not likely to improve in the short term. Understanding the reasons for this poor performance despite numerous levels of protection should be a priority in the WNMP evidence base and, if necessary, addressed through additional policy and/or measures such as offsetting.</p>	Wales- UK National Ecosystem Assessment, page 1006
E13	<p><b>Evaluate Wales Fisheries Strategy</b></p> <p>The Wales Fisheries Strategy in 2008 identified a number of approaches to minimise the impact of fisheries on marine ecosystems. Any monitoring activity or relevant evidence gathered since the publication of the Strategy could be used to inform WNMP approach to fishing sector - which approaches were implemented, which not, and which approaches worked best and why?</p>	Wales- UK National Ecosystem Assessment, page 1033



Opportunity number	Identified opportunity	Source of opportunity (with reference)
E14	<p><b>Site-specific risk assessments for each MPA</b></p> <p>Site specific risk assessments could be carried out for each of the MPAs and scored/weighted appropriately (along the lines of that proposed by Natural England) and added to the WNMP evidence base; this could be referenced in the WNMP (or at least its future iterations) and taken into account by decision-makers when licensing activities or development that could have an impact.</p>	European Marine Site Risk Review (Natural England)- whole document
E15	<p><b>Consider mapping areas by biological value</b></p> <p>Biovaluation could be used as a tool to inform development of ecological or other WNMP policies and licensing decisions made under them. This is simply mapping areas by overall biological value, and there is an example of this approach in the Wales Marine Conservation Zones consultation document.</p>	UNESCO Marine Spatial Planning: A Step-by-Step Approach pages 52-54; Wales MCZs Consultation page 105
E16	<p><b>Define 'reporting areas'</b></p> <p>Define wider 'reporting areas' larger than the plan area. A reporting area covers activities and features with the potential to impact on the environment of the plan area. In particular, seek to understand biogeographic and/or eco-regional boundaries for reporting areas.</p>	UNESCO Marine Spatial Planning: A Step-by-Step Approach page 39; EEMP para 21; Managing the Marine Mosaic page 34
E17	<p><b>Identify 'core fishing grounds'</b></p> <p>The concept of identifying and defining 'core fishing grounds' has the potential to minimise negative environmental impacts from fishing activities in other locations, including through minimising unintentional displacement of fishing activity to environmentally sensitive locations.</p>	MMO Summary Note 1074: Scoping the opportunities and challenges to using a 'core grounds' approach to develop a spatial marine plan policy for fishing
E18	<p><b>Investigate potential for reuse of dredged materials</b></p> <p>There is the potential for the reuse of dredged materials to bring environmental benefit, e.g. through habitat creation or coastal defence.</p>	MMO Summary Note 1073: Use of beneficial dredge materials in the South inshore and offshore marine plan areas
PO1	<p><b>Explicit promotion of offshore renewable energy</b></p> <p>Specifically identify and promote offshore renewable energy, thus maximising chance that such development will occur and deliver associated carbon emission reductions and hence environmental benefit.</p>	EEMP Objective 3

Opportunity number	Identified opportunity	Source of opportunity (with reference)
PO2	<p><b>Considering seascape</b></p> <p>Explicit reference to and definition of seascape and the need to consider seascape impacts in plan area decisions.</p>	EEMP Objective 5
PO3	<p><b>Supporting and promoting biodiversity recovery</b></p> <p>Reference need to move towards biodiversity recovery as per the Nature Recovery Plan for Wales (without restating existing strategies and targets) - with the option for WNMP to go further than East of England Marine Plan and Scotland National Marine Plan and include specific policy on recovery.</p>	EEMP Objective 7
PO4	<p><b>Ensuring an appropriate variety/range of policy types (see also Appendix A)</b></p> <p>Policies should comprise a variety of input measures, output measures, process measures, and spatial and temporal distribution measures (structure developed by Douvère, 2008- see Appendix A for details). This offers a greater chance to deliver environmental benefit than one single type of measure or policy. Potential to use Douvère's structure to classify emerging WNMP policies and establish which category they fall into, whether there is a balance between the four categories, and whether re-focussing any individual policy so it falls into an alternative category could offer a greater opportunity for environmental benefit. Alternatively, the emerging South Marine Plan offers a different classification structure for policies (general decision-making framework, spatial or temporal constraints and methodological requirements to be considered), which could be applied instead.</p>	Douvère, 2008 page 765; Draft Vision and Objectives for the South Inshore and South Offshore Marine Plan Areas page 13
PO5	<p><b>Clarity on policy outcomes</b></p> <p>As part of the policy text for policies where an outcome can be defined, explicitly state that outcome so that there is a focus on the action needing to be undertaken to achieve this state. This can help to ensure environmental benefits are identified and stated where possible.</p>	EEMP, para.85
PO6	<p><b>Use selected criteria-based policies</b></p> <p>Criteria can be applied to selected WNMP policies, forming a defined series of tests that each proposal has to pass, with opportunities to maximise environmental benefit and minimise negative impact at each step, including consideration of unintended impacts, such as displacement. This is similar to the hierarchy of environmental constraints in the Marine Renewable Energy Strategic Framework Approach to Sustainable Development.</p>	EEMP Policy GOV3 and others; Marine Renewable Energy Strategic Framework Approach to Sustainable Development page v

Opportunity number	Identified opportunity	Source of opportunity (with reference)
PO7	<p><b>Identify 'tiebreak' policies</b></p> <p>Consider the benefits of identifying 'tiebreak' policies to assist in decision making and/or explicit degrees of preference against selected or all WNMP policies to give clarity to those implementing the plan. For example, could 'no net loss of biodiversity' be a tiebreak objective?</p>	EEMP, para.101
PO8	<p><b>Identify area-specific policies where possible</b></p> <p>WNMP policies that apply only within certain mapped locations have the potential to offer environmental benefit by focussing measures where they can have the maximum effect. However, their application can sometimes be limited due to gaps in the evidence- this was noted as a problem in the East of England Marine Plan and there was a desire to widen their application in future.</p>	EEMP, para.104
PO9	<p><b>Reference monitoring and implementation arrangements</b></p> <p>WNMP policies covering activities with an ecosystem impact should reference the monitoring and implementation arrangements for those policies, including where appropriate the requirements of the MSFD, WFD, SEAs and EIA, and including consideration of cumulative impacts; also should explicitly cover areas outside MPAs.</p>	EEMP Policy ECO1; Ehler (2008) page 841
PO10	<p><b>Consider effects of policy combination</b></p> <p>There is potential for WNMP policies to go beyond the MPS by covering secondary or unintentional effects of policy combination, e.g. hazardous substances released as a result of collision between boats and structures licensed under the WNMP, or higher levels of carbon emissions due to longer shipping routes avoiding wind farms.</p>	EEMP Policies ECO2, CC2
PO11	<p><b>Promote enhancement as well as protection of biodiversity</b></p> <p>Include within the WNMP policies that promote the enhancement as well as the protection of biodiversity and ecosystems. These are two different requirements and one does not necessarily mean that the second follows naturally without explicit statement/encouragement.</p>	EEMP Policy BIO2
PO12	<p><b>Avoid conflicts with offshore renewables</b></p> <p>If high priority is accorded to offshore renewables within the WNMP/Welsh Government, policies should spatially restrict uses that have the potential to conflict with wind and tide energy alongside those that specifically support wind and tide energy.</p>	EEMP Policies WIND1, WIND2, TIDE1

Opportunity number	Identified opportunity	Source of opportunity (with reference)
PO13	<p><b>Carbon capture and storage</b></p> <p>Where the potential exists (and as per the MPS), support carbon capture and storage within the WNMP as a potential climate change mitigation strategy. This could include ensuring compatibility with other uses and minimising environmental risks.</p>	MPS paras 3.3.4, 3.3.32, EEMP Policies CCS1, CCS2
PO14	<p><b>Secondary/spin-off habitat enhancements</b></p> <p>Reference and offer support for any secondary/spin-off habitat enhancements that can accrue from installing structures in the marine area, e.g. the 'artificial reef' effect created on the sub-sea portion of wind farms that can enhance existing or create new ecosystems. However, consideration needs to be given to the effectiveness of this opportunity as artificial environments may differ significantly from the ecosystems that they replace.</p>	EEMP, para.427
PO15	<p><b>Cross-reference environment within economic and social goals of the WNMP</b></p> <p>There is the opportunity for economic or social policies within the WNMP to cross-reference as appropriate to environmental aims and objectives, thus providing them with further support. Examples include reference to avoiding negative impacts on water quality in port development policies, or the potential for promoting shellfisheries to have the effect of improving water quality.</p>	EEMP SA, table 3-16, page 49
PO16	<p><b>Including policies on target species</b></p> <p>The Scotland National Marine Plan is significantly more prescriptive than the East of England Marine Plan in terms of target species. For example, the plan supports conservation measures for seals and includes a policy on migratory salmon. Are there species (seals, salmon or otherwise) that Wales might consider specifically naming and protecting in this way?</p>	SNMP Policy Aquaculture 8, SNMP Page 70
PO17	<p><b>Consider number of policies per sector in WNMP</b></p> <p>For many sectors, the Scotland National Marine Plan contains over ten policies, leading to a significant degree of sectoral prescriptiveness compared with the East of England plan. In theory, enhanced prescriptiveness has greater opportunity to deliver environmental benefits, but this needs to be weighed against the additional burden for plan users of needing to be in conformity with more policies (and the burden for plan-makers in formulating so many policies!)</p>	SNMP sectoral policies

Opportunity number	Identified opportunity	Source of opportunity (with reference)
PO18	<p><b>Reducing marine litter</b></p> <p>Both Scotland and Northern Ireland have Marine Litter Strategies (Northern Ireland's is particularly detailed). Would it be possible to embed similar aims and objectives within a marine litter policy in the WNMP? The strategies include fostering behavioural change, promoting education, statutory deterrents, infrastructure, and encouragement of litter removal.</p>	<p>Marine Litter Strategy for Scotland whole document; Northern Ireland Marine Litter Strategy whole document</p>
PR1	<p><b>Focus limited resources</b></p> <p>Identify locations/features already covered by adequate management measures and focus limited WNMP resources on other locations.</p>	<p>EEMP, para.16</p>
PR2	<p><b>Include process alongside sectoral objectives</b></p> <p>Process objectives setting out the importance of good management and evidence can supplement more obviously sectoral goals. Work with WG in understanding their view of management and evidence in relation to the WNMP and how it could deliver environmental benefit.</p>	<p>EEMP, para.58</p>
PR3	<p><b>Include improvement of evidence base as WNMP objective</b></p> <p>Explicitly state objective to improve and develop marine planning evidence base to ensure future iterations of WNMP can maximise environmental benefit.</p>	<p>EEMP Objective 11</p>
PR4	<p><b>Consider opportunities for biodiversity offsetting</b></p> <p>Opportunities for offsetting could be explored in more depth in the WNMP than was possible in the East of England Marine Plan now the terrestrial regime is more advanced. Current thinking on marine offsetting suggests that they cannot be relied on to deliver compensation given the greater uncertainties associated with the marine environment, but could be a useful option to address unavoidable residual impacts and may add further requirements to those of the Habitats Directive. Including offsetting would add value to the WNMP and ensure it is cutting edge, but text would have to be worded carefully to ensure flexibility of application and to take account of the greater risks associated with this environment. Offsetting would also help align WNMP with 'no net loss' approach of Nature Recovery Plan for Wales.</p>	<p>Nature Recovery Plan for Wales, page ii; Crown Estates, Marine biodiversity offsetting – UK scoping study page 8-10</p>

Opportunity number	Identified opportunity	Source of opportunity (with reference)
PR5	<p><b>Consider measures and processes alongside/as well as/other than WNMP</b></p> <p>Where necessary, consider areas or sectors (such as, for example fishing) where measures other than the WNMP could be more appropriate. For example, the MMO has worked in England with Defra, JNCC, Natural England and others to protect subsea features at high risk through fishing activities, but this work was carried out under the Habitats Directive rather than through any marine plan. Where similar processes have occurred, there is benefit in referencing them in the WNMP to ensure a joined-up approach and to ensure proposals and developers are aware of and take account of other relevant work.</p>	EEMP, paras 428, 430 and 431
PR6	<p><b>Ensure SA focuses on maximising environmental benefit</b></p> <p>The East of England Marine Plan SA identified alternatives based on the Plan's approach of sectoral prioritisation rather than spatial zoning. However, this had the effect of alternatives being considered on a sectoral basis rather than on the basis of objectives. If the WNMP SA were to follow the latter approach, it could consider as one of a range of alternatives, for example, 'maximisation of environmental benefit'. This would have the advantage of added clarity for both planners and plan area users the advantages and constraints of such an approach and increase the chances that some or all features of such an ecologically-focused approach could be used within the WNMP.</p>	EEMP SA, para. 3.2, page 31
PR7	<p><b>Consider displacement on case-by-case basis rather than WNMP level</b></p> <p>The East of England Marine Plan and its SA both state that the impact on the marine environment of displacement of activities can be defined only on a case-by-case basis. This suggests that resources need not be expended at the WNMP level on attempting to define or take account of displacement impacts, and that instead the case-by-case basis should be referenced and justified.</p>	EEMP para 269, EEMP SA page 41
PR8	<p><b>Presumption in favour of sustainable development</b></p> <p>Consider the advantages or disadvantages of including or excluding a presumption in favour of sustainable development in the WNMP. This is included in the Scotland National Marine Plan but not in the East of England Marine Plan. The Scotland National Marine Plan could be said to be more economically-focussed as a result. Is a presumption in favour of sustainable development consistent with an ecosystem-based approach?</p>	SNMP Policy GEN 1

Opportunity number	Identified opportunity	Source of opportunity (with reference)
PR9	<p><b>Develop a framework for co-existence of marine activities</b></p> <p>Develop a framework for co-existence of marine activities to be referenced in the WNMP along the lines of the emerging three-step MMO framework in England- specifically Screening, Initial Assessment and Detailed Assessment. This framework could be used for licensing decisions made under the WNMP.</p>	<p>Strategic Scoping Assessment pages 55-56; Scoping of a robust strategic assessment tool for co-existence of activities in marine plan areas (MMO 1049), pages 30-35</p>
PR10	<p><b>Employing implementation or enforcement officers</b></p> <p>Implementation and/or Enforcement Officers employed by the plan-making authority (in this case, the Welsh Government) can assist in WNMP implementation, ensuring that all Plan area activities and users are legally complying with the requirements of the Plan, thus helping to deliver environmental benefits.</p>	<p>MMO Marine Developments, 7 April 2014- 'The role of a Marine Planning Implementation Officer'</p>
PR11	<p><b>Taking 'ecological coherence' into account</b></p> <p>Set out how to take into account the concept of an 'ecologically coherent network' in decision-making affecting MPAs, particularly in the absence of government guidance. OSPAR covers the five principles of a coherent network, including connectivity and replication, and the Nature Recovery Plan for Wales also includes relevant principles.</p>	<p>Guidance on Developing an Ecologically Coherent Network of OSPAR Marine Protected Areas (Reference 2006-3)</p>
S1	<p><b>Work within hierarchy of plan objectives and activities</b></p> <p>Develop/understand the hierarchy of objectives that forms the backbone of any plan (vision, objectives, policies, monitoring and implementation) and maximise opportunities for environmental benefit at every level, using the Strategic Scoping Exercise as a guide. As many of the objectives as practicable should be SMART<sup>5</sup> objectives, which enhances the chances of effective monitoring and implementation. The emerging South Marine plan vision and objectives have a significantly stronger environmental dimension than those of the East of England plan and could generate ideas for the WNMP vision and objectives consultation.</p>	<p>Whole EEMP document; Strategic Scoping Exercise sectoral considerations; Draft Vision and Objectives for the South Inshore and South Offshore Marine Plan Areas, page 9 and SPAR Core Issues 1-5</p>
S2	<p><b>Climate change</b></p> <p>Ensure climate change mitigation and adaptation are given appropriate consideration within the WNMP structure, from plan vision and/or objectives level downwards.</p>	<p>EEMP Objective 9; Draft Vision and Objectives for the South Inshore and South Offshore Marine Plan Areas SPAR Core Issue One</p>

<sup>5</sup> SMART objectives are: Specific, Measurable, Achievable, Relevant and Time-bound.

Opportunity number	Identified opportunity	Source of opportunity (with reference)
S3	<p><b>Structure climate change measures around mitigation and adaptation</b></p> <p>Consider structuring WNMP climate change measures around the two requirements of mitigation and adaptation. For example, offshore renewables, shipping (as opposed to road or airfreight) and carbon capture and storage could be covered under mitigation, whilst some ecosystem services (e.g. flood regulation) may be associated with climate adaptation. This will add clarity and coherence to the implementation and monitoring of measures focussing on climate change.</p>	EEMP, para.230
S4	<p><b>Structure policy and supporting text appropriately</b></p> <p>Consider the layout/structure of each WNMP policy with the aim of clarifying and thus maximising environmental benefit. A clear structure could involve (though not necessarily in this order) setting the context/presenting the issues, signposting/referencing other relevant documents, the policy text itself and then policy justification text.</p>	All EEMP and SNMP policies
S5	<p><b>Consider setting out 'Key Issues for Marine Planning' or similar</b></p> <p>The SNMP prefaces its sectoral policies with a number of 'Key Issues for Marine Planning', including 'Living within Environmental Limits' and 'Climate Change'. These clearly set out negative environmental impacts to avoid and could offer the potential for sectoral applications under each WNMP policy to identify and set out environmental protection or enhancement within their applications as a direct response to this impacts and issues text.</p>	SNMP, page 40



## 4. PROJECT WORKSHOP

### 4.1 Workshop methodology

A one day workshop was held in order to gain wider input on the wider environmental benefits that might be obtained through the Welsh National Marine Plan (WNMP). Attendees were primarily drawn from various departments within NRW<sup>6</sup> to provide a range of sectoral viewpoints. Other attendees included representatives from third sector bodies with an interest in the Welsh Environment, Welsh Government, and a representative of the Marine Management Organisation in England.

The objectives of this workshop were to:

- engage participants in a discussion and prioritisation exercise around the opportunities for delivering environmental benefits through the marine plan and planning process; and
- stimulate a more general discussion about the development of marine plans and the planning process.

In order to build participants' understanding of the issues covered by the workshop and to provide ideas for subsequent discussions, two presentations were given. Hannah Marriott, marine planner at the MMO, presented on delivering environmental benefits through marine planning, including lessons learnt from the East of England Marine Plan and the emerging South of England Marine Plan. Chris Eves, environmental policy specialist at URS, presented on the potential use of market-based mechanisms in a marine planning context.

Discussion sessions were held throughout the day in order to capture the opinions of participants. In total five discussion sessions were held, with each covering one of the key opportunity groups identified following the literature review, namely

- Context;
- Evidence base;
- Process; and
- Policy (two sessions due to number of opportunities identified).

It was decided prior to the workshop that, although ideally a discussion session would be held for the Structure opportunity group as well, workshop time was limited and the relatively smaller size of this group of opportunities might not justify reducing time available for other discussion sessions.

Participants were provided with a detailed explanation of the nature of these opportunity groups prior to discussion (i.e. those presented in Section 3.6 above). Basic instructions were also given on the discussion sessions, specifically that participants should seek to use the sessions to:

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<sup>6</sup> Participants included NRW specialists in: landscape/seascape, coastal geomorphology, biodiversity, SEA/SA, climate change, marine ornithology, marine industry, estuary management, fisheries, conservation, MPAs, environmental crime, intertidal zone, sub-tidal zone, MSFD, Habitats Directive, WFD, marine data management and water resource planning. Other attendees included the MMO, WG, RSPB, MCS and JNCC.

- fill any gaps in the list of opportunities established through the literature review;
- comment on opportunities from the viewpoint of their area of sectoral expertise (and outside of it, with an emphasis on gathering as many comments as possible); and
- consider the key environmental issues within the Welsh marine area in particular, and where and how it could be improved

Workshop participants were divided into four separate groups and presented with the list of environmental opportunities established through the literature review. At each table, discussions were facilitated by a member of the URS/NRW project team, who recorded comments. For each session the facilitator was rotated in order to bring different viewpoints into the discussions. This reflected the varied backgrounds of the facilitators, specifically:

- Kirsty Lindenbaum (NRW, marine resource management adviser)
- Steve Smith (URS, environmental policy and appraisal specialist)
- Jesse Honey (URS, marine planning specialist)
- Chris Eves (URS, environmental markets and economics specialist)

Facilitators encouraged participants to highlight the most and least promising opportunities, any relationship between individual opportunities and specific locations (using a map of the Welsh marine area), and capture wider perspectives.

## 4.2

### Conclusions

The project workshop generated much useful information to build on and complement the data that emerged through the literature review. The presentations complemented the discussion sessions well in building on existing opportunities and identifying new opportunities. We have taken full account of the workshop discussion, presentations and outputs in our final chapter; they have helped us shape and refine a final shortlist of key opportunities able to deliver maximum environmental benefit within the WNMP

Although there was not time at the workshop to address the Structure group of opportunities, we have taken into account the implications of workshop comments and conclusions on the other four opportunity groups for the Structure group in the next chapter

A key aim of the workshop was to fill any gaps identified in the literature review opportunities and certainly a number of the discussion sessions (and, indirectly, the presentations) identified additional opportunities. These included opportunities involving stakeholder consultation, which was an issue that did not feature significantly in the literature review, focussing as it did on the more technical side of marine planning.

The MMO presentation took a broader view of the marine planning process and system as a whole than the literature review, focussing to a greater extent on the overall production of a marine plan and also touching more clearly on the interactions between environmental benefit and economic and social benefits. By providing a preview of yet-to-be published MMO evidence base work, the presentation was also useful in providing insights into how to move the ecosystem approach from theory into practice.

Also valuable in the MMO presentation was an honest assessment of how the organisation has been on a journey to deliver environmental benefit, with the comparison and contrast of the East Plans objectives with those of the South Plans particularly informative. This illustrates

that delivering environmental benefit is a complex area that may take some time, and/or more than a single iteration of the WNMP, to develop fully.

Chris's presentation identified practical ways to deliver environmental benefit through market-based mechanisms, pointing out that in many cases these are more applicable at the project/licensing stage than the planning level, and thereby underlining the importance of thinking of the WNMP as an ongoing process rather than a single document.

The discussion sessions provided a useful commentary of additional issues to be considered, potential benefits and drawbacks, and their practicality of application for almost all opportunities identified in the literature review.

As well as commentary on each opportunity, workshop participants were asked to rank the top few opportunities in each group that they considered offered the greatest potential for delivering environmental benefit, whether in terms of quality/quantity of benefit, practicality/ease of application, particular importance to Wales marine area, or any other reason. Again, these rankings are taken into account in the next chapter, focussing on the opportunities most worth pursuing in the context of the Wales national Marine Plan.

## **5. TOWARDS A FINAL SHORTLIST**

### **5.1 Interim report stage teleconference**

As part of our review of project workshop outputs, URS and NRW held a teleconference on 27<sup>th</sup> November 2014 to discuss options for moving towards a final, revised shortlist of opportunities with the greatest potential to be applied by those drafting the first WNMP. The teleconference provided opportunities for input by NRW staff not able to be present at the project workshop, as well as valuable input from Iwan Ball, marine governance manager for WWF Cymru.

The teleconference reviewed all sixty-seven identified opportunities for delivering environmental benefit in the light of workshop outputs, as well as taking into account NRW's remit and its role as a key stakeholder within the WNMP process.

### **5.2 Applying criteria to the opportunities**

Contributors agreed that generating and applying relevant NRW-derived criteria to the longlist of sixty-seven opportunities was an appropriate, cost effective way to identify those opportunities holding most promise. The criteria selected were the following:

#### *Identification within Strategic Scoping Exercise*

If the opportunity or an issue with direct relevance to the opportunity had previously been identified within the Strategic Spatial Exercise carried out by the Welsh Government (and forming the primary evidence base document underpinning the development of the WNMP), it was considered more appropriate to take forward to the final shortlist.

#### *Strategic, spatial relevance*

Alongside the outputs of the literature review, some of the feedback from the project workshop on the opportunities identified needs to be tested against the criterion of relevance at a large spatial scale. It was felt that some opportunities discussed were too local or small-scale to be covered by the first iteration of a strategic national plan.

#### *Adding value*

As mentioned in earlier chapters, a wide range of existing strategies, initiatives and policies cover the Welsh marine and coastal areas. The WNMP should add value as opposed to restating or duplicate existing work. Therefore, some opportunities were not proposed as a priority where they would be better delivered by other mechanisms. In some cases they were re-worded to clarify what the added value of the plan could be in relation to that issue.

#### *NRW's remit and role*

Due to the wide-ranging nature of the literature review and the broad scope of the project workshop (which were both intentional) it was considered that some opportunities identified did not align precisely with NRW's statutory remit, or would not be appropriate for NRW to pursue directly. However, this criterion did not need to be an 'either-or' judgement, as some opportunities NRW was considered to have a role in delivering, even if other organisations or individuals had the lead role.

#### *Deliverability*

The opportunity had to be realistic and straightforward enough to deliver early in the WNMP process, and not complex or time-consuming enough to make delivery challenging. It had to

have a high identified likelihood of deliverability in terms of the priorities and remits of the organisations, including NRW, with a role in delivering the WNMP.

## 6. CONCLUSIONS

### 6.1 Final shortlist of opportunities

Based on the criteria set out in Chapter 5, an opportunity scoring system was developed to allow for a priority shortlist. In this process, some of the original sixty-seven opportunities have been merged with others. Where this is the case, all the original opportunity 'codes' have been listed for clarity, with the merged opportunity codes italicised. In some cases, the text relating to an opportunity was substantially revised or amended compared with Table 1 in Chapter 3, to clarify the objective in the Welsh context.

Two opportunities (E19 and PR12) identified through the workshop as relevant but not already covered through the literature review have also been added to the final shortlist. Opportunities have been listed in alphanumeric order by opportunity code.

**Table 2: Opportunities, prioritised as the most important identified for NRW**

Opportunity	Revised description (including example of application)
<p><b>C1</b></p> <p><b>C2</b></p>	<p><b>Signposting other plans, policies and strategies</b></p> <p>Review of and signposting within WNMP of a full range of existing plans, policies and strategies offering environmental benefit; recognition that no marine plan, even first iterations, start from a blank sheet of paper. WNMP specific examples include the Future Generations and Wellbeing Bill, the (emerging) Environment Bill, Planning (Wales) Bill, Nature Recovery Plan, MPS, MSFD. Marine planning should be (but is currently not) reflected in the Planning (Wales) Bill.</p> <p>Identify existing targets/milestones in other plans or strategies and use the WNMP as a roadmap to get there- for example explicit reference to those targets in monitoring and implementation chapters. Examples would include MSFD and WFD.</p>
<p><b>C3</b></p> <p><b>C5</b></p>	<p><b>Definition of ecosystem approach within WNMP</b></p> <p>Ensuring the WNMP supports delivery of the ecosystem approach is a requirement of UK marine policy. As such, a definition of ecosystem approach is needed within the plan.</p> <p>This definition should emphasise the benefits of the ecosystem approach, and the benefits of ecosystems to people. In so doing, the plan should identify and reference underlying structures and processes that support healthy marine ecosystems, such as interactions between species, nutrient and carbon cycling, functional redundancy (i.e. the degree to which multiple species perform similar ecological functions), habitat diversity, water quality and coastal processes. These structures and processes need to function properly in order to protect and enhance biodiversity, as well as supporting the wider socio-economic benefits accrued through marine ecosystems.</p>
<p><b>C4</b></p>	<p><b>Reference Strategic Scoping Exercise within WNMP</b></p> <p>Signpost the Strategic Scoping Exercise in the WNMP, including its content, purpose and conclusions, and the relationship between its findings and Plan Policy, monitoring and implementation.</p>

Opportunity	Revised description (including example of application)
C8	<p><b>Integration between WNMP and terrestrial plans; support delivery of Integrated Coastal Zone Management</b></p> <p>The WNMP should integrate and align with the objectives of overlapping and neighbouring terrestrial plans and coastal strategies. Environmental benefits can be realised or reinforced through a cross-coastal approach of policy matching or proofing. Neighbouring plans and strategies can be explicitly listed in the WNMP, helping ensure coastal planning bodies are named and aware of their potential to assist.</p> <p>Guidance for terrestrial planners on marine planning has been developed in both England and Scotland, and a similar approach should be taken in Wales.</p>
C10	<p><b>Consider discussing future developments within WNMP for selected policy areas</b></p> <p>For each policy area, the Scotland National Marine Plan includes a 'Future' section setting out in far more detail than the Plan vision statement the Government's understanding and expectation of how each sector could/should develop in future, including opportunities for delivering environmental benefit. Including this section may help shape the future direction of each sector in a way that aligns with the goals of the WNMP and/or the MPS, MSFD, WFD etc.</p>
C11 C12	<p><b>Deliver national natural resources policy through the WNMP</b></p> <p>The Environment Bill White Paper will provide the legislative basis for a national natural resources policy for Wales. Therefore, the WNMP should be aligned closely with the content of this policy and its first or future iterations should seek to align objectives with that policy.</p> <p>Marine plan policies will form the basis of the marine natural resource policy- as such the WNMP is expected to be the mechanism for delivering natural resources policy at sea. This will assist in alignment of natural resources planning across the land/sea boundary.</p> <p>NRW is required to develop and implement an area-based approach for managing and gathering evidence on natural resources under the Environment Bill. The area-based approach should be aligned with the WNMP's spatial approach to make best use of resources by aligning the WNMP and its evidence base with NRW work and its evidence base.</p>

Opportunity	Revised description (including example of application)
<p><b>C13</b></p>	<p><b>Set out environmental objectives within WNMP to inform/encourage Payment for Ecosystem Services</b></p> <p>The Environment Bill White Paper seeks to stimulate the use of market mechanisms to pay for ecosystem services, and this aim is also referenced in the Nature Recovery Plan for Wales. Payments for Ecosystem Services schemes involve voluntary payment in exchange for the provision of ecosystem services, and so obligations could not be included in the WNMP. However, the Plan can encourage PES by setting out environmental objectives that such schemes could contribute towards (particularly those detailing where there is a need to secure or enhance ecosystem services, and who the likely instigators and beneficiaries of such action might be). For example, the Defra PES Best Practice Guide calls for an opportunity assessment to inform PES-scheme design, including the review of relevant Marine Plan objectives.</p> <p>Further work would be needed to explore the practicalities of encouraging PES within the WNMP since it has not yet been widely used in the marine environment.</p>
<p><b>C15</b></p> <p><b>E15</b></p>	<p><b>Build in natural capital accounting</b></p> <p>Natural capital accounts can help to inform decision making by taking into consideration the physical assets measured in 'conventional' approaches to accounting (e.g. fish landings), plus the value of the wider services provided by ecosystems (e.g. the habitat supporting productive fisheries). Development has begun of initial Government accounts for the UK's marine environment comprising physical and monetary stock (asset) and flow accounts. These are due by the end of 2015, but conceptual and data challenges means that they are expected to be weak in the first instance. Coastal margin accounts are to be developed by 2018.</p> <p>Ecosystem goods and services mapping (and where appropriate, valuation) could be used within the natural capital accounting process and be used as a tool to inform development of ecological or other WNMP policies and licensing decisions made under them. Information from the Welsh Government marine data portal could potentially feed into such mapping exercises.</p> <p>Further work would be needed to explore the practicalities of building in natural capital accounting into the WNMP since it has not yet been widely used in the marine environment.</p>
<p><b>E1</b></p> <p><b>PR1</b></p>	<p><b>Carry out a gap analysis</b></p> <p>Undertake a gap analysis to inform WNMP policies based on a review of a full range of existing plans, policies and strategies. Investigate existing evidence gathering processes or exercises to determine what work is ongoing or scheduled in the near future to give plan users confidence and knowledge of a) where the evidence gaps are b) which evidence gaps will be filled soonest. State where other projects (e.g. Round 3, ISLES, Marine Renewable Energy Strategic Framework) may be collecting relevant data and highlighting gaps that could also be used as appropriate.</p> <p>The Strategic Scoping Exercise is the first attempt to bring much of this information together. However, the planning process itself is likely to identify further gaps that will be priorities, as policies are developed.</p>



Opportunity	Revised description (including example of application)
E3	<p><b>Support cumulative impact assessment</b></p> <p>Ensure WNMP process adds value to cumulative impact assessment processes by providing tools and guidance to support CIA. Mapping the cumulative impact of human activities is possible (for an example, see the Massachusetts marine plan) and activity maps would enable a clearer understanding of the cumulative activities occurring in any single area of the marine environment.</p>
E4	<p><b>Use mapping and spatial data where possible</b></p> <p>Where possible, support Plan area-wide policies with appropriate mapping within the WNMP, even if indicative. For example, Policies FISH1 and FISH2 in the East of England Marine Plan are supported by broad spatial data, even if caveated. This will assist in their application to specific projects and support the precautionary principle.</p>
E6	<p><b>Mention locations, species and features by name</b></p> <p>Wherever sufficient evidence exists to do so, mention significant locations, species and features by name in the WNMP. This maximises the chances of them being considered and protected during the decision-making process. This also adds value and specificity by going beyond the MPS and other existing strategies, protocols and conventions. Where possible, identify and reference areas linked functionally in terms of biodiversity and the nature of these linkages, for example, fish spawning areas with fisheries, offshore foraging areas for shoreline birds, etc.</p> <p>A starting point for this activity is the Section 42<sup>7</sup> list of habitats and species of principal importance in Wales.</p>
E7	<p><b>Approach to absence of evidence</b></p> <p>The WNMP should make clear that the absence of evidence does not equate to the absence of sensitive features and that proposal specific evidence may be required where the evidence is otherwise unclear. Again, this is in line with the precautionary principle and highlights the onus on developers to demonstrate that their proposals will lead to no net harm to the environment. There is an opportunity for a policy or suite of policies to be developed within the WNMP setting out the approach to evidence and its use to inform planning and decision-making. Clarity on the approach to absence of evidence will help increase certainty for Plan area users.</p>

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<sup>7</sup> The s42 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 “to have regard” to the conservation of biodiversity in all their activities.

Opportunity	Revised description (including example of application)
<p><b>E10</b></p> <p><b>PO16</b></p>	<p><b>Potential for identifying Priority Marine Features</b></p> <p>The Scotland National Marine Plan identified and listed Priority Marine Features (PMF), as identified by JNCC and Scottish National Heritage- a list of named features and species that should be accorded higher levels of protection in decision-making. Some, but not all of these features are already mentioned in the Biodiversity Action Plan, so PMF goes further than existing measures in offering protection. NRW/Welsh Government could take a similar approach.</p> <p>The Scotland National Marine Plan is also significantly more prescriptive than the East of England Marine Plan in terms of identifying target species. For example, the plan supports conservation measures for seals and includes a policy on migratory salmon.</p> <p>NRW considers that identifying a list of Priority Marine Features, including but not limited to 'target species' considered to merit special protection, would add value to the WNMP (in part, by bringing together in a single list for the first time features covered under a confusing, complex range of existing mechanisms). It would also assist in other goals, such as delivery of national natural resources policy.</p>
<p><b>E16</b></p>	<p><b>Trans-boundary impacts and influence</b></p> <p>The WNMP needs to take account of trans-boundary impacts and influence, both in terms of activities and features within its own plan area that may impact across Plan area boundaries and also in terms of those activities and features outside its boundaries that may have an impact on its Plan area, for example non-natives on the English side of the Dee or Severn estuaries with the potential to spread into the plan area. This requirement is included in the MSFD and other directives. This opportunity will require engagement with a range of relevant stakeholders.</p>
<p><b>E19</b></p>	<p><b>Improving quality of evidence base through supporting skills development</b></p> <p>At the project workshop, a new opportunity to deliver environmental benefit was identified- namely, improving the quality of the evidence base through supporting skills development in key sectors, including environmental sciences. The WNMP process could add value here by identifying skills gaps and influencing the education sector in Wales to ensure these are filled.</p>
<p><b>PO2</b></p>	<p><b>Considering seascape</b></p> <p>Explicit reference to and definition of seascape and the need to consider seascape impacts in plan area decisions. This was identified in the Strategic Scoping Exercise and NRW have already embarked upon an exercise to define and describe 'Marine Character Areas' around Wales to inform the WNMP.</p>

Opportunity	Revised description (including example of application)
<p><b>PO3</b></p> <p><b>C14</b></p> <p><b>PO11</b></p> <p><b>PO14</b></p>	<p><b>Supporting and promoting biodiversity recovery and enhancement</b></p> <p>Reference need to move towards biodiversity recovery as per the Nature Recovery Plan for Wales (without restating existing strategies and targets) - with the option for WNMP to go further than East of England Marine Plan and Scotland National Marine Plan and include specific policy on recovery.</p> <p>As a first step, the WNMP should be aligned with/based on the goals presented in the Nature Recovery Plan for Wales, with all environmental policies and/or measures flowing from those goals, namely 'to improve degraded habitats at scale', 'to address key negative factors of biodiversity loss and increase connectivity significantly', 'to improve management of our highest quality environments', 'to achieve 'no net loss' of biodiversity' and 'to put in place a framework of governance to support delivery, working together across sectors and strengthening our collective evidence base'.</p> <p>The key aim of nature recovery can be promoted by including within the WNMP policies that promote the enhancement as well as the protection of biodiversity and ecosystems. These are two different requirements and one does not necessarily mean that the second follows naturally without explicit statement/encouragement.</p> <p>As a component of encouraging enhancement of biodiversity and ecosystems, the WNMP could offer support for any secondary/spin-off habitat enhancements that could accrue from marine projects.</p>
<p><b>PO5</b></p>	<p><b>Clarity on policy outcomes</b></p> <p>When setting our policies, the plan should explicitly state the expected outcome so that there is a focus on the action needing to be undertaken to achieve this. This should be the aim for all policies in the plan, with the overall aim to ensure that policy objectives are achieved.</p>

Opportunity	Revised description (including example of application)
<p><b>PO6</b></p> <p><b>PO7</b></p> <p><b>PR4</b></p>	<p><b>Use selected criteria-based policies, including potential for offsetting</b></p> <p>Criteria can be applied to selected WNMP policies, forming a defined series of tests that each proposal has to pass, with opportunities to maximise environmental benefit and minimise negative impact at each step, including consideration of unintended impacts, such as displacement; and the encouragement of positive effects, such as habitat creation. This is similar to the hierarchy of environmental constraints in the Marine Renewable Energy Strategic Framework Approach to Sustainable Development.</p> <p>Within a framework of criteria-based policies, they may be benefit in identifying 'tiebreak' policies to assist in decision making and/or explicit degrees of preference against selected or all WNMP policies to give clarity to those implementing the plan. For example, 'no net loss of biodiversity' could be a tiebreak objective.</p> <p>Offsetting could help align WNMP with the 'no net loss' approach of Nature Recovery Plan for Wales. Opportunities for offsetting could be provided as a criterion of last resort in any criteria-based policy. However, current thinking on marine offsetting suggests that it cannot be relied on to deliver compensation given the greater uncertainties associated with the marine environment, but could be a useful option to address unavoidable residual impacts (i.e. where a particular activity would go ahead regardless of this impact) and may add further requirements to those of the Habitats Directive (as a result of more an arguably more rigorous calculation of biodiversity value). Including offsetting would add value to the WNMP, but consideration would need to be given to ensuring flexibility of application and to take account of the greater risks associated with this environment.</p>
<p><b>PO8</b></p>	<p><b>Identify area-specific policies where possible</b></p> <p>WNMP policies that apply only within certain mapped locations have the potential to offer environmental benefit by focussing measures where they can have the maximum effect. However, their application can sometimes be limited due to gaps in the evidence. This is likely to be an issue for early iterations of marine plans in Welsh waters and emphasises the importance of prioritising evidence needs to inform future spatial policy.</p>
<p><b>PO9</b></p>	<p><b>Reference monitoring and implementation arrangements</b></p> <p>WNMP policies covering activities with an ecosystem impact should reference the monitoring and implementation arrangements for those policies, including where appropriate the requirements of the MSFD, WFD, SEAs and EIA, and including consideration of cumulative impacts.</p>

Opportunity	Revised description (including example of application)
PO10	<p><b>Consider effects of policy combination</b></p> <p>There is potential for WNMP policies to go beyond the MPS by covering secondary or unintentional effects of policy combination, e.g. hazardous substances released as a result of collision between boats and structures licensed under the WNMP, or higher levels of carbon emissions due to longer shipping routes avoiding wind farms.</p>
PO15	<p><b>Cross-reference environment within economic and social goals of the WNMP</b></p> <p>Economic or social policies within the WNMP should cross-reference relevant environmental aims and objectives, thus exposing potential win-wins or conflicts and identifying ways of maximising/ minimising these. Examples include reference to avoiding negative impacts on water quality in port development policies, or the potential for promoting shellfisheries to have the effect of improving water quality.</p>
PR3	<p><b>Include improvement of evidence base as WNMP objective</b></p> <p>Explicitly state objective to improve and develop marine planning evidence base to ensure future iterations of WNMP can maximise environmental benefit. Being given priority within the WNMP could aid in the objective of securing resources.</p>
PR6	<p><b>Ensure SA focuses on maximising environmental benefit</b></p> <p>The East of England Marine Plan SA identified alternatives based on the Plan's approach of sectoral prioritisation rather than spatial zoning. However, this had the effect of alternatives being considered on a sectoral basis rather than on the basis of objectives. If the WNMP SA were to follow the latter approach, it could consider as one of a range of alternatives, for example, 'maximisation of environmental benefit'. This would have the advantage of added clarity for both planners and plan area users the advantages and constraints of such an approach and increase the chances that some or all features of such an ecologically-focused approach could be used within the WNMP.</p>
PR8	<p><b>Presumption in favour of sustainable development</b></p> <p>A presumption in favour of sustainable development is included in the Scotland National Marine Plan but not in the East of England Marine Plan. It is assumed that this is likely to be an implicit objective of the WNMP. Explicitly stating such a policy would have the value of ensuring alignment with the Future Generations and Well-Being Bill. In stating such a policy, the emphasis should be on applying the Ecosystem Approach as a mechanism for delivering SD.</p>

Opportunity	Revised description (including example of application)
PR9	<p><b>Develop a framework for co-existence of marine activities</b></p> <p>Promoting co-existence of marine activities and developing evidence and practice of how this can take place is seen as a key means by which the WNMP can add value. The MMO has developed a framework for co-existence of marine activities in England-specifically Screening, Initial Assessment and Detailed Assessment. Consideration should be given to taking a similar approach in Wales.</p>
PR11	<p><b>Taking 'ecological coherence' into account</b></p> <p>Set out how to take into account the 'ecologically coherent network of MPAs' in decision-making for the marine area. The WNMP could add value over and above the planning and management of individual MPAs by developing process and policy that recognises the ecological linkages ('connectivity') between individual sites in Welsh waters.</p>
PR12	<p><b>Gather environmental evidence and potential benefits through stakeholder engagement</b></p> <p>The physical document that is the WNMP will be informed by extensive consultation with a range of stakeholders, including non-governmental organisations, industry, recreational marine users, local planning authorities and the general public. Many of these stakeholders will themselves hold relevant data that they may be willing to share and/or will be able to offer pertinent views and opinions of their own on how the WNMP can deliver environmental benefit.</p>
S2 S3	<p><b>Climate change</b></p> <p>Ensure climate change is given appropriate consideration within the WNMP structure, from plan vision and/or objectives level downwards.</p> <p>Climate change measures should be structured around the two requirements of mitigation and adaptation. For example, offshore renewables, shipping (as opposed to road or airfreight) and carbon capture and storage could be covered under mitigation, whilst some ecosystem services (e.g. flood regulation) may be associated with climate adaptation. This will add clarity and coherence to the implementation and monitoring of measures focussing on climate change.</p>

Opportunity	Revised description (including example of application)
S5	<p><b>Consider setting out 'Key Issues for Marine Planning' or similar</b></p> <p>The SNMP prefaces its sectoral policies with a number of 'Key Issues for Marine Planning', including 'Living within Environmental Limits' and 'Climate Change'. These clearly set out negative environmental impacts to avoid and could offer the potential for sectoral applications under each WNMP policy to identify and set out environmental protection or enhancement within their applications as a direct response to this impacts and issues text.</p>

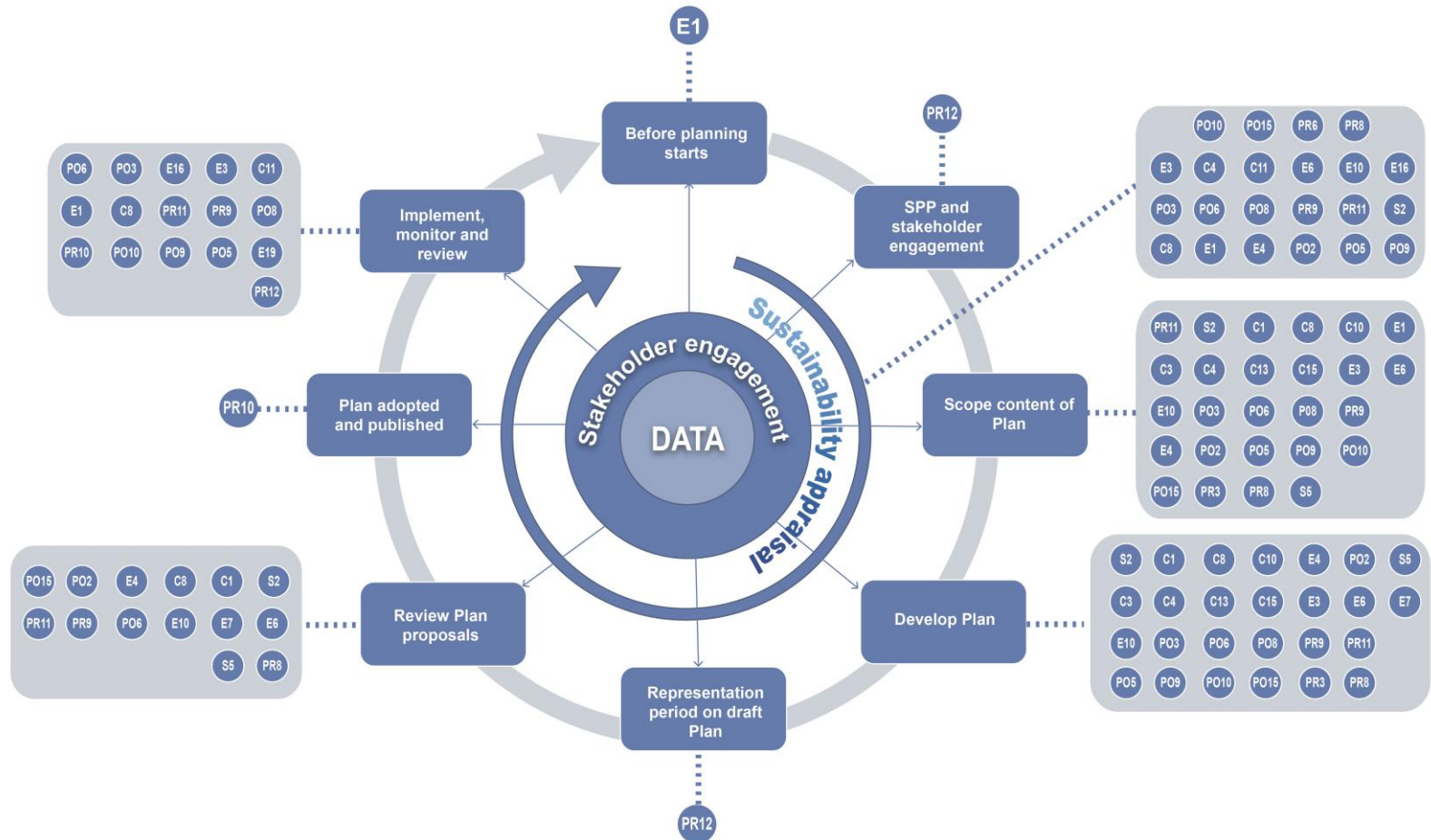
## 6.2 Applying the final shortlist to the WNMP process

As stated previously, any attempt to identify opportunities for environmental benefit through the Wales National Marine Plan must take account of the fact that the Plan is an ongoing process rather than a single document.

With this in mind, the shortlist of opportunities to be prioritised can now be mapped to the WNMP process to show at which point each one would need to be covered. Many of the opportunities are sufficiently important to need to be covered at multiple stages, and this is why **Figure 1** overleaf shows some opportunities more than once.



Figure 1: Mapping final shortlist of opportunities to deliver environmental benefit to the WNMP process



## 7. APPENDICES

### 7.1 Appendix A- Documents consulted as part of the literature review

#### International literature

The following documents reviewed were considered to be of relevance to delivering environmental benefits through the WNMP:

- 'Benefits, lessons learned, and future challenges of marine spatial planning' (Ehler, C. in Marine Policy 32 (2008) 840-843)- available online at <http://www.sciencedirect.com/science/journal/0308597X>
- Guidance on Developing an Ecologically Coherent Network of Ospar Marine Protected Areas (Ospar Convention for the Protection of the Marine Environment of the North East Atlantic, 2006)- available online at [http://www.ospar.org/content/content.asp?menu=00700302210000\\_000000\\_000000](http://www.ospar.org/content/content.asp?menu=00700302210000_000000_000000)
- 'Managing the Marine Mosaic: A Briefing on Marine Spatial Planning with an Ecosystem Approach' (Stockholm Resilience Centre, 2010)- not available online, PDF forwarded to NRW
- Marine Spatial Planning: A Step-by-Step Approach (UNESCO, 2009)- available online at [http://www.unesco-ioc-marinesp.be/msp\\_guide](http://www.unesco-ioc-marinesp.be/msp_guide)
- 'The importance of marine spatial planning in advancing ecosystem-based sea use management' (Douvere, F., in Marine Policy 32 (2008) 762– 771). Available online at: <http://www.sciencedirect.com/science/journal/0308597X>

#### UK (non-Wales) literature

The following documents reviewed were considered to be of relevance to delivering environmental benefits through the WNMP:

- A Marine Litter Strategy for Scotland (Scottish Government, 2014)- available online at <http://www.scotland.gov.uk/Publications/2014/09/4891>
- Charting Progress 2: The State of UK Seas (Defra, 2010)- available online at <http://chartingprogress.defra.gov.uk/>
- Draft Vision and Objectives for the South Inshore and South Offshore Marine Plan Areas (MMO, 2014)- available online at <https://www.gov.uk/south-inshore-and-south-offshore-marine-plan-areas>
- East of England Inshore and Offshore Marine Plans (MMO, 2014)- available online at <https://www.gov.uk/government/publications/east-inshore-and-east-offshore-marine-plans>)
- East of England Inshore and Offshore Marine Plans Sustainability Appraisal (URS et al, 2014)- available online at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/312502/east-plan-sa.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/312502/east-plan-sa.pdf)
- European Marine Sites Risk Review (Natural England, 2010)- available online at <http://publications.naturalengland.org.uk/publication/36006>

- Marine Biodiversity Offsetting- UK Scoping Study (Crown Estate, 2013)- available online at <http://www.thecrownestate.co.uk/media/5660/marine-biodiversity-offsetting-uk-scoping-study.pdf>
- MMO 'Marine Developments' blog- available online at <https://marinedevelopments.blog.gov.uk/>
- Northern Ireland Marine Litter Strategy (Department of the Environment Northern Ireland, 2013)- available online at [www.doeni.gov.uk/ni\\_marine\\_litter\\_strategy.pdf](http://www.doeni.gov.uk/ni_marine_litter_strategy.pdf)
- Payments for Ecosystem Services: A Best Practice Guide (Defra, 2013)- available online at [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/200920/pb13932-pes-bestpractice-20130522.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/200920/pb13932-pes-bestpractice-20130522.pdf)
- Planning Scotland's Seas- Consultation on Priority Marine Features (Scottish Government, 2013)- available online at <http://www.scotland.gov.uk/Publications/2013/07/4233>
- Planning Scotland's Seas – Scotland's National Marine Plan Consultation Draft (Scottish Government, 2013)- available online at <http://www.scotland.gov.uk/Publications/2013/07/9185>
- Roadmap on Natural Capital Accounting (Office for National Statistics, 2012)- available online at <http://www.ons.gov.uk/ons/guide-method/user-guidance/natural-capital/index.html>
- Scoping a robust strategic assessment tool for co-existence of activities in marine plan areas (MMO 1049) (MMO, 2014)- available online at <https://www.gov.uk/government/publications/scoping-a-robust-strategic-assessment-tool-mmo-1049>
- Scoping the opportunities and challenges to using a core fishing grounds approach to develop a spatial marine plan policy for fishing (MMO 1074) (MMO, 2014)- available online at <https://www.gov.uk/government/publications/scoping-the-opportunities-and-challenges-to-using-a-core-fishing-grounds-approach-to-develop-a-spatial-marine-plan-policy-for-fishing-mmo-1074>
- Scotland National Marine Plan Sustainability Appraisal (Scottish Government, 2013)- available online at <http://www.scotland.gov.uk/Publications/2013/07/7449>
- UK Marine Policy Statement (Defra, 2011)- available online at <https://www.gov.uk/government/publications/uk-marine-policy-statement>
- Use of beneficial dredge materials in the South inshore and offshore marine plan areas (MMO 1073) (MMO, 2014)- available online at <https://www.gov.uk/government/publications/use-of-beneficial-dredge-materials-in-the-south-inshore-and-offshore-marine-plan-areas-mmo-1073>

### Wales-specific literature

The following documents reviewed were considered to be of relevance to delivering environmental benefits through the WNMP:

- Developing the Welsh National Marine Plan: A Draft Scope, Draft Vision and related Objectives including questions on the Draft Scope for the Sustainability Appraisal (Welsh Government, 2014)- available online at <http://wales.gov.uk/topics/environmentcountryside/fisheries/marine/marine-planning/marine-planning-process/welsh-national-marine-plan-draft-vision/?lang=en>
- Developing the Welsh National Marine Plan: Draft Strategic Scoping Exercise (Welsh Government, 2014)- available online at <http://wales.gov.uk/topics/environmentcountryside/fisheries/marine/marine-planning/marine-planning-process/strategic-scoping-exercise/?lang=en>
- Draft Planning (Wales) Bill and Positive planning: proposals to reform the planning system in Wales (Welsh Government, 2014)- available online at <http://wales.gov.uk/consultations/planning/draft-planning-wales-bill/?lang=en>
- Environment Bill White Paper (Welsh Government, 2013)- available online at <http://wales.gov.uk/consultations/environmentandcountryside/environment-bill-white-paper/?lang=en>
- Environment Strategy for Wales (Welsh Government, 2006)- available online at <http://wales.gov.uk/topics/environmentcountryside/epq/envstratforwales/?lang=en>
- Irish-Scottish Links on Energy Study (ISLES): Environmental Constraints Scoping Report, Southern ISLES (RPS, 2012)- available online at [www.scotland.gov.uk/Resource/0039/00395566.pdf](http://www.scotland.gov.uk/Resource/0039/00395566.pdf)
- Marine Conservation Zones (MCZs)- Potential Site Options for Welsh Waters (Welsh Government, 2012)- available online at <http://wales.gov.uk/consultations/environmentandcountryside/mczpotentialsites/?lang=en>
- Marine non-natives and the Menai Strait mussel fishery: A Code of Good Practice (Presentation by Countryside Council for Wales at Marine Protected Areas Workshop, 27-29 October 2008)- summary report available online at [http://www.ukmpas.org/pdf/UK\\_MPA\\_Workshop\\_liverpool\\_2008/JA\\_workshop\\_report\\_final\\_230709.pdf](http://www.ukmpas.org/pdf/UK_MPA_Workshop_liverpool_2008/JA_workshop_report_final_230709.pdf)
- Marine Renewable Energy Strategic Framework: Approach to Sustainable Development. (Report by RPS to the Welsh Assembly Government, 2011)- available online at <http://mresf.rpsgroup.com/>
- Nature Recovery Plan for Wales consultation (Welsh Government, 2014)- available online at <http://wales.gov.uk/consultations/environmentandcountryside/nature-recovery-plan/?lang=en>
- UK National Ecosystem Assessment: Technical Report (Defra and partners including the Welsh Government, 2011)- available online at <http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx>

7.2 Appendix B- Accompanying diagram for opportunity PO4

As presented at project workshop:

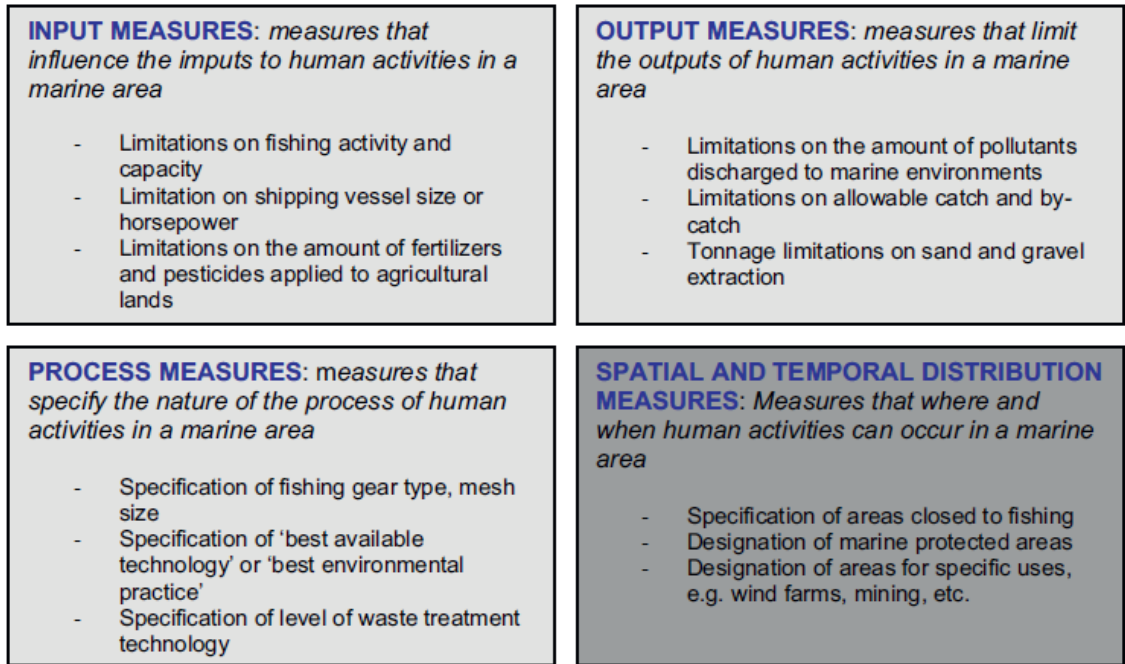


Fig. 2. Types of measures for ecosystem-based, sea use management. (Source: Douvère and Ehler, 2007).