The Scottish Government
Riaghaltas na h-Alba

Planning Scotland's Seas

Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters
Consultation Draft

marinescotland

Planning Scotland's Seas

Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters Consultation Draft

The Scottish Government, Edinburgh 2013

This document is also available from our website at **www.scotland.gov.uk**.

ISBN: 978-1-78256-761-5

The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

Produced for the Scottish Government by APS Group Scotland
DPPAS14495 (07/13)

Published by the Scottish Government, July 2013

CONTENTS

E. NEXT STEPS

E.1 Timeline

ANNEXES

A. Key Stakeholders
B. Respondent Information Form and Consultation Questionnaire

FIGURES

1. Scottish Offshore Renewable Energy Regions (SORERs)
2. Sectoral Marine Planning Process
3. Offshore Wind - Scoping Areas of Search
4. Offshore Wind Draft Plan Options
5. Offshore Wind Draft Plan Options – North East Region
6. Offshore Wind Draft Plan Options – North Region
7. Offshore Wind Draft Plan Options – North West Region
8. Offshore Wind Draft Plan Options – West Region
9. Offshore Wind Draft Plans Option – South West Region
10. Wave – Scoping Areas of Search
11. Wave - Draft Plan Options
12. Wave Draft Plan Options – North Region
13. Wave Draft Plan Options – North West Region
14. Wave Draft Plan Options – West Region
15. Tidal - Scoping Areas of Search
16. Tidal - Draft Plan Options
17. Tidal Draft Plan Options – North Region
18. Tidal Draft Plan Options – North West Region
19. Tidal Draft Plan Options – West Region
20. Draft Plan Options – Offshore Wind, Wave and Tidal
21. East Region – Existing planned development
22. North East Region – Draft Plan Options, Existing & Planned development
23. North Region - Draft Plan Options, Existing & Planned development
24. North West Region - Draft Plan Options, Existing & Planned development
25. West Region - Draft Plan Options, Existing & Planned development
26. South West Region - Draft Plan Options, Existing & Planned development

TABLES

1. Evolution of Draft Plan Options – Offshore Wind
2. Socio-economic Assessment – Offshore Wind
3. Draft Plan Options for Offshore Wind Energy by Region
4. Evolution of Draft Plan Options – Wave
5. Socio-economic Assessment – Wave
6. Draft Plan Options for Wave Energy by Region
7. Evolution of Draft Plan Options – Tidal
8. Socio-economic Assessment – Tidal
9. Draft Plan Options for Tidal Energy by Region
10. Socio-economic Assessment – Cumulative Considerations

EXECUTIVE SUMMARY

The Scottish Government believes that Scotland can lead the world in the development and deployment of offshore renewable energy technologies. Our potential is enormous and the development of the Sectoral Marine Plans provides an opportunity to consider how we further harness this vast resource, in a sustainable manner, to provide us with the power we need for our homes, businesses and to drive our ambition for a low carbon Scottish economy.

The Scottish Government has used a marine planning approach to develop the *Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters*. This process involves giving consideration to our resource and key constraints before applying social, economic and environmental assessments to inform the development of options contained within the Draft Sectoral Marine Plans.

Consultation is also a key element in the development of the Plans. Through this, the Scottish Government will engage, capture and build the views of statutory, sectoral, regional, voluntary and other bodies as well as individuals into the planning process.

Options

The draft Plans contain 10 proposed options for offshore wind energy, 10 for tidal energy and 8 for wave energy. The process for identifying the draft Options started by identifying broad areas of search through mapping resource and any potential constraints. To refine the areas of search, consideration was given to further detailed information on socio-economic, environmental and planning issues, as well as the key themes emerging from the pre-statutory consultation held in August 2012. In January 2013, Scottish Ministers approved the draft Options to be progressed to the assessment and consultation stage.

Assessment Results

The Draft Plans Options have been subject to Sustainability Appraisal. This comprises Strategic Environmental Assessment (SEA), Habitats Regulations Appraisal (HRA) and Socio-economic Assessment. The outcomes of the SEA, draft HRA, Socio-economic Assessment have informed the development of the draft Plans. These assessments identified strategic issues relating to shipping, fishing, grid provision and environmental impact which apply in all offshore renewable energy regions around Scotland. In addition, there are significant environmental and cultural issues in certain regions such as the potential for visual impact and the effects this may have on tourism.

Consultation

The Draft Plans, Sustainability Appraisal Report, SEA Environmental Report and Socio-economics Report are now subject to a 16 week statutory consultation period with member of the public and interested stakeholder organisations.

The relevant documents are available on the Scottish Government's website at http://www.scotland.gov.uk/Consultations/Current

Scottish Natural Heritage (SNH), the statutory consultation authority for HRA, will be consulted during this period. However, comments on the Draft HRA Report are also welcome from the public and interested stakeholder organisations. This is available to view at: http://www.scotland.gov.uk/Topics/marine/marineenergy/Planning

Next Steps

Following the closing date, all responses will be analysed and considered along with any other available evidence to help us with the preparations of the Final Draft Plans.

We will review the Draft Plans (taking account of responses received) and revised as appropriate. We aim to issue a report on this consultation process by December 2013 and if required will undertake further assessment and consultation in light of any significant revisions to the Draft Plans. Final Draft Plans will then be presented to Scottish Ministers' to be formally adopted in early 2014.

Following adoption, a Post-Adoption Statement will be prepared to document the process and demonstrate how issues raised during consultation have been addressed by the final Plans. Once the final Plan has been published, the monitoring framework set out within the SEA Environmental Report will be expanded to incorporate further detail on monitoring of key technical issues, and will be used to assess the impacts of the implementation of the Plans. At this stage, it is proposed that the Plans are reviewed every two years.

RESPONDING TO THIS CONSULTATION PAPER

We are inviting written responses to this consultation paper by **Wednesday 13th November 2013**. In order to aid our analysis of the responses received, we would be grateful if you would use the consultation questionnaire provided or could clearly indicate in your response which questions or parts of the consultation paper you are responding to.

Please send your response with the completed Respondent Information Form (see "Handling your Response" below) to:

offshorerenewableenergy@scotland.gsi.gov.uk

or

Offshore Renewables Team (CRE 1642)
Marine Scotland
1A(S), Victoria Quay
Edinburgh
EH6 6QQ

If you have any queries, including requests for hard copies or alternative formats, please contact Kirsty Howaniec on +44(0)300 244 1235 or using the e-mail address above.

This consultation, and all other Scottish Government consultation exercises, can be viewed on the consultation web pages of the Scottish Government website at http://www.scotland.gov.uk/consultations.

The Scottish Government has an email alert system for consultations, http://register.scotland.gov.uk This system allows stakeholders, individuals and organisations to register and receive a weekly email containing details of all new consultations (including web links). It complements, but in no way replaces SG distribution lists, and is designed to allow stakeholders to keep up to date with all SG consultation activity, and therefore be alerted at the earliest opportunity to those of most interest. We would encourage you to register.

Handling your response

We need to know how you wish your response to be handled and, in particular, whether you are happy for your response to be made public. Please complete and return the **Respondent Information Form** which forms part of the consultation questionnaire provided as this will ensure that we treat your response appropriately. If you ask for your response not to be published we will regard it as confidential, and we will treat it accordingly.

All respondents should be aware that the Scottish Government are subject to the provisions of the Freedom of Information (Scotland) Act 2002 and would therefore have to consider any request made to it under the Act for information relating to responses made to this consultation exercise.

Next steps in the process

Where respondents have given permission for their response to be made public and after we have checked that they contain no potentially defamatory material, responses will be made available to the public in the Scottish Government Library (see the attached Respondent Information Form). These will be made available to the public in the Scottish Government Library and on the Scottish Government consultation web pages **by 18 December 2013.** You can make arrangements to view responses by contacting the SG Library on 0131 244 4552. Responses can be copied and sent to you, but a charge may be made for this service.

What happens next?

Following the closing date, all responses will be analysed and considered along with any other available evidence to help us with the preparations of the Final Draft Plans.

We will review the Draft Plans (taking account of responses received) and revised as appropriate. We aim to issue a report on this consultation process by December 2013 and if required will undertake further assessment and consultation in light of any significant revisions to the Draft Plans. Final Draft Plans will then be presented to Scottish Ministers' to be formally adopted in early 2014.

Following adoption, a Post-Adoption Statement will be prepared to document the process and demonstrate how issues raised during consultation have been addressed by the final Plans. Once the final Plan has been published, the monitoring framework set out within the SEA Environmental Report will be expanded to incorporate further detail on monitoring of key technical issues, and will be used to assess the impacts of the implementation of the Plans. At this stage, it is proposed that the Plans are reviewed every two years.

Comments and complaints

If you have any comments or complaints about how this consultation exercise has been conducted, please mark your correspondence "complaint" and send them to:

Offshore Renewables Team (CRE 1642)
Marine Scotland
1A(S), Victoria Quay
Edinburgh
EH6 6QQ

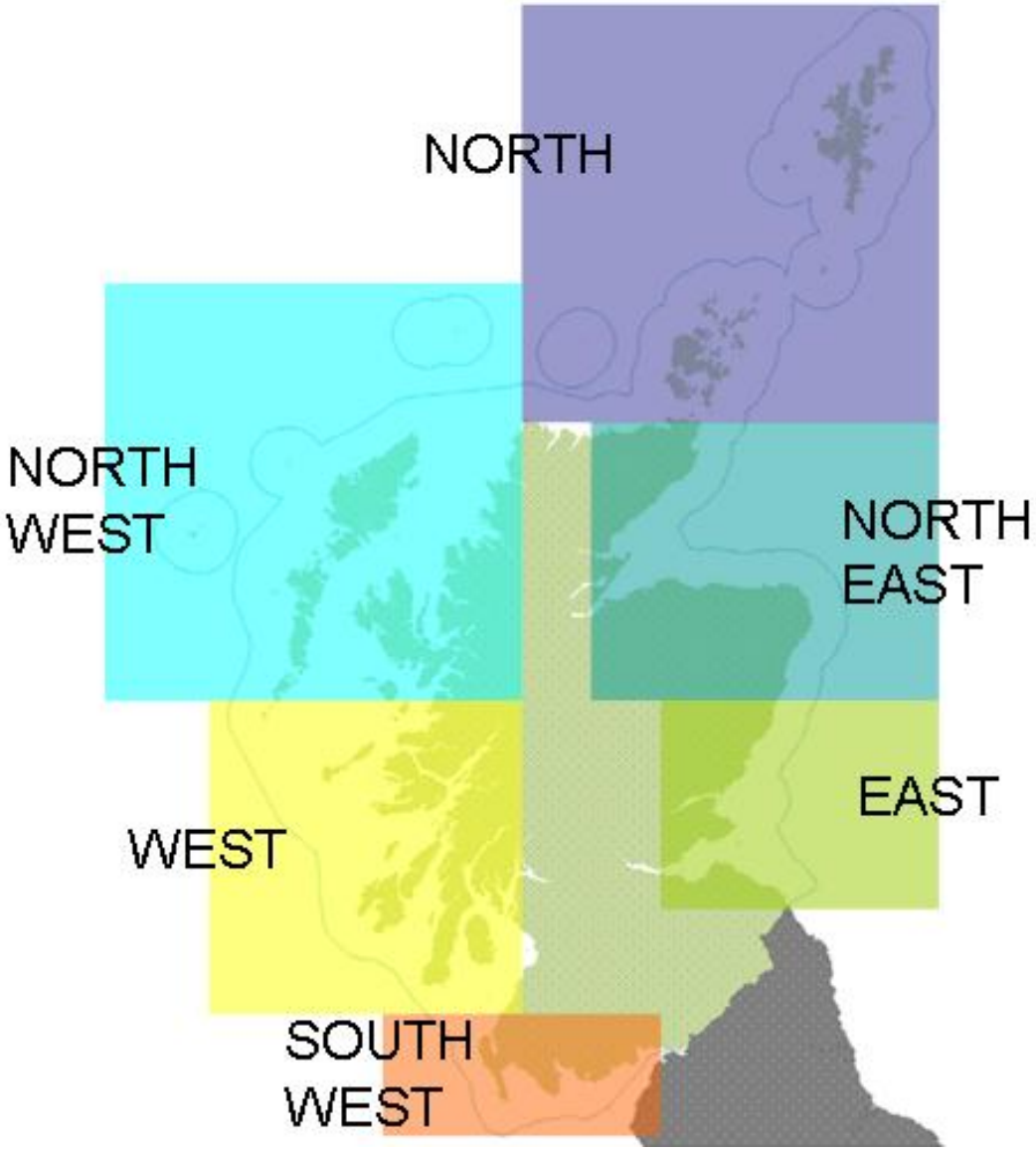
offshorerenewableenergy@scotland.gsi.gov.uk

1. INTRODUCTION

1.1.1 The Scottish Government has introduced a system of sectoral marine planning to facilitate the sustainable development of offshore renewable energy in Scottish Waters (0 – 200 nm). The Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters represent Scottish Ministers' proposed spatial policy at the national and regional level for the development of commercial scale offshore renewable energy in Scottish Waters.

1.1.2 The Offshore Renewable Energy Regions within Scottish Waters have been used to provide a regional breakdown in the Draft Plans. The Final Draft Plans will align with the Scottish Marine Regions once they are confirmed by the Scottish Parliament.

Fig.1 Scottish Offshore Renewable Energy Regions (SORERs)



Strategic Aims

1.2.1 The Draft Plans are based on the following strategic aims:

- Maximise the contribution that offshore renewable energy makes to renewable energy generation in Scotland;
- Maximise opportunities for economic development, investment and employment;
- Minimise adverse effects on people, other sectors and the environment;

1.2.2 In relation to the development of offshore renewable energy around Scotland, the Plans form an integral part of a series of initiatives which include:

- Scotland's Offshore Wind Industry Route Map,
- Scotland's Marine Energy Action Plan
- National Renewables Infrastructure Plan (N-RIP), and
- Securing the Benefits from Scotland's Next Energy Revolution

1.2.3 These initiatives have been put in place to help facilitate green energy development in the marine environment. Additionally the Drafts Plans seeks to deliver Scottish Ministers' policies for green energy, thereby helping to meet our carbon reduction targets[1].

Delivering the benefits from Offshore Renewable Energy

1.3.1 Scotland has considerable potential for offshore renewable energy developments. Estimates indicate that Scotland has up to 25% of Europe's offshore wind potential[2], 25% of Europe's tidal potential, and 10% of Europe's wave energy resources.

1.3.2 From an environmental perspective, the Draft Plans recognise that offshore renewable energy is an integral element in Scotland's contribution towards action on climate change. Emissions of green house gases (ghgs) should reduce through a shift from the use of carbon based fossil fuels to the production of cleaner and greener energy.

1.3.3 The large scale development of offshore renewable also represents one of the biggest opportunities for sustainable economic growth in Scotland for a generation. The Draft Plans recognise that ports and harbours present viable locations to service the associated construction and maintenance activities for offshore renewable energy. In addition, Scottish research institutions provide a base of academic excellence for delivering technological advancements and technology transfer and are also well placed to benefit from the creation of this new industry around Scotland.

[1] Climate Change (Scotland) Act 2009. 42% by 2020, 80% by 2050

[2] Scotland's Renewables Resource (2001)

The Challenges

1.4.1 Development should be both sustainable and seek to accommodate public and community views. The Draft Plans identify national and regional issues for offshore renewable energy development. They recognise the role Marine Licensing will play and highlight environmental, socio-economic and public concern issues which will require further consideration as the Plans are progressed.

1.4.2 From an economic perspective, Scotland has to compete with the rest of Europe and globally to maximise its share of the renewable energy market. The Draft Plans represents an early opportunity to identify key strategic issues and potential mitigation measures in order to help avoid unnecessary delays in the later stages of the development process when tackling such issues could prove more challenging. As a consequence, this should contribute to the competitiveness of Scotland as a location for offshore renewable energy development as it will be made it clear to developers and supply chain companies where development is possible, what the main challenges will be and where and what further opportunities Scotland can provide.

1.4.3 A further key challenge to the development of offshore renewable energy around Scotland is access to appropriate grid infrastructure. The Draft Plans, along with the development of the Scottish National Marine Plan and Scotland's emerging third National Planning Framework (NPF3), will therefore serve as the basis upon which a strategic planning exercise for the provision of grid infrastructure can take place. In addition, by considering access to Scotland's vast offshore energy resource at the strategic level, it will enable further planning exercises to support emerging technologies which can deployed at further and more remote locations of the Scottish Marine Area. The Main Issues Report for NPF3 emphasises the importance of terrestrial planning working alongside marine planning to play a positive role in facilitating offshore energy development. As well as updating the support for grid infrastructure provided in NPF2, it proposes a new national development focusing specifically on onshore infrastructure requirements for offshore renewable energy developments.

1.4.4 Following adoption of the Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters, a strategic planning exercise for the provision of grid infrastructure will be undertaken. This exercise will be taken forward applying a sustainability appraisal approach including strategic environmental assessment, socio-economic assessment, strategic habitats regulations appraisal and consultation analysis.

2. KEY DRIVERS

The Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy have developed in response to the following key drivers:

Marine Planning

2.1.1 In Scotland, the legislative and management framework for the marine environment was established by the Marine (Scotland) Act 2010. The Marine and Coastal Access Act 2009, provides the legislative framework for marine planning in Scotland's offshore area and with regard to reserved functions in Scotland. The two Acts allow for a system of National and Regional marine planning to be developed for Scottish waters. The Regional Marine Plans will be directed by the objectives and policies of the National Marine Plan.

2.1.2 Scotland's first Draft National Marine Plan is currently out for consultation. It sets out the legislative and regulatory framework for the development of statutory marine plans and proposes the strategic policies to be taken forward for the sustainable use of Scotland's marine resources out to 200 nm.

2.1.3 The Marine (Scotland) Act 2010 states that public authorities, including the Scottish Government, must take authorisation or enforcement decisions in accordance with the National Marine Plan and Regional Marine Plans, unless relevant considerations indicate otherwise. They must also have regard to the statutory marine plans in taking other decisions.

2.1.4 The Draft Sectoral Marine Plans are being progressed within the broader context of the Draft National Marine Plan for Scotland. The Sectoral Plans are intended to complement both the National and in future Regional Marine Plans through the provision of relevant information and assessment on strategic spatial locations considered by Scottish Ministers' as suitable to progress the development of commercial scale offshore renewable energy. As outlined above, any future proposals for offshore renewable energy will require to be taken forward in accordance with the policies established in the National Marine Plan.

2.1.5 The Sectoral Marine Plans will also be complemented by Regional Locational Guidance (RLG) which provides more prescriptive information for developments in relation to the potential for development in marine areas of resource acknowledging environmental and sectoral constraints. Draft RLGs for Offshore Wind, Wave and Tidal are available comment alongside this document. These are available to view at:

http://www.scotland.gov.uk/Topics/marine/marineenergy/Planning

2.1.6 In addition, National Marine Plan Interactive is Marine Scotland's on-line interactive mapping tool. Where possible, most of the data layers that are presented in the maps in this document are also available as layers on NMPi. The layers can be found by opening NMPi in a web browser and searching for

the maps in the “Layer Control” menu. All the Sectoral Marine Plan maps start with the layer name “SMP”. NMPi is available at:

http://www.scotland.gov.uk/Topics/marine/seamanagement/nmpihome/nmpi

Marine Licensing

2.2.1 The Scottish Government operate a one-stop-shop licensing policy for offshore s36 applications and Marine Licenses. This provides a mechanism to manage enquiries and interactions with applicants, stakeholders and the public. If a developer has any concerns regarding consenting requirements or length of the consenting process, Marine Scotland's Licensing Operations team (MS-LOT) will be able to provide advice and guidance. Through the process of marine licensing and the conditions placed on consents/licences, The Scottish Government is seeking to promote economically and socially beneficial activity while minimising adverse effects on the environment, human health and other users of the sea. Licensing should also simplify the way we reconcile development and nature conservation at sea. The process of Marine Licensing should also be supported by relevant information and outcomes of processes including SEA, HRA and the designation of marine protected areas.

Climate Change and Energy

2.3.1 Climate change and the requirement for alternative sources of energy[3] are important drivers for the Draft Plans. The Climate Change (Scotland) Act 2010 establishes a long-term framework to cut greenhouse gas emissions by at least 80% below 1990 levels by 2050, with an interim target of 42% by 2020. In addition, the Scottish Government has made a commitment to generating 30% of energy demand, incorporating the equivalent of 100% of gross electricity consumption, from renewable sources by 2020.

Transition to a Low Carbon Economy

2.4.1 The Scottish Government is committed to ensuring that Scotland capitalises on the enormous potential presented by renewable energy and the low carbon sector. Scotland's wave, wind and tidal energies, and its carbon capture and storage potential, is of European significance. Exploiting these technologies in an environmentally sustainable way will enable Scotland to lead the world in the transition to a low carbon economy over the next four decades. This will help meet our wider objectives on climate change, generating substantial new economic activity, jobs and prosperity for Scotland.

2.4.2 The Scottish Government believes that Scotland's people should benefit from offshore renewable energy projects. Scotland, and its local communities, should receive a direct and lasting legacy from the exploitation of our natural resources. Proposals to maximise community benefit from renewables were published in a consultation paper "Securing the Benefits of Scotland's Next Energy Revolution" in November 2010. These included actions designed to

[3] alternatives to fossil fuels

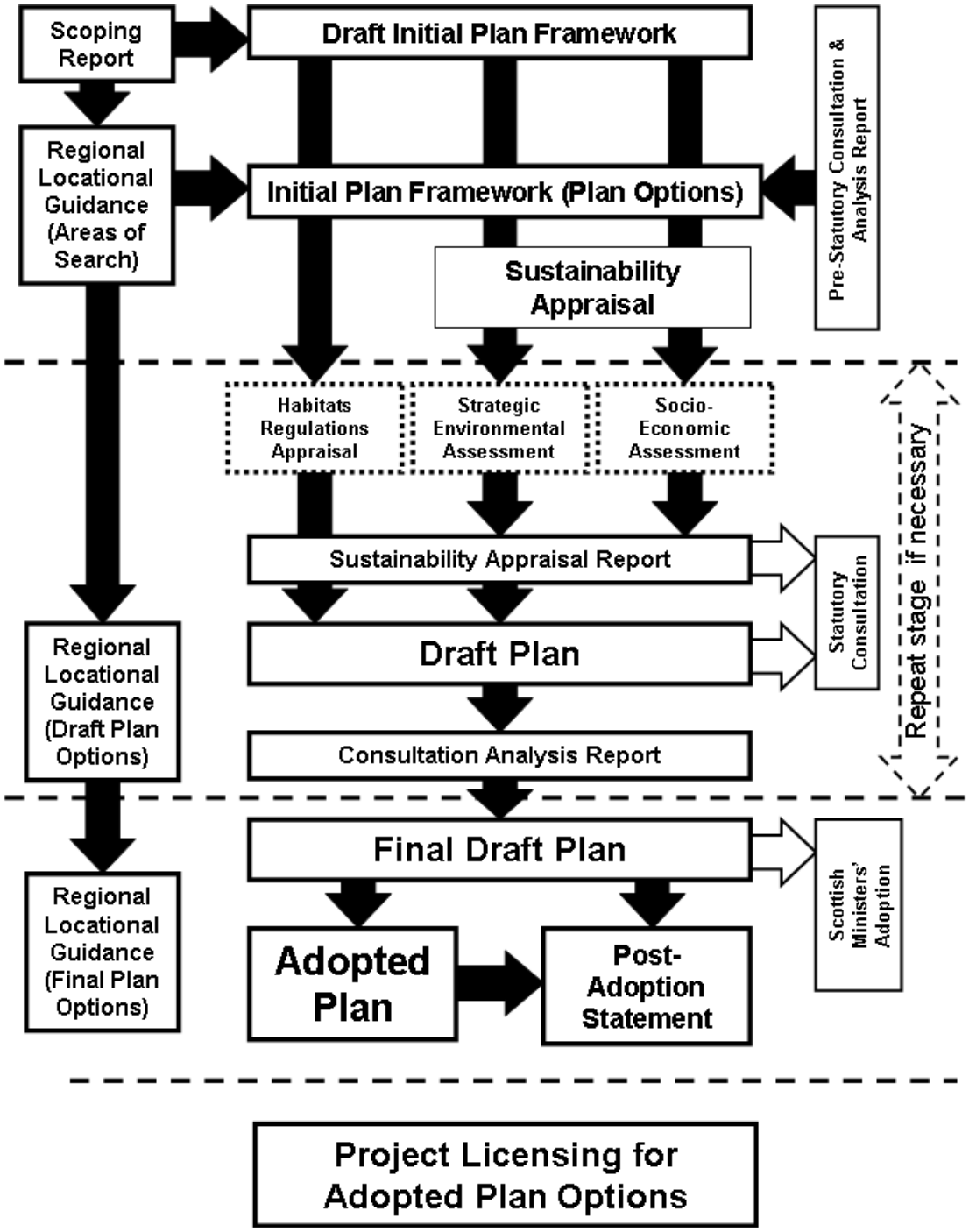
empower communities and ensure that the public sector leads by example in delivering real and lasting benefits. In addition, the consultation discussed the important role of CEC in the development of offshore low carbon projects and more broadly as an administrator of public assets. The Scottish Government is of the view that the management and revenues of CEC in Scotland should be devolved, bringing control over the seabed within the remit of the Scottish Parliament.

3. SECTORAL MARINE PLANNING PROCESS

3.1.1 The following section provides details of the process for developing the Plans and the proposed Options contained within the Plans for Offshore Wind, Wave and Tidal Energy. Fig.2 provides a diagrammatic representation of the process with an explanation of each of the stages detailed below.

.

Fig.2 Sectoral Marine Planning Process



Scoping – Areas of Search

3.2.1 The Crown Estate's Marine Resource System (MaRS) is used to help identify areas of resource, avoiding constraints, for offshore renewable development. The output at this stage is 'Scoping Areas of Search'

Draft Initial Plan Framework

3.3.1 The 'Scoping Areas of Search' populate Draft Initial Plan Frameworks. These Frameworks provides further information on the process for development the Sectoral Marine Plans.

Draft Regional Locational Guidance

3.4.1 Draft Regional Locational Guidance (RLG) is prepared in relation to the Scoping Areas of Search. The Guidance provides more detailed technical, environmental, planning and socio-economic information in relation to the Areas of Search as well as the broader region in which they are located.

Pre-Statutory Consultation

3.5.1 Pre-Statutory Consultation is undertaken involving workshops with relevant sectors and communities. The events are used to raise awareness of the overall process for developing the plans and invite comments on the Draft Initial Plan Frameworks (IPFs) and Draft Regional Locational Guidance.

3.5.2 This allows sectors and communities to feed in specific and local knowledge and issues at the beginning of the process and allow for a better awareness of the Scottish Government's proposals to develop the industry within Scotland's seas.

Pre-Statutory Consultation Analysis Report

3.6.1 A Report is published documenting the key themes emerging from the Pre-Statutory Consultation.

Initial Plan Framework

3.7.1 This information within in the Draft Regional Locational Guidance in addition to feedback from the Pre-Statutory Consultation is used to refine the Areas of Search in to Draft Plan Options.

3.7.2 The Initial Plan Framework (containing the Plan Options) is then put to Scottish Minister's for approval before for the formal sectoral planning process is commenced.

Sustainability Appraisal

3.8.1 A Sustainability Appraisal is undertaken to inform the development of the Sectoral Marine Plans. This comprises:

- Sustainability Appraisal Report
  - *Strategic Environmental Assessment*
  - *Socio-economic Assessment*
  - *(Draft) Habitats Regulations Appraisal*
- Consultation Analysis

3.8.2 The Draft Sectoral Marine Plans are subject to the requirements of the Environmental Assessment (Scotland) Act 2005 and aligned with the process for developing Marine Plans outlined in the UK Marine Policy Statement. The Draft Sectoral Marine Plans are also subject to Habitats Regulations Appraisal in order to assess and mitigate the effects on Natura 2000 sites and species.

3.8.3 Together, these assessments contribute to an overall Sustainability Appraisal which seeks to ensure that the Sectoral Marine Plans have been developed using a process which enables integration in the to National Marine Plan without the requirement to undertake further assessment work to address social, environmental and economic concerns.

3.8.4 To inform the development of each assessment and ensure stakeholder involvement, representative cross-sectoral advisory groups are formed made up of members from the Scottish Government Marine Strategy Forum.

The following sections outline each component in further details:

Strategic Environmental Assessment (SEA)

3.8.5 The SEA plays a prominent role in the development of the Plan by identifying key environmental receptors, effects and mitigation measures and by providing an early indication of issues to be addressed at the project level.

3.8.6 SEA is applied to test and comment on the plan options for development from a strategic perspective. The process is applicable to strategic and regional level issues. The SEA findings and associated opinions arising from the consultation process will lead to broad recommendations for the Plan as a whole. The findings from the SEA process will also, where appropriate, be used as a starting point for further, more detailed data collection and environmental assessment, either for strategic review at a regional level or for developer project-level assessment.

Socio-economic Assessment

3.8.7 The Socio-economic Assessment aims to identify the extent to which existing marine activities may be affected by proposals for future plan options for offshore renewable energy, and to estimate the potential economic and social consequences arising from their potential interactions. Site-specific or local impacts are not within the scope of the assessment; these will be addressed through project-level analyses within the licensing process.

Habitats Regulations Appraisal (HRA)

3.8.8 The HRA assesses future plan options for significant effects on Natura 2000 sites. A Draft HRA Report will accompany the Draft Plans. The findings will lead to alterations of the Plan if it is concluded that a development may result in a significant effect on a Natura 2000 site and that appropriate mitigation measures cannot be determined.

Sustainability Appraisal Report

3.9.1 The Sustainability Appraisal Report draws together the key findings of the SEA, HRA and Socio-economic Assessments. It provides an overall assessment of the Draft Plans in relation to achieving sustainable development.

3.9.2 The Sustainability Appraisal Report, along with each of the individual assessments, is subject to formal consultation with the public and stakeholders for a period of at least 16 weeks which will run concurrently with the consultation on the Draft Plans.

Draft Plans

3.10.1 The key findings from the HRA, SEA and Socio-economic Assessment inform the development of the Draft Plans. The outcomes and key findings of the Locational Guidance will also inform the identification of options within the Draft Plans.

3.10.2 The Draft Plans are subject to formal consultation with the public and stakeholders for a minimum period of 16 weeks.

Statutory Consultation

3.11.1 Under the Environmental Assessment (Scotland) Act 2005, there is a requirement to consult on the Draft Plan and the SEA Environmental Report. The Statutory Consultation Authorities for the SEA are SNH, the Scottish Environmental Protection Agency (SEPA), Historic Scotland and JNCC (Joint Nature Conservation Committee).

3.11.2 Statutory Consultation is also a requirement of HRA (at the appropriate assessment stage). The Statutory Consultation Authority for HRA is Scottish Natural Heritage (SNH). The respective documentation for the HRA and SEA processes will detail the procedures for consultation.

3.11.3 The Sustainability Appraisal Report, including the SEA, Draft HRA and Socio-economic assessment will be subject to formal consultation with the public and stakeholders for a period of at least 16 weeks[4]. Where appropriate, extensions will be granted if consultees highlight that they require more time to respond.

[4] A standard period of 12 weeks is suggested under the Scottish Government's *Consultation: Good Practice Guidance*

Consultation Analysis Report

3.12.1 Consultation Analysis aims to ensure that key issues and concerns of the sectors and communities can be taken into account throughout the process. A Consultation Analysis Report is be produced which details the consultation responses to the Draft Plans, Sustainability Appraisal Report and each of the assessments. The responses are analysed and summarised and if required, subject to further consultation to ensure an accurate representation of the pre and statutory consultation processes. The key findings outlined in the Consultation Analysis Report will inform the development of the Final Draft Plans.

Repeat Stage if Necessary

3.12.2 If significant alterations are made to the Draft Plans as a result of the key findings from statutory consultation, there may be a requirement to undertake further consultation on amended Draft Plans. This is a requirement of the Environmental Assessment (Scotland) Act 2005.

Final Draft Plans

3.13.1 The key findings and recommendations arising from the HRA, SEA, Socio-economic Assessment and Consultation Analysis inform the development of the Final Draft Plans. The Final Draft Plans contain the recommended Plan Options for commercial offshore renewable energy generation development at the strategic level within Scottish Waters.

Scottish Ministers' Approval

3.14.1 The Final Draft Plans are put before Scottish Ministers for adoption. Ministers decide the actual details of the final Plan and confirm they are content to adopt the Plan.

Adopted Sectoral Plan

3.15.1 The Final Plans contain the adopted Plan Options for development in relation to commercial offshore renewable energy generation at the strategic level within Scottish Waters.

Post-Adoption Statement

3.16.1 A Post-Adoption Statement is a requirement of the Environment Assessment (Scotland) Act 2005. The Statement outlines the reasons for choosing the Plan as adopted and details how environmental considerations have been incorporated into the Adopted Plans. It also contains a record of each consultation response and the subsequent actions taken in the plan development process as a result of each response.

3.16.2 The Post-Adoption Statement for the Sectoral Marine Plans for Offshore Renewable Energy also detail how considerations of the findings from the

HRA and Socio-economic Assessments have been taken into account in the development of the Plan

Project Licensing for Adopted Plan Options

3.17.1 Taking forward a development within an adopted Plan Option is not a guarantee that the development will be given consent. The Plans seek to identify sustainable locations for the development of commercial scale offshore renewable energy development in Scottish Waters.

3.17.2 Where appropriate, project level assessments for developments taking place within adopted Plan Options should give consideration to the issues raised in the Adopted Plans, SEA, Strategic Habitats Regulations Appraisal and socio-economic assessments, during the screening and scoping stages for project level Environmental Impact Assessment.

Plan Review Process

3.18.1 It is proposed that a Sectoral Plans Review Group is established to oversee the implementation of the Plans. Such a group would help to facilitate strategic monitoring and research to increase our knowledge on national and regional level issues and address gaps in knowledge. This will include information gaps and issues identified by the socio-economic assessment, in addition to the SEA, HRA and the Plans. However, it must be stressed that this work is not meant to cover developmental site issues or certain cumulative or in-combination effects which have to remain the responsibility of the developers.

Do you agree with the approach used to to develop the Plans?

How often should the Plans be reviewed?

How do we ensure that the most correct and up-to-date information is used in the sectoral planning process?

Who should be involved in the Plans Review Steering Group?

4. PLAN STRUCTURE

4.1.1 The remainder of this document is split into five sections. These are the key outcomes of the plan development process:

- **PART A** - Sectoral Marine Plan for Offshore Wind Energy in Scottish Waters.
- **PART B** - Sectoral Marine Plan for Wave Energy in Scottish Waters.
- **PART C** - Sectoral Marine Plan for Tidal Energy in Scottish Waters.
- **PART D** - Cumulative considerations for Offshore Renewable Energy in Scottish Waters.
- **PART E** - Next Steps

4.1.2 **PARTS A, B & C** - the Draft Plans for Offshore Wind, Wave and Tidal Energy will be split into the following sections:

- Development of Options
- National Issues
- Regional Issues

4.1.3 **PART D** will give consideration to the effects of each the Plans being progressed in-combination with each other and the cumulative effects with existing planned development at a National and Regional level.

4.1.4 **PART E** will outline the timeline for developing the Final Draft Plan and the key questions for consideration in the consultation period.

A. DRAFT PLAN FOR OFFSHORE WIND ENERGY

The Draft Plan for Offshore Wind Energy contains the potential options for future commercial scale offshore wind development (over 100MW) in Scottish Waters. The Plan contains the following sections:

- Development of Draft Plan Options for Offshore Wind Energy
- National Issues
- Regional issues

Development of Options

A.1.1 The starting point for the Draft Plan was to review the 25 'Medium Term Areas of Search' contained within *Blues Seas Green Energy* taken account of the latest related information and research. The Scottish Government originally used consultants to undertake constraint and opportunity mapping in order to identify these areas using the CEC marine spatial planning model, Marine Resource System (MaRS).

A.1.2 The review of the 'Medium Term Areas of Search' was undertaken by Marine Scotland Science. In October 2011, Marine Scotland Science published 'A Scoping Report for Offshore Wind Farm Developments in Scottish Waters'. This document contained 15 'Scoping Areas of Search' (see **Fig.3**). These areas, along with an explanation of the process to develop the Draft Plan, were then contained within the Draft Initial Plan Framework.

A.1.3 Draft Regional Locational Guidance (RLG) was prepared in relation to the 'Scoping Areas of Search', The Guidance contained more detailed technical, environmental, planning and socio-economic information in relation to the Areas of Search.

A.1.4 A period of pre-statutory consultation was undertaken, following publication of the Public Participation Statement, to raise awareness of the process for developing the Plan and highlight how the public can get involved. The Draft IPFs and RLGs were made available for comment to allow stakeholders the opportunity to present any further and more up-to-date information they may hold in relation to the Areas of Search.

A.1.5 The views and opinions gathered during the pre-statutory consultation, in addition to the information contained within the Draft RLGs were used to inform the revision of Areas of Search into Draft Plan Options. The Draft Plan Options are contained in Fig.4 and listed, by region, in **Table 1**

Fig.3 Offshore Wind Scoping Areas of Search (**BEFORE**)

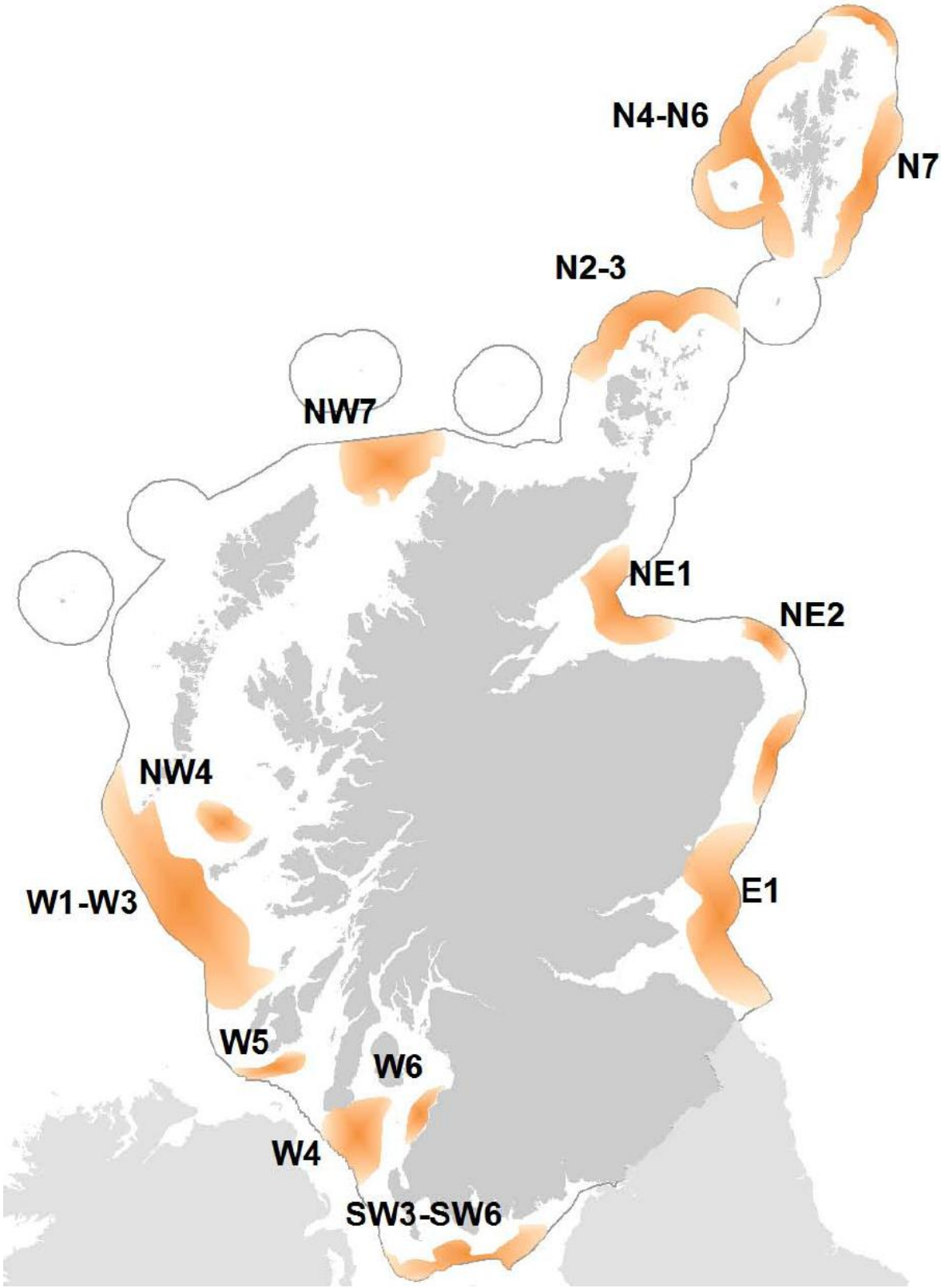
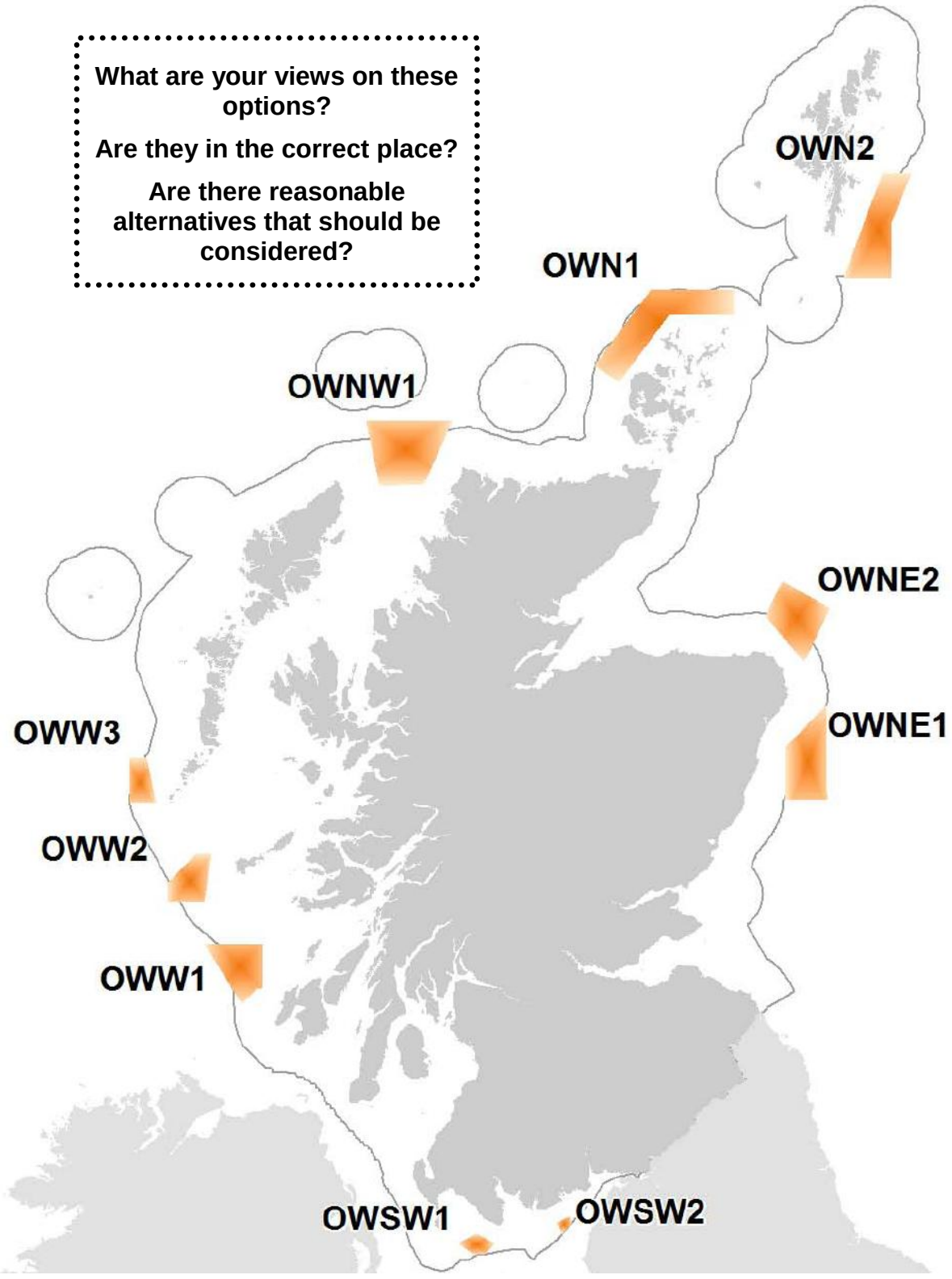


Table 1. Evolution of Draft Plan Options – Offshore Wind

Document	**Blue Seas Green Energy**	**Scoping Report for Offshore Wind Development**		**Draft Sectoral Marine Plan for Offshore Wind Energy**	
Region	***Medium Term Area of Search***	***Scoping Area of Search***	***Location***	***Draft Plan Option***	***Location***
EAST	E1	E1	Firths of Forth and Tay	-	
NORTH EAST	NE1	NE1	Inner Moray Firth	-	
	NE2	NE2	South eastern part of the Moray Firth	OWNE2	North coast of Aberdeenshire
	NE3	NE3	East coast of Aberdeenshire	OWNE1	East coast of Aberdeenshire
NORTH	N1	N2-3	North of Orkney	OWN1	North of Orkney
	N4	N4-6	West of Shetland	-	
	N5			-	
	N6			-	
	N7	N7	East of Shetland	OWN2	South East of Shetland
	N8	N8	North of Shetland	-	
NORTH WEST	NW2	W7	South Minch	-	
	NW4				
	NW5				
	NW6				
	NW7	NW7	North Minch	OWNW 1	North Minch
	NW8				
WEST	W1	W1-3	Sea of the Hebrides	OWW1	North West of Islay
				OWW2	West of Tiree
				OWW3	West of Barra
	W2	W4	South of Kintyre	-	
	W3	W5	South of Islay	-	
	W4	W6	West of Ayrshire	-	
SOUTH WEST	SW1	SW3-6	Solway Region	OWSW1	Outer Solway Firth
	SW3			OWSW2	Inner Solway Firth
	SW4				
	SW5				
	SW6				

.A.1.6 The Draft Plan Options represent development zones in which a proportion could ultimately be used for development. The Plan seeks to identify issues for consideration at project level zone planning and project licensing.

Fig 4 Offshore Wind Energy Draft Plan Options (**CURRENT STAGE**)



SEARCH NMPi – 'SMP – Wind (Offshore) Draft Plan options'

A.1.7 To support the development of deepwater technologies at the test and demonstration scale (under 100MW), The Scottish Government will continue to develop and review Regional Locational Guidance as appropriate.

A.1.8 To support the development of deepwater technologies at a commercial scale, as part any future Plan Review process, consideration will be given, in the first instance, to the potential expansion of any adopted Plan Options identified within the current Sectoral Marine Planning process. In addition, consideration will be given to the identification of strategic development options (zones) further outside the Scottish Waters (12nm) limit. This flexible approach should help facilitate the potential for test and demonstration projects which may wish to expand to commercial scale (over 100MW) in the longer term.

A.1.10 Any such expansion to the adoption Plan Options, or identification of new deep water commercial scale plan options, will be progressed in accordance with the requirements of the strategic assessments outlined in Sections 3.8.1-8.

NATIONAL ISSUES

A.2.1 The draft Plan Options for Offshore Wind Energy have been subject to Strategic Environmental Assessment (SEA), Habitats Regulations Appraisal (HRA) and socio-economic assessment. The outcomes of these assessments have been brought together within the Sustainability Appraisal Report. The sections below contain the key issues arising at a national level from these assessments:

Sustainability Appraisal

Strategic Environmental Assessment

A.2.2 The SEA Environmental Report provides the detail on the identification and assessment of potential effects of the Draft Plan Options for offshore wind. The key results are summarised below:

- Potential effects on biodiversity as a result of collision with devices, particularly blades, barriers to movement of mobile species. Noise impacts on sensitive species from the construction of devices. The SEA considers potential effects on Seabirds, cetaceans, seals, elasmobranchs and fish species. Additionally there may be direct loss of seabed habitat from the installation of devices and effects associated with potential changes to patterns of tidal and sediment movement on marine habitats.
- Scope for impacts on water quality from contamination as a result of changes to turbidity and seabed disturbance in areas of existing contamination, or cross contamination of material used to fill gravity based devices. The significance of effects will depend on the proximity of devices to sensitive areas such as areas, such as those for fish spawning and feeding and shellfish growing waters.
- Positive effects for climate change mitigation through moving to decarbonisation of energy supply.
- Changes to turbidity, sediment disturbance, and loss of geology in placing devices may have secondary impacts on coastal processes. The significance of effects will depend on the proximity of devices to more sensitive coastlines such as those with geological SSSI and Geological Conservation Review sites (GCRs).
- Potential direct effects on submerged archaeology during construction and in some cases potential for effects on the setting of features of the historic environment.
- Visual impacts on landscape and seascape character. Wind devices will result in change, however the magnitude of visual effects depends in general on visibility and positioning of devices in regards to onshore features. Visual effects for other sea users, such as recreation vessels, may increase if constructed in popular recreational locations. Effects from lighting at night time are possible although of greater significance for plan options in greater proximity to onshore and offshore receptors.
- In some locations new structures could increase collision risk for some vessels, including with each other as a result of narrowed channels of use

due to potential exclusion zones. The likelihood of effects are considered to be of lower significance and able to be mitigated.

In all cases the SEA cannot provide precise certainty of effects as opportunities to mitigate and minimise effects are available as projects are planned, primarily through project design and location within Draft Plan Options. The significance of some of the potential effects can also only be established at the project design stage.

Draft Habitats Regulations Appraisal

A.2.3 The on-going HRA of the draft wind plan options continues to consider likely significant effects on the integrity of European designated sites. The HRA has confirmed the potential for the effects identified in the SEA. The HRA will focus on the following potential impact pathways:

- Direct and indirect physical damage to the habitats including consideration of the potential sensitivity of habitats (reefs, sub-tidal sandbanks, intertidal habitats including saltmarshes, and supralittoral habitats) during the construction, operation and decommissioning phase. Furthermore the potential for structures on the seabed to act as Fish Aggregating Device (FAD) are considerations. The HRA will also include some consideration of physical damage from cabling on onshore habitats.
- Physical damage to species due to collision risk including Bottlenose dolphins and Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey, Shad, seabirds and diving birds. The appraisal indicates further work at the project level will be required.
- Barrier effects during operation for species including Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- Visual disturbance to surface feeding and diving birds.
- Noise and vibration effects during construction and decommissioning for species including Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- EMF effects, although sensitivity is considered to be low, for Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- Contamination resulting from elevated turbidity.

Socio-economic Assessment

A.2.4 Table 2 demonstrates the quantified economic impacts of draft plan options for offshore wind on other marine activities at a national level. The majority of impacts fall upon the shipping industry, particularly within the North East region. Other industries with significant costs include Carbon Capture and Storage and Commercial Fisheries.

Table 2: Present value (PV) costs for Offshore Wind in at a national level, £m (costs discounted over assessment period, 2012 prices, values rounded to nearest £0.01m)

Activity	Description of Measurement	Scenarios		
		Low	Central	High
Carbon Capture and Storage	Additional costs of constructing cable crossings	1.85	4.32	9.27
Commercial Fisheries	Value of potentially lost GVA (derived from landed values	1.21	2.87	6.2
Recreational boating	Additional fuel costs	0.05	0.72	0.91
Shipping	Additional fuel costs	4.87	66.01	129.59
Tourism	Reduction in expenditure	0	0.26	0.98
Water sports - Sea Angling	Reduction in expenditure	0	0	0.47
Total PV costs		**7.98**	**74.18**	**147.42**

A.2.5 The remainder of the Plan contains a breakdown of the key issues in relation to the plan options within the following regions:

- North East
- North
- North West
- West
- South West

Table 3 Draft Plan Options for Offshore Wind Energy by Region

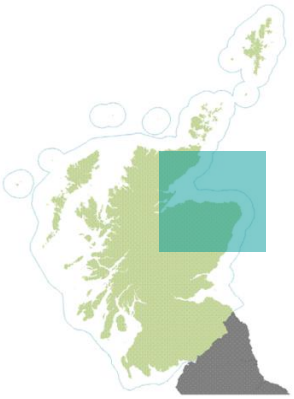
OFFSHORE WIND (OW) REGION	DRAFT PLAN OPTIONS
NORTH EAST	OWNE1
	OWNE2
NORTH	OWN1
	OWN2
NORTH WEST	OWNW1
WEST	OWW1
	OWW2
	OWW3
SOUTH WEST	OWSW1
	OWSW2

A.2.6 Illustrative maps within each Region contain the following developments where applicable:

A.2.7 The key issues emerging from the Sustainability Appraisal listed in relation to each region. Further explanation is provided within the Sustainability Appraisal Report with a full breakdown of the issues contained within the respective socio-economic and environment assessments.

A.2.8 The consideration of cumulative and in-combination effects arising from existing, planned and potential future development options is considered within **Section D**.

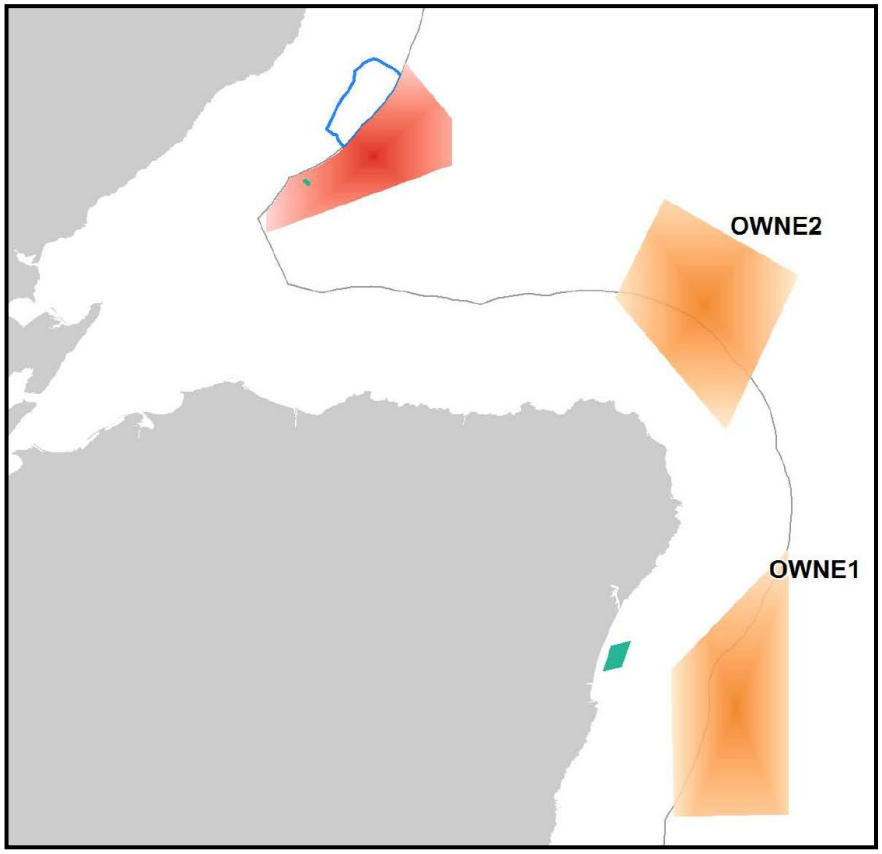
A.3 NORTH EAST



A.3.1 The North East Region contains the following potential future options:

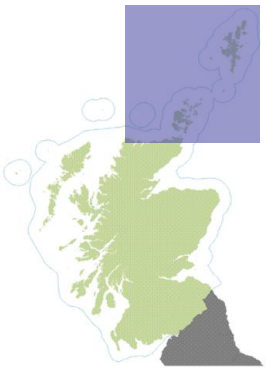
- OWNE1
- OWNE2

Fig.5 North East Region - Draft Plan Options



A.3.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region

- Carbon Capture & Storage
- Shipping and navigation
- Commercial Fisheries
- Biodiversity (Mobile Species and Designations)
- Aviation & Radar activities
- Defence activities
- Social impacts
- Seascape (cumulative effects)
- Cultural Heritage

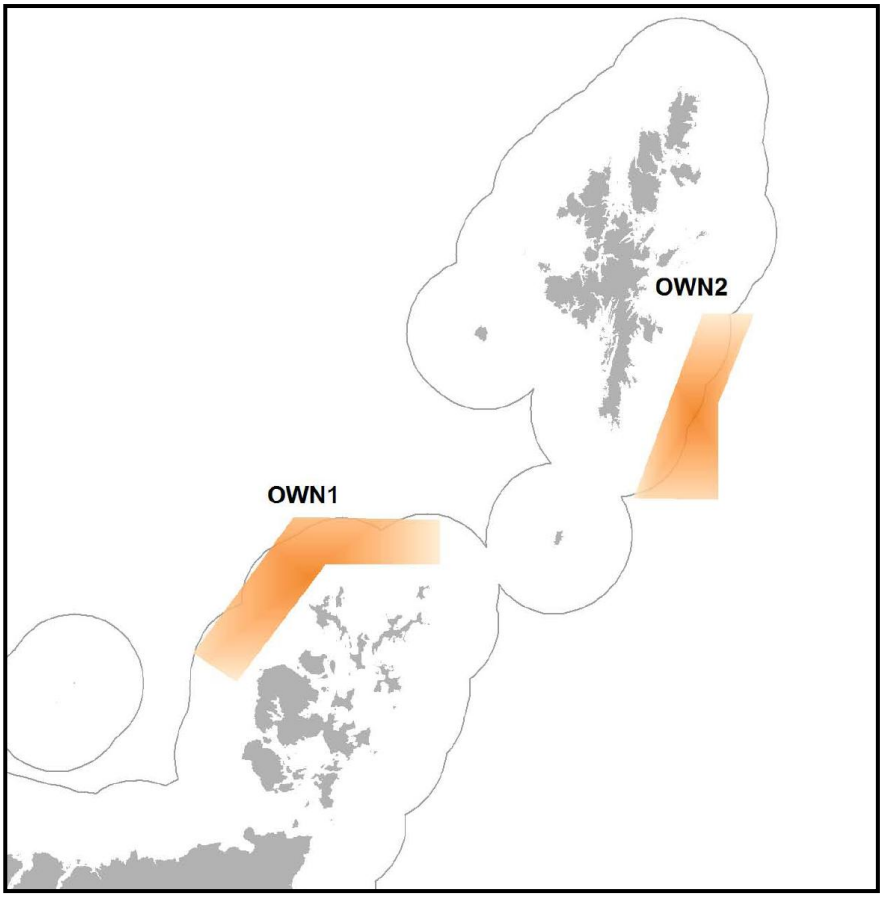


A.4 NORTH

A.4.1 The North Region contains the following potential future options.

- OWN1
- OWN2

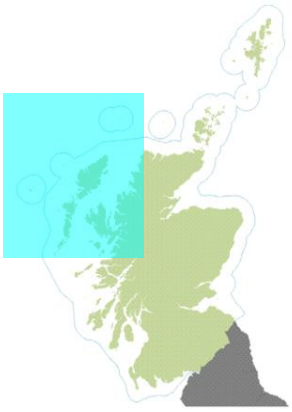
Fig.6 North Region – Draft Plan Options



A.4.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Shipping and navigation
- Fishing
- Biodiversity
- Aviation and radar
- Defence activities
- Cultural Heritage
- Recreation
- Social impacts
- Community engagement
- Landscape and seascape (including designated areas)
- Seabed and coastal processes

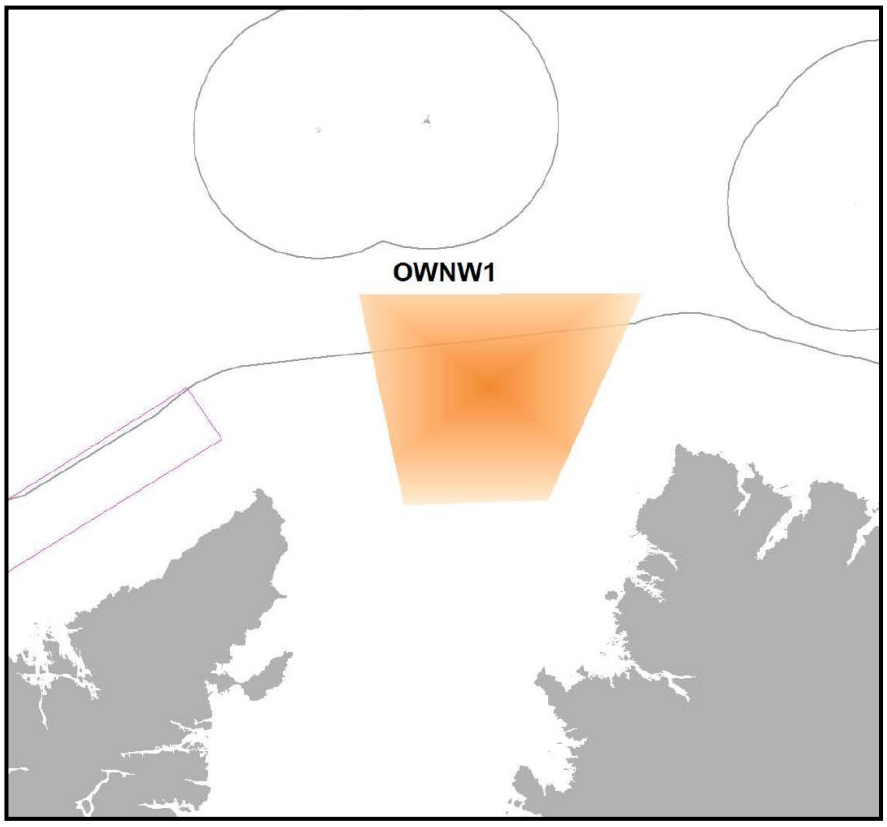
A.5 NORTH WEST



A.5.1 The North West Region contains the following potential future option:

- OWNW1

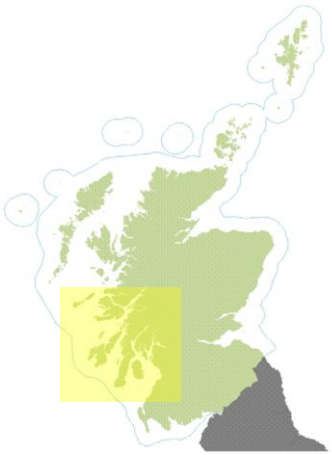
Fig.7 North West Region - Draft Plan Options



A.5.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Shipping and navigation
- Commercial Fisheries
- Biodiversity (mobile species and designations)
- Recreation
- Defence activities
- Community engagement
- Landscape and seascape (including designated areas)

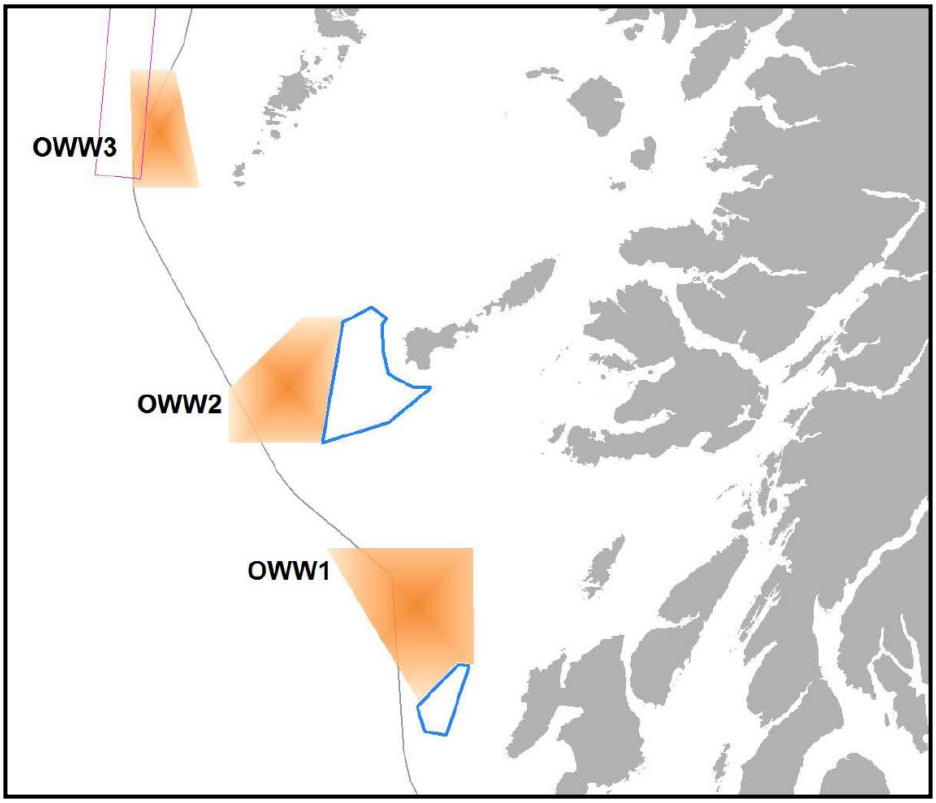
A.6 WEST



A.6.1 The West Region contains the following potential future options:

- OWW1
- OWW2
- OWW3

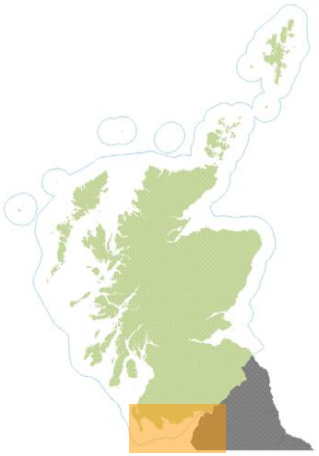
Fig.8 West Region - Draft Plan Options development



A.6.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Communities
- Shipping
- Commercial Fisheries
- Biodiversity
- Recreation
- Defence
- Seascapes and Landscapes
- Aviation
- Cultural Heritage
- Social impacts
- Seabed

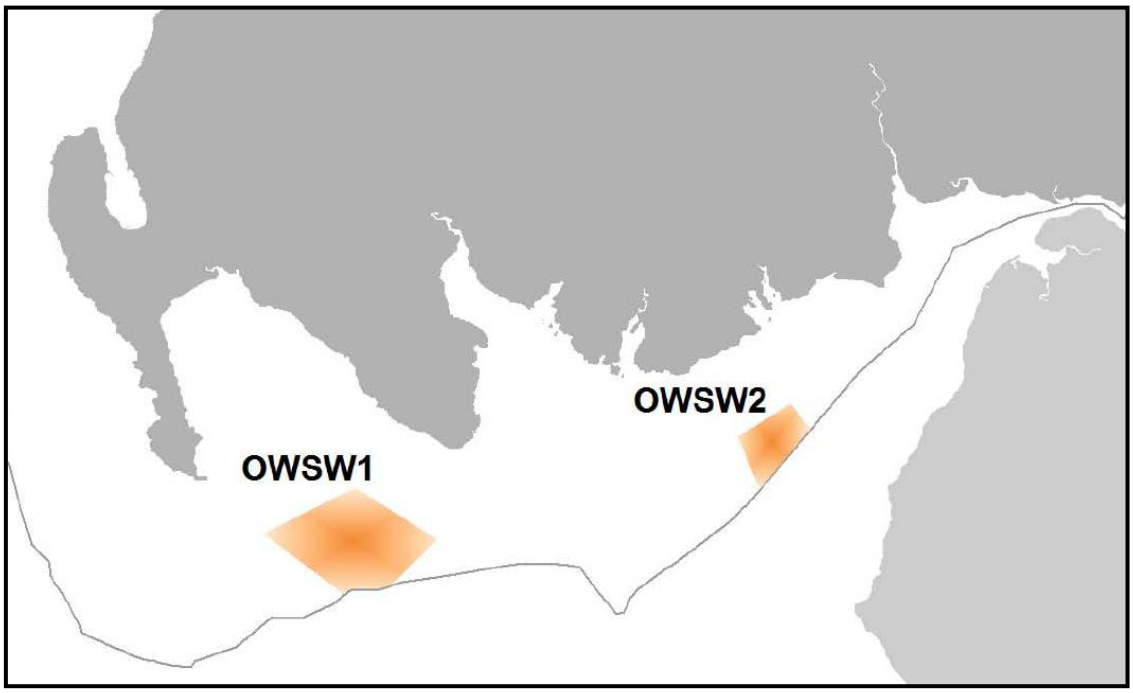
A.7 SOUTH WEST



A.7.1 The South West Region contains the following potential future options:

- OWSW1
- OWSW2

Fig.9 South West Region - Draft Plan Options



A.7.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Communities
- Shipping
- Biodiversity
- Recreation
- Cultural Heritage
- Landscape and seascape (including designated areas)
- Seabed and coastal processes

B. DRAFT PLANS FOR WAVE ENERGY IN SCOTTISH WATERS

The Draft Plan for Wave Energy contains the potential options for future commercial scale wave developments (over 30MW) in Scottish Waters. The Plan contains the following sections:

- Development of Draft Plan Options for Wave Energy
- National Issues
- Regional issues

Development of Options

B.1.1 In July 2012, Marine Scotland Science published 'A Scoping Report for Wave Farm Developments in Scottish Waters'. This document contained 4 large 'Scoping Areas of Search' which were considered in relation to 6 geographic locations. These areas, along with an explanation of the process to develop the Draft Plan, were then contained within the Draft Initial Plan Framework.

B.1.2 A period of pre-statutory consultation was undertaken, following publication of the Public Participation Statement, to raise awareness of the process for developing the Plan and highlight how the public can get involved. The Draft IPFs and RLGs were made available for comment to allow stakeholders the opportunity to present any further and more up-to-date information they may hold in relation to the Areas of Search.

B.1.3 The views and opinions gathered during the pre-statutory consultation, in addition to the information contained within the Draft RLGs were used to inform the revision of Areas of Search into Draft Plan Options.

Table 4. Evolution of Draft Plan Options – Wave

Document	**Scoping Report for Wave Developments**	**Draft Sectoral Marine Plan for Wave Energy**	
Region	***Scoping Area of Search / Location***	***Draft Plan Option***	***Location***
NORTH	North West of Cape Wrath	-	
	North Sutherland Coast	WN1	North Sutherland Coast
	Orkney and Shetland	WN2	North and West of Orkney
		WN3	South West of Shetland
NORTH WEST	West Hebrides (West of Lewis)	WNW1	West Hebrides (West of Lewis)
WEST	West of Hebrides (Mull and Islay)	WW1	North West of Islay
		WW2	South West of Mull
	West Hebrides (West of Lewis)	WW3	South West of Tiree
		WW4	South West of Barra

Fig.10 Wave Scoping Areas of Search (**BEFORE**)

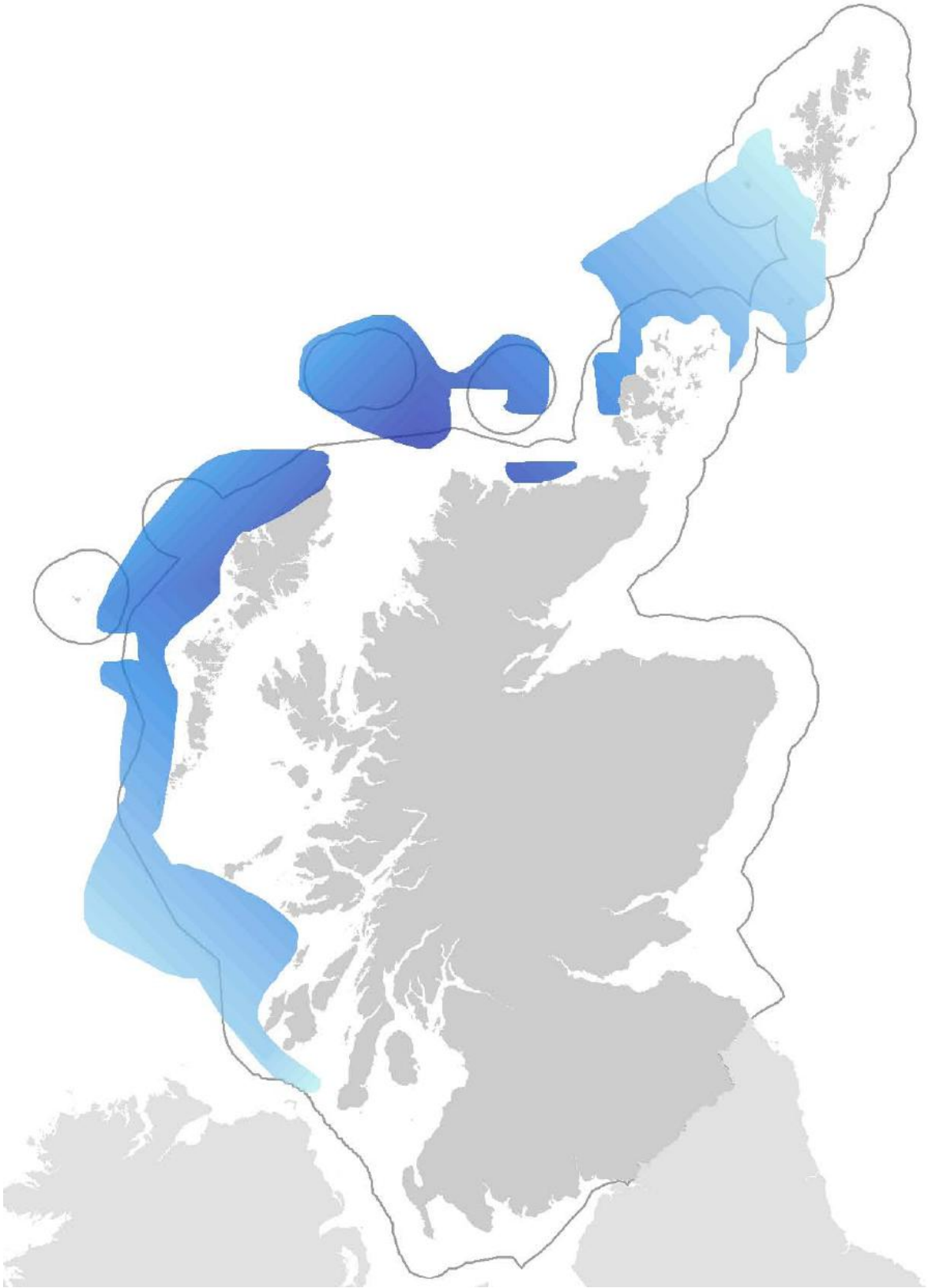
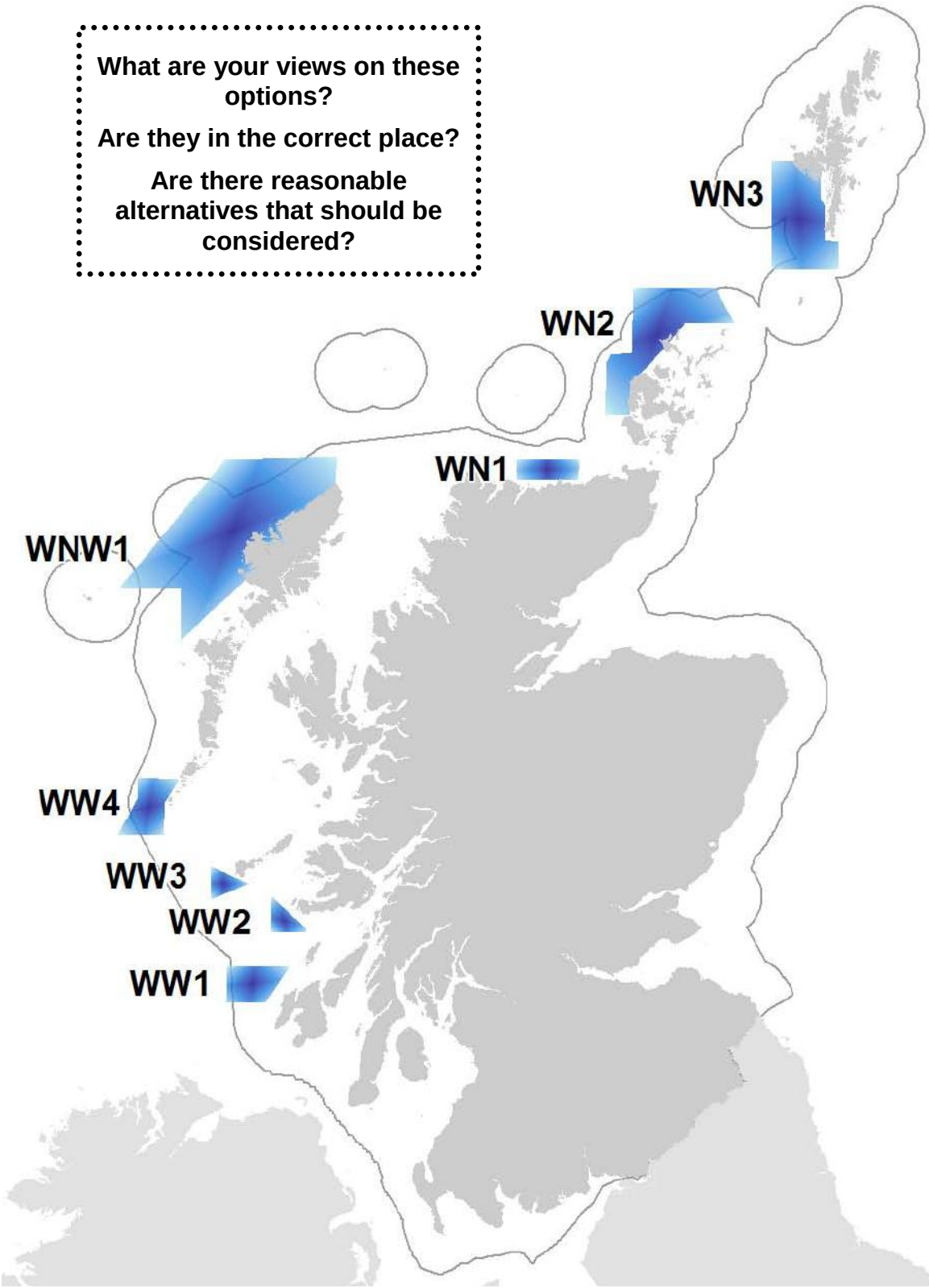


Fig.11 Wave Draft Plan Options (**AFTER**)



SEARCH NMPi – 'SMP – Wave Draft Plan options'

B.1.4 The Draft Plan Options represent development zones in which a proportion could ultimately be used for development. The Plan seeks to identify issues for consideration at project level zone planning and project licensing.

B.1.5 In addition to the draft Plans Options emerging from the Scoping 'Areas of Search, the process to develop the Draft Plan for Wave Energy also gave consideration to the need to incorporate options arising from the following processes:

- PFOW and the Saltire Prize Locational Guidance
- Further Locational Guidance produced by the Scottish Government.
- Developments which have an award of 'agreement for lease' from the Crown Estate Commissioners and are therefore at the licensing stage.
    - These options are underpinned by the 2007 Marine Renewables SEA.
    - A full lease will only be awarded once a developer has obtained a marine licence from the Scottish Government

B.1.6 There were no additional 'existing options' to be considered within this sectoral marine planning process as:

- Options within Saltire Prize Locational Guidance would still be used for innovative test and demonstration developments in support of the Saltire Prize and not commercial scale developments
- Options arising from Crown Estate Pentland Firth and Orkney Waters leasing and further rounds are either:
    - Underpinned by the 2007 Marine Renewables SEA where developments exceed the 30MW threshold
    - Do not exceed the 30MW threshold to be classified as a commercial scale development

B.1.7 In draft Wave Plan Options where the straight zone boundary lines runs alongside the coastline, the boundary line has been amended to reflect the potential for surf zone wave energy technologies. This slight alteration is consistent with the approaches to and outcomes of the Sustainability Appraisal.

NATIONAL ISSUES

B.2.1 The draft Plan Options for Wave Energy have been subject to Strategic Environmental Assessment (SEA), Habitats Regulations Appraisal (HRA) and socio-economic assessment. The outcomes of these assessments have been brought together within the Sustainability Appraisal Report. The sections below contain the key issues arising at a national level from these assessments:

Sustainability Appraisal

Strategic Environmental Assessment

B.2.2 The SEA Environmental Report provides the detail on the identification and assessment of potential effects of the Draft Plan Options for wave energy. The key results are summarised below:

- Potential effects on biodiversity as a result of collision with devices, particularly those with underwater components, barriers to movement of mobile species. Noise impacts on sensitive species from the construction of devices. The SEA considers potential effects on diving birds, cetaceans, seals, elasmobranchs and fish species. Additionally there may be direct loss of seabed habitat from the installation of devices and effects associated with potential changes to patterns of tidal and sediment movement on marine habitats.
- Scope for impacts on water quality from contamination as a result of changes to turbidity and turbulence, and seabed disturbance in areas of existing contamination. The significance of effects will depend on the proximity of devices to sensitive areas, such as those for fish spawning and feeding and shellfish growing waters.
- Positive effects for climate change mitigation through moving to decarbonisation of energy supply.
- Changes to turbidity, sediment disturbance, and loss of geology in placing devices may have secondary impacts on coastal processes. The significance of effects will depend on the proximity of devices to more sensitive coastlines such as those with geological SSSI and Geological Conservation Review sites (GCRs).
- Potential direct effects on submerged archaeology during construction and in some cases, particularly those devices that sit above the water surface potential for effects on the setting of features of the historic environment.
- Potential for visual impacts on landscape and seascape character as a result of the presence of surface-piercing structures, and potentially marker buoys and lights for navigation, particularly if located near-shore and in large numbers. Submerged and oscillating devices may have fewer impacts than devices which sit on top of the water, but this will depend on location and the quality of the receiving environment. The magnitude of visual effects depends in general on visibility and positioning of devices in regards to onshore features. Visual effects for other sea users, such as recreation vessels, may increase if constructed in popular

recreational locations. Effects from lighting at night time are possible and potentially of greater significance for near shore areas.

- In some locations new structures could increase collision risk for some vessels, particularly for small vessels in conditions where waves might make it difficult to locate devices from a distance. Collision risk may increase if channels of vessel movements are reduced due to potential exclusion zones. The likelihood of effects are considered to be of lower significance and able to be mitigated. Furthermore there may be some potential for displacement of recreational activity in some near shore locations.

In all cases the SEA cannot provide precise certainty of effects as opportunities to mitigate and minimise effects are available as projects are planned, primarily through project design and location within Draft Plan Options. The significance of some of the potential effects can also only be established at the project design stage.

Draft Habitats Regulations Appraisal

B.2.3 The ongoing HRA of the draft wave plan options continues to consider likely significant effects on the integrity of European designated sites. The HRA has confirmed the potential for the effects identified in the SEA. The HRA will focus on the following potential impact pathways:

- Direct and indirect physical damage to the habitats including consideration of the potential sensitivity of habitats (reefs, sub-tidal sandbanks, intertidal habitats including saltmarshes, and supralittoral habitats) during the construction, operation and decommissioning phase. Furthermore the potential for structures on the seabed to act as Fish Aggregating Device (FAD) are considerations. The HRA will also include some consideration of physical damage from cabling on onshore habitats.
- Physical damage to species due to collision risk including Bottlenose dolphins and Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey, Shad, seabirds and diving birds. The appraisal indicates further work at the project level will be required.
- Barrier effects during operation for species including Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- Visual disturbance to surface feeding and diving birds.
- Noise and vibration effects during construction and decommissioning for species including Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- EMF effects, although sensitivity is considered to be low, for Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- Contamination resulting from elevated turbidity

Socio-economic Assessment

B.2.4 Table 5 demonstrates the quantified economic impacts of draft plan options for wave energy on other marine activities at a national level. The majority of impacts fall upon the Commercial Fishing industry, although these remain relatively minor. In addition to the above, there are a number of non-quantified impacts and social impacts.

Table 5: Present value (PV) costs for Wave Energy at a national level, £m (costs discounted over assessment period, 2012 prices, values rounded to nearest £0.01m)

Activity	Description of Measurement	Scenarios		
		Low	Central	High
Commercial Fisheries	Value of potentially lost GVA (derived from landed values)	0.07	0.18	0.38
Water sports - Sea Angling	Reduction in expenditure	0.00	0.00	0.10
Total PV costs		**0.07**	**0.18**	**0.48**

B.2.5 The remainder of the Plan contains a breakdown of the key issues in relation to the plan options within the following regions:

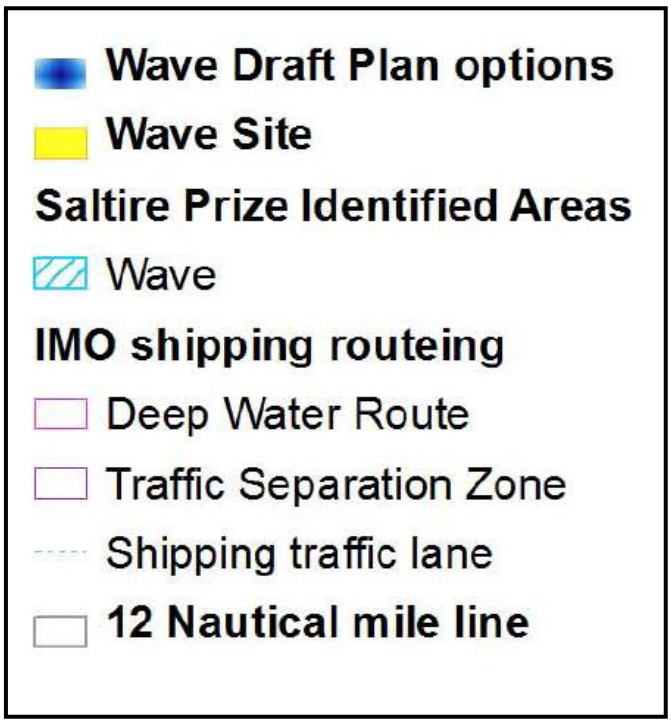
- North
- North West
- West

Table 6. Draft Plan Options for Wave Energy by Region

DRAFT PLAN OPTIONS	
REGION	*WAVE (W)*
NORTH	WN1
	WN2
	WN3
NORTH WEST	WNW1
WEST	WW1
	WW2
	WW3
	WW4

*There are no potential wave plan options within the East, North East and South West Regions

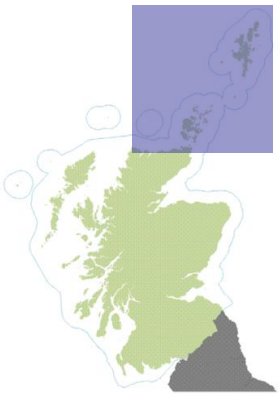
B.2.6 Illustrative maps within each Region contain the following developments where applicable:



B.2.7 The key issues emerging from the Sustainability Appraisal listed in relation to each region. Further explanation is provided within the Sustainability Appraisal Report with a full breakdown of the issues contained within the respective socio-economic and environment assessments.

B.2.8 The consideration of cumulative and in-combination effects arising from existing, planned and potential future development options is considered within **Section D**.

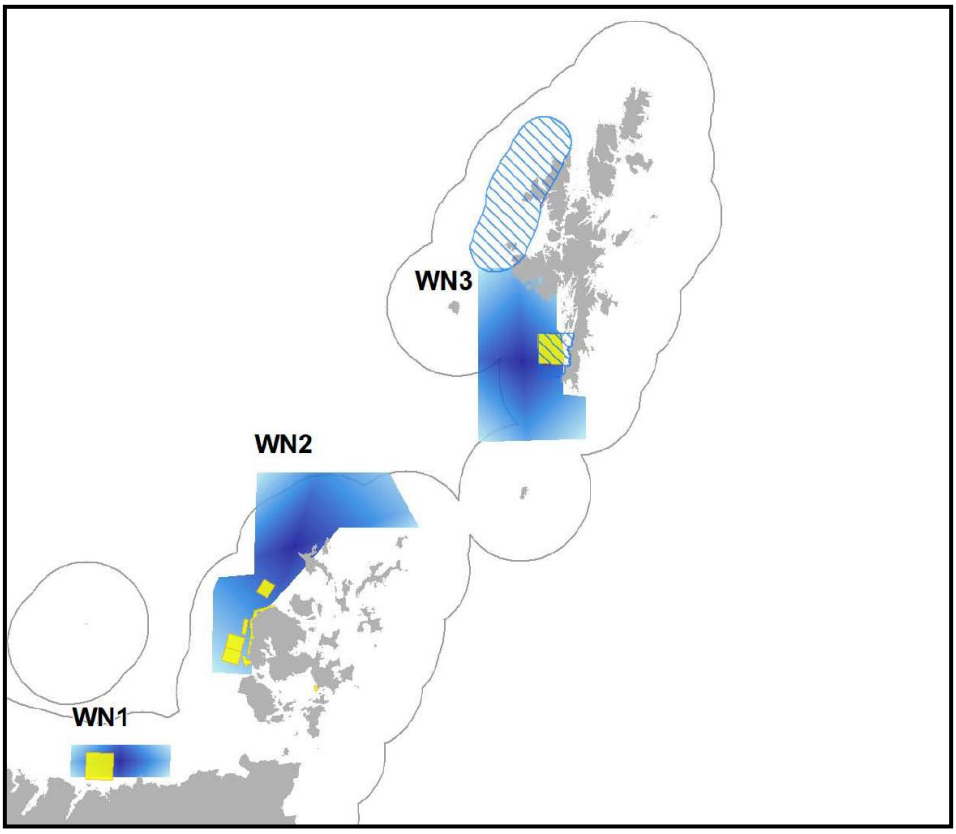
B.3 NORTH



B.3.1 The North Region contains the following potential future options:

- WN1
- WN2
- WN3

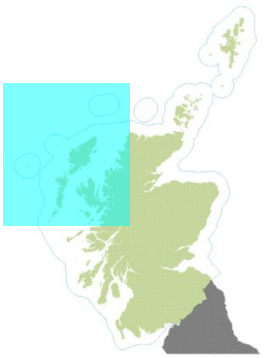
Fig.12 Draft Plan Options for Wave Energy – North



B.3.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Biodiversity
- Cultural Heritage
- Recreation
- Social impacts
- Community engagement
- Landscape and seascape (including designations)
- Seabed and coastal processes

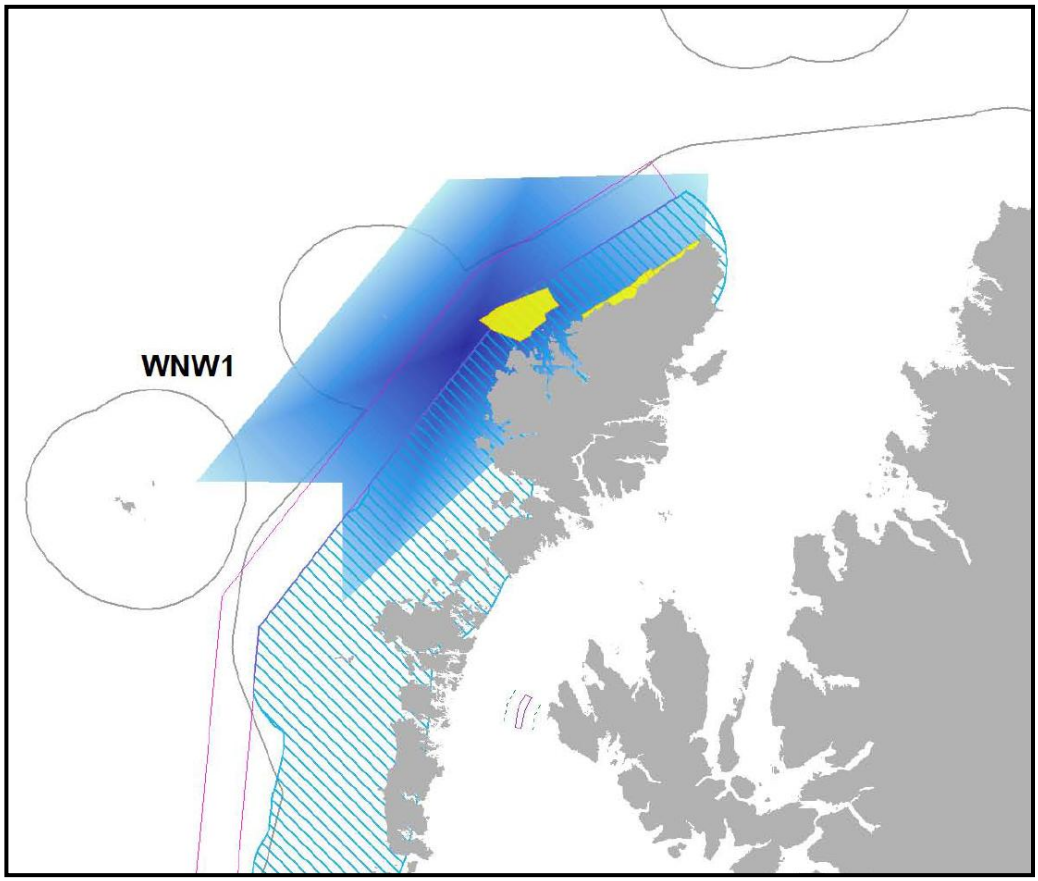
B.4 NORTH WEST



B.4.1 The North West Region contains the following potential future options:

- WNW1

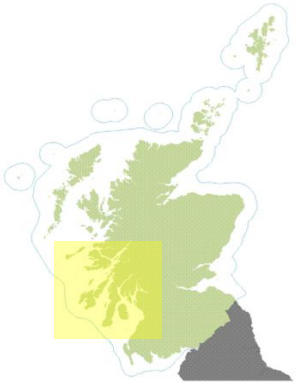
Fig.13 Draft Plan Options for Wave Energy – North West



B.4.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Biodiversity
- Recreation
- Community engagement
- Grid
- Landscape and seascapes (including designations)
- Cultural Heritage

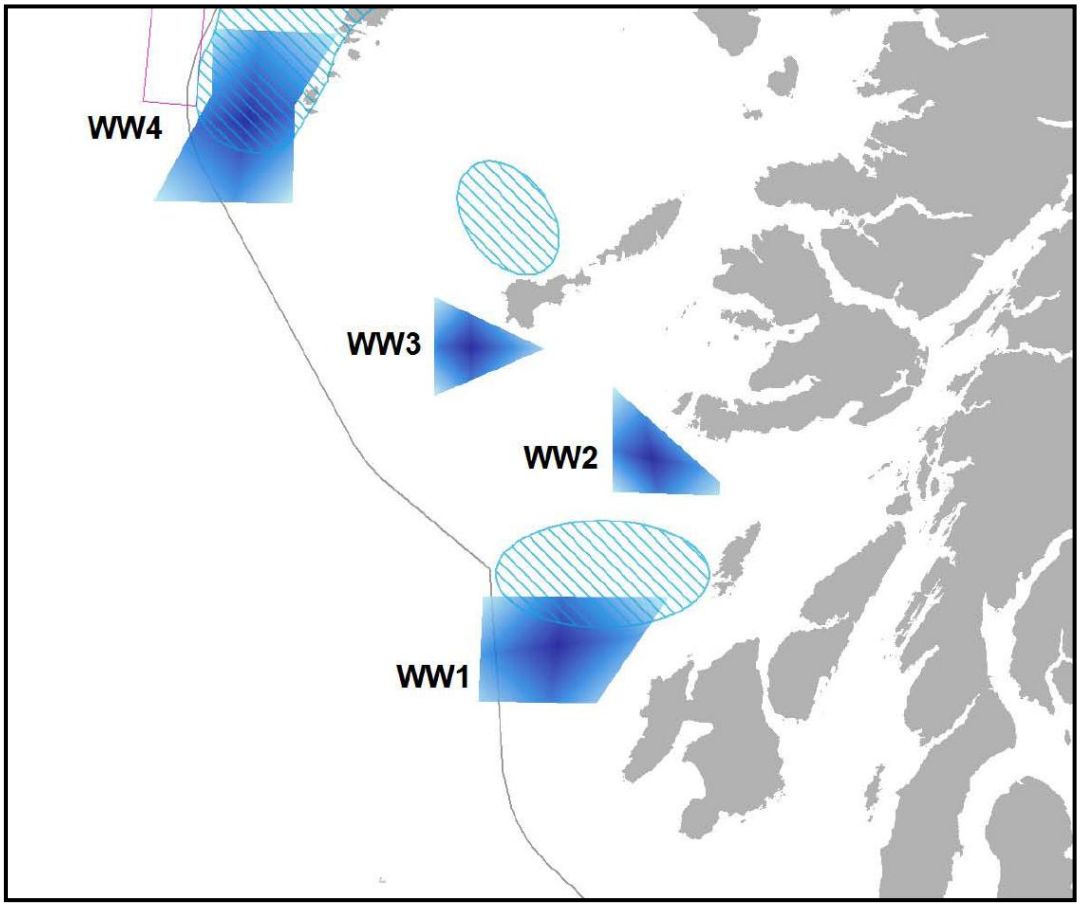
B.5 WEST



B.5.1 The West Region contains the following potential future options:

- WW1
- WW2
- WW3
- WW4

Fig.14 Draft Plan Options for Wave Energy – West



B.5.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Communities
- Biodiversity
- Recreation
- Landscapes and Seascapes (including designations)
- Cultural Heritage
- Grid
- Seabed and coastal process

C. DRAFT PLAN FOR TIDAL ENERGY

The Draft Plan for Tidal Energy contains the potential options for future commercial scale tidal developments (over 30MW) in Scottish Waters. The Plan contains the following sections:

- Development of Draft Plan Options for Tidal Energy
- National Issues
- Regional issues

Development of Options

C.1.1 In July 2012, Marine Scotland Science published 'A Scoping Report for Tidal Farm Developments in Scottish Waters'. This document contained a number of 'Scoping Areas of Search' which were considered in relation to 4 geographic locations. These areas, along with an explanation of the process to develop the Draft Plan, were then contained within the Draft Initial Plan Framework.

C.1.2 A period of pre-statutory consultation was undertaken, following publication of the Public Participation Statement, to raise awareness of the process for developing the Plan and highlight how the public can get involved. The Draft IPFs and RLGs were made available for comment to allow stakeholders the opportunity to present any further and more up-to-date information they may hold in relation to the Areas of Search.

C.1.3 The views and opinions gathered during the pre-statutory consultation, in addition to the information contained within the Draft RLGs were used to inform the revision of Areas of Search into Draft Plan Options.

Table 7 Evolution of Draft Plan Options – Tidal

Document	**Scoping Report for Tidal Developments**	**Draft Sectoral Marine Plan for Tidal Energy**	
Region	***Scoping Area of Search / Location***	***Draft Plan Option***	***Location***
NORTH	Pentland Firth	TN1	Pentland Firth
	Orkney and Westray	TN2	Orkney Waters
		TN3	Westray
		TN4	North East Sanday
	Sumburgh and Fair Isle	TN5	Sumburgh
		TN6	Shetland Waters
		TN7	North Unst
WEST	South West Islay	TW1	South West Islay
	Kintyre	TW2	Kintyre
SOUTH WEST	Solway Firth	TSW1	Solway Firth

Fig.15 Tidal Energy Scoping 'Areas of Search' (**BEFORE**)

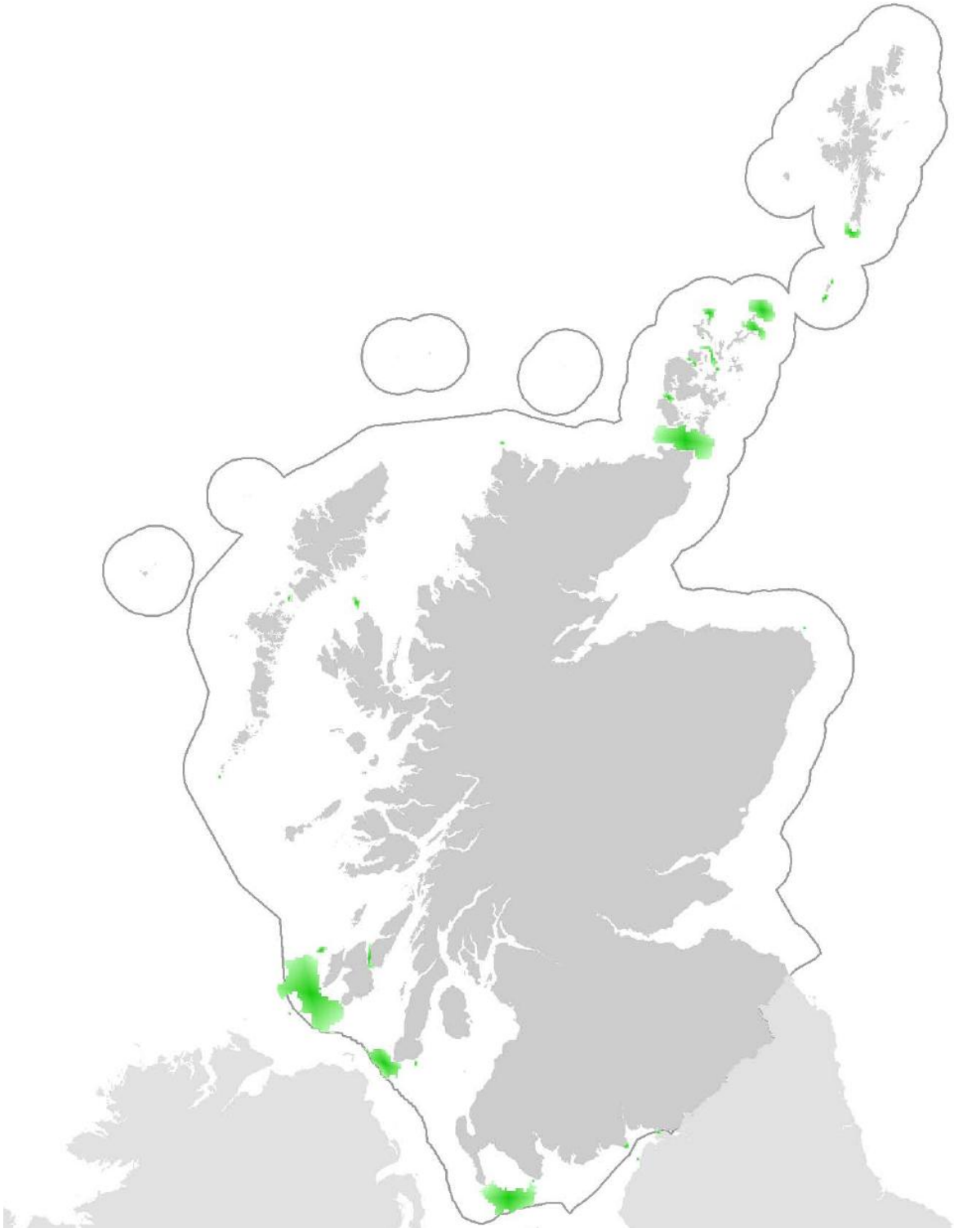
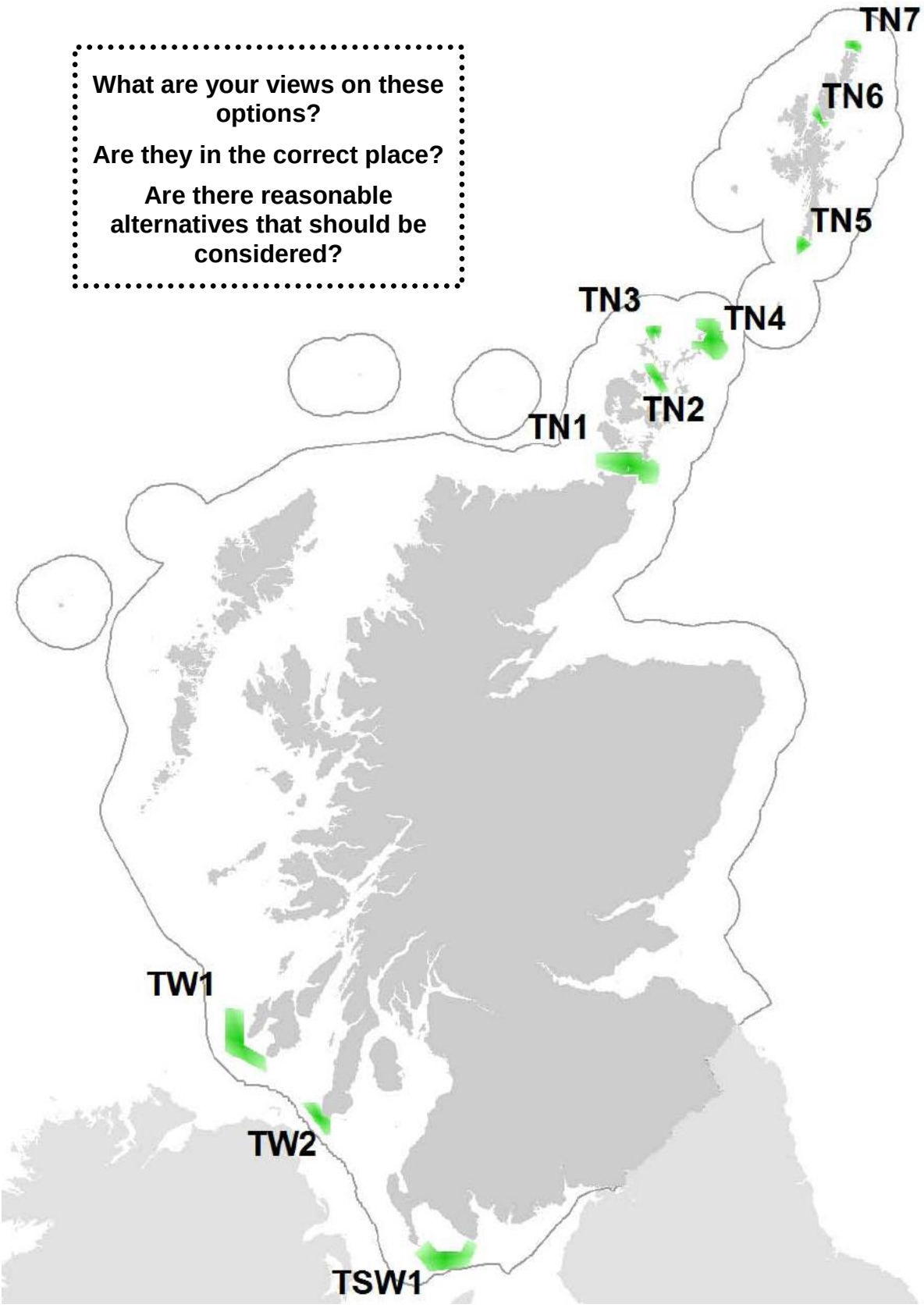


Fig.16 Tidal Energy Draft Plan Options (**AFTER**)



SEARCH NMPi – 'SMP – Tidal Draft Plan options'

C.1.4 During the pre-consultation stage, respondents from the NAFC Marine Centre in Shetland highlighted that further and more detailed work had been undertaken in relation to the tidal resources around Shetland. The data underpinning this resource mapping has now been integrated into the process for developing the Draft Plan. It is for this reason that the Draft Plan for Tidal Energy now contains draft options which were not previously identified at the Scoping stage.

C.1.4 In addition, there were a number of smaller areas of resource identified in the Scoping Report. These have been removed on the basis of being too small to accommodate commercial scale development zones. There is the potential to undertake further locational guidance exercises for these areas to determine suitability for future test and demonstration or other small scale developments.

C.1.5 In addition to the draft Plans Options emerging from the Scoping 'Areas of Search, the process to develop the Draft Plan for Tidal Energy also gave consideration to the need to incorporate options arising from the following processes:

- PFOW and the Saltire Prize Locational Guidance
- Further Locational Guidance produced by the Scottish Government.
- Developments which have an award of 'agreement for lease' from the Crown Estate Commissioners and are therefore at the licensing stage.
    - These options are underpinned by the 2007 Marine Renewables SEA.
    - A full lease will only be awarded once a developer has obtained a marine licence from the Scottish Government

C.1.6 There were no additional 'existing options' to be considered within this sectoral marine planning process as:

- Options within Saltire Prize Locational Guidance would still be used for innovative test and demonstration developments in support of the Saltire Prize and not commercial scale developments
- Options arising from Crown Estate Pentland Firth and Orkney Waters leasing and further rounds are either:
    - Underpinned by the 2007 Marine Renewables SEA where developments exceed the 30MW threshold
    - Do not exceed the 30MW threshold to be classified as a commercial scale development

C.1.7 The Draft Plan Options represent development zones in which a proportion could ultimately be used for development. The Plan seeks to identify issues for consideration at project level zone planning and project licensing.

NATIONAL ISSUES

C.2.1 The draft Plan Options for Tidal Energy have been subject to Strategic Environmental Assessment (SEA), Habitats Regulations Appraisal (HRA) and socio-economic assessment. The outcomes of these assessments have been brought together within the Sustainability Appraisal Report. The sections below contain the key issues arising at a national level from these assessments:

Sustainability Appraisal

Strategic Environmental Assessment

C.2.2 The SEA Environmental Report provides the detail on the identification and assessment of potential effects of the Draft Plan Options for tidal energy. The key results are summarised below:

- Potential effects on biodiversity as a result of collision with devices, particularly those with underwater components, barriers to movement of mobile species, and impacts on behaviours of species in inshore areas. Furthermore potential for noise impacts on sensitive species are possible from the construction of devices. The SEA considers potential effects on diving birds, cetaceans, seals, elasmobranchs and fish species, particularly from collision with moving parts of tidal devices. Additionally there may be direct loss of seabed habitat from the installation of devices and effects associated with potential changes to patterns of tidal and sediment movement on marine habitats.
- Scope for impacts on water quality from contamination as a result of changes to turbidity and turbulence, and seabed disturbance in areas of existing contamination. The significance of effects will depend on the proximity of devices to sensitive areas, such as those for fish spawning and feeding and shellfish growing waters.
- Positive effects for climate change mitigation through moving to decarbonisation of energy supply.
- Changes to turbidity, sediment disturbance, and loss of geology in placing devices may have secondary impacts on coastal processes. The significance of effects will depend on the proximity of devices to more sensitive coastlines such as those with geological SSSI and Geological Conservation Review sites (GCRs).
- Potential direct effects on submerged archaeology during construction and in some cases. Tidal devices and associated infrastructure may have some above water elements and so the setting of features of the historic environment remains a consideration, although the potential for significant effects is not considered to be high.
- Potential for visual impacts on landscape and seascape character as a result of the presence of surface-piercing structures, and potentially marker buoys and lights for navigation, particularly if located near-shore and in large numbers. As predominantly submerged devices, the significance of impacts of tidal technology may be low, although this will depend on location and the quality of the receiving environment. Effects

may therefore be greater during the construction rather than operation phase. The magnitude of visual effects depends in general on visibility and positioning of devices in regards to onshore features. Visual effects for other sea users, such as recreation vessels, may increase if constructed in popular recreational locations. Effects from lighting at night time are possible and potentially of greater significance for near shore areas.

- In some locations new devices could increase collision risk between vessels if channels of vessel movements are reduced due to potential exclusion zones. Collision risks with devices are low for small recreational craft. The likelihood of effects are considered to be of lower significance and able to be mitigated. Furthermore there may be some potential for displacement of recreational activity in some near shore locations.

In all cases the SEA cannot provide precise certainty of effects as opportunities to mitigate and minimise effects are available as projects are planned, primarily through project design and location within Draft Plan Options. The significance of some of the potential effects can also only be established at the project design stage.

Draft Habitats Regulations Appraisal

C.2.3 The ongoing HRA of the draft wind plan options continues to consider likely significant effects on the integrity of European designated sites. The HRA has confirmed the potential for the effects identified in the SEA. The HRA will focus on the following potential impact pathways:

- Direct and indirect physical damage to the habitats including consideration of the potential sensitivity of habitats (reefs, subtidal sandbanks, intertidal habitats including saltmarshes, and supralittoral habitats) during the construction, operation and decommissioning phase. Furthermore the potential for structures on the seabed to act as Fish Aggregating Device (FAD) are considerations. The HRA will also include some consideration of physical damage from cabling on onshore habitats.
- Physical damage to species due to collision risk including Bottlenose dolphins and Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey, Shad, seabirds and diving birds. The appraisal indicates further work at the project level will be required.
- Barrier effects during operation for species including Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- Visual disturbance to surface feeding and diving birds.
- Noise and vibration effects during construction and decommissioning for species including Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- EMF effects, although sensitivity is considered to be low, for Bottlenose dolphins, Harbour porpoise, Grey and Harbour seals, Atlantic salmon, Lamprey and Shad.
- Contamination resulting from elevated turbidity.

Socio-economic Assessment

C.2. Table 8 demonstrates the quantified economic impacts of draft plan options for tidal energy on other marine activities at a national level. The majority of impacts fall upon the shipping industry, particularly within the North region. In addition to the above, there are also a number of non-quantified impacts and social impacts.

Table 8: Present value (PV) costs for Tidal energy at a national level, £m (costs discounted over assessment period, 2012 prices, values rounded to nearest £0.01m)

Activity	Description of Measurement	Scenarios		
		Low	Central	High
Commercial Fisheries	Value of potentially lost GVA (derived from landed values)	0.13	0.24	0.48
Recreational boating	Additional fuel costs	0	0	0.06
Shipping	Additional fuel costs	0	0	12.29
Water Sports -Sea Angling	Reduction in expenditure	0	0	0.35
Total PV costs		**0.13**	**0.24**	**13.18**

C.2.5 The remainder of the Plan contains a breakdown of the key issues in relation to the plan options within the following regions:

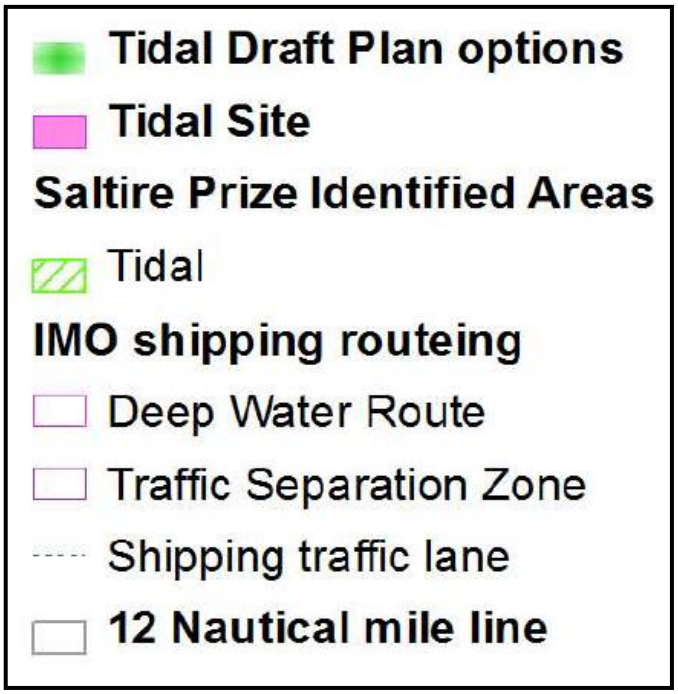
- North
- West
- South West

*There are no potential tidal developments within the East, North East and North West Regions

Table 9 Draft Plan Options for Tidal Energy by Region

DRAFT PLAN OPTIONS	
REGION	*TIDAL (T)*
NORTH	TN1
	TN2
	TN3
	TN4
	TN5
	TN6
	TN7
WEST	TW1
	TW2
SOUTH WEST	TSW1

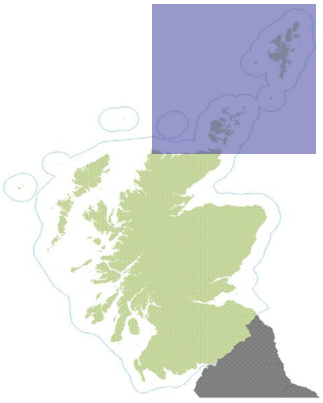
C.2.6 Illustrative maps within each Region contain the following developments where applicable:



C.2.7 The key issues emerging from the Sustainability Appraisal listed in relation to each region. Further explanation is provided within the Sustainability Appraisal Report with a full breakdown of the issues contained within the respective socio-economic and environment assessments.

C.2.8 The consideration of cumulative and in-combination effects arising from existing, planned and potential future development options is considered within **Section D**.

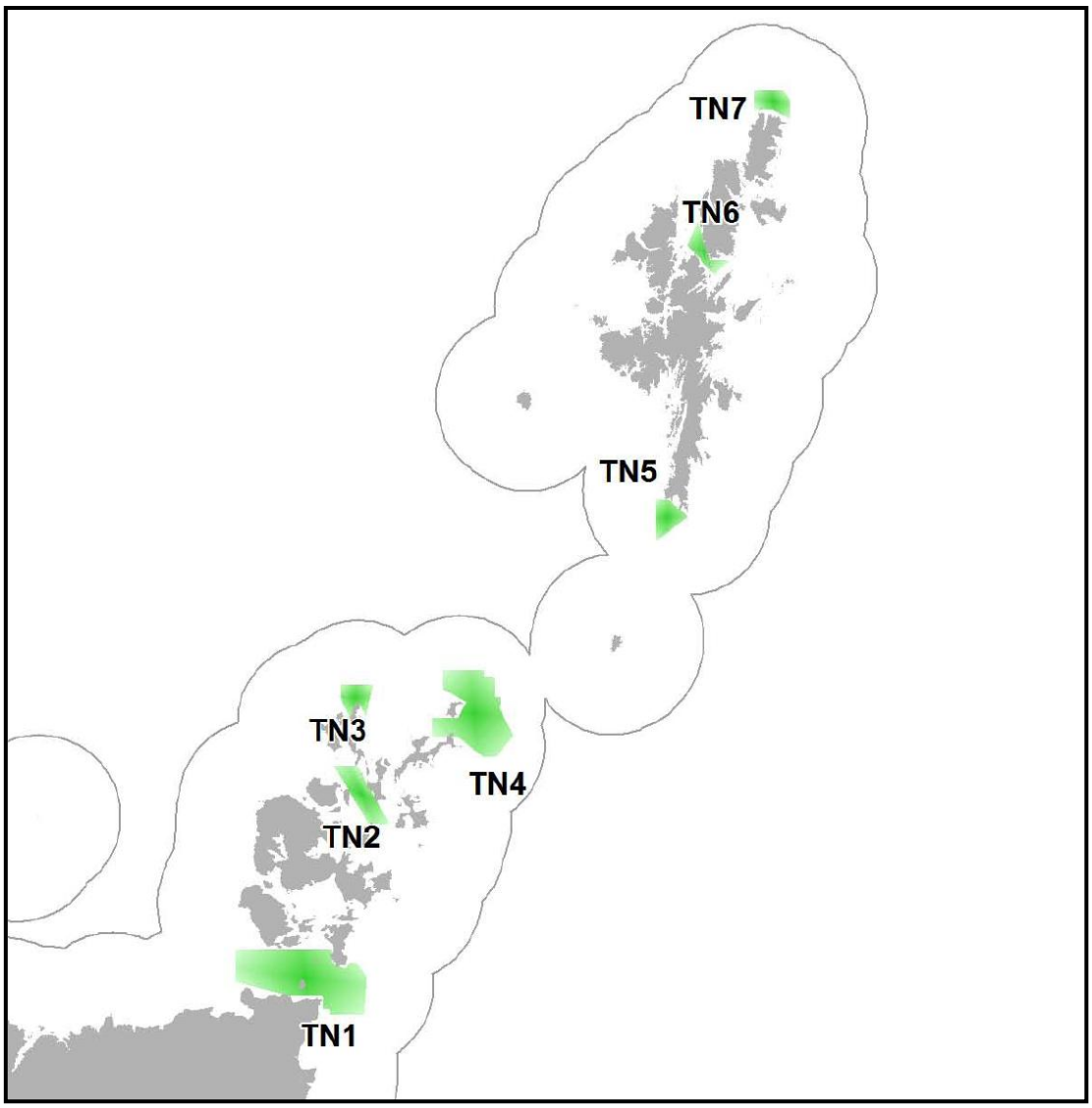
C.3 NORTH



C.3.1 The North Region contains the following potential future options:

- TN1
- TN2
- TN3
- TN4
- TN5
- TN6
- TN7

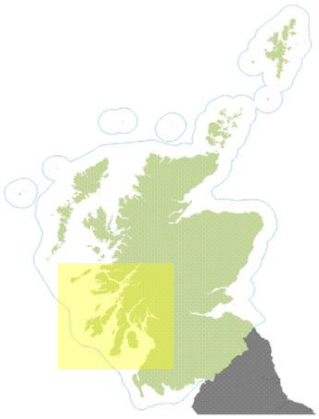
Fig.17 Draft Plan Options for Tidal Energy – North



C.3.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Shipping and navigation
- Biodiversity
- Cultural Heritage
- Recreation
- Community engagement
- Grid
- Seabed and coastal processes
- Landscape and seascape (construction)

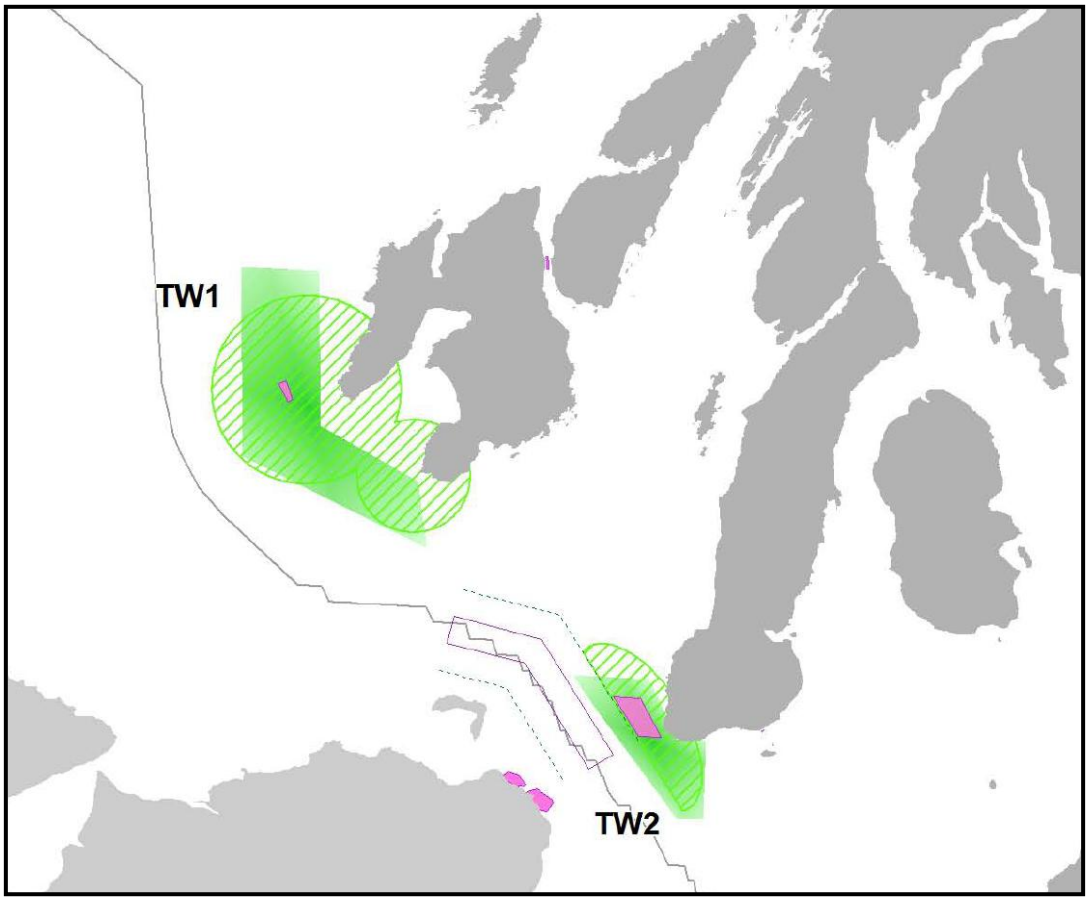
C.4 WEST



C.4.1 The West Region contains the following potential future options:

- TW1
- TW2

Fig.18 Tidal Draft Plan Options - West



C.4.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

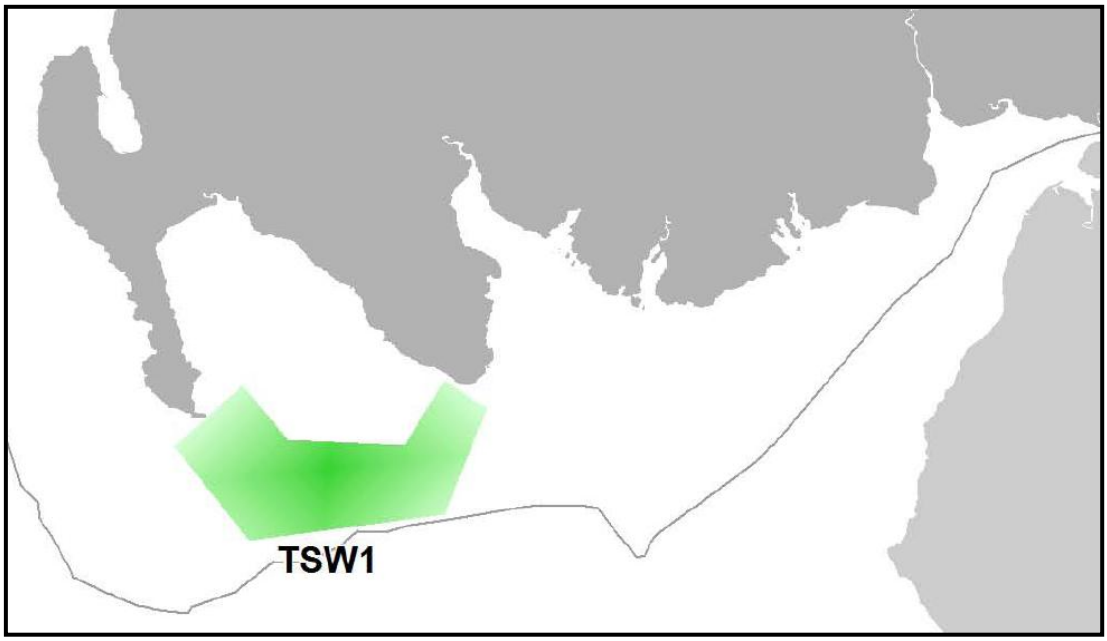
- Communities
- Shipping
- Biodiversity
- Recreation
- Landscapes and Seascapes
- Cultural Heritage
- Grid
- Seabed and Coastal processes

C.5 SOUTH WEST

C.5.1 The South West Region contains the following potential future option:

- TSW1

Fig.19 Tidal Draft Plan Option – South West



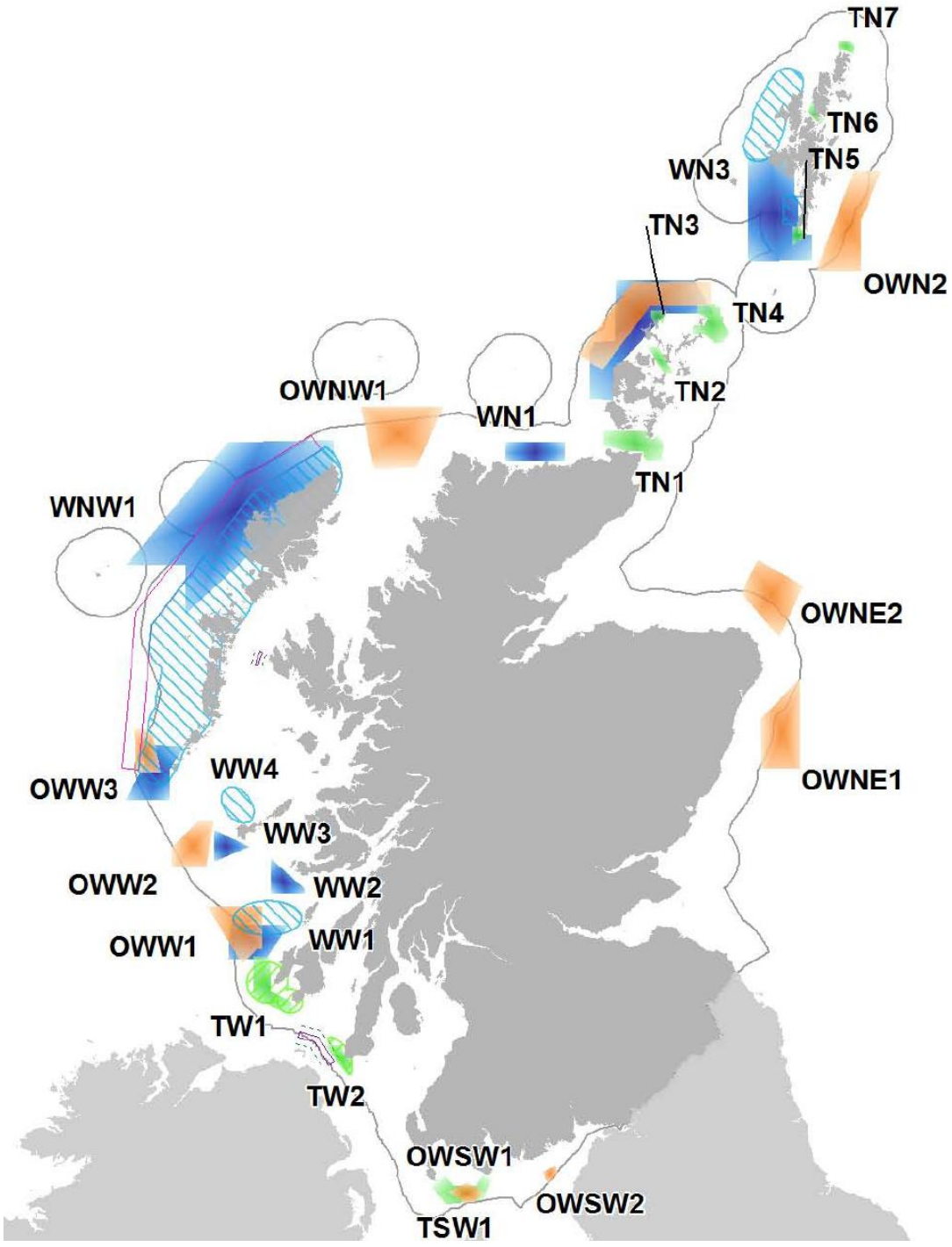
C.5.2 The Sustainability Appraisal indicates the following issues to be of particular significance in this region:

- Communities
- Shipping
- Biodiversity
- Recreation
- Cultural Heritage
- Seascapes and Landscapes
- Grid
- Seabed and coastal process

D. CUMULATIVE CONSIDERATIONS FOR OFFSHORE RENEWABLE ENERGY IN SCOTTISH WATERS

D.1.1 The draft Plan Options have been subject to Strategic Environmental Assessment (SEA), Habitats Regulations Appraisal (HRA) and socio-economic assessment. Within each of these assessments, consideration has been given to the potential cumulative and in-combination assessments effects of the existing and planned developments as well as potential future plan options. The sections below contain the key issues arising:

Fig.20 Draft Plan Options – Offshore Renewable Energy



NATIONAL ISSUES – SUSTAINABILITY APPRAISAL

Strategic Environmental Assessment

D.2.1 Cumulative and in-combination effects remain much as effects identified for individual technologies, however development within several draft plan options could increase the potential for adverse effects on a number of environmental receptors and range a number of issues. Key issues include:

- Effects on mobile species such as seals, fish, cetaceans, elasmobranchs, seabirds and diving birds, in particular, as a result of barriers to movement, and collision risk. Some species can travel great distances and potentially effected by several draft plan options and more than one type of device.
- Effects on marine habitats as a direct result of construction, but also though any alteration of the water environment such as turbidity, turbulence and changes in patterns of sedimentation.
- Potential for cumulative effects on landscape and seascape character where this is considered to be high, including areas with characteristics of wild land.
- Impacts on submerged archaeology, although mitigation is available in terms of locating devices. In addition there is potential for impacts on the setting of features of the historic environment, in particular, coastal designations and important sites inclusive of the Heart of Neolithic Orkney World Heritage Site (WHS).
- Other environmental effects, including pollution and contamination risk, and effects on coastal areas may be more localised and less significant on a cumulative basis.

Draft Habitats Regulations Appraisal

D.2.2 The ongoing HRA considers in combination effects with a number of plans and projects including coastal development projects, planned developments and areas of lease, and strategies for renewable energy in UK waters. Key impacts pathways under consideration are:

- Direct and indirect physical damage to the habitats, in particular was the presence of the structures on the seabed acting as Fish Aggregating Device (FAD) being a positive impact on interest features;
- Physical loss/gain of habitats;
- Physical damage to species due to collision risk;
- Non-physical damage to species due to the barrier effect, noise and vibration effects and effects from Electromagnetic Fields (EMF); and
- Non Toxic contamination due to elevated turbidity and reduction in water quality.

Socio-economic Assessment

D.2.3 Table 10 presents quantified impacts for wind, wave and tidal Draft Plan Option areas at a national level.

Table 10: Present value (PV) costs for all technologies at a national level, £m (costs discounted over assessment period, 2012 prices, values rounded to nearest £0.01m)

Activity	Description of Measurement	Scenarios		
		Low	Central	High
Carbon Capture and Storage	Costs of additional cable crossings	1.85	4.32	9.27
Commercial Fisheries	Loss of GVA associated with possible reduction in fish landings	1.37	3.26	6.99
Recreational boating	Additional fuel costs	0.05	0.72	0.97
Shipping	Additional fuel costs	4.87	66.02	141.87
Tourism	Reduction in expenditure	-	0.26	1.00
Water Sports - Sea Angling	Reduction in expenditure	-	-	0.92
Total PV Costs		**8.14**	**74.58**	**161.02**

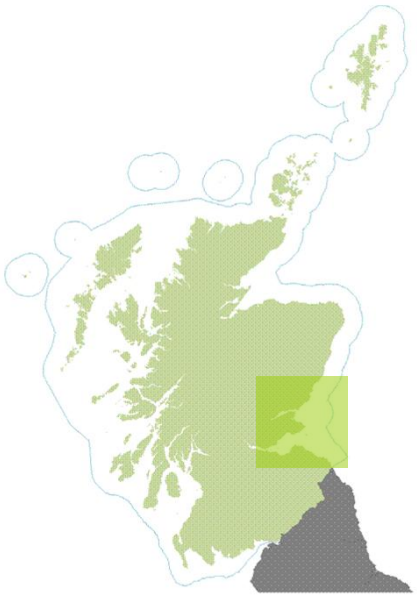
D.2.4 At a national level, the combined impact of the commercial fisheries sector in terms of impacts to GVA as a result of potential reductions in landings is estimated to be less than 1% of total GVA and thus insignificant in a national context. Cost impacts to shipping interests are potentially more significant both in absolute terms (maximum annual cost impact of around £13.0m) and relative terms, although no specific figure is available for the value of shipping to the Scottish economy.

D.2.5 On a lesser scale, the impact of renewable development sites on recreational boating is recognised as a deterrent (i.e., the prospect of increased danger which affects planned passages) and partly economic where the passage is attempted, but a deviation is encountered to avoid development areas. A number of potential impacts have been identified for competing offshore renewables technologies, both in relation to competition for space and cable land falls. The combined impact of these interactions is uncertain. Impacts to CCS and Dredge Material Disposal sites only occur in one region and national impacts will therefore be no greater than the regional impacts to these activities. The social impacts are not expected to be noticeable at the national level.

D.2.6 Illustrative maps within each Region contain the following developments where applicable:

D.2.7 The key issues emerging from the Sustainability Appraisal listed in relation to each region. Further explanation is provided within the Sustainability Appraisal Report with a full breakdown of the issues contained within the respective socio-economic and environment assessments.

D.3 EAST



D.3.1 The East Region includes no draft Plan Options for Offshore Wind, Wave and Tidal Energy.

D.3.2 The East Region contains the following existing options:

Offshore Wind

Blues Seas Green Energy:

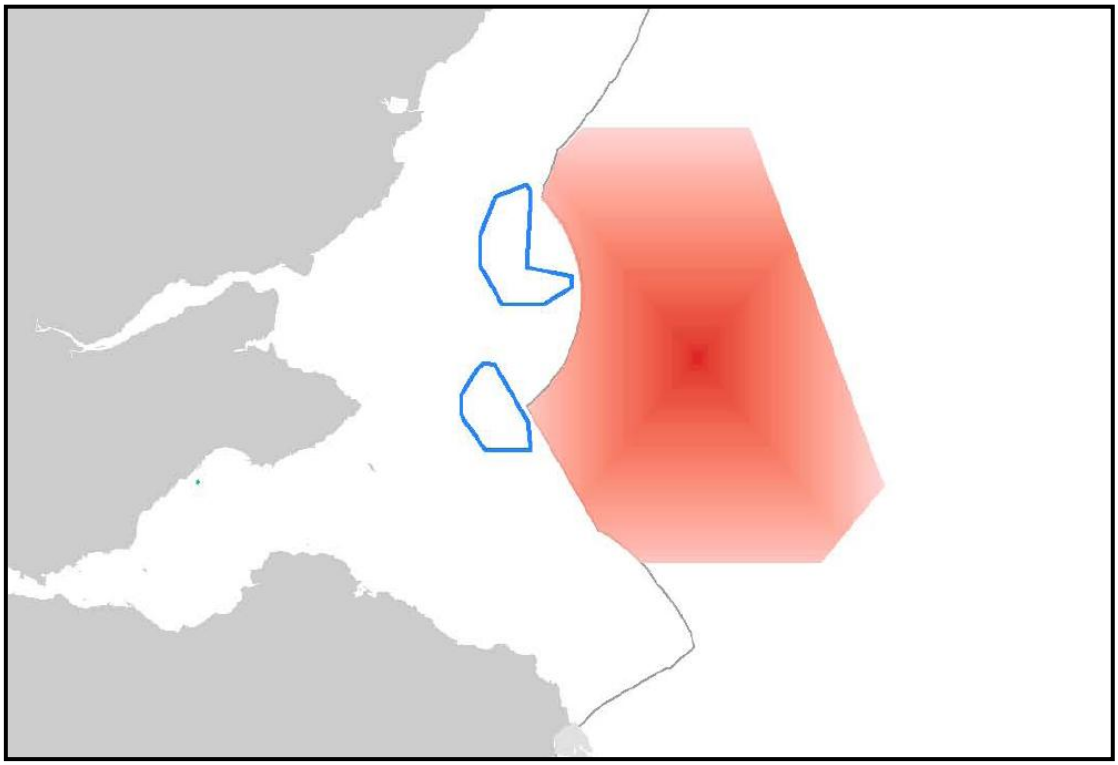
- Forth Array*
- Inch Cape
- Neart na Gaoithe

*Forth Array has been withdrawn for development by The Crown Estate Commissioners

DECC Round 3:

- Firth of Forth

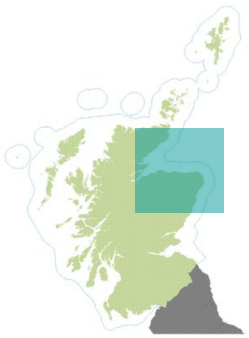
Fig.21 East Region - Existing planned development



D.3.3 The Sustainability Appraisal indicates the following cumulative issues to be of particular significance in this region:

- Carbon Capture & Storage
- Shipping and navigation
- Commercial Fisheries
- Biodiversity
- Aviation & Radar activities
- Defence activities
- Social impacts
- Landscape and Seascape

D.4 NORTH EAST



D.4.1 The North East Region has the following draft Plan Options for Offshore Wind, Wave and Tidal Energy.

- OWNE1
- OWNE2

D.4.2 The North East Region contains the following existing options:

Offshore Wind

Blue Seas Green Energy:

- Beatrice

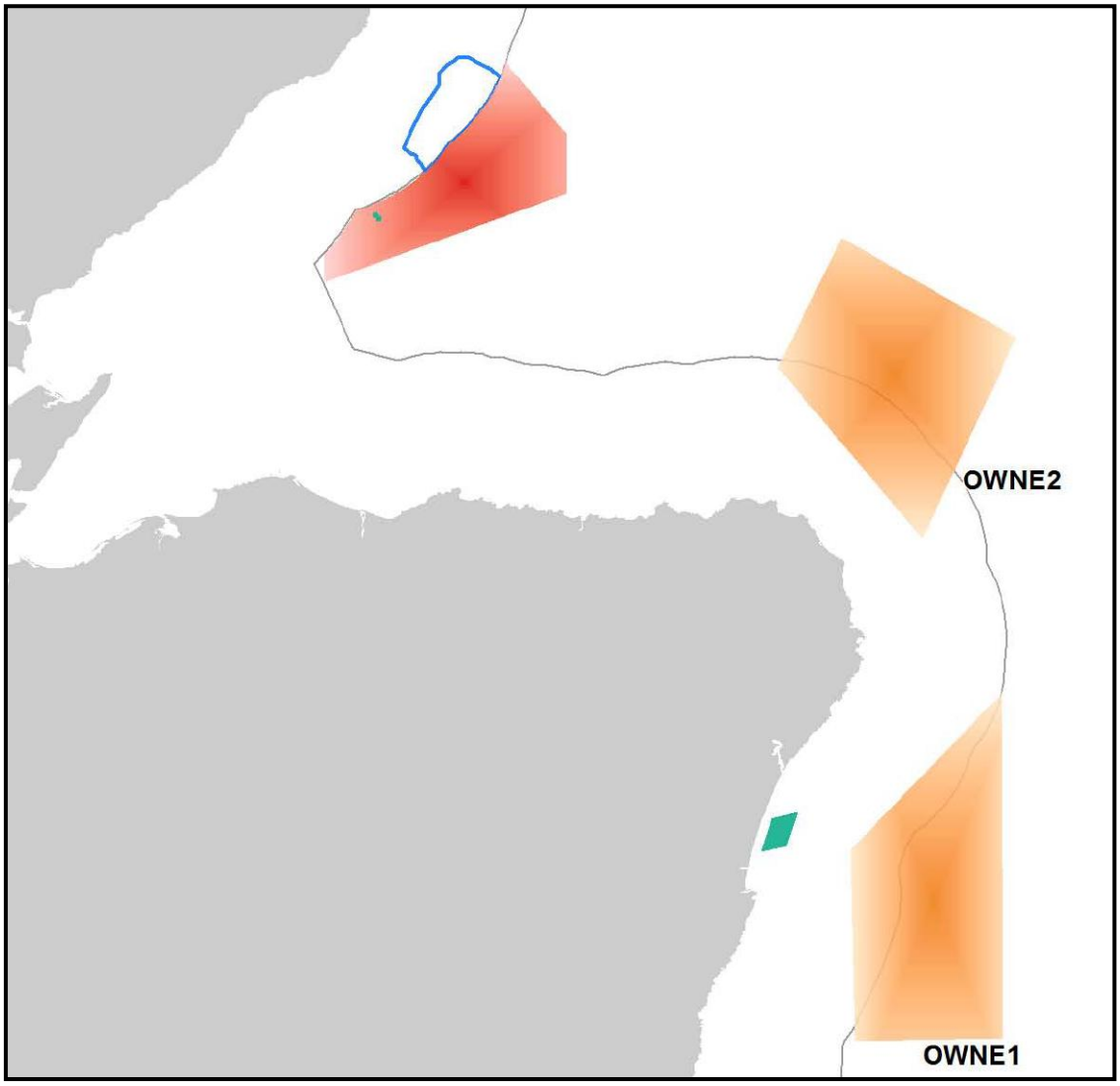
DECC Round 3 Area:

- Moray Firth

Other:

- European Offshore Wind Deployment Centre

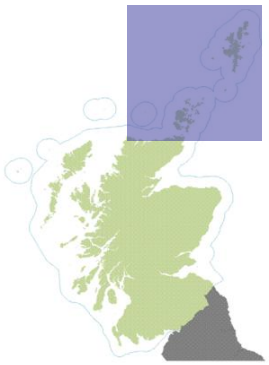
Fig.22 North East Region - Draft Plan Options and existing planned development



D.4.3 The Sustainability Appraisal indicates the following cumulative issues to be of particular significance in this region:

- Shipping and navigation
- Fishing
- Biodiversity
- Seascape
- Aviation & Radar activities
- Defence activities

D.5 NORTH



D.5.1 The North Region has the following draft Plan Options for Offshore Wind, Wave and Tidal Energy:

- OWN1
- OWN2
- WN1
- WN2
- WN3
- TN1
- TN2
- TN3
- TN4
- TN5
- TN6
- TN7

D.5.2 The North Region contains the following existing options:

Wave

Saltire Prize Scoping & RLG:

- South West of Shetland
- West of Shetland

Pentland Firth Strategic Leasing Area

- *Costa Head*
- *Brough Head*
- *Marwick Head*
- *West Orkney Middle South*
- *West Orkney South*
- *Farr Point*

Further Scottish Leasing Round:

- Aegir

Tidal

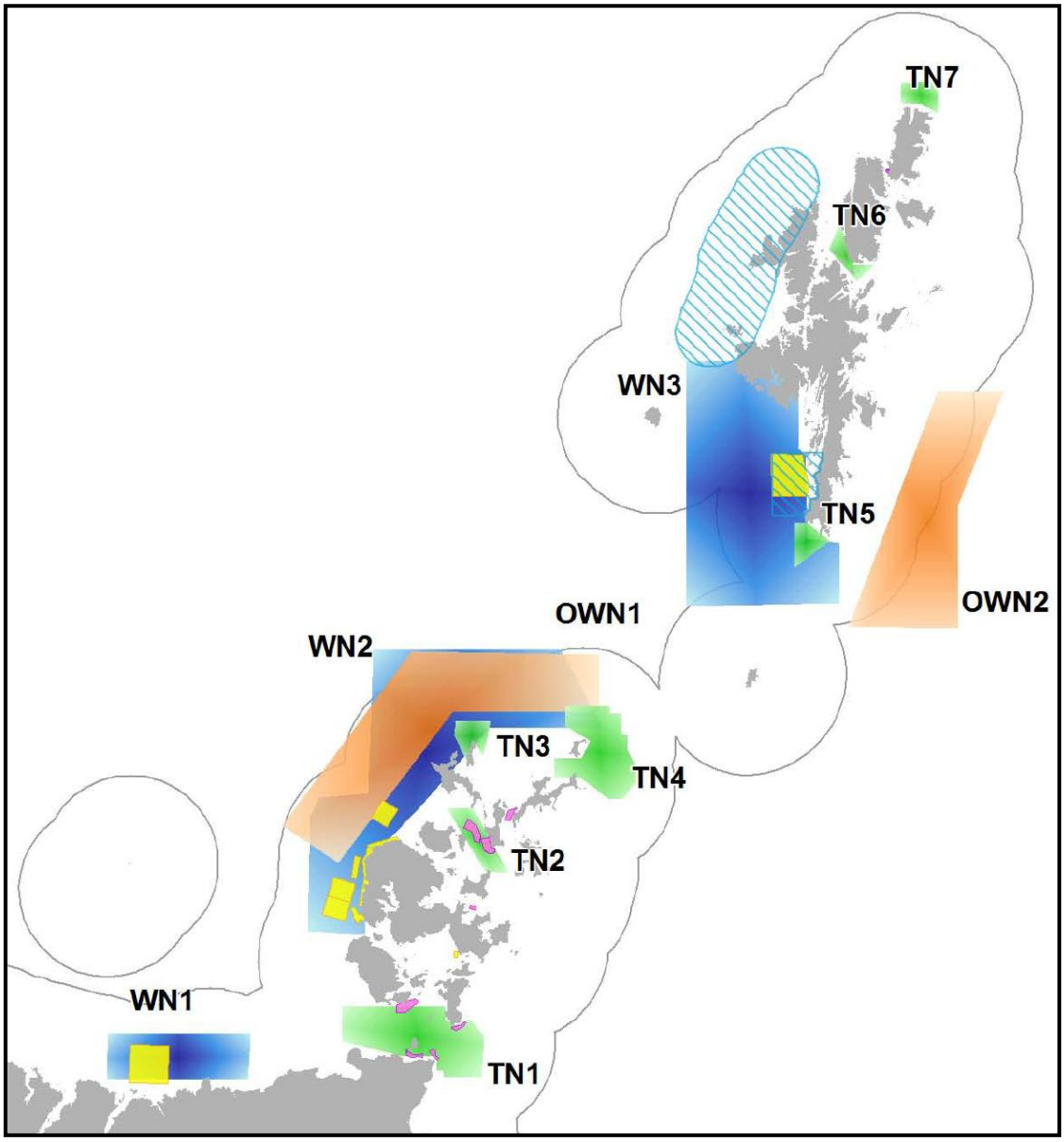
Saltire Prize Scoping & RLG Tidal Sites:

- South West of Shetland
- West of Shetland

Pentland Firth Strategic Leasing Area - Tidal

- Westray South
- Cantick Head
- Brough Ness
- Inner Sound
- Ness of Duncansby

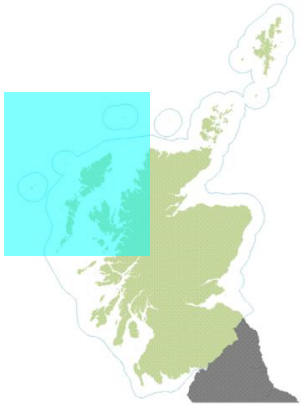
Fig.23 North Region – Draft Plan Options and Existing Planned Development



D.5.3 The Sustainability Appraisal indicates the following cumulative issues to be of particular significance in this region:

- Shipping and navigation
- Commercial Fisheries
- Biodiversity
- Aviation and radar
- Defence activities
- Cultural Heritage
- Recreation
- Social impacts
- Community engagement
- Landscape and Sea scape

D.6 NORTH WEST



D.6.1 The North West Region has the following draft Plan Options for Offshore Wind, Wave and Tidal Energy:

- OWNW1
- WNW1

D.6.2 The North West Region contains the following existing options:

Wave

Saltire Prize Scoping & RLG Wave Sites:

- North of Lewis
- North-West of Lewis

Further Scottish Leasing Round Wave Sites:

- Galson Wave Site
- North West Lewis

Tidal

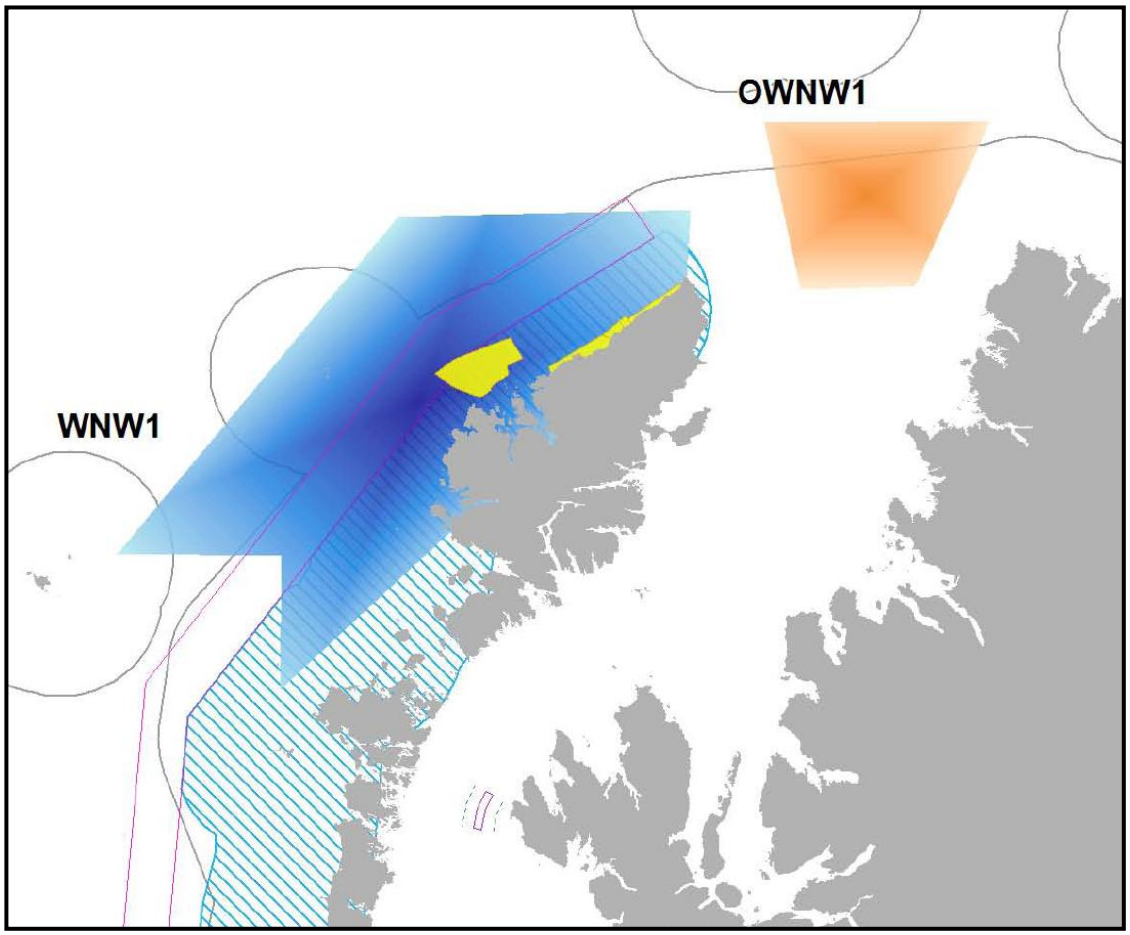
Saltire Prize Scoping & RLG Tidal Sites:

- North of Lewis
- North-West of Lewis

Demonstration Sites:

- Kyle Rhea Tidal Array

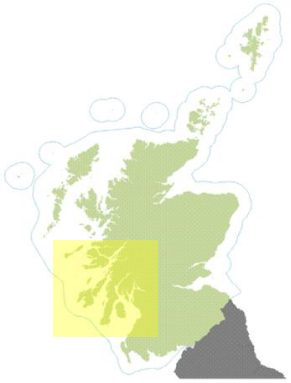
Fig.24 North West Region - Draft Plan Options



D.6.3 The Sustainability Appraisal indicates the following cumulative issues to be of particular significance in this region:

- Shipping and navigation
- Commercial Fisheries
- Biodiversity
- Recreation
- Defence activities
- Cultural Heritage
- Community engagement
- Seascape

D.7 WEST



D.7.1 The West Region has the following draft Plan Options for Offshore Wind, Wave and Tidal Energy:

- OWW1
- OWW2
- OWW3
- WW1
- WW2
- WW3
- WW4
- TW1
- TW2

D.7.2 The West Region contains the following existing options:

Offshore Wind

Blues Seas Green Energy:

- Argyll Array
- Islay

Wave

Saltire Prize Scoping & RLG Wave Sites:

- North West of Tiree
- West of Colonsay

Tidal

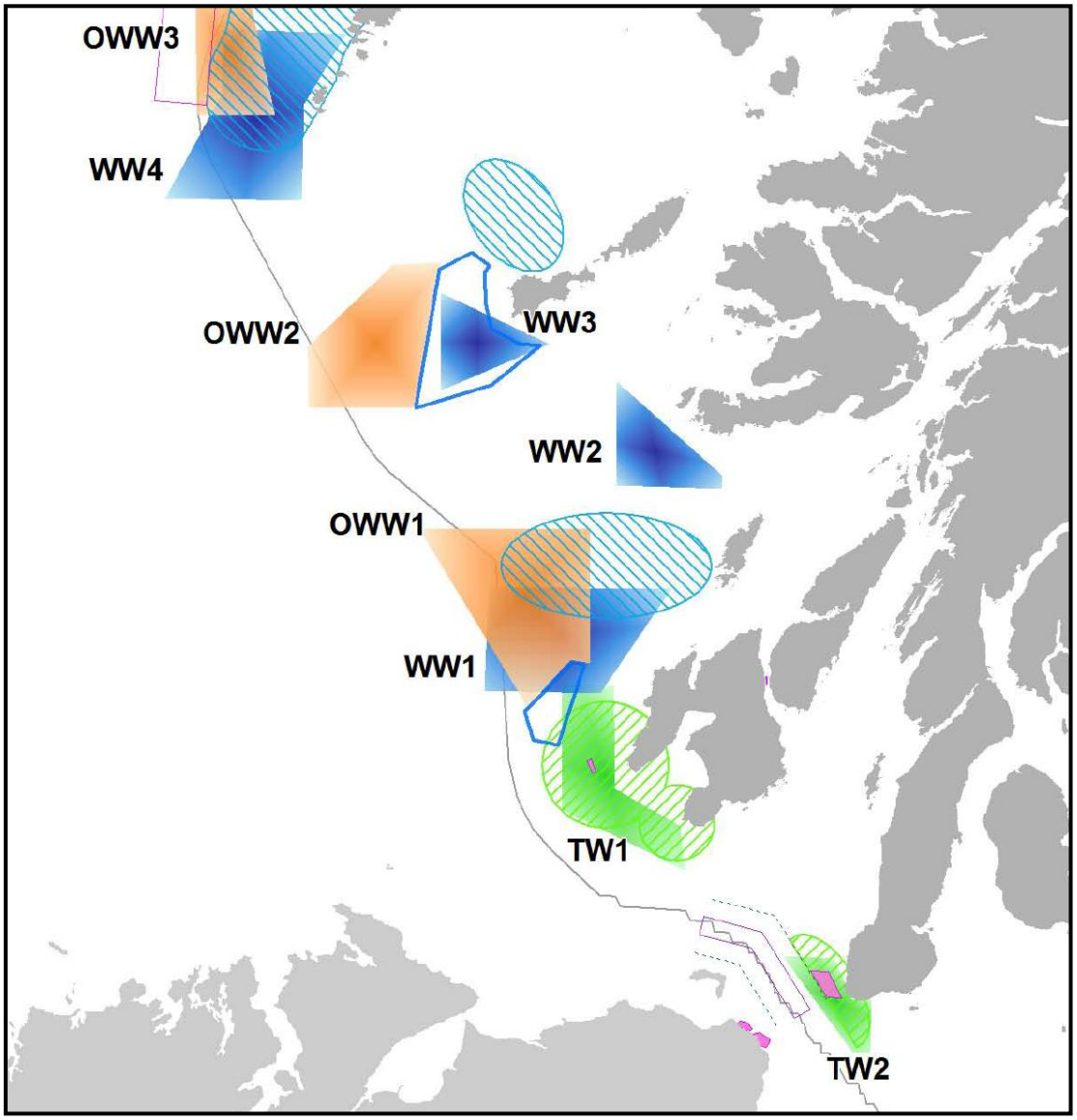
Saltire Prize Scoping & RLG Tidal Sites:

- Mull of Kintyre
- South West of Islay

Demonstration Sites:

- Sound of Islay Tidal Array

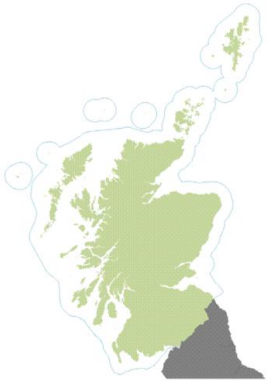
Fig.25 West Region - Draft Plan Options and existing planned development



D.7.3 The Sustainability Appraisal indicates the following cumulative issues to be of particular significance in this region:

- Communities
- Shipping
- Commercial Fisheries
- Biodiversity
- Recreation
- Defence
- Landscapes and Seascapes
- Aviation
- Cultural Heritage
- Social impacts
- Coastal processes

D.8 SOUTH WEST



D.8.1 The South West Region has the following draft Plan Options for Offshore Wind, Wave and Tidal Energy:

- OWSW1
- OWSW2
- TSW1

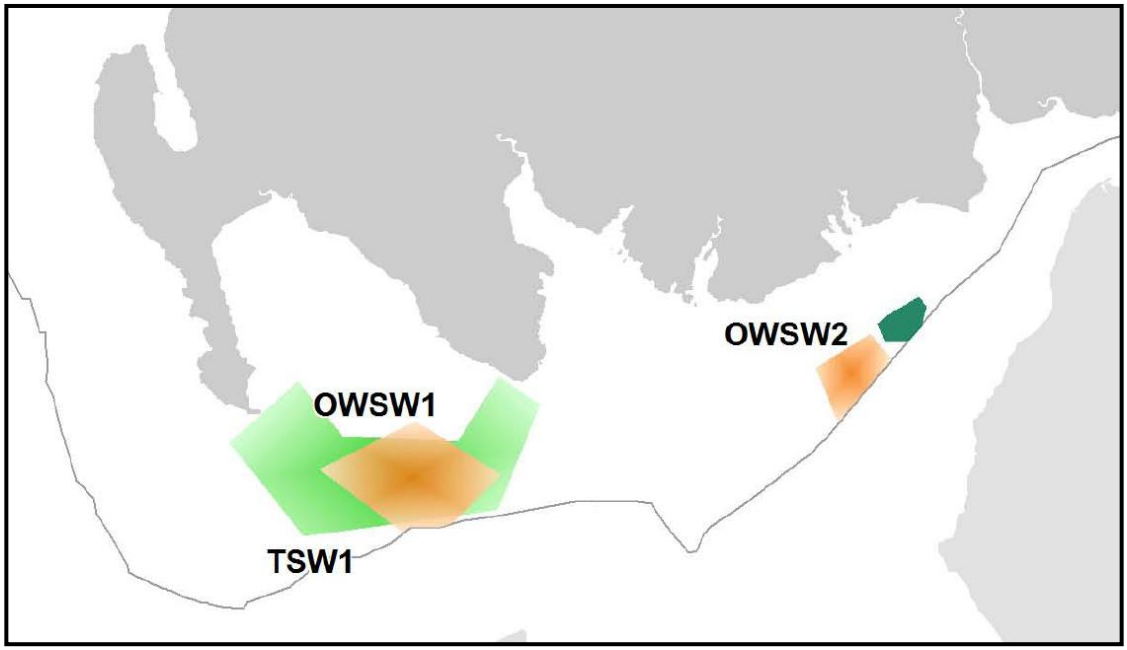
D.8.2 The South West Region contains the following options and developments:

Offshore Wind

Other:

- Robin Rigg Demonstrator.

Fig.26 South West Region - Draft Plan Options



D.8.3 The Sustainability Appraisal indicates the following cumulative issues to be of particular significance in this region:

- Communities
- Shipping
- Biodiversity
- Recreation
- Landscapes and Seascapes
- Cultural Heritage
- Coastal processes

E. NEXT STEPS

This section contains:

- Framework for developing the Plans

E.1 Framework for Plan Development and Timeline

E.1.1 The Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy have developed through the following steps and key milestones:

1. Development of Scoping Reports to identify further Areas of Search

- Marine Scotland Science undertake a review of the 25 medium-term options contained within *Blue Seas Green Energy* using The Crown Estate Marine Resource System (MaRS): Summer 2011
- Marine Scotland Science publish *A Scoping Report for Offshore Wind Farm Development in Scottish Waters*: November 2011
- Marine Scotland Science undertake scoping exercises for wave and tidal energy using The Crown Estate Marine Resource System (MaRS) – Spring 2012
- Marine Scotland Science publish *A Scoping Report for Wave Farm Development in Scottish Waters* & *A Scoping Report for Tidal Farm Development in Scottish Waters* - July 2012

2. Regional Locational Guidance

- Marine Scotland write to stakeholders asking for the provision of relevant information to inform the development of the RLG: January 2012
- AECOM appointed to undertake an information collation exercise with key stakeholders and produce a database of responses: April 2012
- Draft RLG is jointly prepared by Marine Scotland, Marine Scotland Science, Scottish Government Energy Directorate and Scottish Government Environmental Assessment Team: July 2012
- Draft RLG made available for comment subject: August–September 2012
- Final RLG prepared and made available for comment: Summer 2013

3. Strategic Environmental Assessment (SEA)

- Scottish Government Environmental Assessment Team appointed to undertake SEA of Review for *Blue Seas Green Energy* and Sectoral Plans for Wave and Tidal Energy Autumn 2011
- SEA Screening and Scoping stages completed by the Scottish Government: July 2012
- SEA Screening and Scoping documents consulted upon and finalised: August 2012

- Steering Group formed with the Scottish Government Energy and Environment Directorates General and Members of the Marine Strategy Forum: August 2012

4. Habitats Regulations Appraisal (HRA)

- HRA of Blues Seas Green Energy: March 2011
- Preparatory HRA work for Wave and Tidal Energy: on-going
- ABPmer commissioned to undertake HRA of Sectoral Plans for Offshore Wind, Wave and Tidal Energy: February 2013
- Draft HRA Report: Summer 2013
- Appropriate Assessment: Autumn 2013

5. Socio-economic Assessment

- ABPmer commissioned to undertake Socio-economic Assessment Baseline Review and Data Gap Analysis: September 2011
- Socio-economic Assessment Baseline Review and Data Gap Analysis informed by advisory group including fishing, shipping, Scottish Salmon Producers Organisation (SSPO), Highlands & Islands Enterprise, Crown Estate Commissioners, SNH and the Scottish Government
- Socio-Economic Baseline Review and Data Gap Analysis published: August 2012
- ABPmer commissioned to undertake Socio-economic Assessment Impact Assessment for Draft Sectoral Marine Plans: November 2012
- Socio-economic Assessment informed by advisory group: November 2012
- Socio-economic Assessment published: Summer 2013.

6. Sustainability Appraisal

- Scottish Government Environmental Assessment Team commissioned to undertake Sustainability Appraisal in conjunction with Marine Scotland Economists: Autumn 2011
- Sustainability Appraisal process outlined and published in the SEA Screening and Scoping Report: August 2012
- Sustainability Appraisal undertaken following the completion of SEA, HRA and Socio-economic Assessments: Summer 2013
- Sustainability Appraisal Report produced: Summer 2013
- Consultation on Draft Plans and Sustainability Appraisal Report: July – October 2013

7. Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters

- Draft Initial Plan Frameworks (IPF) developed using outputs from Scoping Report and Regional Locational Guidance: August 2012
- Draft IPFs and Draft RLGs made available for comment: August-September 2012

- Draft Plan Options determined which will be subject to SEA, HRA and socio-economic assessments: January 2013
- Final IPFs published detailed Draft Plan Options and the process for developing the Draft Sectoral Marine Plan: April – May 2013
- Preparation of Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters: April – June 2013
- Statutory consultation on Draft Plan and Sustainability Appraisal Report: July – October 2013

8. Consultation and production of Consultation Analysis

- Public Participation Statement published: August 2012
- Draft IPFs and Draft RLGs made available for comment: August–September 2012
- Draft Plans and Sustainability Appraisal:
  Statutory consultation undertaken over 16 weeks: July – October 2013
- Consultation workshops held with aquaculture, fishing, shipping, aviation, recreation and tourism sectors: July - October 2013
- Regional Workshops held: August - September 2013
- Consultation Analysis Report prepared and published: November 2013

9. Plans and Post-Adoption Statement

- **Final Plans submitted to Scottish Ministers for approval**: December 2013
- Final Plans and Post Adoption Statement published: Early 2014

10. Review – Monitoring and Research

- Monitoring of the Plans and further Research work will be taken forward in an initial 2 year review cycle
- Advisory Groups, with relevant representation, will be formed to contribute to studies
- Consultation and reporting will be undertaken if findings result in proposals to change the Plans

ANNEX A. KEY STAKEHOLDERS

During the consultation period, we will seek to engage with the following stakeholders:

- **Fishing** – Scottish Fishermen's Federation; National Federation of Fishing Organisations; Scottish Inshore Fishery Groups; Local Fishing Organisations; Regional Advisory Committees; Fishermen's Association Ltd (FAL); Scottish Whitefish Producers' Association; Scottish Pelagic Fishermen's Association; Northern Ireland Fish Producers Organisation; Manx Fish Producers' Organisation

- **Shipping / Navigation** – UK Chamber of Shipping; Northern Lighthouse Board; Royal Yachting Association; British Ports Association; Forth Ports plc; MCA; UK Major Ports; Associated British Ports; Calmac; P&O Ferries; Northlink Ferries; Pentland Ferries; individual harbours

- **Natural Environment** – Scottish Environment Link; SNH; JNCC; RSPB; WWF; Whale and Dolphin Conservation Society; SEPA; Northern Ireland Environment Agency; Met Office

- **Local Government** – CoSLA; All Scottish Local Authorities

- **Grid** – Scottish and Southern Power Distribution; National Grid; Scottish Power Systems Ltd

- **National / Devolved Government** – DECC; MoD; Defra; Welsh Assembly Government; Northern Ireland Assembly; European Member States; Isle of Man

- **Industry** – Scottish Renewables; SR Wave and Tidal Developers Group; SR Offshore Wind Developers Group; EMEC; The Crown Estate; Renewable UK; Oil & Gas UK; Aquaculture Industry (Scallop Association; Association of Scottish Shellfish Growers); Freshwater Fishing Industry (Assoc. of Salmon Fishery Boards; Rivers and Fisheries Trusts of Scotland; Salmon Net Fishermen's Association of Scotland; Atlantic Salmon Trust; Scottish Salmon Producers' Organisation; Salmon and Trout Association; British Trout Association); Highlands and Islands Enterprise; Scottish Enterprise; SDI; Federation of Small Businesses; CBI; Scottish Chamber of Commerce; local chambers of commerce; crofting organisations

- **Community** – Local Community and Parish Councils; Local Trusts and other interested parties/groups; Scottish Coastal Forum, Planning Authorities

- **Tourism / Recreation** – Visit Scotland; Sportscotland; RYA; Scottish Boating Alliance; Kayak Associations; Scottish Canoe Association; Ramblers Scotland; Surfing (Scottish Surfing Federation; Orkney Surfers Association, Riders of the West); Diving (Scottish Sub Aqua Club; British Sub Aqua Club; PADI); Angling (Scottish Sea Angling Conservation Network; Real Sea Anglers; Scottish Federation of Sea Anglers)

ANNEX B. RESPONDENT INFORMATION FORM AND CONSULTATION QUESTIONNAIRE

Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal in Scottish Water

RESPONDENT INFORMATION FORM

Please Note this form **must** be returned with your response to ensure that we handle your response appropriately

1. Name/Organisation

Organisation Name

Title Mr ☐ Ms ☐ Mrs ☐ Miss ☐ Dr ☐ ***Please tick as appropriate***

Surname

Forename

2. Postal Address

Postcode	**Phone**	**Email**

3. Permissions - I am responding as…

Individual ☐ / Group/Organisation ☐

Please tick as appropriate

(a) Do you agree to your response being made available to the public (in Scottish Government library and/or on the Scottish Government web site)?

Please tick as appropriate **☐ Yes ☐ No**

(b) Where confidentiality is not requested, we will make your responses available to the public on the following basis

Please tick ONE of the following boxes

Yes, make my response, name and address all available ☐

or

Yes, make my response available, but not my name and address ☐

or

Yes, make my response and name available, but not my address ☐

(c) The name and address of your organisation ***will be*** made available to the public (in the Scottish Government library and/or on the Scottish Government web site).

Are you content for your ***response*** to be made available?

Please tick as appropriate **☐ Yes ☐ No**

(d) We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?

Please tick as appropriate ☐ **Yes** ☐ **No**

CONSULTATION QUESTIONNAIRE

In order to facilitate the consultation process, readers are invited to focus their responses on the following questions. However, responses are not limited to these questions and additional comments are welcomed.

Plan Development

1. Do you agree with the approach (outlined in Section 3 of the Sectoral Marine Plans) used to develop the Plans?

   Yes ☐ No ☐

   Please explain:

   Comments

2. Do you have any views on the findings of the Sustainability Appraisal Report? Do you think that all the social, economic and environmental effects (positive and negative) have been identified? Are there other issues that should be taking into account in the preparation of the Final Draft Plans?

   Comments

3. The SEA has identified a range of potential effects from the Draft Plans. Measures for the mitigation of these effects have been identified in the SEA environmental report. Do you have any views on these findings? Do you think that the proposed mitigation measures will be effective? Do you have any additional suggestions?

   Comments

4. The Socio-economics Report has identified a range of potential impacts on existing sea users. Do you have any views on these findings? Do you think that the proposed mitigation measures will be effective? Do you have any additional suggestions?

   Comments

5. Taking into account the findings from the technical assessments, do you have views on the scale and pace of development that could be sustainably accommodated in Scottish Waters??

Comments

6. Are there aspects of the Draft Plans that you believe should be improved? Are there any aspects you believe should be taken forward differently?

   Please explain any reasons for your answer and provide details of any suggested improvements:

Comments

7. Do you believe an appropriate balance, between tackling climate change, maximising opportunities for economic development and dealing with environmental and commercial impacts been achieved in the Draft Plans?

   Yes ☐ No ☐

   Please explain:

Comments

Draft Plan options

8. The Draft Plan for Offshore Wind Energy proposes 10 Draft Plan options. What are your views on the Offshore Wind Draft Plan options? Are they in the correct place? Are there reasonable alternatives that should be considered?

   Please indicate which proposed Draft Plan option(s) you are commenting on using the relevant indicator (i.e. OWN1)

Comments

9. The Draft Plan for Wave Energy proposes 8 Draft Plan options . What are your views on the Wave Draft Plan options? Are they in the correct place? Are there reasonable alternatives that should be considered?

   Please indicate which proposed Draft Plan option(s) you are commenting on using the relevant indicator (i.e. WN1)

Comments

10. The Draft Plan for Tidal Energy proposes 10 Draft Plan options. What are your views on the Tidal Draft Plan options? Are they in the correct place? Are there reasonable alternatives that should be considered?

Please indicate which proposed Draft Plan option(s) you are commenting on using the relevant indicator (i.e. TN1)

Comments

11. Do you believe any draft plan options be removed from the Draft Plans for Wind, Wave and Tidal Energy?

Yes ☐ No ☐

If Yes, please indicate which proposed Draft Plan options you believe should be removed (using the relevant indicator), and explain why :

Comments

Plan Implementation and Review

12. The Plans, once implemented, will be reviewed to take account of actual development and increasing knowledge of development factors. How often do you believe should this be done and why? Who do you believe should be involved in the Plans Review Steering Group, to oversee the review process?

Comments

Strategic Environmental Assessment

13. To what extent does the Environmental Report set out an accurate description of the current environmental baseline? Please also provide details of any additional relevant sources.

Comments

14. Do you agree with the predicted environmental effects of the plans as set out in the Environmental Report?

Comments

15. Do you agree with the recommendations and proposals for mitigation of the environmental effects set out in the Environmental Report?

Comments

16. Are you aware of any additional on-going research or monitoring that may help to fill gaps in the evidence base, particularly relating to the marine

environment and its interactions with renewable energy devices? Please give details of additional relevant sources.

Comments

17. Are you aware of any further environmental information that will help to inform the environmental assessment findings?

Comments

Additional comments

18. Do you any other comments you wish to make of the Plans and / or the related assessments?

Comments

.

ISBN: 978-1-78256-761-5

This document is also available on the Scottish Government website:
www.scotland.gov.uk

APS Group Scotland
DPPAS14495 (07/13)