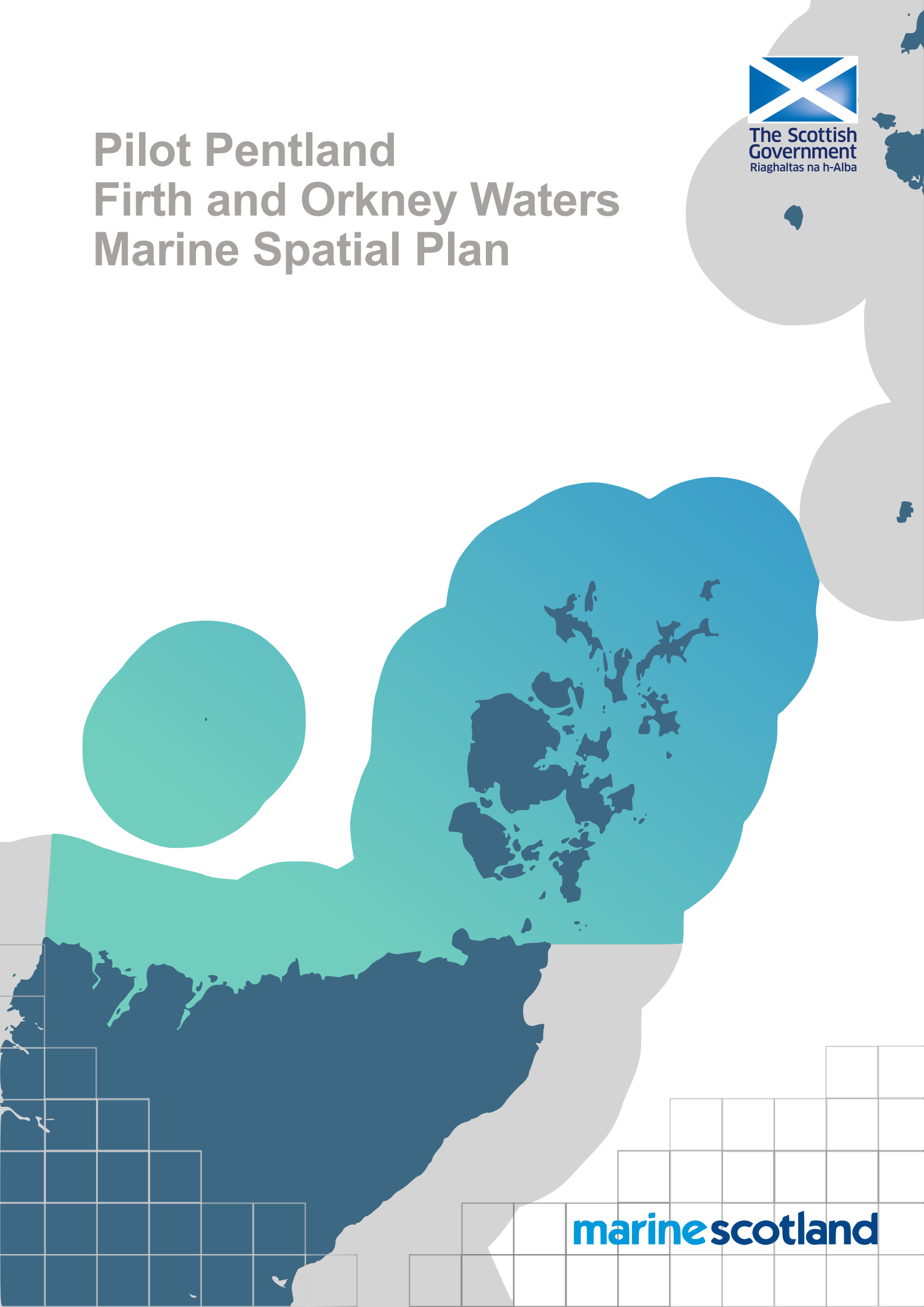




The Scottish Government
Riaghaltas na h-Alba

Pilot Pentland Firth and Orkney Waters Marine Spatial Plan



marinescotland

Pilot Pentland Firth and Orkney Waters Marine Spatial Plan

Prepared by the Pilot Pentland Firth and Orkney Waters Working Group



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

ISBN: 978-1-78544-958-1

Published by The Scottish Government, March 2016

Foreword

This pilot Pentland Firth and Orkney Waters Marine Spatial Plan is the result of a successful collaboration between Marine Scotland, Orkney Islands Council and the Highland Council. This working group undertook, in advance of statutory regional marine plans, a pilot process for setting up a planning policy framework.

Our seas and coast are an integral part of day-to-day life in this area and play a significant role in the local economy, transportation, recreation and unique way of life. This pilot Marine Spatial Plan marks an important milestone in the ongoing sustainable management of our marine environment. Marine planning will help decision makers to guide the right development to the right places, whilst safeguarding our marine and coastal environment.

This collaboration has been a rewarding and successful venture enabling local people in the Pentland Firth and Orkney Waters area to have the opportunity to get involved in the complex process of marine spatial planning from the earliest stage. We would like to take the opportunity to acknowledge the commitment and input of local people. Their valuable range of expertise and knowledge has been a vital asset during the process of developing this pilot Plan.

The experience gained through this process will go a long way to support the effective delivery of future regional marine planning in this area. We hope that this successful pilot will encourage local people to get involved in future marine planning partnerships, as their input will be key to future success.



Richard Lochhead MSP

Cabinet Secretary for Rural Affairs, Food and the Environment

Richard Lochhead



Councillor Audrey Sinclair

Chair of the Planning, Development and Infrastructure Committee of The Highland Council

A Sinclair



Councillor James Stockan

Chair of the Development and Infrastructure Committee of Orkney Islands Council

James Stockan

Executive Summary

A working group consisting of Marine Scotland, Orkney Islands Council and Highland Council have developed this pilot Pentland Firth and Orkney Waters Marine Spatial Plan. The Plan sets out an integrated planning policy framework to guide marine development, activities and management decisions, whilst ensuring the quality of the marine environment is protected. The marine environment is used for a wide variety of different purposes and this Plan aims to set out a coherent strategic vision, objectives and policies to further the achievement of sustainable development. This will include the protection and, where appropriate, enhancement of the marine environment within the Plan area. As a non-statutory Plan, it will complement and support existing ambitions and responsibilities rather than replace them.

The working group have undertaken this pilot to put in place a planning policy framework in advance of statutory regional marine planning. It is anticipated that this Marine Spatial Plan will establish a useful basis for the preparation of the two separate regional marine plans for Orkney and the North Coast Scottish Marine Regions. Through the process of producing this pilot Marine Spatial Plan for Pentland Firth and Orkney Waters, there have been many lessons learned. These will be published separately and will inform the preparation of future regional marine plans and the governance arrangements that could underpin Marine Planning Partnerships.

The Plan will be used by the Marine Scotland Licensing Operations Team (MS-LOT) as a material consideration in the determination of marine licensing and section 36 consent applications within the Pentland Firth and Orkney Waters area. The Highland Council and Orkney Islands Council have adopted the pilot Plan as non-statutory planning guidance, acknowledging the status of the Plan as a material consideration in the determination of relevant planning applications. Orkney Islands Council has also adopted the Plan as a material consideration in the determination of works licence applications in the Orkney Harbour Area.

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Section 1: Introduction and Plan Vision

Purpose of this Marine Spatial Plan

1 We are in an era of great change with regard to the use of the marine environment with many emerging opportunities to support the sustainable management of resources and sustainable economic growth. The pilot Pentland Firth and Orkney Waters Marine Spatial Plan (PFOW MSP) sets out an integrated planning policy framework to guide marine development, activities and management decisions, whilst ensuring the quality of the marine environment is protected.

2 It is essential that marine resources are appropriately managed if we are to realise the enormous potential for our seas to provide sustainable resources, jobs and wider economic benefits. Many activities such as commercial fishing, renewable energy, tourism, recreation, aquaculture, shipping, and oil and gas all contribute towards this diverse marine-based economy and these need to be properly managed to ensure these benefits are lasting and sustainable. This pilot Marine Spatial Plan aims to balance the needs of these economic sectors and local communities, whilst protecting the environment on which they depend.

3 The main purposes of the pilot Plan are:

- to establish a coherent strategic vision, objectives and policies to further the achievement of sustainable development including the protection and, where appropriate, enhancement of the health of the Plan area
- to inform and guide the regulation, management and use of the area to which the Plan applies
- to provide reliable and robust information to support the Plan policies
- to guide the location of all marine development(s) and/or activities and ensure they occur in the most suitable and least sensitive areas
- to minimise conflicts of interest and encourage compatible uses
- to provide clarity and direction to users of the marine environment as to how it will be managed and regulated and the framework within which decisions will be taken
- to set out sustainable development objectives that respect environmental limits to ensure healthy and productive seas in the future
- to develop a policy framework that supports integrated marine and terrestrial planning and development

The purpose of the pilot Marine Spatial Plan process

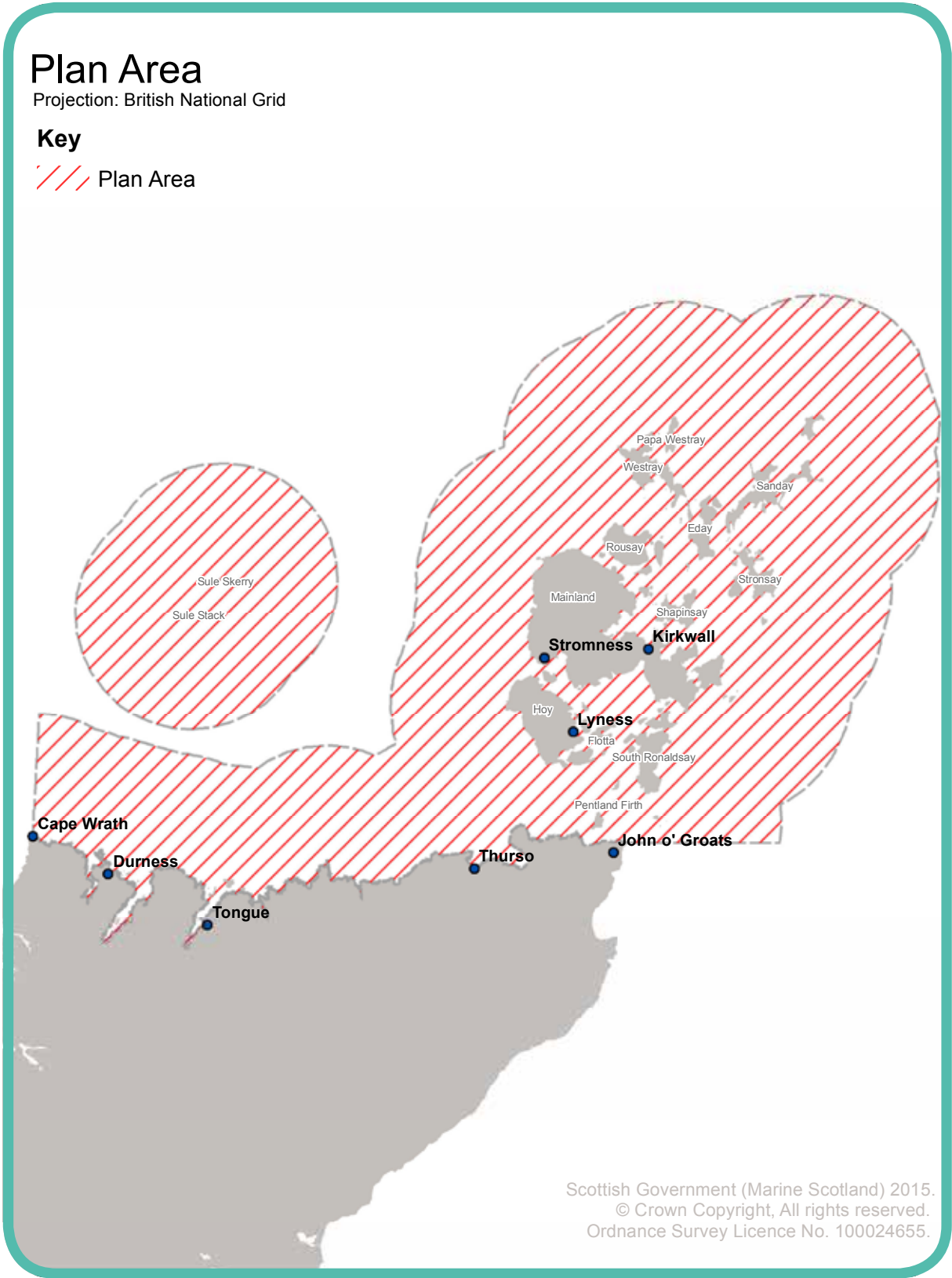
4 The marine spatial planning pilot in the Pentland Firth and Orkney Waters aims to put in place a planning policy framework in advance of statutory regional marine planning to support sustainable decision making on marine use and management. It is anticipated that this pilot Marine Spatial Plan will establish a useful basis for the preparation of the two separate regional marine plans for Orkney and the North Coast Scottish Marine Regions. Through the process of producing this pilot Marine Spatial Plan for Pentland Firth and Orkney Waters, there have been many lessons learned. These will be published separately and will inform the preparation of future regional marine plans and the governance arrangements that could underpin Marine Planning Partnerships. The pilot has enabled the working group (see paragraph 27) to consider effective ways to:

- consult relevant stakeholders and communities to develop a strategic vision, objectives and plan policies
- where possible, streamline the processes for input from stakeholders to minimise unnecessary burden
- document the process of developing a pilot Marine Spatial Plan so that it can then be utilised by future marine spatial planners, i.e. to develop regional marine plans across Scotland
- consider appropriate governance arrangements and identify lessons learned to effectively deliver marine plans at the regional level. Governance arrangements for the pilot Plan are set out in the Pentland Firth and Orkney Waters Marine Spatial Plan Governance Paper

5 Following the preparation of the pilot Marine Spatial Plan, the working group will review the process, document the outcomes and disseminate the knowledge gained to inform other marine planning initiatives.

Geographical coverage of this Marine Spatial Plan

6 The geographical extent of this Marine Spatial Plan comprises the territorial waters from mean high water springs out to 12 nautical miles. The Plan area includes the intertidal coastline of Orkney, Sule Skerry and Sule Stack, Stroma and the north coast of mainland Scotland from Duncansby Head along the Caithness and Sutherland coast to Cape Wrath (Map 1). This area encompasses the full extent of the Orkney and North Coast Scottish Marine Regions.



Map 1: Geographic coverage of the pilot Pentland Firth and Orkney Waters Marine Spatial Plan. The area combines the Scottish Marine Regions of Orkney and the North Coast.

Spatial approach to the coastal zone

7 A coastal zone has not been geographically identified within this Marine Spatial Plan. For Orkney, the Orkney Local Development Plan (Adopted – April 2014)¹ identifies a coastal zone. The revised Caithness and Sutherland Local Development Plan proposes to include elements on marine and coastal planning to ensure an integrated approach though it is not intended that the coastal zone will be identified.

8 Marine and terrestrial environmental assets, sensitivities and/or constraints (e.g. nature conservation designations, listed buildings, scheduled monuments) have been spatially identified within this Plan. To avoid duplication, and to avoid plans becoming outdated and inconsistent with each other, as a general principle other terrestrial planning constraints, assets and receptors identified in neighbouring local development plan proposals maps, or in supplementary guidance, have not been mapped within this Plan. For example, coastal land use allocations (e.g. housing, business and industrial land) have not been spatially identified within this Plan. For these land allocations, reference to the relevant local development plan, associated supplementary guidance or development brief has been provided.

9 The location of existing coastal infrastructure (e.g. ports, harbours and slipways) has been identified in this Plan.

Vision, guiding principles, aims and objectives

10 An overarching vision, set of guiding principles, aims and objectives establish the context for the preparation of the policies with this Plan. The Planning Issues and Options Consultation Paper² published in 2013, provided an opportunity for stakeholders to put forward their vision for the Plan area and to provide input into the development of the Plan's guiding principles, aims and objectives. The working group, in collaboration with an advisory group, have developed the following framework taking cognisance of stakeholder views and the wider legislative and policy context including the UK Marine Policy Statement³ and the National Marine Plan⁴.

11 This Marine Spatial Plan has been developed to closely align with the National Marine Plan, National Planning Framework 3 and Scottish Planning Policy. To achieve this, the Plan was prepared in parallel with Scotland's National Marine Plan. It is recommended that users of this Marine Spatial Plan refer to Scotland's National Marine Plan for further information on relevant topics and issues. Future statutory regional marine plans will be expected to comply with the objectives and policies within the National Marine Plan.

1 Orkney Local Development Plan (Adopted – April 2014) <http://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm>

2 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan – Planning Issues and Options Consultation Paper <http://www.gov.scot/Publications/2013/06/9672>

3 UK Marine Policy Statement <https://www.gov.uk/government/publications/uk-marine-policy-statement>

4 Scotland's National Marine Plan <http://www.gov.scot/Topics/marine/seamanagement/national>

Vision

Pentland Firth and Orkney Waters will be a clean, healthy, safe, attractive and productive marine and coastal environment that is rich in biodiversity and managed sustainably to support thriving and resilient local communities.

Guiding Principles

- Sustainable development
- An ecosystems approach to the management of human activities, climate change adaptation and mitigation
- Multiple use of marine space, supporting coexistence of marine development and activities
- Partnership working and stakeholder involvement

Aims

To ensure sustainable use and management of the marine environment by providing a strategic planned approach that supports:

- sustainable licensing, consenting and management decisions in relation to development and activities in the Pentland Firth and Orkney Waters area
- marine developers in early identification of localities of most and least constraint
- environmental protection and, where appropriate, enhancement measures, to satisfy statutory requirements and policy commitments, and to provide identifiable socio-economic benefits for local communities and wider stakeholders

Objectives

1. Support long-term productivity in the marine environment that provides benefits and prosperity for local communities and wider stakeholders.
2. Support the transition to a low carbon economy.
3. Encourage a sustainable coexistence and synergies between existing and new marine activities and developments, to the mutual benefit of multiple stakeholders.
4. Provide reliable information on existing and proposed marine activities.
5. Promote best practice to manage and make use of natural resources within sustainable limits.
6. Within an ecosystem approach, protect and enhance the biological, chemical and physical functioning of the marine and coastal environment, the scenic quality and coastal character.
7. Promote an ecosystem based approach to the management of human activities to support the achievement of Good Environmental Status of marine and coastal waters under the Marine Strategy Framework Directive.
8. Support the cultural and social wellbeing of local communities including the maintenance and enhancement of quality of life, and visual amenity in coastal areas.
9. Support management of the marine environment, marine development and infrastructure that mitigates and is resilient to the effects of climate change.
10. Support sustainable management of the coastal zone and inshore waters, including minimising and mitigation of cumulative impacts from marine developments.
11. Identify marine planning and/or governance related issues to inform the future regional marine planning process.
12. Pilot the development of an integrated marine planning policy framework for the future North Coast and Orkney Scottish Marine Regions.
13. Assist Plan users to navigate the complex legislative and policy framework more easily and effectively.
14. Provide a clear strategic direction and greater certainty for prospective developers, investors and local communities in the Pentland Firth and Orkney Waters area.

Spatial Diagram

12 The spatial diagram (see next page) presents an indicative overview of key marine activities, infrastructure, natural and historic environment assets within the PFOW area. It should be noted that the spatial diagram is designed to give an overall impression of the complex patterns of use in the Plan area. The detailed data that underpins the spatial diagram is displayed in the general and sectoral policy maps in the Plan. The diagram shows that the use of the Plan area is highly complex with most areas having multiple uses. For accurate versions of these datasets please see National Marine Plan interactive (NMPi, see paragraphs 43-44) or the map accompanying the relevant policy within the Plan. Marine aggregates data are not displayed on this diagram as there is currently no commercial marine aggregate extraction activity in the Plan area and its inclusion on the diagram would have significantly reduced legibility.

The PFOW marine environment

13 The waters of the Pentland Firth and around Orkney are rich in biodiversity, supporting a wide range of valuable and important habitats and species, many of which are considered rare and/or vulnerable. In addition to forming key elements of the quality of biodiversity in the PFOW and Scotland's seas, these species and habitats also provide essential environmental, social and economic benefits.

14 The value of many marine and coastal habitats such as submerged reefs, maerl beds, sandbanks, salt marshes and dune systems is recognised through their designation at the European (e.g. EC Habitats Directive (92/42/EEC⁵) Special Areas of Conservation (SACs)) and national levels (e.g. Sites of Special Scientific Interest (SSSI)). There are four SACs in Orkney (Sanday, Loch of Stenness, Stromness Heaths and Coast, and Hoy) and three SACs on the north Caithness and Sutherland coast (Strathy coast, Invernaver, and Caithness and Sutherland Peatlands). These are designated for the protection of marine and coastal habitats, with 29 sites having coastal or marine biodiversity interests in Orkney and along the north Caithness and Sutherland coast receiving protection as SSSI. Furthermore, three Marine Protected Areas (MPAs) were designated in the PFOW in 2014 with biodiversity interests; North-west Orkney for sandeels; Wyre and Rousay Sounds for kelp and seaweed communities on sublittoral sediment and maerl beds; and Papa Westray for black guillemots.

15 Outwith these designations, some 27 seabed habitats are considered to be Priority Marine Features (PMF), including many that are considered to be characteristic of Scotland's marine environment⁶. These features, ranging from kelp beds and flame shell beds in coastal areas, to coldwater reefs and offshore deep sea muds in deeper seas, are considered to be of conservation importance.

⁵ The Habitats Directive http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

⁶ SNH (2014) Priority Marine Features in Scotland's Seas [online] available at: <http://www.snh.gov.uk/protecting-scotlands-nature/priority-marine-features/priority-marine-features>

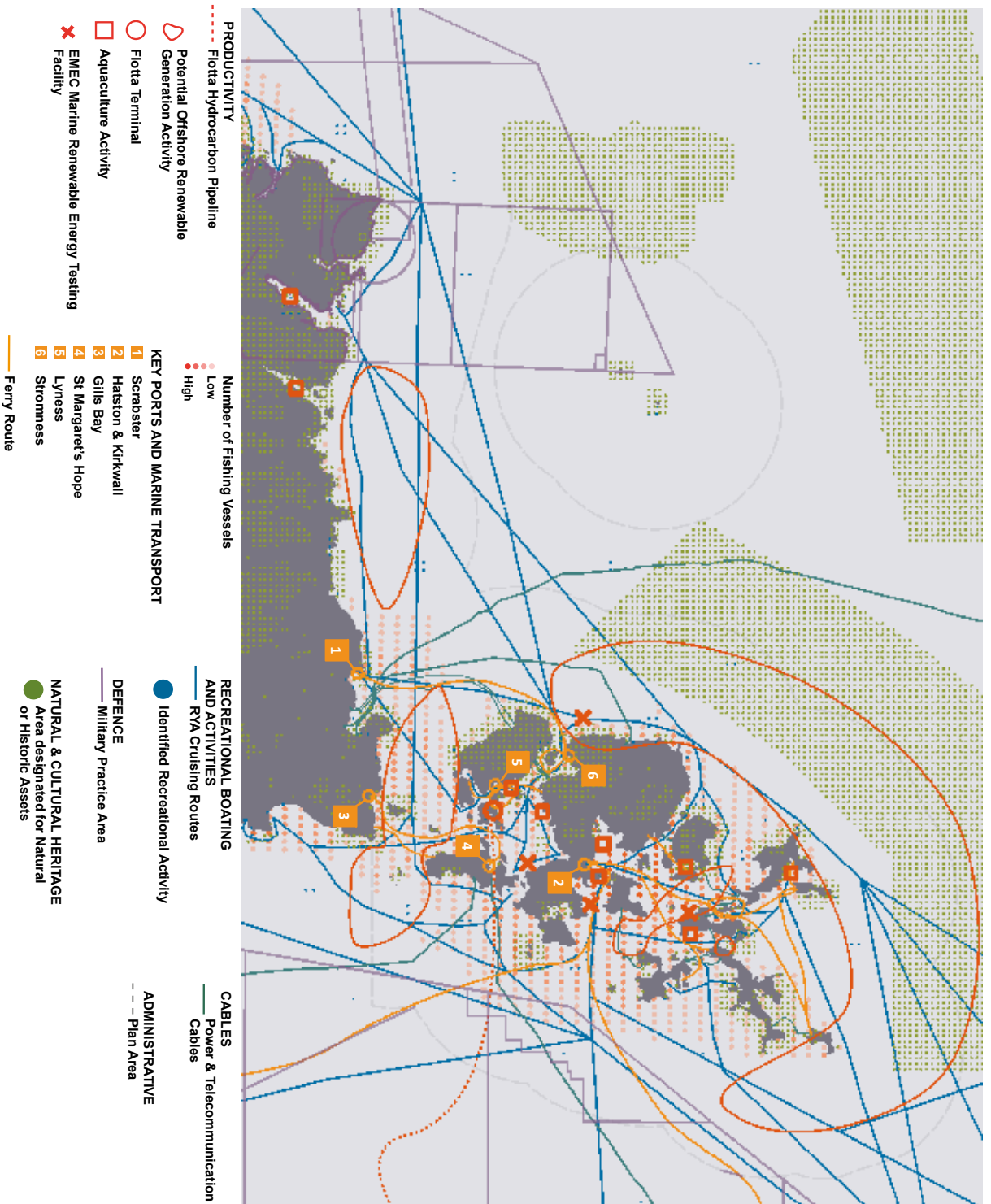


Figure 1: Spatial diagram

16 The Pentland Firth and Orkney Waters are internationally renowned for their importance to many species ranging from seabirds and wintering waterfowl to a variety of marine mammals (e.g. cetaceans, seals) and other marine fauna. The Caithness and Orkney coastlines are recognised for their importance in supporting extensive colonies of migratory and breeding seabirds such as Atlantic puffins, black-legged kittiwakes, Arctic skuas, Arctic terns, razorbills, northern fulmars, common guillemots, storm petrels, northern divers, Slavonian grebes and greater black-backed gulls. The importance of the Plan area for many bird species and populations is further reflected by the designation of 12 Special Protection Areas (SPAs) in coastal areas in Orkney and along the north Caithness and Sutherland coast.

17 In addition to birdlife, the waters of the Plan area supports a wide range of fish species and marine mammals. The River Borgie and River Thurso SACs have been identified in recognition of the Atlantic salmon populations they support. Additionally, the PFOW are internationally recognised for their importance for seal populations in particular, demonstrated by the designation of a harbour seal conservation area surrounding Orkney, the presence of two SACs within Orkney Waters for breeding seal colonies (i.e. Faray and Holm of Faray for grey seals, and Sanday for harbour seals). Additionally, 19 cetacean species have been recorded in the PFOW since 1980, and of these, six species occur regularly (i.e. harbour porpoise, minke whale, white-beaked dolphin, Risso's dolphin, killer whale and bottlenose dolphin)⁷. Several, such as bottlenose dolphins and harbour seals, are also listed under Annex II of the Habitats Directive.

18 Marine habitats and species depend on a clean and healthy water environment and, in turn, water quality plays a crucial role for many industries including aquaculture, fishing and water recreation. The primary mechanism for monitoring and managing the quality of Scotland's waters is the Water Framework Directive⁸ (WFD). The PFOW area is largely classified as 'good' status under the WFD, the eastern portion of the Pentland Firth from Duncansby head southwards are of 'high' status. Several transitional waters in the PFOW, such as the Loch of Stenness, Long Ayre and Loch of Ayre in Orkney, amongst others, are also classified as being of 'high' status. The Marine Strategy Framework Directive⁹ (MSFD) aims to ensure that priority is given to achieving or maintaining Good Environmental Status (GES) in the marine environment through adherence to targets, for which 'descriptors' of GES have been established.

7 SNH (2012) SNH Commissioned Report 419: Abundance and behaviour of cetaceans and basking sharks in the Pentland Firth and Orkney Waters [online] Available at: <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1875>

8 The Water Framework Directive http://ec.europa.eu/environment/water/water-framework/index_en.html

9 The Marine Strategy Framework Directive http://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm

19 A review of the Environmental Baseline for the Pentland Firth Orkney Waters area has been prepared to inform the preparation of the Marine Spatial Plan, and this is presented as part of the Sustainability Appraisal¹⁰. The Sustainability Appraisal outlines the findings of a Strategic Environmental Assessment (SEA) and Socio-Economic Assessment on the draft Marine Spatial Plan and its policies. The Appraisal also presents the findings of work undertaken to meet obligations under the European Commission (EC) Habitats Regulations.

Social and economic activity

20 The Pentland Firth and Orkney Waters area supports a diverse marine economy including commercial fisheries, marine renewables, aquaculture, oil and gas, ferries, shipping, recreation, tourism and heritage. A Socio-Economic Baseline Review¹¹ of the Pentland Firth and Orkney Waters area has been prepared to inform the preparation of this Marine Spatial Plan and is presented as part of the Sustainability Appraisal.

Pressures and impacts

21 The use of coastal and marine resources within the Plan area has the potential to result in direct and cumulative effects on the environment and human activities. The Strategic Environmental Assessment (SEA) carried out in parallel with this Plan identifies the key environmental pressures to be addressed. In terms of pressures on human activities, while many activities are likely to be compatible, there is potential for displacement of some marine users due to increased competition for space. The following pressures identified in the SEA highlight the key issues which the Plan policies aim to tackle:

Biodiversity

- Potential for adverse effects on marine and coastal habitats and species from increased development in marine and/or coastal areas (e.g. disturbance, barrier effects, damage to, or loss of, habitats, pollution)
- Potential for cumulative or in-combination effects on biodiversity interests from increased use of coastal and marine environments (e.g. disturbance, barrier effects, damage to, or loss of, habitats)

¹⁰ Sustainability Appraisal for pilot Pentland Firth and Orkney Waters Marine Spatial Plan <http://www.gov.scot/Publications/2015/06/8421/downloads>

¹¹ Socio-Economic Baseline Review for the pilot Pentland Firth and Orkney Waters Marine Spatial Plan <http://www.gov.scot/Resource/0047/00479181.pdf>

Climatic factors

- Climate change impacts on coastal areas are expected to include sea level change, exacerbating the effects of extreme waves and storm surges
- Climate change impacts on marine ecosystems can include changing ocean acidity, salinity, rising sea temperatures and rising sea levels
- Scotland has set targets and implemented actions for reducing greenhouse gas emissions across many sectors, including those for renewable energy generation, with the potential for increased spatial pressure on coastal and marine areas
- Climate change adaptation is likely to be required in response to the predicted effects on the coastal and marine environment, particularly in the minimisation of impacts and the potential loss of vulnerable species and habitats

Population and human health

- Potential loss of amenity value of settlements, key routes and landscapes. Disturbance during construction works (e.g. noise)
- Potential for increased accident risk associated with greater use of the marine environment and installation of infrastructure (e.g. collisions)
- Potential for secondary effects on human health through impacts on water quality

Landscape and seascape

- Sensitivity of coastal landscapes and communities to landscape and visual impacts from coastal and marine development as a result of their high landscape and seascape quality, natural character and wildness
- Potential for cumulative impacts from often incremental and increased onshore and offshore development on landscape/seascape character and scenic value
- Pressures on landscape/seascape in coastal areas from coastal erosion due to the expected effects of climate change and inappropriate development

Cultural heritage and historic environment

- Inappropriate development has the potential to affect the setting of historic assets located in both coastal and marine areas
- Construction or infrastructure installation works have the potential for both direct and indirect impacts to historic assets located in coastal areas or on the seabed, either as direct damage to historic features or through seabed disturbance, or secondary effects such as changes to coastal processes and sediment dynamics

Soil, marine geodiversity and coastal processes

- Pressures from coastal erosion due to both natural effects, offshore or coastal development, and the expected effects of climate change have been widely identified

Material assets

- Increased use of coastal and marine resources within the PFOW and the potential for cumulative effects from these activities
- While many activities are likely to be compatible, there may be the potential for displacement of some marine users from increased activity or the placement of infrastructure in marine or coastal areas

Water

- Potential for contamination of the water environment from marine or coastal activities such as the use of anti-fouling paint, pollution from oil spillage and sewage, construction activities
- Potential for pollution of coastal waters resulting from activities on land, particularly agricultural activities and storm water runoff
- Potential for secondary impacts to coastal and marine industries such as inshore fisheries, tourism and aquaculture, amongst others
- Potential for secondary impacts to coastal and marine biodiversity, including impacts of marine litter and other marine activities

Integration of marine and terrestrial planning

22 Marine plan boundaries extend up to mean high water springs and local development plan boundaries (i.e. terrestrial planning) extend to mean low water springs, with the exception of marine fish farming. There is therefore an overlap in the intertidal area. This overlap is intended to assist the integration of, and consistency between, both planning regimes.

23 It is essential that strategic planning for marine and terrestrial areas is carried out in a consistent and integrated way. Marine and land use policies and guidance need to be consistent and mutually supportive, particularly when making provision for resources, development and infrastructure that encompass the land sea divide, e.g. for ports and harbours, grid connections and natural heritage designations. To achieve integration at the national level, local development plans should be consistent with the UK Marine Policy Statement, the National Marine Plan and any subsequent statutory regional marine plans for that area. Equally, marine plans should be consistent with local development plans and with national objectives for land use planning set out in Scottish Planning Policy¹² and the National Planning Framework¹³, this pilot Marine Spatial Plan has taken account of these.

24 At the regional level, the role of the Highland and Orkney Islands planning authorities in the preparation of this Plan has facilitated integration and consistency with the respective local development plans, particularly addressing a joined-up approach to development in the coastal zone. Representation from the Orkney Harbour Authority and Scrabster Harbour Trust on the advisory group has sought to facilitate an integrated approach to policies for ports and harbours. For further information about the relationship of this Marine Spatial Plan to the relevant local development plans refer to Section 3 *Legislative and Policy Context*.

25 Further guidance is available in Planning Circular 1/2015: *The relationship between the statutory land use planning system and marine planning and licensing*¹⁴. General Policy 7 (of this Plan): *Integrating coastal and marine development* sets out guidance relating to development with marine and land based components.

Governance arrangements for preparing the Plan

26 This pilot marine planning process has tested governance mechanisms to consider how Marine Planning Partnerships might operate in the future. The pilot Pentland Firth and Orkney Waters Marine Spatial Plan Governance Paper prepared in 2012 set out the governance arrangements for preparing the Plan which included the role of the working group, the advisory group and the linkages with decision making processes within the 'parent' organisations.

¹² Scottish Planning Policy <http://www.gov.scot/Topics/Built-Environment/planning/Policy>

¹³ National Planning Framework 3 <http://www.gov.scot/Topics/Built-Environment/planning/National-Planning-Framework>

¹⁴ Planning Circular 1/2015 <http://www.gov.scot/Publications/2015/06/5851/downloads>

The working group

27 Between 2008 and May 2012 the Marine Spatial Plan process was managed by Marine Scotland. The preparation of the pilot Marine Spatial Plan has been led by Marine Scotland as part of a working group including Highland Council and Orkney Islands Council. The working group was created in May 2012, establishing a partnership approach to the delivery of the Plan between Marine Scotland and the local Councils. This approach enabled the pilot Marine Spatial Plan to be prepared in way that balances local and national issues, and has enabled more effective engagement with local stakeholders. This partnership arrangement between Marine Scotland and the local planning authorities has been a successful mechanism for developing marine planning policies that integrate with local land use planning policy.

The advisory group

28 To provide additional guidance, an advisory group was set up in January 2013. The advisory group has overseen the work of the working group and provided expertise and guidance on its outputs. The advisory group was established to ensure that the essential statutory requirements are addressed within the pilot Marine Spatial Plan and to provide high-level technical input across a broad range of expertise. The members of the advisory group were drawn from organisations with knowledge of the protection and enhancement of the Pentland Firth and Orkney Waters area and from those whose members use the area for commercial and recreational purposes.

29 The advisory group members were:

- Orkney Harbour Authority
- Scrabster Harbour Trust
- Scottish Natural Heritage
- Historic Environment Scotland
- Scottish Environment Protection Agency
- Highland and Islands Enterprise
- Royal Yachting Association Scotland

30 The advisory group was not intended to represent every single interest in the Pentland Firth and Orkney Waters area. Specific sectoral, recreational and community interests, for example, were addressed through engagement and consultation with those stakeholders, including on a one-to-one basis as required.

Stakeholder engagement and consultation

31 Input from a wide range of stakeholders is critical to the success of a Marine Spatial Plan. To this end, the Plan preparation process has been publicised at the various key development stages to seek engagement from a broad range of stakeholders.

32 The interests of local communities, the various commercial sectors, community and interest groups have been taken into account through focused discussions, stakeholder engagement events and consultation. The list of organisations and individuals that have been engaged in the making of this Plan are provided in Annex 1. The compilation of the stakeholder database commenced at the very beginning of the Plan-making process and was updated as new stakeholders came forward through each stage of the Plan's development.

The Plan preparation process

33 The preparation process has followed, as closely as possible, the key steps set out in the Marine (Scotland) Act 2010 Schedule 1¹⁵ for the preparation of a regional marine plan (see Figure 2 and Table 1). However, as this is not a statutory regional marine plan, the plan-making process could not follow all of these steps (e.g. undertaking an independent investigation) though many lessons have been learnt for the preparation of future regional marine plans by broadly adhering to the statutory plan-making process.

¹⁵ Marine (Scotland) Act 2010 <http://www.gov.scot/Topics/marine/seamanagement/marineact>

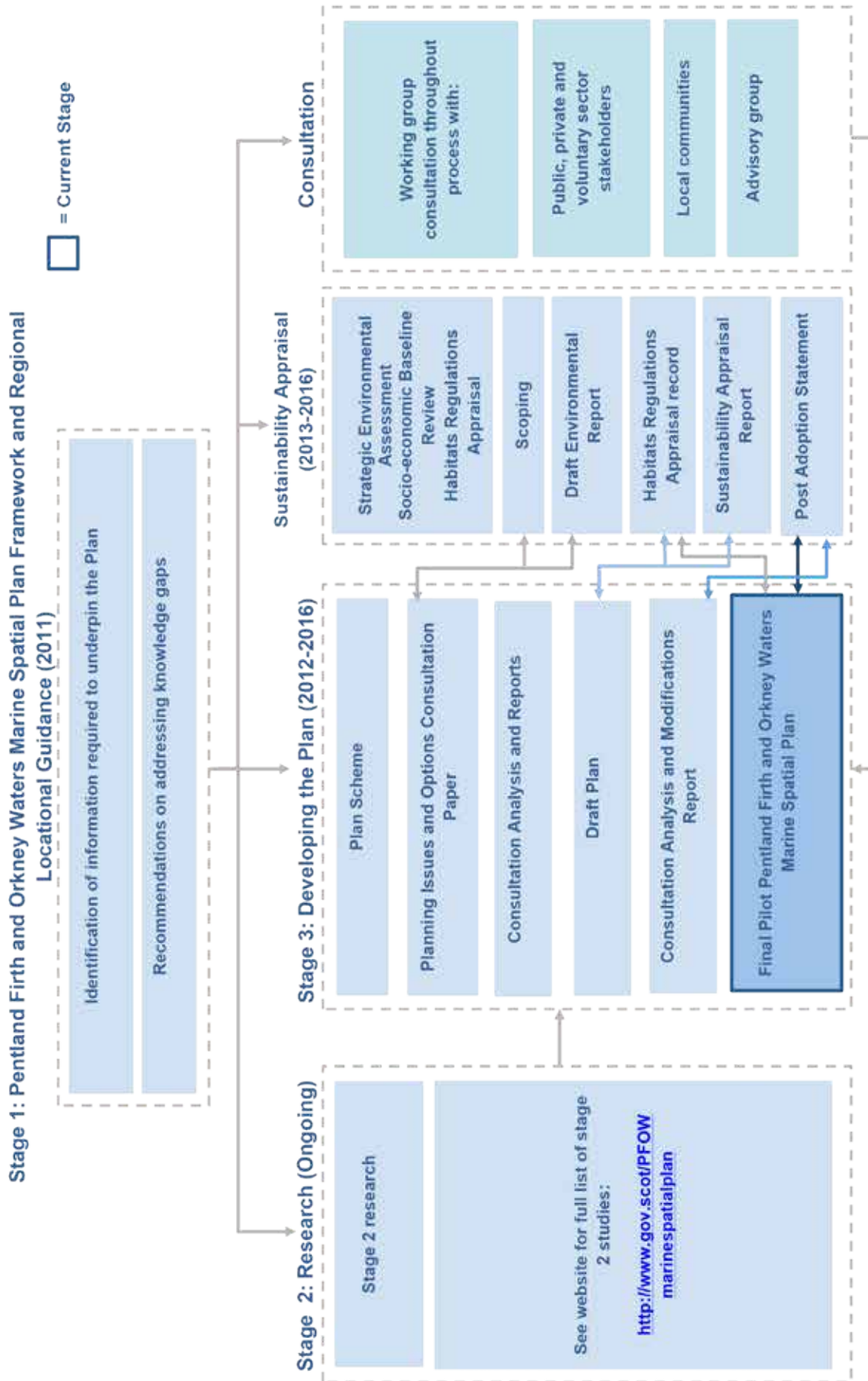


Figure 2: Illustration of the plan-making process. The table overleaf provides an explanation of the key stages.

Table 1: Stages undertaken to develop this pilot Marine Spatial Plan.

Stage 1: The Pentland Firth and Orkney Waters Marine Spatial Plan Framework and Regional Locational Guidance (2011)

This document set out a high-level framework for the preparation of the pilot Marine Spatial Plan. It established a three-stage process to develop the Plan. Stage 1 was the framework itself and included a baseline review of existing relevant information, identification of gaps in that information and recommendations on how those gaps should be addressed.

Stage 2: Research studies (ongoing)

Various research studies to support the policies in the Plan were undertaken to fill data gaps and ran in parallel with Stage 3 (see Figure 2). These studies can be viewed at the Scottish Government Pentland Firth and Orkney Waters webpage¹⁶.

Many of the Stage 2 studies commissioned were based on the original PFOW defined area that did not include the full north Sutherland coast. It is therefore recognised that subsequent regional marine plans may have to attempt to fill these data gaps.

¹⁶ Pilot Pentland Firth and Orkney Marine Spatial Plan Stage 2 Studies <http://www.gov.scot/Topics/marine/seamanagement/regional/pentlandorkney/two>

Stage 3: Preparing the Marine Spatial Plan

The following stages were undertaken and documents prepared and consulted on as appropriate:

The Plan Scheme¹⁷ 2012: this sets out the key stages for the preparation of this Plan, the schedule for stakeholder engagement, consultation and identified the key stakeholders. The document performed the function of a Statement of Public Participation as detailed in the Marine (Scotland) Act 2010.

The Planning Issues and Options Consultation Paper¹⁸ enabled early stakeholder engagement in the Plan preparation process. It performed a similar function to a 'Main Issues Report' used in the local development plan process. It set out the key issues and challenges facing the Pentland Firth and Orkney Waters area for consultation, based on an analysis of the characteristics of the area, the framework document and the available Stage 2 studies. It was considered important to undertake the Planning Issues and Options (PIOP) stage for the following key reasons:

- to facilitate early engagement so that stakeholders could help define the scope, objectives and policies of the Plan before a draft was deposited for consultation
- to test whether the working group had identified all the matters that should be addressed
- to explain the broad options for developing the Plan policies and seek views as to which of those options should be reflected in the draft pilot Pentland Firth and Orkney Waters Marine Spatial Plan

Stakeholder workshops, public drop-in sessions and individual meetings with stakeholders took place in July 2013 to discuss the document and the accompanying Draft Environmental Report¹⁹. The responses to this consultation are presented in the Consultation Analysis²⁰ and the Consultation Report²¹.

An Interactions Matrix used in the PIOP process to highlight potential interactions between development, activities and the environment, was a useful tool in identifying various sectoral and cross-cutting themes. However, as many activities are likely to have both positive and negative effects, however minor, it was clear that repeating the matrix in the draft Plan would not add anything of significant value and has therefore been omitted from the Plan.

17 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan – Plan Scheme 2012 <http://www.gov.scot/Publications/2012/11/4241>

18 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan – Planning Issues and Options Consultation Paper <http://www.gov.scot/Publications/2013/06/9672>

19 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan - Draft Environmental Report <http://www.gov.scot/Publications/2013/06/3988>

20 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan – Planning Issues and Options Consultation Paper – Consultation Analysis <http://www.gov.scot/Publications/2013/12/6618>

21 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan – Planning Issues and Options Consultation Paper – Consultation Report <http://www.gov.scot/Publications/2014/04/5576>

Draft Pilot Pentland Firth and Orkney Waters Marine Spatial Plan

The draft Plan was prepared from the information gathered at the previous stages, in consultation with a diverse range of stakeholders and taking the action points from the Consultation Report into account.

Final Pilot Pentland Firth and Orkney Waters Marine Spatial Plan

Following consultation on the draft Plan between June and September 2015, the final Plan and Consultation Analysis and Modifications Report²² were prepared. It was presented to the Orkney Islands Council and Highland Council committees in early 2016, prior to approval by Scottish Ministers in March 2016.

A Sustainability Appraisal²³ (SA) was undertaken alongside the preparation of the draft Plan to consider the potential for social, economic and environmental effects of both the Plan and its reasonable alternatives. The SA included a Strategic Environmental Assessment (SEA) required under Directive 2001/42/EC and the Environmental Assessment (Scotland) Act 2005 (the 2005 Act), a Socio-economic Assessment and work undertaken to meet obligations under the EC Habitats Regulations. The Socio-economic Assessment component was informed by the Socio-economic Baseline²⁴ detailed in an accompanying report. The Sustainability Appraisal process was undertaken alongside the Plan's development from an early stage in the process, building upon the work undertaken for the development of the Draft SEA Environmental Report for the PIOP. Together, the Draft Environmental Report and the Sustainability Appraisal have enabled decision-making in this process to be informed by relevant environmental and socio-economic information, and assisted in the development and refinement of the policies contained within the draft Plan whilst also ensuring that the relevant information has been included in the accompanying Regional Locational Guidance²⁵.

22 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan - Consultation Analysis and Modifications Report <http://www.gov.scot/pilotpentlandfirhandorkneywatersmarinespatialplan-consultationanalysisandmodificationsreport>

23 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan - Sustainability Appraisal <http://www.gov.scot/Publications/2015/06/8421>

24 Socio-Economic Baseline Review for the pilot Pentland Firth and Orkney Waters Marine Spatial Plan <http://www.gov.scot/Resource/0047/00479181.pdf>

25 Pilot Pentland Firth and Orkney Waters Marine Spatial Plan - Regional Locational Guidance www.gov.scot/pilotpentlandfirhandorkneywatersmarinespatialplan-regionalloccationalguidance

Section 2: How to use the Plan

Introduction

34 The pilot PFOW Marine Spatial Plan aims to guide regulators, developers, planners and marine users when making decisions that affect the coastal and marine environment and the diverse activities that take place within the Plan area. This section provides guidance on how the Plan can be used in decision-making by public authorities. Further guidance is provided to support government agencies when providing advice on licensing and consenting related matters, e.g. marine licensing advice, scoping opinions for environmental impact assessments. Guidance is also provided to support the use of the Plan by wider stakeholders including developers, local communities and non-governmental organisations.

Status of the Plan

35 The Plan will be used by the Marine Scotland Licensing Operations Team (MS-LOT) as a material consideration in the determination of marine licensing and section 36 consent applications within the Pentland Firth and Orkney Waters area.

36 The Highland Council and Orkney Islands Council have adopted the pilot Plan as non-statutory planning guidance, acknowledging the status of the Plan as a material consideration in the determination of relevant planning applications. Orkney Islands Council has also adopted the Plan as a material consideration in the determination of works licence applications in the Orkney Harbour Area.

37 It is anticipated that other regulators will pay due regard to the final pilot Marine Spatial Plan when making authorisation and enforcement decisions relating to marine and coastal management, development and activities within the Plan area. As this is a non-statutory pilot Marine Spatial Plan, decisions regarding the status and use of this Marine Spatial Plan will rest with the relevant regulators.

The limitations of the Plan

38 The pilot Plan will not provide decisions on proposed development and management. The Plan sets out the strategic vision, objectives, policies and relevant data to guide the relevant consenting bodies when making decisions on individual development proposals. It is intended that the pilot Plan will become one of a number of material considerations in the determination of consent applications. As the pilot Plan is non-statutory, marine planning decisions will not have to be made in accordance with the pilot Marine Spatial Plan as prescribed in the Marine (Scotland) Act 2010; rather it would be a key guidance document. As this pilot Plan is being developed during a period of evolving national policy and guidance, with new evidence becoming available continually, it should be viewed as part of an ongoing marine planning process.

The spatial approach to the Plan

39 The general consensus expressed by stakeholders during the Planning Issues and Options consultation was that given the current state of knowledge of environmental impacts, technology development and marine activities/use, zoning areas for exclusive use activities (i.e. identifying areas for the sole use of one type of development/activity) is not a realistic prospect in the short term. The principle of supporting co-existence and compatibility between marine users was considered the preferred approach. For this reason, this Marine Spatial Plan does not identify areas for exclusive use for specific developments and/or activities. The Plan spatially identifies where existing activities are taking place and the location of natural, historic, economic and community resources. Future marine plans may consider identifying areas for preferential use by specific sectors, as suggested by the National Marine Plan. This approach aims to identify potential sensitivities and constraints to support the identification of opportunities for future sustainable development and activities. The exception to this approach is the inclusion of the Plan Option areas identified for offshore wind, wave and tidal development. These have been identified in the Plan to be consistent with the National Marine Plan.

Use of the policy framework and definition of policy terms

40 To implement the Plan's overall vision, aims and objectives, the Plan's policy framework consists of a suite of General Policies and Sectoral Policies. The General Policies are, in principle, applicable to all development and activities. The relevance of the General Policies to any given development and/or activity will vary depending on the particular circumstances including type, scale, location and any potential impacts. The Sectoral Policies are designed to support the sustainable development and management of specific sectors. It should be noted that all the policies in the Plan are afforded equal weight in decision-making and should be read in conjunction with each other. Furthermore, the Sectoral and General Policies should be considered alongside the relevant legislation, policies and plans set out in Section 3 and Annex 2.

41 The General and Sectoral Policies were identified through a process of stakeholder engagement undertaken as part of the Planning Issues and Options consultation stage.

42 To provide clarity and consistency on the terminology used within the General and Sectoral Policies the following definitions are provided:

- **Development(s)** are defined as construction that requires a specific form of statutory consent from a competent authority to utilise a defined area. This can include new developments or alterations, extensions or changes in material use to existing developments that require a statutory consent. The definition of development for purposes of this Plan includes but is not limited to the definition provided under the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006.
- **Activities** include current or future use that is covered by a public right of use (e.g. navigation, rights of access) or use that requires a specific statutory consent from a competent authority (e.g. dredging). The term activities also includes any other

legitimate use that is not specifically addressed by a public right, e.g. recreational activities such as surfing, open water swimming etc.

- **Marine users** refers to the broad range of legitimate users of the marine environment for purposes such as, but not limited to, recreation, fishing, shipping, passenger transport and other economic activities.

How to use the Plan's Spatial Information and National Marine Plan Interactive

43 The Marine Spatial Plan policies are supported by relevant spatial information presented in associated maps within each of the policy sections. Further to this, the Plan's spatial information can be accessed on National Marine Plan interactive (NMPi)²⁶ allowing users to overlay data to build up a more sophisticated picture of marine development, infrastructure, activities and resources.

44 Data layers within the Plan area can be found in the 'North Coast and Orkney' section of the NMPi data layers control under 'Regions'. The data contained within the Pentland Firth and Orkney Waters Marine Spatial Plan folder are archived copies of the maps included in the Plan. As such these data will not be updated and represent the use of the Plan area at the time of publishing the Plan. Further supporting spatial information is located within this folder and the separate 'Orkney' and 'North Coast' folders which will be updated as new data are identified or produced. For more information on how to use National Marine Plan interactive please use the in-system help menu.

Implementing the Plan

45 One of the key mechanisms for delivering the vision, objectives and policies of this Plan will be the decisions made by a range of public authorities relating to the management and development in the PFOW marine area. The Plan aims to promote consistent decision-making via the implementation of the General and Sectoral Policies to achieve sustainable development and management. The following text sets out a summary of the main licensing and consenting requirements that developers need to consider. This is not intended to be an exhaustive list of the licensing and consenting requirements for all developments and activities.

Licensing and consents

Marine Licence

46 The Marine (Scotland) Act 2010 and the UK Marine and Coastal Access Act 2009²⁷ provides the statutory framework for marine management. The Marine (Scotland) Act 2010 legislates for marine planning and licensing and conservation activities in Scottish territorial waters (0-12 nautical miles). The UK Act provides executive devolution to Scottish Ministers for marine planning, licensing and conservation powers in the offshore region (12-200 nautical miles).

²⁶ <http://marinescotland.atkinsgeospatial.com/nmpi/?region=NC>

²⁷ Marine and Coastal Access Act 2009 www.legislation.gov.uk/ukpga/2009/23/contents

47 The provisions of the Acts and executive devolution of some reserved functions mean that Marine Scotland is the appropriate authority for licensing most developments and activities in Scotland's marine environment. Exceptions include most activities relating to oil and gas, defence and shipping, which remain reserved by the UK Government and fish farming development which requires planning permission from local planning authorities.

48 The Acts introduced a streamlined marine licensing system with accompanying enforcement powers. The marine licence supersedes the former Food and Environmental Protection Act 1985²⁸ (FEPA) licence and Coast Protection Act 1949²⁹ (CPA) consents and makes Scottish Ministers responsible for issuing new marine licences in Scottish inshore and offshore waters.

49 A marine licence from Scottish Ministers is required if any person intends to do any of the following from a vehicle, vessel and other structure in Scottish Waters (from mean high water springs out to 12 nautical miles under the Marine (Scotland) Act 2010 and 12-200 nautical miles through devolved powers from the Marine and Coastal Access Act 2009):

- deposit any substance or object in the sea or on or under the seabed
- construct, alter or improve works on or over the sea or on or under the seabed
- remove substances or objects from the seabed
- dredging (including plough, agitation, side-casting and water injection dredging)

50 Certain activities are specifically exempted from licensing by Order, for example maintenance of ports and harbours (if carried out for, or on behalf of, a Harbour Authority within the area of the existing works) and coastal defences (for, or on behalf of, a local authority), as are certain activities required for safety and in emergency situations. Fishing is also exempt from marine licensing as it has its own regime.

51 For fish farming development planning permission from local planning authorities is required (see paragraphs 66-68). Marine farms for fish and shellfish require a marine licence for navigational purposes if they involve the creation, alteration or maintenance of artificial reefs or, if their installation causes, or is likely to cause, obstruction or danger to navigation. Marine Scotland considers that all fish and shellfish farms have the potential to cause navigational obstruction and so all fish and shellfish farms should be covered by a valid marine licence. Discharge of chemotherapeutant from wellboats also requires a marine licence.

Marine Licence – Public Pre-Application Consultation (PAC)

52 The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013³⁰ came into force on 6 April 2014. The Regulations require applicants for

²⁸ Food and Environmental Protection Act 1985 www.legislation.gov.uk/ukpga/1985/48

²⁹ Coast Protection Act 1949 www.legislation.gov.uk/ukpga/Geo6/12-13-14/74

³⁰ Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013 www.legislation.gov.uk/ssi/2013/286/regulation/5/made

certain activities in the Scottish Inshore Region to carry out a public pre-application consultation. Applications affected will include those activities covered by the Marine (Scotland) Act 2010 with the potential to have significant impacts upon the environment, local communities and other legitimate uses of the sea. The purpose of these new requirements is to allow local communities, environmental groups and other interested parties to comment upon proposed marine developments at an early stage, before an application is submitted to MS-LOT.

53 The prescribed classes of activities affected are:

- submarine cables over 1853 metres (approx. 1 nautical mile) in length and where the intertidal boundary is crossed
- reclaiming land, where the area exceeds 10,000 square metres
- any bridge, causeway or walkway, including pontoons, over 50 metres in length
- construction works or alterations, other than for a renewable energy structure exceeding 1,000 square metres
- renewable energy structure, or alteration or improvement, where the total area in which the structure is to be located exceeds 10,000 square metres

54 On the submission of suitable supporting evidence, a prospective applicant for a marine licence may request a 'pre-application consultation statement' from MS-LOT, confirming whether the marine licensable activity in question is subject to the public pre-application consultation procedure. MS-LOT will provide a pre-application statement within three weeks of receiving the required information. Further information is provided in the Marine Scotland Guidance on Marine Licensable Activities subject to Pre-Application Consultation³¹.

Section 36 Consent (s36)

55 Section 36 consent under the Electricity Act 1989³² is administered by MS-LOT on behalf of Scottish Ministers. Section 36 consent is required to construct, extend or operate generating stations above 1MW capacity inshore (from 0-12 nautical miles) and above 50MW offshore (12-200 nautical miles). Applicants are required to obtain the consent of Scottish Ministers which, as with marine licences, can be granted with conditions to ensure full compliance with all relevant legislation. Section 35 of the Marine (Scotland) Act 2010 allows for section 36 electricity consents and marine licences to be considered together. Marine developments with a capacity of 1MW or less do not require section 36 consent, in these cases, a marine licence is required from MS-LOT.

56 Planning permission will, in most cases, be required for certain onshore development associated with marine electricity generation (e.g. substations, control buildings, compounds), which are above mean low water springs. A statutory

³¹ Marine Scotland Guidance on Marine Licensable Activities subject to Pre-Application Consultation www.gov.scot/Topics/marine/Licensing/marine/guidance/preappconsult

³² Electricity Act 1989 www.legislation.gov.uk/ukpga/1989/29/contents

provision in the Growth and Infrastructure Act 2013³³, amending section 57 of the Town and Country Planning (Scotland) Act 1997³⁴, allows Scottish Ministers to direct that planning permission is deemed to be granted for the ancillary onshore components and related onshore infrastructure for a marine based electricity generating station consented under section 36. This allows for a single application process consented by Marine Scotland. Developers can still choose whether to make a separate planning application for onshore components of a development and should seek early pre-application consultation with MS-LOT and the planning authority to consider the appropriate consenting process.

57 Reserved matters such as defence and oil and gas exploration are licensed by the Department of Energy and Climate Change (DECC) on behalf of the Secretary of State and DECC should be consulted when requiring a marine licence for any of these reserved activities.

Department of Energy and Climate Change (DECC) – Decommissioning

58 Sections 105 to 114 of the Energy Act 2004³⁵ introduced a statutory decommissioning scheme for offshore renewable energy installations in English, Welsh and Scottish territorial waters and in the Renewable Energy Zone. Under the statutory scheme, the Secretary of State for Energy and Climate Change may require those persons with an interest in such installations to produce a fully-costed decommissioning programme. This should detail how they intend to remove the installation when it comes to the end of its useful life and how the costs of doing so will be funded.

59 Responsibility for decommissioning remains with the UK Government and is administered by the Department of Energy and Climate Change (DECC) and must be agreed by the Secretary of State. Liaison with DECC should be via MS-LOT in the first instance. Applicants should bear in mind that all information presented in the Decommissioning Programme will be made publicly available. If applicants feel that the financial section of the programme is likely to be of high commercial sensitivity, they should discuss this issue directly with DECC.

60 DECC is keen to assist developers and offer feedback on proposed decommissioning programmes. Developers should ensure that they have fully read and followed the DECC Guidelines³⁶ for decommissioning before approaching them to discuss their proposals in greater detail.

33 Growth and Infrastructure Act 2013 www.legislation.gov.uk/ukpga/2013/27/contents/enacted

34 Town and Country Planning (Scotland) Act 1997 <http://www.legislation.gov.uk/ukpga/1997/8/contents>

35 Energy Act 2004 <http://www.legislation.gov.uk/ukpga/2004/20/contents>

36 DECC Guidance Decommissioning offshore renewable energy installations <https://www.gov.uk/government/publications/decommissioning-offshore-renewable-energy-installations>

European Protected Species Licence (EPS)

61 European Protected Species Licences are issued by MS-LOT. Scottish Natural Heritage (SNH) are the licensing authority for marine activities with a research or education purpose and are the licensing authority for otters in all circumstances. The Conservation (Natural Habitats, &c.) Regulations 1994³⁷ (as amended by The Nature Conservation (Scotland) Act 2004³⁸) implement the species protection requirements of the EU Habitats Directive³⁹ on land and inshore waters to 12 nautical miles. Certain species are listed in Annex IV of the Habitats Directive as species of European interest and in need of strict protection. The protective measures required are outlined in Articles 12 to 16 of the Directive and are transposed into Scottish law through the following:

- Regulation 39 (1) and (2) and 43 of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended): (Scottish inshore waters within 12 nautical miles)
- Regulation 39 (1) and 43 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 applies (Offshore Marine Regulations)
- The Wildlife and Natural Environment (Scotland) Act 2011 (WANE)

62 Applicants are required to satisfy European Protected Species licensing tests, for further information refer to the Scottish Natural Heritage guidance⁴⁰. Licences are usually granted subject to conditions and licence holders are responsible for ensuring compliance with conditions. Failure to comply with conditions is an offence.

Works Licence

63 The Orkney County Council Act 1974, as amended, provides powers to Orkney Islands Council to issue licences for works within the Orkney Harbour Area. A works licence is required to construct, place, maintain, alter, renew or extend any works on, under or over tidal waters or tidal lands below mean high water springs. A licence is also required under the Act to dredge any part of the Harbour Area. Fish farming developments do not require a works licence. It is recommended that any developers considering undertaking works in the Orkney Harbour Area should consult the Orkney Islands Council Development Management team at an early stage in the development process. The Harbour Area is presented in Map 21.

Planning permission (The coastal zone and fish farming)

64 Development⁴¹ that is located landward from mean low water springs may require planning permission under the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006. Orkney Islands Council

37 The Conservation (Natural Habitats, &c.) Regulations 1994 <http://www.legislation.gov.uk/ukSI/1994/2716/contents/made>

38 The Nature Conservation (Scotland) Act 2004 <http://www.legislation.gov.uk/asp/2004/6/contents>

39 EU Habitats Directive http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

40 Scottish Natural Heritage European Protected Species guidance: <http://www.snh.gov.uk/protecting-scotlands-nature/species-licensing/european-species-licensing>

41 <http://www.legislation.gov.uk/ukpga/1997/8/section/26>

and Highland Council are the planning authorities for the coastal areas within the area of this Marine Spatial Plan. Developers should consult the local planning authority to determine whether planning consent is required for any element of a planned development⁴². Orkney Islands Council is the planning authority for Orkney and Highland Council are the planning authority for Caithness and Sutherland.

65 Planning applications will be determined in accordance with the relevant adopted local development plan, including any adopted supplementary guidance. It is therefore recommended that developers, and other relevant stakeholders, should consider the appropriate local development plan to inform project development and the preparation of any planning applications.

66 Planning control for marine fish farming extends from mean high water springs to 12 nautical miles (the limit of territorial waters) as set out in section 26(6) of the Town and Country Planning 1997 Act (as amended). Marine waters out to 3 nautical miles were divided into marine planning zones by the Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007 which also sets out which local authority is the planning authority for the purposes of marine fish farming within a zone. As the fish farming industry looks to develop beyond 3 nautical miles Scottish Ministers will consider the need to extend these marine planning zones further. As stated in the Planning Circular 1/2015: *The relationship between the statutory land use planning system and marine planning and licensing*; in future, should fish farming extend beyond 12 nautical miles a Marine Licence from Marine Scotland would be required as the primary consent to develop.

67 Planning permission is required for fish farming developments including alterations to existing sites (excluding seaweed cultivation at the time of writing). It should also be noted that fish farming developments are afforded certain Permitted Development rights under the Town and Country Planning (General Permitted Development) (Fish Farming) (Scotland) Amendment Order 2012. Aquaculture planning applications in Orkney will be considered in accordance with the Orkney Local Development Plan Policy SD8 and the Aquaculture Planning Policy Advice. In Caithness and Sutherland applications will be considered in accordance with Policy 50 of the Highland-wide Local Development Plan, which is currently under review, along with Supplementary Guidance for aquaculture that is presently being developed. Decisions must also accord with policies of the National Marine Plan and any subsequent statutory regional marine plans, unless relevant considerations indicate otherwise. *Planning Circular 1/2015: The relationship between the statutory land use planning system and marine planning and licensing* provides further information on the role of marine planning in aquaculture consenting. Sectoral Policy 2: *Aquaculture* in this Plan provides non-statutory guidance relating to aquaculture development and signposts to the relevant policies within the respective local development plans.

68 Development classed as 'national' under the National Planning Framework or 'major' under the Town and Country Planning (Hierarchy of Development) (Scotland)

⁴² Section 26 of the Town and Country Planning (Scotland) Act 1997 <http://www.legislation.gov.uk/ukpga/1997/8/section/26>

Regulations 2009 will require formal pre-application consultation. The Scottish Government Circular⁴³ 5/2009 *Hierarchy of Developments* provides useful guidance regarding the requirements of the regulations.

Water Environment (Controlled Activities) (Scotland) Regulations (CAR)

69 Within the marine environment, the CAR authorisation is primarily concerned with controlling the discharge of pollutants, including from finfish aquaculture developments and water abstraction. Detailed guidance on the level of authorisation required for an activity, which is dependent on the risk to the environment, is available in the CAR Practical Guide⁴⁴ on the Scottish Environment Protection Agency's (SEPA) website. Developers are advised to consult with SEPA (the licensing authority) to identify if a CAR licence is necessary, and to determine the extent of the information required by SEPA to fully assess any licence application.

Department of Energy and Climate Change Oil and Gas Consents

70 Within the Plan area (out to 12 nautical miles) DECC is responsible for environmental impact assessment and habitat and species issues in relation to the Petroleum Act functions. However, DECC's environmental regulations relating to emissions and discharges do not apply in internal or controlled (0-3 nautical miles) waters and competence in relation to pollution matters in these areas rests with the Scottish Government.

Environmental Impact Assessment

71 Environmental Impact Assessment (EIA) is a process that aims to protect the environment by ensuring that the appropriate consenting authority has full knowledge of the environmental effects of a proposed development. It takes these into account in the decision-making process. The appropriate consenting authorities for all marine developments from mean high water springs to 12 nautical miles are likely to be the local planning authority, MS-LOT on behalf of Scottish Ministers, or DECC on behalf of the Secretary of State for reserved matters.

72 European Directive (2011/92/EU which codified version 85/337/EEC as amended by 97/11/EC, 2003/35/EC and 2009/31/EC)⁴⁵ requires an EIA to be completed in support of an application for development of certain types of project, as listed in Schedules 1 and 2 of the Directive. EIA is mandatory for Schedule 1 projects and Schedule 2 developments have to undergo screening to determine whether an EIA is required. Screening for an EIA refers to the process by which a specific project or development is reviewed to determine if a statutory EIA is required.

43 Scottish Government Circular 5/2009 Hierarchy of Developments: <http://www.gov.scot/Publications/2009/07/03153122/0>

44 The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) – A Practical Guide http://www.sepa.org.uk/water/water_regulation.aspx

45 Information on Environmental Impact Assessment legislation <http://ec.europa.eu/environment/eia/eia-legalcontext.htm>

73 The European EIA Directive has been transposed into various regulations relating to development type and location. These include:

- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended) which apply to applications made under Section 36 and 37 of the Electricity Act⁴⁶
- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 which apply to terrestrial developments that require planning permission⁴⁷
- The Marine Works (Environmental Impact Assessment) 2007 (as amended) which apply to marine licensing⁴⁸

74 If an EIA is required, a scoping exercise should be undertaken to determine the issues and impacts to be assessed, the data required, the assessment methodologies to be applied and how this information should be documented in the Environmental Statement. A Scoping Report should be submitted to the appropriate consenting authority by the applicant and the authority will respond by producing a formal Scoping Opinion following consultation with statutory consultees.

75 EIAs are required to assess cumulative effects as well as any direct and indirect effects resulting from a proposed development or activity. The assessment of cumulative effects should consider any existing and proposed project in the public domain which may interact to result in cumulative impacts and those environmental receptors that may be impacted by cumulative effects. The European Commission (EC) has produced guidance on how cumulative impacts can be assessed⁴⁹. For further guidance relating to EIA requirements for developments that have marine and terrestrial components refer to General Policy 7A: *Integrating coastal and marine development* and the supporting text to this policy.

Habitats Regulations Appraisal

76 The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) require competent authorities to assess certain plans or projects which may affect Natura sites (Special Areas of Conservation and Special Protection Areas). Any development proposal, which requires planning permission or other consent, is considered a 'project' requiring consideration under the Habitats Regulations via a Habitats Regulations Appraisal (HRA). Where there is potential for significant effect on the qualifying interests (species and/or habitats) of a Natura site alone or in-combination, irrespective of distance of the proposal from that site, the development proposals must be subject to an Appropriate Assessment under the provisions of the Habitats Regulations. Permission for the proposal can only be granted by the relevant planning or licensing authority where it can be shown, beyond

46 Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000
<http://www.hms.gov.uk/legislation/scotland/ssi2000/20000320.htm>

47 Town and Country Planning (Environmental Impact Assessment)(Scotland) Regulations 2011
<http://www.legislation.gov.uk/ssi/2011/139/contents/made>

48 Marine Works (Environmental Impact Assessment) 2007 (as amended)
<http://www.legislation.gov.uk/uksi/2007/1518/contents/made?view=plain>

49 EC Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions
<http://ec.europa.eu/environment/eia/eia-support.htm>

reasonable scientific doubt, that the proposal will not adversely affect the integrity of the site. Where a proposal does not satisfy this test, it can only proceed if there are no alternative solutions and imperative reasons of over-riding public interest. Compensatory measures must also be put in place by Scottish Ministers to secure the continued coherence of the Natura network.

77 The assessment of effects on integrity is made against the conservation objectives for the European sites, which are available on SNH⁵⁰ and Joint Nature Conservation Committee (JNCC)⁵¹ websites. The onus is on demonstrating the absence of such effect so the question which an Appropriate Assessment must satisfy is ‘can it be ascertained that the proposal will not adversely affect the integrity of the site?’.

78 Developers will undertake and fully document the HRA process and produce an ‘Information for Appropriate Assessment’ report for the competent authorities. The competent authorities will review the supplied documentation in consultation with SNH and JNCC and make the necessary judgement.

Crown Estate Leases and Licences

79 In Scotland approximately half of the foreshore and most of the seabed out to 12 nautical miles is managed by The Crown Estate. The Crown Estate is able to grant leases and licences over the foreshore and seabed it manages. It is therefore likely that a lease or licence from The Crown Estate will be required for most marine developments and it is advisable that prospective developers consult with The Crown Estate.

80 As part of the Smith Commission Agreement, responsibility for the management of the Crown Estate’s economic assets in Scotland, and the revenue generated from these assets will be transferred to the Scottish Parliament. This is an ongoing process and up-to-date information regarding this can be found on the Smith Commission⁵² website.

Monitoring and review process

81 Monitoring the effectiveness of any plan is an essential part of the planning process. In the case of this pilot Marine Spatial Plan, the pilot process will be reviewed to identify lessons learned that can inform the process of future statutory regional marine planning. It is not intended that a detailed monitoring programme will be put in place for this pilot Plan as it is likely that the regional marine planning process will commence immediately following the pilot.

82 At this point in time, there is an inherent degree of uncertainty surrounding the potential impacts of the Plan policies, particularly as many are likely to be influenced by a range of site and project specific factors. In addition, with the limited availability of baseline data and absence of specific measurable targets there are many challenges that need to be addressed. The review of the pilot planning process will aim to highlight these challenges and present key principles for how monitoring and review can be carried out in the future.

50 Scottish Natural Heritage – Site Link <http://gateway.snh.gov.uk/sitelink/>

51 Joint Nature Conservation Committee – UK Protected Sites <http://jncc.defra.gov.uk/page-4>

52 The Smith Commission <https://www.smith-commission.scot/>

Section 3: Legislative and Policy Context

Introduction

83 This Marine Spatial Plan been prepared within the context of the relevant legislation, policy and plans developed at the international, European, national, regional and local level; the key regulatory and policy documents are summarised at Annex 2. Annex 2 does not provide an exhaustive list of all relevant legislation, policies and plans; it simply aims to identify the main legislation, policies and plans of relevance. The Sustainability Appraisal contains an overview of relevant data sources and an analysis of key environmental objectives considered relevant to the Plan.

84 This section of the Marine Spatial Plan describes the strategic policy context for marine planning that has directly influenced the vision, aims and objectives of the Plan. Figure 3 illustrates the relationship between this Marine Spatial Plan, relevant legislation and the various strategic plans being developed for the marine area around Scotland.

International context

85 This Marine Spatial Plan has been prepared within the context of the international regulatory and policy framework for marine planning and management. This includes UN Convention on the Law of the Sea (UNCLOS) which provides the international regulatory framework for the use of the world's seas and oceans. The Plan also pays due regard to the requirements of various EU Directives including the Marine Strategy Framework Directive, Marine Spatial Planning Directive, Water Framework Directive, Habitats Directive, Birds Directive, and the EU Common Fisheries Policy governing commercial fishing rights and obligations.

UK Marine Policy Statement

86 The UK Marine Policy Statement (MPS) was published jointly by all the UK Administrations in March 2011. It sets a vision for the whole UK marine area and provides a framework for preparing marine plans, including economic, social and environmental considerations which need to be taken into account and strategic policy objectives for key marine sectors. The Marine Policy Statement sets out a presumption in favour of sustainable development in the marine planning area. The Scottish National Marine Plan and any subsequent Scottish regional marine plans must accord with the Statement.

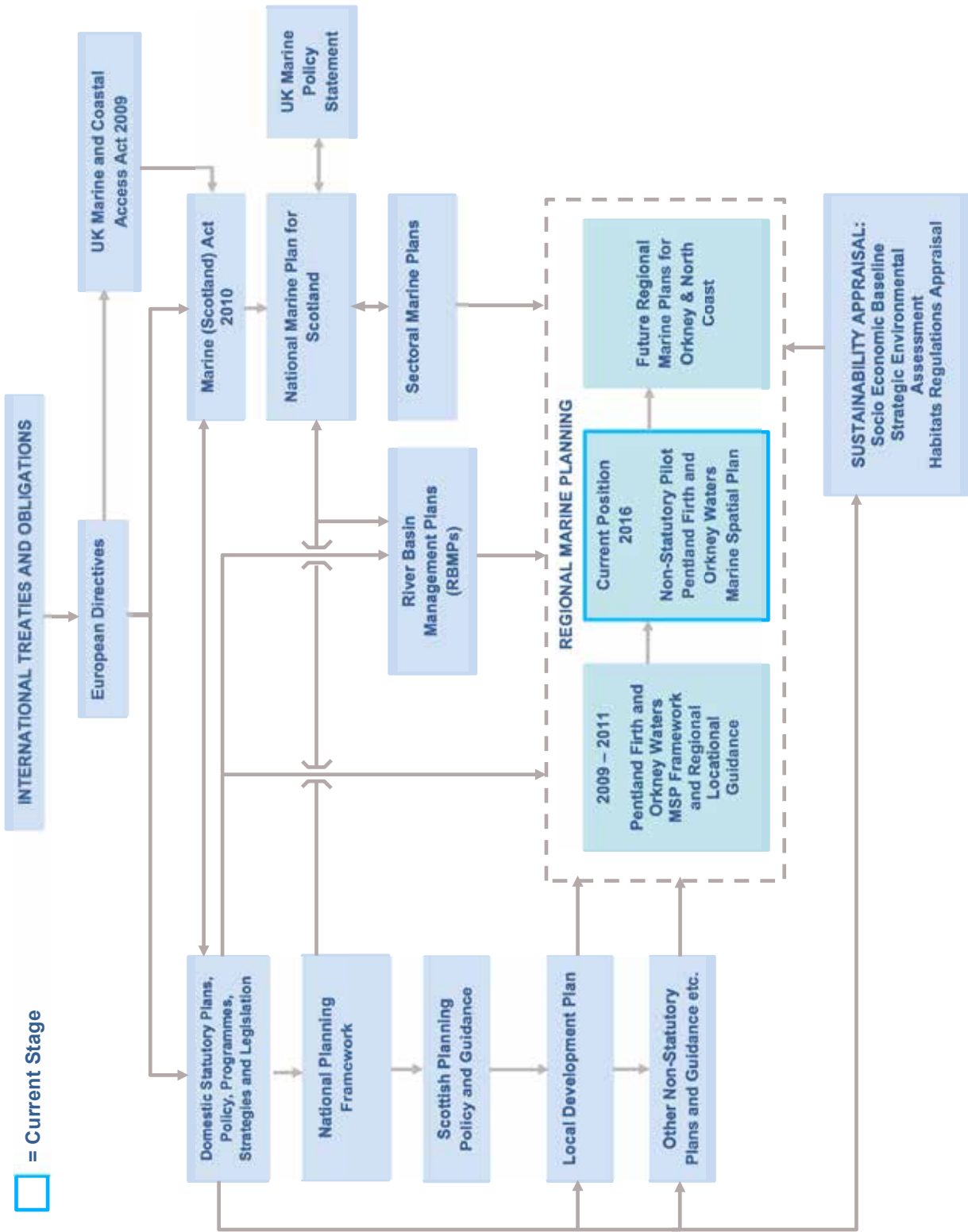


Figure 3: The context of the pilot Pentland Firth and Orkney Waters Marine Spatial Plan in relation to other legislation.

87 The Marine Policy Statement has been prepared and adopted for the purposes of section 44 of the Marine and Coastal Access Act 2009, which requires all public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area to do so in accordance with the Marine Policy Statement unless relevant considerations indicate otherwise. It also requires that Marine Plans must be in conformity with any Marine Policy Statement in effect in the marine plan area, unless relevant considerations indicate otherwise.

88 The Marine Policy Statement facilitates and supports the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high-level marine objectives and thereby:

- promote sustainable economic development
- enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects
- ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets
- contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues.

Scotland's National Marine Plan

89 The Marine (Scotland) Act 2010 requires Scottish Ministers to prepare and adopt a National Marine Plan for Scottish inshore waters. In addition, the Marine and Coastal Access Act 2009 requires Scottish Ministers to seek to ensure that a marine plan is in place in the offshore region when a Marine Policy Statement is in effect. In response to these statutory requirements, the National Marine Plan sets out strategic policies for the sustainable use of Scotland's marine resources out to 200 nautical miles and conforms with the overarching direction provided by the Marine Policy Statement. A marine plan for Scottish inshore waters and a marine plan covering Scottish offshore waters is published in one document, referred to as the 'National Marine Plan', however, it is recognised that the National Marine Plan is still comprised of two plans made under two separate pieces of legislation. Scotland's National Marine Plan, Scottish Planning Policy and National Planning Framework 3 have been developed in a consistent manner to provide an integrated policy framework across land and sea. This pilot Plan has therefore been prepared to conform with the National Marine Plan.

Scottish Planning Policy

90 Scottish Planning Policy (SPP) is the Scottish Government policy on how nationally important land use planning matters should be addressed across the country. SPP is a statement of Scottish Ministers' priorities, and carries significant weight in the preparation of development plans and is a material consideration in planning decisions. SPP supports an integrated approach to coastal planning to ensure that development plans and regional marine plans are complementary. Government bodies with responsibility for marine and terrestrial planning will need to ensure integration with policies and activities arising from the National Marine Plan, Marine Planning Partnerships, regional marine plans, and Integrated Coastal Zone Management.

National Planning Framework 3

91 Published in June 2014, National Planning Framework 3 (NPF3), provides a statutory framework for Scotland's long-term spatial development priorities for the next 20 to 30 years. Statutory development plans must have regard to the NPF, and Scottish Ministers expect planning decisions to support its delivery.

92 Orkney, Pentland Firth and North Caithness is identified as an area of coordinated action in NPF3; a location of particular significance to the delivery of the Scottish Government's low carbon strategy. NPF3 states that the area is an internationally renowned historic and natural environment, with significant future prospects for growth and innovation. There are unparalleled opportunities for marine renewable energy development, generating significant new business and employment opportunities for the surrounding coastal and island communities. This pilot Marine Spatial Plan, together with land use planning, is identified in NPF3 as a key mechanism to support delivery of offshore renewables and to help ensure that infrastructure and onshore facilities are provided in a co-ordinated way. Furthermore, NPF3 highlights that land use and marine planning should aim to balance development with environmental quality and activities such as fishing and tourism.

93 NPF3 identifies 14 national developments that are needed to help to deliver the spatial strategy. The following three national developments are located within or directly adjacent to the PFOW MSP area:

- an Enhanced High Voltage Energy Transmission Network – Mainland Scotland to Orkney
- a Digital Fibre Network – Caithness, Sutherland and Orkney
- a National Long Distance Cycling and Walking Network

94 Hatston, Lyness and Scrabster Enterprise Areas are a particular priority for action in NPF3. Furthermore, Scapa Flow is identified as a key port and deep-water asset with plans for a transshipment container hub within Scapa Flow supported. This Marine Spatial Plan aims to support the national developments and priorities identified in NPF3.

Regional Marine Plans and Marine Regions

95 Marine planning will be implemented at a local level within Scottish Marine Regions, sea areas extending from mean high water springs out to 12 nautical miles. Within these regions, regional marine plans will be developed by Marine Planning Partnerships to take account of local circumstances and engage local stakeholders. They will be developed in accordance with the National Marine Plan and Marine Policy Statement to ensure they are consistent with national objectives and priorities. The Scottish Marine Regions Order 2015 sets out the boundaries for 11 Scottish Marine Regions including Orkney and North Coast which are located within the area of this Marine Spatial Plan.

River Basin Management Plans

96 The production and implementation of River Basin Management Plans are a requirement of the Water Framework Directive. The River Basin Management Plan for the Scotland river basin district sets out objectives for how Scotland's wetlands, rivers, lochs, transitional waters (estuaries), coastal waters (out to three nautical miles) and groundwater will be protected and improved to achieve good ecological status/potential. The policies within this Marine Spatial Plan will play a part in ensuring River Basin Management Plans objectives are met by supporting the maintenance and, where possible, the enhancement of the ecological status of water bodies in the Plan area.

Orkney Local Development Plan

97 The Orkney Local Development Plan - adopted April 2014 provides the current statutory land use planning framework for Orkney. This Marine Spatial Plan has been developed to provide an integrated planning policy framework across the relevant terrestrial and marine area. It should be noted that a review of the Orkney Local Development Plan is taking place during 2015-16.

Highland-wide Local Development Plan and the Caithness and Sutherland Local Development Plan

98 The Highland-wide Local Development Plan 2012 and its supporting guidance are under review to ensure they reflect evolving national policy. The current Policy 49: Coastal Development will likely be replaced by a Coastal and Marine Planning policy to support the integration of marine and land use planning.

99 Highland Council has also recently begun preparation of the new Caithness and Sutherland Local Development Plan. To support this the proposed Plan was published for consultation from January to March 2016. This document sets out the position on managing the marine and coastal environment in recognition of the key role of marine planning in the area. For the time being, the Caithness Local Plan (2002) and the Sutherland Local Plan (2010) remain 'As continued in force (2012)'.

Further information

Refer to Annex 2 – *Legislation, Policy and Plans* for web links.

Section 4: General Policies

Introduction

100 A general policy is one that is potentially relevant to the determination of an authorisation or enforcement decision for development or activities by any sector. These types of policies are often referred to as cross-cutting policies as the issues they address usually apply to many inter-related issues. For example, virtually all development has the potential to have impacts on habitats and species. Having a suite of general policies helps ensure the Plan is contributing to both high-level government targets and helps meet our commitment to local sustainable development as outlined in the objectives.

101 The cross-cutting general policy themes provide a consistent framework to ensure the Plan delivers sustainable development through the identification of policies that deliver environmental benefits alongside the needs of each sector.

102 Proposed developments and activities must comply with legal requirements and should adhere to all of the general policies, be cognisant of all the sectoral policies and consider the likely cumulative impacts. In all cases, marine safety is paramount. The associated text for each policy includes relevant supporting information that should be taken into account.

How they will be applied

103 All of the general policies:

- Apply to all development(s) and activities
- Should be applied proportionately
- Are not given in any order of priority: all have equal weight

See Section 2 *How to use the Plan* for more information on the planning and licensing process.

Policy format

104 To aid understanding of the Plan, all of the policies will be set out using the following format:

105 A summary of how each of the general policies contributes to meeting the objectives of the Plan is included at the start of the section (Table 2).

106 An analysis of the likely socio-economic and environmental effects of each of the general policies can be found in the Sustainability Appraisal⁵³. The Sustainability Appraisal also explores the likelihood of cumulative effects associated with the collective group of general and sectoral policies, including consideration of the wider policy and regulatory context. These findings should be read in conjunction with this Marine Spatial Plan.

107 Background and Context: in this section, a brief summary of the underlying reasons for the policy is set out.

108 Key legislation and policy guidance: the main legislative and policy drivers are provided, this is intentionally not an exhaustive list. It is acknowledged there are likely to be many supplementary and inter-linked policies and documents. Where legislation covers several policies, it will usually only be listed once in the most relevant policy to reduce repetition, therefore an element of cross-referencing will be required. A more comprehensive list is provided in Annex 2.

109 Current status: in this section, the baseline condition of the policy topic is outlined. Where appropriate, further information may be found for most of these general policies in the Sustainability Appraisal.

110 Pressures: the issues leading to significant pressures on the policy topic are outlined. In some cases, these pressures may be applicable to a number of the policies, therefore an element of repetition is unavoidable.

111 Policy: this is the policy that will guide development and activities.

112 Justification: this outlines both the key legislative drivers and, where appropriate, the feedback from the consultation on the Planning Issues and Options Consultation paper that informed the drafting of the Plan.

113 Supporting spatial information: where data are readily available, links to the underlying spatial data are provided. In most cases, these data layers will be hosted on Marine Scotland's National Marine Plan interactive (NMPi), therefore reference to it will not be repeated in each policy. NMPi is regularly updated so it should be consulted to ensure the most up-to-date information is used. This will ensure that the latest information is accessible as new research becomes available.

114 Future considerations: some of the likely significant issues that may be encountered during the life of the Plan and any subsequent regional marine plans are summarised.




115 Further information: provides information on the key documents referenced in the policy and sources of additional information.

116 Information boxes: throughout the Plan, information boxes are provided. These include supporting information, clarification of terms or legislation or provide examples related to the policy.

⁵³ Pilot Pentland Firth and Orkney Waters Marine Spatial Plan - Sustainability Appraisal <http://www.gov.scot/Publications/2015/06/8421>

Table 2: The contribution of each of the General Policies to the Plan objectives.

Key:

-  Direct contribution
-  Indirect contribution
-  No clear contribution

Objective	Sustainable development	Supporting sustainable social and economic benefits	Safeguarding the marine ecosystem	The well-being, quality of life and amenity of coastal communities	Climate change	Nature conservation designations	Protected species	Wider biodiversity	Landscape and seascape	Geodiversity	Water environment	Coastal processes and flooding	Historic environment	Integrating coastal and marine development	Noise	Waste and marine litter	Invasive non-native species
Support long-term productivity in the marine environment that provides benefits and prosperity for local communities and wider stakeholders.																	
Support the transition to a low carbon economy.																	
Encourage a sustainable coexistence and synergies between existing and new marine activities and developments, to the mutual benefit of multiple stakeholders.																	
Provide reliable information on existing and proposed marine activities.																	
Promote best practice to manage and make use of natural resources within sustainable limits.																	

Objective	Sustainable development	Supporting sustainable social and economic benefits	Safeguarding the marine ecosystem	The well-being, quality of life and amenity of coastal communities	Climate change	Nature conservation designations	Protected species	Wider biodiversity	Landscape and seascape	Geodiversity	Water environment	Coastal processes and flooding	Historic environment	Integrating coastal and marine development	Noise	Waste and marine litter	Invasive non-native species
Within an ecosystem approach, protect and enhance the biological, chemical and physical functioning of the marine and coastal environment, the scenic quality and coastal character.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Promote an ecosystem based approach to the management of human activities to support the achievement of Good Environmental Status of marine and coastal waters under Marine Strategy Framework Directive.	■	■	■	■	■	■	■	■	■	■	■	■	□	□	■	■	■
Support the cultural and social well-being of local communities including the maintenance and enhancement of quality of life, and visual amenity in coastal areas.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	□
Support management of the marine environment, marine development and infrastructure that mitigates and is resilient to the effects of climate change.	■	■	■	■	■	■	■	■	□	■	■	■	■	■	■	■	■
Support sustainable management of the coastal zone and inshore waters, including minimising and mitigation of cumulative impacts from marine developments.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Objective	Sustainable development	Supporting sustainable social and economic benefits	Safeguarding the marine ecosystem	The well-being, quality of life and amenity of coastal communities	Climate change	Nature conservation designations	Protected species	Wider biodiversity	Landscape and seascape	Geodiversity	Water environment	Coastal processes and flooding	Historic environment	Integrating coastal and marine development	Noise	Waste and marine litter	Invasive non-native species
Identify marine planning and/or governance related issues to inform the future regional marine planning process.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Pilot the development of an integrated marine planning policy framework for the future North Coast and Orkney Scottish Marine Regions.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Assist Plan users to navigate the complex legislative and policy framework more easily and effectively.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Provide a clear strategic direction and greater certainty for prospective developers, investors and local communities in the Pentland Firth and Orkney Waters area.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

GENERAL POLICY 1A: SUSTAINABLE DEVELOPMENT

Background and context

117 Sustainable development is integral to the Scottish Government's overall purpose and the broad purposes of the marine and land use planning system. Achieving sustainable management, development and use is the central purpose of this Marine Spatial Plan. It is envisaged that through a balanced consideration of social, economic and environmental factors, sustainable development can be achieved for a diverse range of economic sectors in Pentland Firth and Orkney Waters.

Information Box 1

What is sustainable development?

The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations.

The Scottish Government has, as its overall purpose, to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.

Sustainable economic growth means building a dynamic and growing economy that will provide prosperity and opportunities for all, while respecting the limits of our environment in order to ensure that future generations can enjoy a better quality of life.

UK Government and Devolved Administrations high-level marine objectives¹ are articulated in the context of the five sustainable development principles which set out the outcomes sought by these governments. It is intended that actions and regulatory structures will support the delivery of these outcomes to achieve sustainability.

The five guiding principles of sustainable development (see Figure 4) are:

- achieving a sustainable economy
- ensuring a strong, healthy and just society
- living within environmental limits
- promoting good governance
- using sound science responsibly

Key legislation and policy guidance

118 Under the Marine and Coastal Access Act 2009² and the Marine (Scotland) Act 2010³, marine plans must set out policies for, and in connection with, the sustainable development of the area to which the Plan applies.

Current status

119 Delivering sustainable economic development by supporting Scotland's transformation to a low carbon economy is central to Scottish Government objectives. These objectives are coupled with the drive to reduce greenhouse gas emissions and the harmful effects of climate change. In the context of the Pentland Firth and Orkney, the sustainable development of the marine renewable energy industry forms part of this wider vision and is one of the key drivers for change within the Plan area.

Pressures

120 To achieve sustainable development, the needs of many established marine and coastal users, such as commercial fisheries and recreation, need to be assessed and, in turn, appropriately addressed through development consent and management decisions. This Plan aims to ensure that valued environmental, cultural and economic resources are safeguarded and, where appropriate, enhanced through this development and management decision-making process.

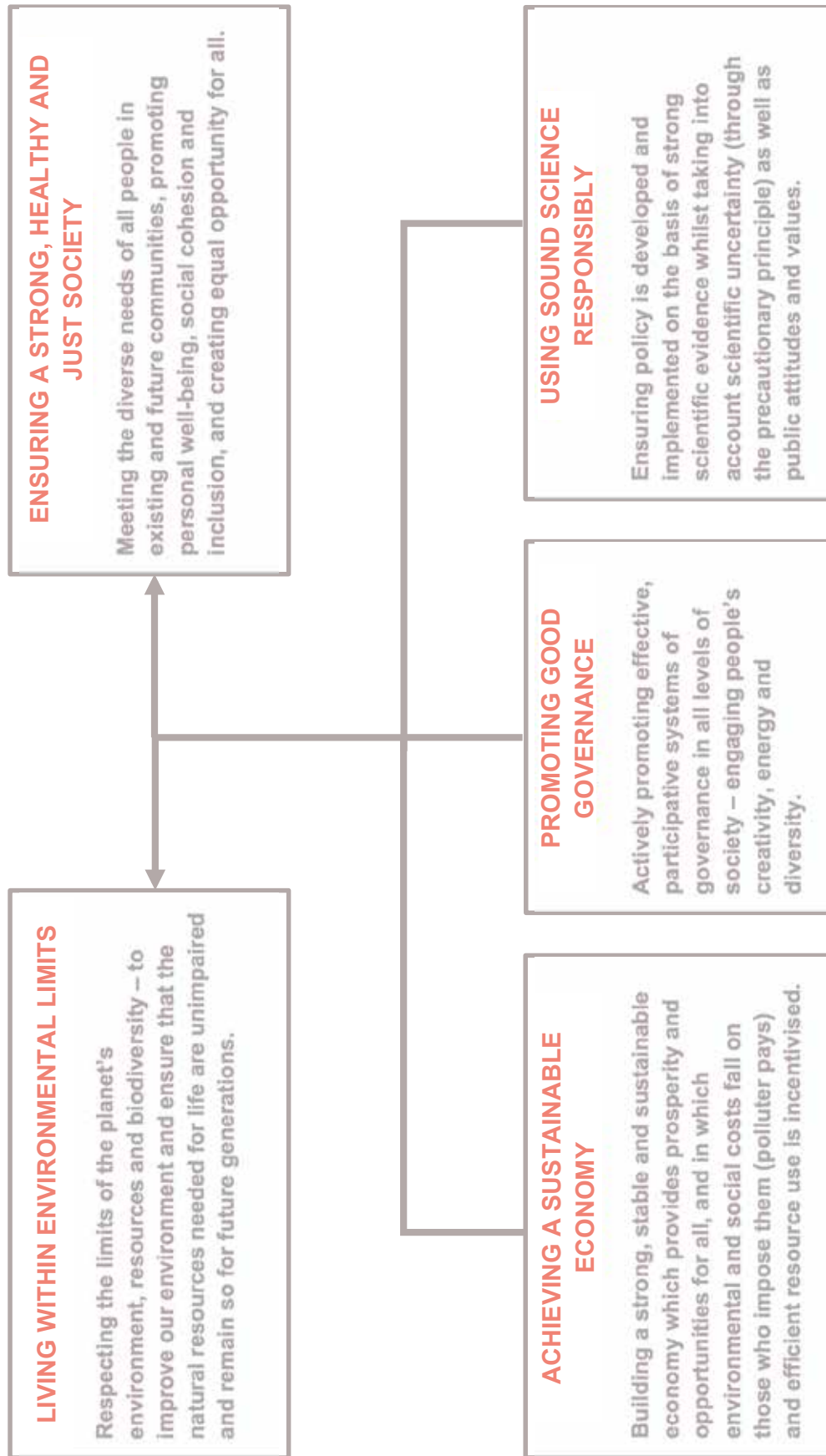


Figure 4: Principles for Sustainable Development (adapted from Scotland's Sustainable Development Strategy, 2005)

General Policy 1A: Sustainable development

Development(s) and/or activities will be supported by this Plan when it can be demonstrated that:

- they will not have significant adverse direct, indirect or cumulative social, environmental or economic effects
- they will maintain and, where possible, enhance, existing built, natural and cultural heritage resources
- they will make efficient use of marine space, and where appropriate, maximise opportunities for co-existence between marine users and support the multiple use of marine space
- they will not create an unacceptable burden on existing infrastructure and services that cannot be resolved

Public authorities should adhere to the following sustainable development principles in the determination of any authorisation or enforcement decision:

- the protection and, where appropriate, enhancement of the health of the marine area
- maximise opportunities for lasting social, environmental and economic benefits balancing these considerations through the consenting process
- maximise the efficient use of existing infrastructure and services (e.g. port and harbour infrastructure)
- support the efficient use of marine space and co-existence between marine users
- sound science has been used responsibly

Justification

121 The achievement of sustainable development is the central aim of this Marine Spatial Plan and the UK and Scottish Governments. General Policy 1A: *Sustainable development* has been developed as an overarching policy to ensure that sustainable development principles underpin developer decisions when planning and implementing projects and the authorisation and enforcement decisions made by public authorities. The policy also aims to guide marine users to carrying out their activities taking cognisance of sustainable development principles.

Supporting spatial information

- See Spatial Diagram and Plan maps for further detail.

Future considerations

122 Monitoring the effectiveness of General Policy 1A: *Sustainable development* will provide a useful measure of the overall effectiveness of this Marine Spatial Plan. Further work is required to establish baseline data and a benchmark against which the monitoring of specific targets and indicators can be delivered. The development of an appropriate monitoring framework will need to be considered as part of the future statutory regional marine planning process.

Further information

¹ UK Government and Devolved Administrations high-level marine objectives

<https://www.gov.uk/government/publications/our-seas-a-shared-resource-high-level-marine-objectives>

² Marine and Coastal Access Act 2009

<http://www.gov.scot/Topics/marine/seamanagement/marineact/ukbill>

³ Marine (Scotland) Act 2010

<http://www.gov.scot/Topics/marine/seamanagement/marineact>

The Government Economic Strategy 2011

<http://www.gov.scot/Publications/2011/09/13091128/0>

European Union Sustainable Development Strategy

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV:l28117>

Choosing Our Future: Scotland's Sustainable Development Strategy

<http://www.gov.scot/Publications/2005/12/1493902/39032>

UK Marine Policy Statement

<https://www.gov.uk/government/publications/uk-marine-policy-statement>

Scotland's National Marine Plan

<http://www.gov.scot/Topics/marine/seamanagement/national>

National Planning Framework 3

<http://www.gov.scot/Topics/Built-Environment/planning/National-Planning-Framework>

Scottish Planning Policy

<http://www.gov.scot/Topics/Built-Environment/planning/Policy>

GENERAL POLICY 1B: SUPPORTING SUSTAINABLE SOCIAL AND ECONOMIC BENEFITS

Background and context

123 Marine planning has an important role in enabling economic opportunities to be realised, supporting the achievement of national economic aspirations for growth. Marine licensing decisions for development and activities should support opportunities to increase employment and productivity to benefit the local and national economy. As well as providing jobs and income for local people, the growth of marine sectors should add value through the production of goods and services maximising opportunities for local supply chains.

124 A key challenge for marine planning is to balance the aspirations and requirements of traditional marine industries (e.g. commercial fishing, shipping, recreation and marine transport) and growth sectors such as marine renewable energy, marine tourism and aquaculture. This challenge includes considering the complex spatial requirements of each sector within a three-dimensional environment including the water surface, the water column and the seabed. It also brings into play a wider range of interactions between these sectors with potential positive and negative social, economic and environmental effects. Marine licensing decisions will implement the policy framework in this Plan aiming to balance these complex considerations, maximise benefits and support potential synergies between sectors.

Information Box 2

What is meant by synergies?

In this Plan, the term synergies refers to the interaction or cooperation between two or more developments and/or activities to achieve combined mutual benefits.

For example, an offshore wind farm co-locating with an aquaculture development to share infrastructure, development costs and make more efficient use of marine space.

125 The growth of the marine renewable energy sector has the potential to have a transformational effect on the local economy and the surrounding coastal communities. The existing marine industries operating within the Pentland Firth and Orkney Waters area make a vital social and economic contribution towards productivity and employment and their ongoing importance is supported by the policies in this Plan. The scale of the wind, wave and tidal energy resource provides an opportunity for economic development that could transform the economic structure of the area. This Plan aims to support the growth of the renewable energy sector to bring forward social, economic and environmental benefits in a way that co-exists with existing economic activities.

Key legislation and policy guidance

126 In 2011 the European Commission adopted a Communication on Blue Growth¹ showing how Europe's coasts, seas and oceans have the potential to be a major source of new jobs and growth that can contribute to the Europe 2020 strategy². The EU Blue Growth Strategy³ identifies sectors that have high potential for sustainable jobs and growth including aquaculture, coastal tourism, marine biotechnology, ocean energy and seabed mining. Marine spatial planning is an essential component of the strategy supporting greater knowledge, legal certainty and security in the blue economy.

127 The Government Economic Strategy⁴ gives clear priority to accelerating economic recovery, with a range of measures to tackle unemployment and promote employability. It focuses actions on six Strategic Priorities which will drive sustainable economic growth and develop a more resilient and adaptable economy.

Current status

128 The current socio-economic characteristics of Orkney, Caithness and Sutherland are set out in the Socio-Economic Baseline Review⁵ of the Pentland Firth Orkney Waters area which is summarised in the Sustainability Appraisal that supports this Plan.

Pressures

129 Island and peripheral mainland communities are particularly vulnerable to the effects of significant social and economic change which can result from the growth of major new industries. In the PFOW area, the growth of the renewable energy and aquaculture sector, for example, could have significant impacts on infrastructure and services. These impacts can be particularly acute in remote islands and other remote areas where new developments can create additional pressures on local harbours, schools, housing and ferry services. Major structural change in the local economy can also place significant pressure on the operation of existing industries in terms of the available workforce, spatial requirements and use of local infrastructure.

General Policy 1B: Supporting sustainable social and economic benefits

Development(s) and/or activities will be supported by this Plan when the proposal can demonstrate:

- sustainable employment benefits
- that opportunities to support local supply chains and create skilled employment in local communities have been maximised
- that any adverse social, economic and operational effects on existing activities have been avoided, or where avoidance is not possible, adverse effects have been appropriately mitigated
- that opportunities to support synergistic benefits between development and activities have been maximised

Developers should undertake early engagement with the local authority, and any other relevant bodies, if there are likely to be significant impacts on local infrastructure or services.

Justification

130 The delivery of sustainable social and economic benefits as an integral component of future development is central to both national and local planning policy. To achieve these objectives, social and economic change needs to be sustainably managed to maximise benefits for local communities and support local infrastructure and services. As many local businesses and jobs rely on marine industries it is important that existing jobs are safeguarded and opportunities for growth are maximised.

Supporting spatial information

131 This policy is not supported by specific spatial information.

Future considerations

132 The delivery of social and economic benefits through marine development will need to be monitored as part of future marine planning activities in Pentland Firth and Orkney Waters.

Further information

¹ **EC Communication COM (2014) 254** – Innovation in the Blue Economy: realising the potential of our seas and oceans for jobs and growth
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=COM:2014:254:REV1&from=EN>

² **EC Europe 2020**
http://ec.europa.eu/europe2020/index_en.htm

³ **EU Blue Growth**
http://ec.europa.eu/maritimeaffairs/policy/blue_growth/

⁴ **The Government Economic Strategy** www.gov.scot/Topics/Built-Environment/planning/Policy

⁵ **Pilot Pentland Firth and Orkney Waters Socio-Economic Baseline Review**
<http://www.gov.scot/Topics/marine/seamanagement/regional/activity/pentlandorkney>

GENERAL POLICY 1C: SAFEGUARDING THE MARINE ECOSYSTEM

Background and context

133 The natural marine ecosystems of Orkney and the North Caithness and Sutherland coasts are of significant intrinsic value, which must be preserved for future generations. They form part of much larger marine ecosystems in a dynamic three dimensional environment, providing a variety of vital ecosystem services such as nutrient recycling, waste assimilation and food provision.

134 The area is rich in features, habitats and species that collectively support diverse biological communities. Species survive in a wide range of habitats from wide, sandy beaches, towering cliffs and colourful rock-pools to extreme tidal races, muddy seabed and shifting water columns. This natural heritage is a recognised world-class resource, which contributes to, and enhances, the quality of life enjoyed in the region. This Marine Spatial Plan makes a contribution to safeguarding these ecosystem resources and sustainably managing the use of the natural assets now and for future generations.

Key legislation and policy guidance

135 The marine ecosystem delivers a variety of goods, such as food resources, and services, such as waste assimilation and treatment, which are beneficial to human society as well as maintaining ecosystem functioning¹. By adopting an ecosystems approach, integrated management of this diverse marine environment should promote conservation and sustainable use of these resources and services in an equitable way. This methodology will help to build resilience and contribute to ensuring 'Good Environmental Status' of our marine waters, as required by the Marine Strategy Framework Directive² (see Information Box 3). In addition, this strategy will also help meet the demands of the Water Framework Directive³, whilst General policies 4A-4C deal with specific habitats and species protection.

Information Box 3

Marine Strategy Framework Directive

Fundamental aims of the MSFD are to:

- ensure that priority should be given to achieving or maintaining Good Environmental Status (GES) in the EU Community's marine environment
- continue its protection and preservation
- prevent subsequent deterioration

This will be done through adherence to targets, for which 'descriptors' of GES have been established. The PFOW Marine Spatial Plan will therefore make a contribution to implementing the Directive.

136 The Marine Nature Conservation Strategy provides guidance on developing a network of marine conservation areas at a national level (see General Policy 4A: *Nature conservation designations*). Scotland's Marine Atlas⁴ provides a wealth of background information on the health and diversity of the PFOW areas seas.

Current status

137 Most of the environment in the PFOW area is of relatively high quality, as evidenced by the clean and safe seas assessment in the Marine Atlas. There are, however, a number of concerns regarding the health and biodiversity of the area, particularly in relation to some fish, bird, marine mammal and non-native species. Baseline environmental data are discussed in detail within General Policies 4A-E and in the accompanying Sustainability Appraisal.

Pressures

138 The pressures on the marine ecosystems are many and complex. Climate change is a significant issue which is likely to become increasingly relevant and noticeable over the next few decades. Related issues include ocean acidification and changing marine food webs, whilst related sea-level rise increases flooding risk. In addition, there are many development pressures competing for use of the natural environment's resources and ecosystem services, as outlined within this Marine Spatial Plan.

General Policy 1C: Safeguarding the marine ecosystem

The Plan will support proposed development(s) and/or activities when they:

- safeguard the integrity of coastal and marine ecosystems
- contribute towards the Marine Strategy Framework Directive objectives to promote enhancement or improvement of the environmental status of the marine environment
- demonstrate how any significant disturbance and degradation of coastal and marine ecosystems has been avoided or appropriately mitigated

Justification

139 A high-quality marine ecosystem is a fundamental requirement for both its intrinsic value and as a basis for sustainable development. Fisheries and coastal/marine tourism depend on well-functioning marine ecosystems. The quality of life of local communities is greatly enhanced by the existence of healthy seas.

Supporting spatial information

140 See maps for General Policies 4A-4C.

Future considerations

141 Subsequent regional marine plans will provide continued support for safeguarding the marine ecosystem.

142 Effects of climate change such as sea-level rise, increase of invasive non-native species and changing food webs may lead to significant changes in the natural environment, with associated social and economic impacts.

Further information

¹ Frid, C. et al (2011) Marine Planning and Management to Maintain Ecosystem Goods and Services. In *The Ecosystem Approach to Marine Planning and Management* (Eds, Kidd, Plater & Frid). Earthscan, London.

² Marine Strategy Framework Directive

<http://www.msfd.eu/>

³ Water Framework Directive

<http://www.gov.scot/Topics/Environment/Water/15561/WFD>

⁴ Scotland's Marine Atlas

<http://www.gov.scot/Topics/marine/science/atlas>

Scottish Natural Heritage

<http://www.snh.gov.uk/>

The Ecosystem Approach to Marine Management

<http://www.msfd.eu/knowseas/library/PB2.pdf>

GENERAL POLICY 2: THE WELL-BEING, QUALITY OF LIFE AND AMENITY OF COASTAL COMMUNITIES

Background and context

143 Orkney and the Caithness and Sutherland coast are attractive places to live and work, with a unique environment that provides a high quality of life for their communities. The natural environment, cultural heritage and traditions and high level of general amenity all contribute to the well-being of local people.

144 Through the ages, these places have inspired creativity and innovation as people have changed and adapted to make a living from their environmental resources and create a unique way of life. Island and peripheral communities have benefited from a general culture of cooperation and solidarity. That culture can enable local communities to be progressive; embracing new social and economic opportunities whilst safeguarding the environment and wider quality of life.

145 In 2013 the Scottish Government formed the Island Areas Ministerial Working Group together with the *Our Islands Our Future* Council leaders in Orkney, Shetland and Western Isles. This initiative considers how a future Scottish Government could recognise and address the needs of remote island areas. The *Empowering Scotland's Island Communities* prospectus¹ sets out a range of proposals based on three underpinning objectives:

- promoting islands' voice
- harnessing island resources
- enhancing islands well-being

146 For further background information, the Office of National Statistics² is developing new measures of national well-being with an aim to provide a fuller picture of how society is doing by supplementing existing economic, social and environmental measures.

Information Box 4

Well-being – The state of being comfortable, healthy or happy.

Quality of life – The standard of health, comfort, and happiness experienced by an individual or group.

Amenity – A positive element or elements that contribute to the overall character or enjoyment of an area.

Key legislation and policy guidance

147 Supporting individual well-being is a well-established principle within policy for health and social care but is less established within policy for the planning system. That said, planning has played a long-established role in improving people's quality of life and well-being by creating places that are enjoyable to live in, work in and visit. The environmental protection and safeguarding of amenity afforded by the land use and marine planning system means that related policy and decision making are well placed to impact profoundly on the well-being, quality of life and amenity of local communities.

Current status

148 Caithness, Sutherland and Orkney residents enjoy a high quality of life as compared to the UK average. Marine and land use planning policy aims to safeguard the local environment and the area's amenity value. Additionally, the Highland Council has developed a Community Benefit Policy³ to support the well-being of local communities. Within that policy, it recognises that in the short to medium term, off-shore renewable energy developments may be of a research and experimental nature. This means that community benefit may only become available as these developments become commercially viable. Similarly, Orkney Islands Council has approved community benefit principles to support future community benefits from the marine renewable energy industry. It is recognised that community benefit can be provided by other sectors, for example aquaculture, and opportunities to secure appropriate community benefits are being taken forward with the relevant industry representatives.

Pressures

149 The growth of economic activity within the PFOW area has the potential to create many benefits for local communities and, on the other hand, exert a range of social, environmental and economic pressures. The landscape and seascape, historic assets, natural habitats, water quality and tranquillity experienced in the PFOW area all make a significant contribution to local people's quality of life. These features are vulnerable to potential direct and cumulative impacts from future development including renewable energy, ports and harbours, aquaculture and other infrastructure.

General Policy 2: The well-being, quality of life and amenity of coastal communities

Development(s) and/or activities will be supported by this Plan when it can be demonstrated that:

- significant adverse effects on the well-being, quality of life and amenity of local communities have been avoided, and where appropriate, mitigation measures to address any adverse effects have been incorporated as part of the proposals and agreed with the consenting authority
- local stakeholders, relevant Community Councils and interested community groups have been engaged at an early stage in the development process when assessing any potential impacts on the well-being, quality of life and amenity of local communities

Justification

150 General Policy 2: *The well-being, quality of life and amenity of coastal communities* has been developed in response to the Planning Issues and Options consultation and wider stakeholder engagement as part of the preparation of this Marine Spatial Plan. These engagement methods highlighted that the existing high quality of life and well-being of local communities needs to be safeguarded. The aim of this policy is to provide an opportunity for a fuller assessment of new development and activities supplementing existing economic, social and environmental measures with this Plan.

Supporting spatial information

151 The spatial information supporting the General and Sectoral policies within the Plan are relevant when considering the well-being, quality of life and amenity of coastal communities.

Future considerations

152 Further research is required to better understand the factors that contribute towards the well-being, quality of life and amenity of coastal communities within the Plan area.

Further information

¹ Empowering Scotland's Island Communities

<http://www.gov.scot/Publications/2014/06/2708>

² Measuring National Well-being – Office of National Statistics

<http://www.ons.gov.uk/ons/guide-method/user-guidance/well-being/index.html>

³ Highland Council Community Benefit Policy

http://www.highland.gov.uk/downloads/file/4542/community_benefit_policy

GENERAL POLICY 3: CLIMATE CHANGE

Background and context

153 Climate change is a global issue. The marine environment plays a major role in mitigating its effects by carbon capture, whereby marine life, especially algal communities, absorb carbon which is then stored. However, warmer temperatures, rising sea levels and changing weather patterns will increasingly affect our marine environment and, in turn, our society in important ways. Its effects in Scotland include impacts on native marine plants and animals, increased flooding and erosion rates and changing weather patterns. These effects are likely to increase in the mid to longer term as actions taken now to reduce greenhouse gases may take years to have a positive effect.

Information Box 5 Climate change

Increases of greenhouse gases such as methane (CH₄) and carbon dioxide (CO₂) from human activities have resulted in rapid changes to our climate, particularly over the last 50 years. These changes include rising sea temperatures which, in turn, have led to changes in species' normal habitat ranges, leading to changes in marine food webs. For example, Atlantic white-sided dolphins are moving northward out of UK waters and short-beaked common dolphins are being sighted in the Northern North Sea and northern most part of the Scottish Continental Shelf more regularly¹.

On an economic level, changes in commercially available fish and shellfish species could have significant impacts, requiring changes in fishing practices.

Key legislation and policy guidance

154 Mitigating and adapting to climate change are key strategic objectives of the National Marine Plan, as determined by the Marine (Scotland) Act 2010. The Scottish Government's targets to generate the equivalent of 100% of Scotland's electricity demand from renewable sources makes a significant contribution to climate change targets as a supporting commitment under the Climate Change (Scotland) Act 2009². In addition, the Scottish Climate Change Adaptation Programme³, Framework⁴ and Mitigation Policy provide a range of guidance to support the Act. The PFOW area, which this pilot Plan supports, therefore has a significant role to play in realising these national targets.

Current status

155 The PFOW area is at the forefront of wave and tidal energy development. These developments will make an important contribution to decarbonisation and climate change targets. This Plan highlights potential synergies between this new sector and the existing, more established sectors and activities, therefore allowing maximum opportunities to reduce climate change impacts. These established sectors also undertake mitigation measures to reduce both costs and climate change impacts. Examples include more efficient fuel use for shipping and locating new infrastructure so that impacts on saltmarsh, kelp beds, sea grass beds and coastal peatland are avoided. The current national and regional approaches to marine spatial planning also make a contribution to adapting to climate change pressures, a key objective of the National Marine Plan.

Pressures

156 The pressures of climate change are complex and some may require years to fully detect. Already, climate change may have contributed to changes in plankton communities, fish stocks and seabird populations. It has been predicted that climate change may lead to the thinning of shellfish shells due to increased acidity and affect the viability of some species, to the benefit of others. An increase in winter storms and sea-level rise could speed up coastal erosion, affecting communities, infrastructure and key cultural heritage sites or result in higher levels of flooding and harbour damage or impact the wave and tidal devices and other marine infrastructure.

General Policy 3: Climate change

Development(s) and/or activities will be supported by the Plan where the proposal can demonstrate appropriate:

- measures to mitigate the effects of climate change
- measures taken to adapt to climate change
- resilience has been built into the project over its lifetime

All proposals for development(s) and/or activities must minimise, as far as practicable, emissions of greenhouse gases and clearly demonstrate mitigation measures taken.

Information Box 6

Adaptation

Adaptation refers to measures to adjust infrastructure or natural systems to provide resilience to the harmful consequences of climate change (e.g. better coastal protection against storm surges).

Mitigation

Mitigation refers to measures to reduce emissions of carbon and other greenhouse gases or to remove them from the atmosphere.

Justification

157 Combatting the effects of climate change is a global issue. At a national level, there are legal requirements to ensure measures are taken to help reduce the effects of climate change, as outlined in the Climate Change (Scotland) Act 2009. This is supported by a key objective of the National Marine Plan.

158 By providing a Plan that ensures all development considers its implications for climate change, but also allows flexibility by providing a wide suite of environmental issues for consideration, the Plan has tried to provide an adaptable framework for tackling the issues raised by climate change.

Supporting spatial information

159 This policy is not supported by specific spatial information.

Future considerations

160 Effects of climate change such as sea-level rise, increase of invasive non-native species and algal blooms, along with changing food webs, may lead to significant changes in the natural environment, with associated positive and negative social and economic impacts. Changing shipping routes caused by a reduction in Arctic sea ice could see an increase in maritime traffic around the PFOW area as tankers make use of shorter global routes.

161 Climate change may increasingly affect coastal heritage assets and may impact on both the assets themselves and the related important tourism links. This could be of particular concern in Orkney.

162 Climate change will be a consideration in any subsequent regional marine plans, as per the Scottish Climate Change Adaptation Programme.

Further information

¹ Marine Climate Change Impacts Partnership Annual Report Card

<http://www.mccip.org.uk/annual-report-card/2013/regional-snapshots.aspx>

² Climate Change (Scotland) Act 2009

<http://www.legislation.gov.uk/asp/2009/12/contents>

³ Climate Ready Scotland: Scottish Climate Change Adaptation Programme (2014)

<http://www.gov.scot/Publications/2014/05/4669/downloads>

⁴ Scotland's Climate Change Adaption Framework

<http://www.gov.scot/Topics/Environment/climatechange/scotlands-action/adaptation/AdaptationFramework>

Rennie, A.F. & Hansom, J.D. (2011) Sea level trend reversal: Land uplift outpaced by sea level rise on Scotland's coast. *Geomorphology*, 125, 193-202

GENERAL POLICY 4A: NATURE CONSERVATION DESIGNATIONS

Background and context

163 The Pentland Firth and Orkney area hosts a diverse range of habitats and species that exist alongside geological features, coastal landscapes and seascapes. Furthermore, important sectors in the economy including, but not limited to, fisheries, renewable energy, aquaculture, tourism and recreation are dependent on these natural resources and associated ecosystems to thrive.

Key legislation and policy guidance

164 Statutory international and national nature conservation designations represent the best examples of Scotland's habitats, plants and animals, rocks, fossils and landforms. Their protection and management will help to ensure that they remain in good health for all to enjoy.

165 The Habitats Directive (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) was adopted in 1992. Along with the Birds Directive (see General Policy 4B: *Protected species*), they are the drivers for designation of areas known as 'Natura sites' or Special Areas of Conservation (SAC) and Special Protection Areas (SPA) respectively. This legislation covers not just the requirements for protected European (Natura) sites, but also for European Protected Species, as well as other aspects of the Directive. The Habitats Directive was translated into law in Great Britain by the Conservation (Natural Habitats, &c.) Regulations 1994, usually called 'the Habitats Regulations'. Ramsar sites are designated as internationally important wetlands. All Ramsar sites in Scotland are also either SPAs or SACs.

166 Sites of Special Scientific Interest (SSSI) are protected under the Nature Conservation (Scotland) Act 2004 and are those areas of land and water to the seaward limits of local authority areas considered to best represent our natural heritage. Many SSSIs are also Natura sites.

167 Seventeen nature conservation Marine Protected Areas (MPAs) have been designated under the Marine (Scotland) Act 2010 for sites in Scottish territorial waters. A further 13 have been designated in offshore waters under the Marine and Coastal Access Act 2009. These MPAs aim to protect a range of biodiversity or geodiversity features in their current state for the future, or to allow them to recover to the state in which they should be in order to remain healthy and productive. Marine Scotland has developed a *Draft Management Handbook*¹ for nature conservation MPAs, which provides information on how management measures for these sites will be assessed and undertaken.

Information Box 7

Nature Conservation Marine Protected Areas

The Strategy for Marine Nature Conservation in Scotland's Seas (2011) explains the approach being taken to develop a coherent network of nature conservation Marine Protected Areas. These will protect biodiversity and geodiversity but may still allow multiple uses of low-impact activities that do no damage to the ecological integrity of the sites.

Three PFOW MPAs, all located in Orkney: NW Orkney; Papa Westray and Wyre; and Rousay Sounds, were designated in summer 2014.

168 To complement statutory designations, local nature conservation designations identify important habitats and species in the local context² and aim to promote appropriate protection and management within these areas.

Current status

169 There are numerous Natura sites and other designated sites with the PFOW area, with other sites under consideration. These have been assessed in the accompanying Sustainability Appraisal. In summary, much of the Caithness coast and many Orkney Islands are designated Special Protection Areas (SPA) to conserve their bird life. In addition, work is ongoing to complete the SPA network at sea to meet the needs of seabirds and waterfowl. A draft suite of marine Special Protection Areas (dSPAs), including two sites within the Plan area, has been developed for consideration by the Scottish Government. Formal consultation on those dSPAs confirmed for progression by Scottish Ministers is anticipated in 2016. Proposed SPAs taken forward for public consultation will be given policy protection from that point. For the avoidance of doubt, reference to the dSPAs in this draft Plan does not give dSPAs any formal policy protection status.

170 General Policy 4A: *Nature conservation designations* sets out the nature conservation designations that will be taken into account in the assessment of development proposals that require authorisation or enforcement decisions by a public authority. The policy explains how proposals will be assessed, the required assessment processes and the factors that will be taken into account in the determination of relevant consent applications. This demonstrates that whilst additional mitigation or information may be required, designated sites may be able to accommodate some sustainable development or activities.

171 Designated sites outwith the PFOW boundary may need to be considered by developers where the impact of relevant pressures overlaps with the site or, in the case of Natura sites, there is connectivity with the qualifying mobile species. Data on all marine designated sites are available on NMPI.

Pressures

172 The pressures on designated sites are similar to those discussed in General Policy 1C: *Safeguarding the marine ecosystem* (e.g. climate change, sea-level rise, competition for space and/or resources) but due to the higher level of protection granted to them, they require a more robust application of safeguards. For example, in relation to Natura sites, most major developments are likely to be subject to a Habitats Regulations Appraisal (HRA) and therefore may require an accompanying Appropriate Assessment if a Likely Significant Effect is identified during the assessment process. Scottish Natural Heritage will be consulted to advise the competent authority on the HRA.

General Policy 4A: Nature conservation designations

The Plan will support development(s) and/or activities where due regard is given to the importance of international, national and locally designated nature conservation sites.

Internationally designated sites

Development(s) and/or activities likely to have a significant effect on a site designated or proposed to be designated as a SPA or SAC (collectively known as Natura 2000 sites) alone or in combination and not directly connected with, or necessary to the conservation management of that site, must be subject to an Appropriate Assessment in order to assess the implications for the site's conservation objectives.

Development(s) and/or activities will only be permitted in circumstances where the assessment ascertains that:

- they would not adversely affect the objectives of the designation or the integrity of the site; or
- there is no alternative solution; and
- there are imperative reasons of over-riding public interest, including those of a social or economic nature.

The international importance of Ramsar sites should also be appropriately protected.

Nationally designated sites

Development(s) and/or activities capable of affecting a Nature Conservation Marine Protected Area (NC MPA) will only be permitted where it can be demonstrated to the satisfaction of the relevant public authority that there is no significant risk of hindering the achievement of the conservation objectives of the NC MPA. Where this cannot be satisfactorily demonstrated authorisation can only be granted if the relevant public authority is satisfied that:

- there is no alternative that would have a substantially lower risk of hindering the achievement of the conservation objectives of the NC MPA;
- the public benefit outweighs the risk of damage to the environment; and
- the applicant will arrange, to the satisfaction of Scottish Ministers, for measures of equivalent environmental benefit to the damage that will or is likely to occur.

Continued on next page

General Policy 4A: Nature conservation designations continued

Development(s) and/or activities that affect a SSSI or Geological Conservation Review (GCR) site will only be permitted where (for SSSIs) the objectives of designation and overall integrity of the area, or (for GCR sites) the reasons for selection, will not be compromised, or where significant adverse effects on the qualities for which the area has been designated/selected are clearly outweighed by social, environmental or economic benefits of national importance.

Locally designated sites

Development(s) and/or activities that affect a Local Nature Conservation Site (LNCS) or Local Nature Reserve (LNR) will only be permitted where it can be demonstrated to the satisfaction of the consenting authority that any significant adverse impact on the integrity of the site, or the qualities for which it has been designated, have been appropriately addressed or mitigated or any such impact is clearly outweighed by social, environmental or economic benefits and there is no satisfactory alternative.

In addition, in all cases where development(s) and/or activities affecting a nature conservation site can be consented, satisfactory mitigation measures will be required to minimise any potential adverse impacts during the construction, lifetime and decommissioning of the development(s) and/or activities.

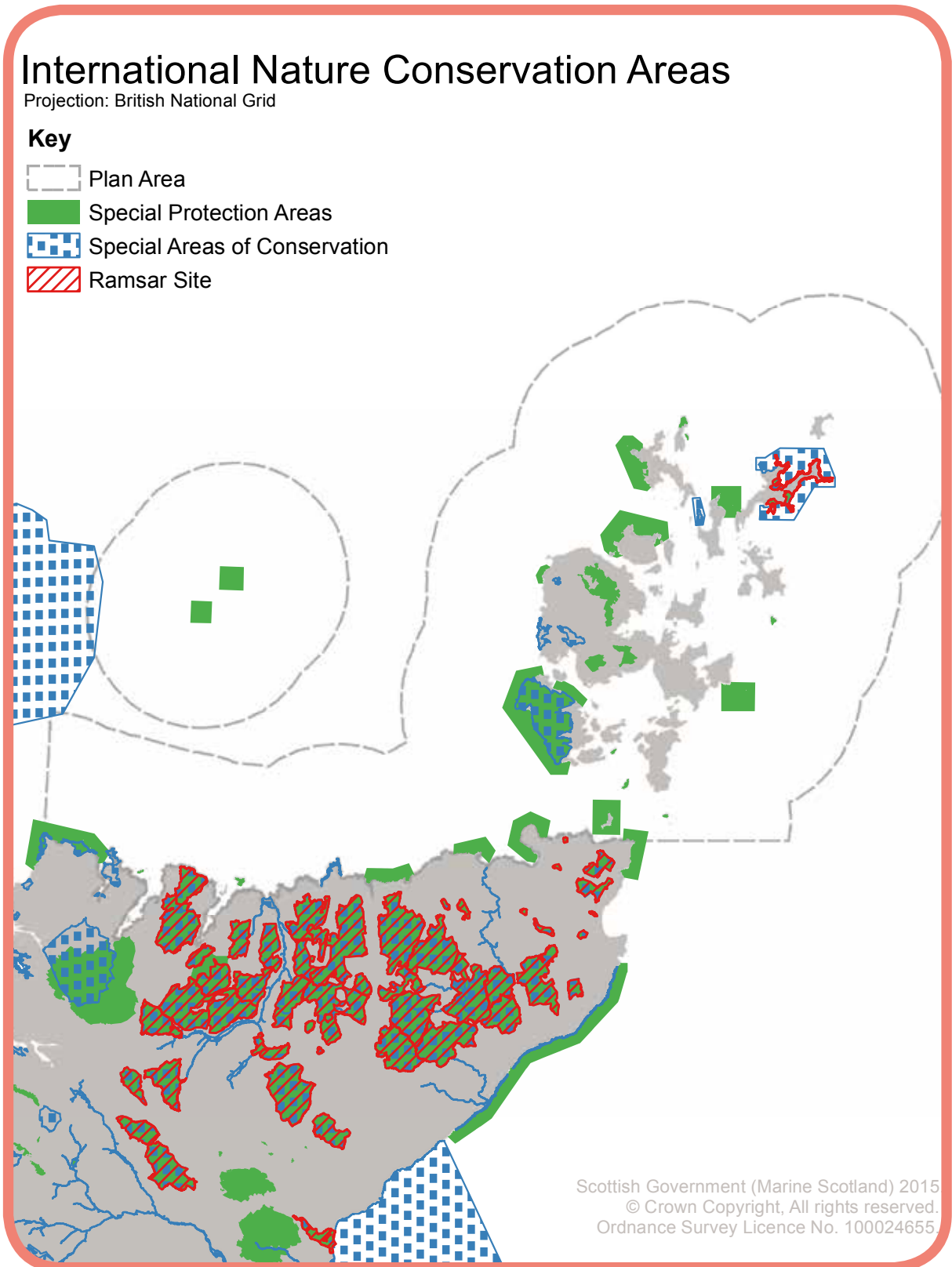
Where the impact of development(s) and/or activities on an international, national or local natural heritage resource are uncertain, but there are good scientific grounds that significant irreversible damage could occur, the precautionary principle will apply.

Justification

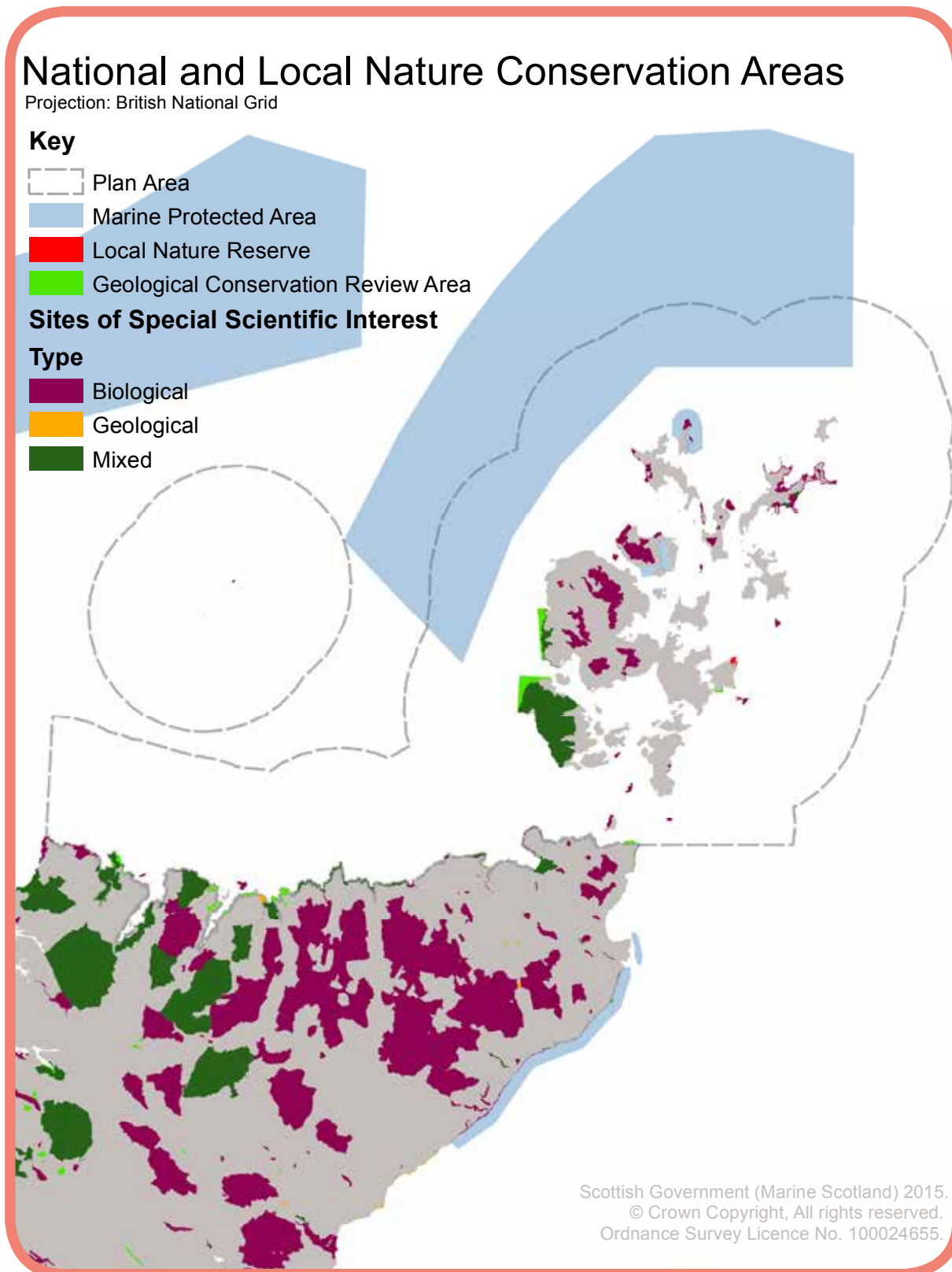
173 There is a statutory requirement to protect designated sites from inappropriate development.

Supporting spatial information

174 The supporting spatial information identifies the location of the nature conservation designations within the Plan area. Nature conservation designations that straddle the Plan's terrestrial boundary (mean high water springs) are also identified.



Map 2: Nature conservation areas established under international legislation in the Pentland Firth and Orkney Waters area including Special Protection Areas, Special Areas of Conservation and Ramsar sites.



Map 3: Nature conservation areas established under national and local legislation in the Pentland Firth and Orkney Waters area including Marine Protected Areas, Sites of Special Scientific Interest (including Geological Conservation Review Areas) and Local Nature Reserves.

Future considerations

175 The continued protection of designated sites should help ensure that the natural assets they contain are safeguarded for the future. As new research and information becomes available, the subsequent regional marine plans can be updated.

Further information

¹ Draft MPA Management Handbook

<http://www.gov.scot/Topics/marine/marine-environment/mpanetwork/handbook>

² Orkney Natural Heritage Supplementary Guidance

http://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/Related-Planning-to-2014/Natural_Heritage_SG.pdf

A Strategy for Marine Nature Conservation in Scotland's Seas (2011)

<http://www.gov.scot/Topics/marine/marine-environment/Conservationstrategy/marineconstrategy>

Scottish Natural Heritage: Protected Areas

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/>

Scottish Natural Heritage: Sitelink

<http://gateway.snh.gov.uk/sitelink/>

Orkney Local Development Plan

<http://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm>

Caithness and Sutherland Local Development Plan

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/283/caithness_and_sutherland_local_development_plan

Orkney Islands Council policy principles on new national or international environmental, natural heritage or marine related designations

<http://www.orkney.gov.uk/Council/C/general-meeting---3-march-2015.htm>
(Click on the minute of the 3 March 2015 General Meeting of the Council in the Related Downloads column, policy principles are presented at Item 8.2.1).

GENERAL POLICY 4B: PROTECTED SPECIES

Background and context

176 While some species are protected within or through association with designated sites (see General Policy 4A: *Nature conservation designations*), other species are protected wherever they occur, with different levels of protection afforded depending on the legislative mechanism. The potential for impacts upon a legally-protected species is an important consideration, requiring steps to establish their presence, assess the potential impacts and apply any appropriate mitigation and/or licensing.

Key legislation and policy guidance

177 Some marine species, including many seabirds, have protection under the Wildlife and Countryside Act 1981¹ and the EU Birds Directive², whilst other endangered species are classed as European Protected Species. Of particular relevance in the PFOW, all cetacean species, marine turtles and otters are given protection under the Conservation (Natural Habitats, &c.) Regulations 1994³ (as amended) as European Protected Species. As these are mobile species, particular care is required when any development may impact on their migratory routes or key feeding or breeding areas, as the animals are unlikely to be present all year round. Depending on the activity, a licence is required from either Marine Scotland or SNH, if the animals are likely to be injured or disturbed.

Information Box 8

Seal conservation areas and haul-out sites

Seal conservation areas are designed to protect vulnerable, declining common seal populations. Seal haul-outs are locations on land where seals come ashore to rest, moult or breed. These designated sites provide additional protection for seals from intentional or reckless harassment.

178 The Marine (Scotland) Act 2010 makes specific provision for the conservation of seals. However, to protect the health and welfare of farmed fish, Scottish Ministers may grant a licence authorising the killing or taking of seals, once all other deterrent options have proven unsuccessful.

179 The Wildlife and Natural Environment Act (WANE) 2011⁴, among other things, amends the provisions for basking sharks under the Wildlife and Countryside Act 1981 by providing for a licensing requirement. It also affords greater protection to wild birds, creates a new regime for regulating invasive and non-native species (see General Policy 9: *Invasive non-native species*) and makes changes to the protected species licensing. Although under domestic rather than European legislation, the requirements are very similar to those for European Protected Species. In addition, the Sharks, Skates and Rays (Prohibition of fishing, landing, and transshipment) Order 2012⁵, offers protection to these species, which is relevant to recreational anglers as well as commercial fishing.

Current status

180 Data from the Marine Atlas shows the overall status of protected species in the north Scotland coast is not positive, with concerns regarding most mapped species. Whilst the distribution of some protected species may be reasonably well understood, there may be a lack of knowledge on, for example, species ecology or behaviour. The main issues are assessed in the Strategic Environmental Assessment and discussed in the accompanying Sustainability Appraisal.

Pressures

181 The pressures on protected species include changes in their environment due to climate change and fishing and disturbance from increasing development of marine areas. Some species will be particularly vulnerable to competition from invasive non-native species (see General Policy 9: *Invasive non-native species*), which may lead to competition for food resources or habitat.

General Policy 4B: Protected species

The Plan will not support development(s) and/or activities that would be likely to have an adverse effect on a European Protected Species unless the relevant consenting or planning authority is satisfied:

- there is no satisfactory alternative;
- the development(s) and/or activities are required for preserving public health or public safety or there are other imperative reasons of overriding public interest; and
- the development(s) and/or activities would not be detrimental to the maintenance of the population of a European Protected Species concerned at a favourable conservation status in its natural range.

Where the impacts of development(s) and/or activities on an internationally or nationally protected species are uncertain, but there are good scientific grounds that significant irreversible damage could occur, the precautionary principle will apply.

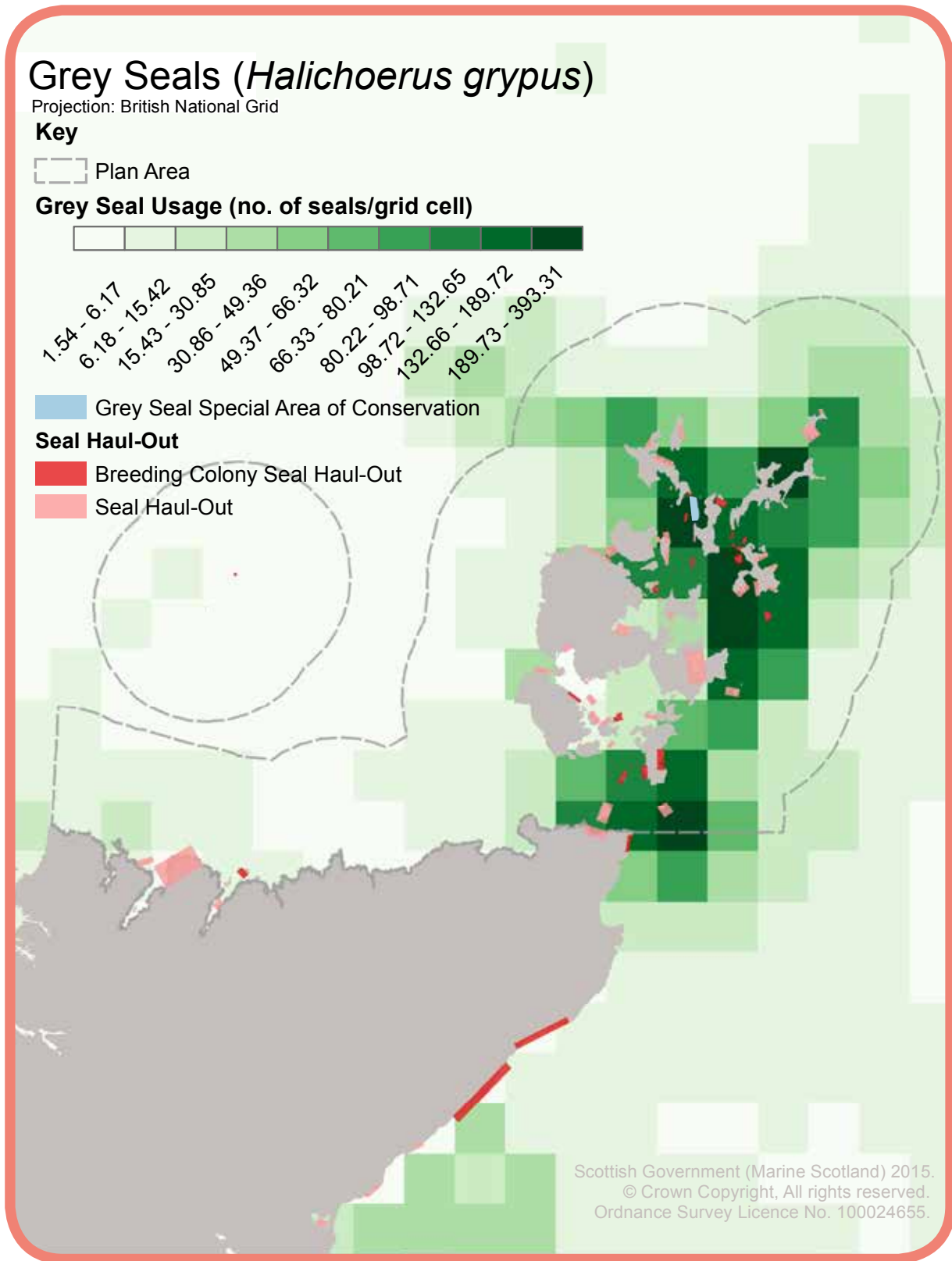
Development(s) and/or activities will only be permitted where they comply with any licence granted by the appropriate authority required for the purpose of species protection.

Development(s) and/or activities likely to have an adverse effect on other species protected under current wildlife legislation, individually and/or cumulatively will only be permitted if those effects can be mitigated to the satisfaction of the relevant consenting or planning authority, or if they are satisfied that legislative requirements to proceed can be met.

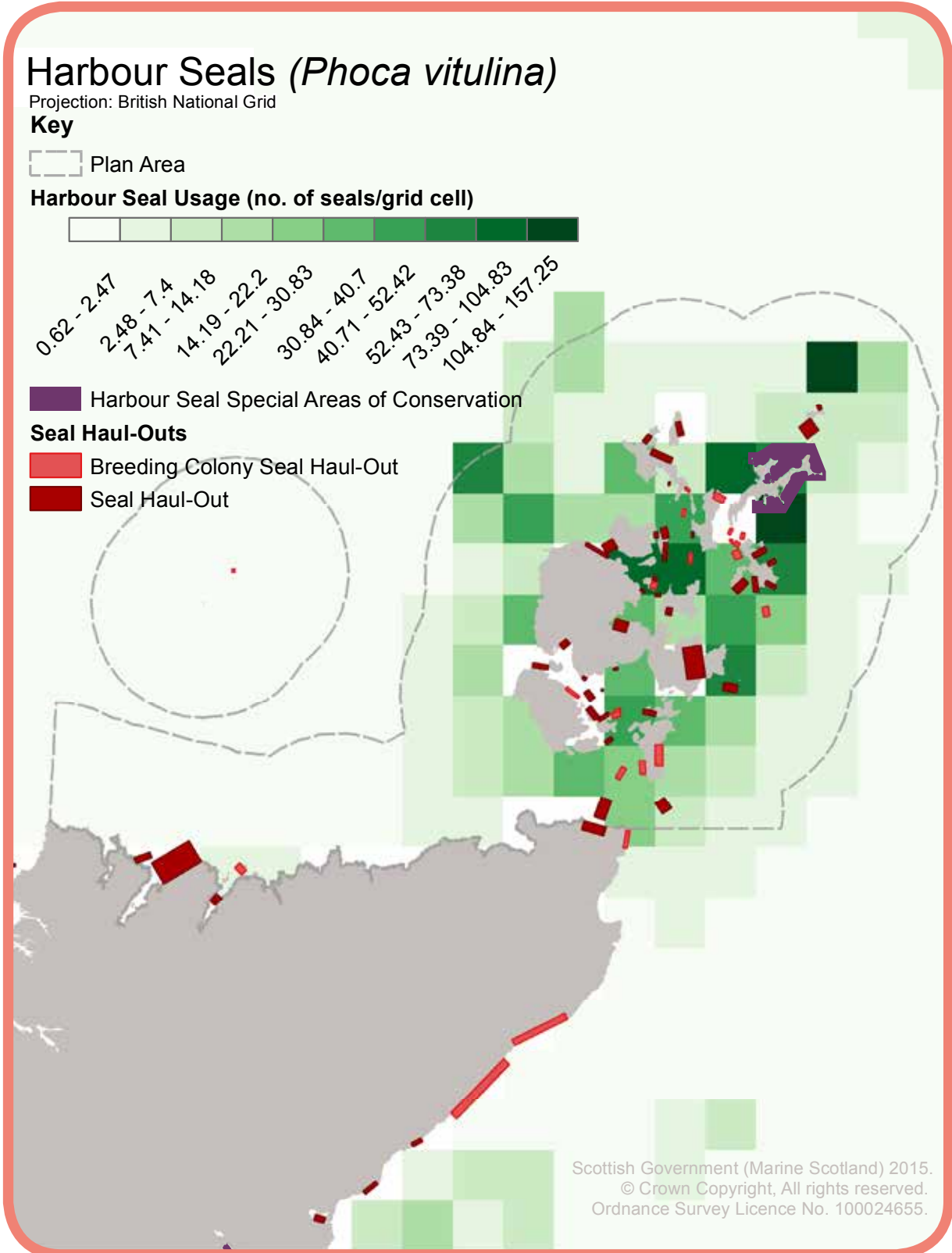
Justification

182 There is a statutory requirement to protect protected species from inappropriate development.

Supporting spatial information



Map 4: Grey seal ‘usage’ and haul-out sites. Grey seal ‘usage’ has been calculated by scaling the patterns recorded by electronically-tagged seals to the population level. Population levels have been calculated by aerial survey at seal haul-out sites. Data calculated by the Sea Mammal Research Unit.



Map 5: Harbour seal ‘usage’ and haul-out sites. Harbour seal ‘usage’ has been calculated by scaling the patterns recorded by electronically-tagged seals to the population level. Population levels have been calculated by aerial survey at seal haul-out sites. Data calculated by the Sea Mammal Research Unit.

Future considerations

183 Subsequent regional marine plans will provide continued support for protected species. The evolving MPA process should help show in due course how effectively protection measures are working.

Further information

¹ Wildlife and Countryside Act 1981

<http://www.legislation.gov.uk/ukpga/1981/69/contents>

² EU Birds Directive

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0147>

³ The Conservation (Natural Habitats &c.) Regulations 1994

<http://www.legislation.gov.uk/uksi/1994/2716/contents/made>

⁴ The Wildlife and Natural Environment Act (WANE) 2011

<http://www.legislation.gov.uk/asp/2011/6/contents>

⁵ The Sharks, Skates and Rays (Prohibition of fishing, landing and transshipment) Order 2012

<http://www.legislation.gov.uk/ssi/2012/63/contents/made>

Marine Strategy Framework Directive

<http://www.msfd.eu/>

Protected Species

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/>

Scottish Natural Heritage Seal Protection Guidance

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/which-and-how/mammals/seal-protection/>

Marine Protected Areas

<http://www.gov.scot/Topics/marine/marine-environment/mpanetwork>

Marine Mammal Research

<http://www.gov.scot/Resource/0043/00433252.pdf>

National Biodiversity Network

<http://www.nbn.org.uk/>

Seal Haul-Out Maps

<http://www.gov.scot/Topics/marine/marine-environment/species/19887/20814/maps>

GENERAL POLICY 4C: WIDER BIODIVERSITY

Background and context

184 Biodiversity includes all living things and their habitats. Whilst some species and habitats have specific protection, as discussed in the policies above, the rest of biodiversity forms the bulk of the ecological interests in the PFW area. This local biodiversity is important as it underpins the distinctive characteristics of the region.

185 The various broad habitat types support specific communities of species. For example, a sandy beach will support an array of marine worms and crustaceans whilst the marine water column will have a diverse mix of plankton, crabs and fish, amongst other species. Many of these species are interdependent on each other in complex food webs and habitat requirements at different stages of their life-cycle development.

Information Box 9

Priority Marine Feature: Serpulid aggregations

(Serpula vermiculari)

The Serpulid worm is a beautiful marine tubeworm with a shiny crown of feathery red, pink and orange tentacles, contrasting with a hard white tube. It has a worldwide distribution but in a few places, hundreds of them grow together forming bush like aggregations or 'reefs'. These aggregations have been identified as a Priority Marine Feature because they provide a habitat for a wide variety of other marine creatures such as sponges, sea squirts, spider crabs and starfish.

186 General Policies 4A *Nature conservation designations* and 4B *Protected species* addressed designated sites and protected species, respectively. The Priority Marine Features (PMF) list¹, adopted by Scottish Ministers in summer 2014, is relevant to those in the subset of the PMF list, that are also either protected features of Marine Protected Areas, and/or legally protected species (e.g. cetaceans). In other circumstances, and of relevance to this policy, PMFs should be considered as 'wider biodiversity' of recognised importance. Other biodiversity interests may also be regionally or locally relevant, and a general biodiversity duty applies to all public bodies, but the PMF list provides a focus for conservation efforts across Scottish waters.

Key legislation and policy guidance

187 Wildlife and Countryside Act 1981 (as amended)² protects many species in Scotland. In addition, elements of wider biodiversity have some statutory protection under what is generally termed the 'Biodiversity Duty' of the Nature Conservation (Scotland) Act 2004³. This places a duty on every public body and office-holder to "further the conservation of biodiversity so far as is consistent with the proper exercise of those functions". This duty is supported by the Scottish Biodiversity Strategy (2004)⁴ and the subsequent 2020 Challenge for Scotland's Biodiversity (2013)⁵, both of which contain marine chapters.

188 The UK Biodiversity Action Plan⁶ list identifies species and habitats that are conservation priorities in the UK. The Scottish Biodiversity List⁷ is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland. The purpose of the list is to help public bodies carry out their Biodiversity Duty by identifying the species and habitats which are the highest priority for biodiversity conservation in Scotland. The formation of the Scottish Priority Marine Features list has considered these and other lists (e.g. International Union for Conservation of Nature red list) to identify habitats and species considered to be particular marine nature conservation priorities in Scottish waters.

189 At a more local level, Orkney, Caithness and Sutherland each have Local Biodiversity Action Plans that support actions to protect the marine or coastal environment.

Information Box 10

Wild salmonids

Salmon (*Salmo salar*)

An objective of the National Marine Plan is to maintain healthy salmon (and other diadromous fish) stocks. This, therefore, requires effective management of both marine and freshwaters, i.e. an integrated approach. In the freshwater environment, some rivers are designated as a Special Area of Conservation (SAC) to protect salmon in the freshwater part of their life-cycle. To complement this, salmon are now designated as a Priority Marine Feature for the marine part of their life-cycle.

Trout (*Salmo trutta*)

The sea trout is a brown trout that migrates to the sea for a part of its life cycle, returning to freshwater burns to spawn. During its sea phase, it tends to transit close to the shore. Sea trout is a Priority Species in the UK Biodiversity Action Plan list, the Scottish Biodiversity List and is a Priority Marine Feature.

Current status

190 Some areas of the PFOW coastal and marine habitats are relatively undisturbed, offering refuge to a variety of species. Data on the status of species not covered by international or national designations are harder to determine as survey coverage is often poor or infrequent. However, some groups of animals such as seabirds are relatively well studied and new developments, such as marine renewable energy proposals, are required to undertake various surveys prior to commencement which will provide additional data.

Pressures

191 The pressures on wider biodiversity are not always easy to define as many of the species and habitats have no formal monitoring mechanism. However, it is likely that they will be similar to those of General Policy 4B: *Protected species* above, e.g. climate change, fishing.

General Policy 4C: Wider biodiversity

The Plan will not support development(s) and/or activities that result in a significant impact on the national status of Priority Marine Features.

Where development(s) and/or activities are likely to have an adverse impact on species of regional or local importance to biodiversity, proposals should demonstrate that:

- the public benefits at a local level clearly outweigh the value of the habitat for biodiversity conservation;
- the development(s) and/or activities will be sited and designed to minimise adverse impacts on environmental quality, ecological status or viability; and
- any impact will be suitably mitigated.

Justification

192 This policy gives protection to habitats and species even when they are not associated with specifically-designated nature conservation sites. It promotes enhancement measures for local biodiversity and ecosystem function. It therefore ensures the Plan contributes to meeting the Biodiversity Duty as required under the Nature Conservation (Scotland) Act 2004.

Supporting spatial information

193 This policy is not supported by specific spatial information.

Future considerations

194 Subsequent regional marine plans will be able to provide more detailed information on local biodiversity as ongoing research data become available. This may include identification of species (and habitats) that could be considered to be of regional or local importance.

Further information

¹ Priority Marine Features

<http://www.snh.gov.uk/protecting-scotlands-nature/priority-marine-features/priority-marine-features/>

² Wildlife and Countryside Act 1981 (as amended in Scotland)

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/legal-framework/wca-1981/>

³ Nature Conservation (Scotland) Act 2004

<http://www.legislation.gov.uk/asp/2004/6/contents>

⁴ Scottish Biodiversity Strategy

<http://gov.scot/Publications/2004/05/19366/37250>

⁵ 2020 Challenge for Scotland's Biodiversity

<http://www.gov.scot/Publications/2013/06/5538/downloads#res425276>

⁶ The UK Biodiversity Action Plan

<http://jncc.defra.gov.uk/ukbap>

⁷ Scottish Biodiversity List

<http://www.gov.scot/Topics/Environment/Wildlife-Habitats/16118/Biodiversitylist/SBL>

Orkney Local Biodiversity Action Plan

<http://www.orkney.gov.uk/Service-Directory/L/Local-Biodiversity-Plan.htm>

Caithness Local Biodiversity Action Plan

<http://www.caithnessbiodiversity.org.uk/>

Sutherland Local Biodiversity Action Plan

<http://www.sutherlandpartnership.org.uk/Sutherland-Partnership-Biodiversity-Group-g.asp>

GENERAL POLICY 4D: LANDSCAPE AND SEASCAPE

Background and context

195 The Plan area features a wide range of landscapes and seascapes, which are fundamental elements of people's enjoyment of the coastal and marine environment. The quality of this coastal landscape has been recognised by national and local designations. The National Scenic Area (NSA) in Orkney (Hoy and West Mainland) and along the north coast of Scotland (Kyle of Tongue) both recognise the outstanding scenic and landscape value of the area as a national resource to be protected and managed. In both areas the value of the coastal character is intrinsic to many of the Special Qualities of the NSA. Specifically in Orkney, the unique coastal character contributes to the Location Specific Qualities of the setting to Stromness. On a local level, Highland Council has five Special Landscape Areas in the PFOW area. The setting of the Heart of Neolithic Orkney World Heritage Site provides essential context for the site.

Key legislation and policy guidance

196 The recently completed wildness mapping by Scottish Natural Heritage (SNH) has identified a series of Wild Land Areas (WLA)¹, which display consistently strong physical and perceptual attributes of wildness. The high sensitivity of this important resource is established through Scottish Planning Policy. WLA 41 Hoy centres on the central upland area of Hoy comprising Knap of Trowieglan and Withl Gill, extending west to incorporate the dramatic cliff coastline extending south between Rackwick and Little Rackwick. Along the north coast landscapes of Scotland, of the four WLAs that are defined in varying proximity to the coast: WLA 37 Foinaven – Ben Hee and WLA 40 Cape Wrath both have a coastal component. Citations with detailed descriptions and sensitivities for each WLA are currently being drafted by SNH.

197 The Scottish Government is committed to implementing the principles of the European Landscape Convention, which applies an 'all landscapes approach' and although it does not specifically define seascape this should be taken as meaning 'landscapes with views of the coast or sea and the adjacent marine environment with cultural, historical and archaeological links to each other'.

Current status

198 For the PFOW area the landscape and coastal character are assessed at a regional scale within the Orkney landscape character assessment (1988)² and Caithness and Sutherland landscape character assessment (1998)³ reports. These studies identify a series of landscape character types and island character areas, providing descriptions with a consideration of pressures for change and management guidance. This characterisation work can be used as an initial baseline to inform judgements on the capacity for the existing landscape and seascape to accommodate new development proposals which should be assessed for every proposed development. It should be noted that landscape and seascape can be perceived from the sea as well as from the land, e.g. from ferries, fishing boats, cruise liners and recreational vessels.

199 Established professional methodologies exist for the assessment of coastal character, landscape/seascape and visual impact assessment, and assessment of impact on national resources including the NSAs and WLAs.

Pressures

200 Development or use of the marine environment is not precluded but should take account of the effects on landscape, seascape and visual impacts, all of which will vary according to the type of activity, its location and its setting and any established sensitivities.

201 Landscape and seascape can be sensitive to inappropriate development and consenting authorities should ensure the potential effect, including the cumulative effect, of developments are considered when deciding planning applications, works licences and marine licences. Landscape and seascapes should be protected and managed from incremental change and developments that are inappropriate in both the type and siting of the development as well as aspect of scale and design.

General Policy 4D: Landscape and seascape

The siting and design of any proposed development(s) and/or activities should demonstrate how the proposal takes into account visual impact and existing character and quality of landscape and seascape.

Development(s) and/or activities that affect National Scenic Areas (NSAs) and Special Landscape Areas (SLAs) should only be permitted where:

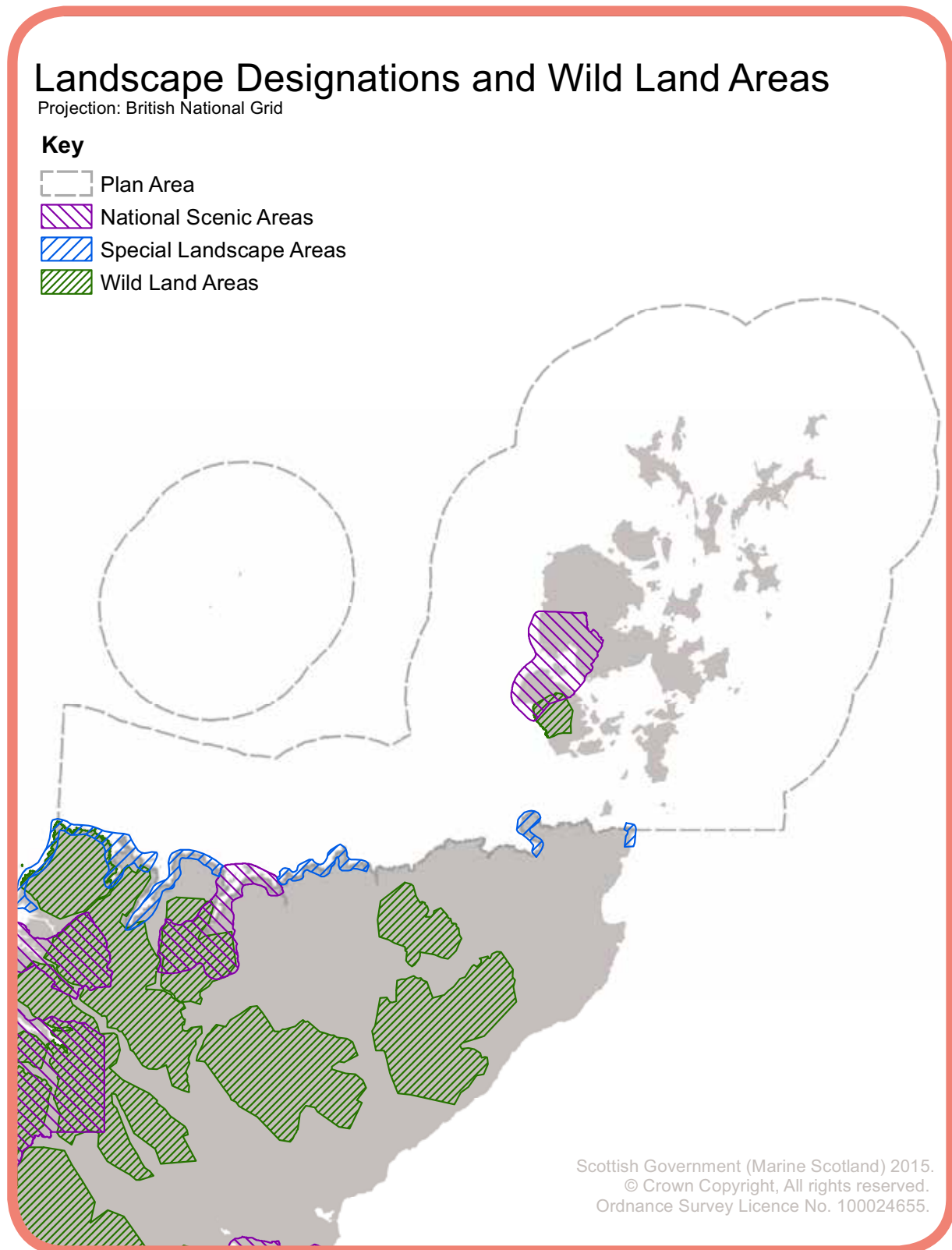
- they will not adversely affect the integrity of the area or its special qualities for which it has been designated; or
- any significant adverse effects are clearly outweighed by social, environmental or economic benefits of national importance for NSAs and local importance for SLAs.

Scottish Planning Policy should be considered in both the planning and decision-making stages.

Justification

202 Landscape and seascape change is inescapable. The recognition of this often highly sensitive and valuable resource is translated into this policy, which aims to maintain and enhance the distinctive character in Orkney and the north Caithness and Sutherland coast, whilst facilitating positive change. Different landscapes and seascapes will have differing capacities to accommodate new development and the siting and design of development should be informed by local landscape and coastal character. Some of the most sensitive areas may have little or no capacity to accept new development and should be protected from inappropriate development. Careful planning and design should encourage innovative positive development, whilst avoiding or minimising adverse effects.

Supporting spatial information



Map 6: Protected areas designated for their special landscape value and nationally important Wild Land areas.

Future considerations

203 Consideration will need to be given to managing potential landscape/ seascape and visual impacts of commercial development of marine renewables and associated onshore infrastructure, such as sub-stations, both in terms of the scale and magnitude of change. Cumulative impacts, both within similar developments and between different types of development and those arising across the land/sea boundary (for example multiple sub-station developments associated with offshore renewables, onshore renewables and grid infrastructure upgrades) will need to be managed. Effective communication between different consenting authorities and organisations will be key to this. The impact of design in managing landscape/ seascape and visual impacts and associated potential conflicts between sectors should also be taken into account.

204 There will be ongoing lessons learned as new industries such as marine renewables develop and it is important that marine planning takes into account the ongoing professional development of methodologies for coastal and seascape characterisation and assessment. Of most direct relevance to this pilot Plan it should be noted that SNH's draft Coastal Character Assessment Methodology is about to go out for consultation.

Further information

¹ SNH Wild Land Area Map

<http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/landscape-policy-and-guidance/wild-land/mapping/>

² Land Use Consultants 1988. Orkney landscape character assessment. Scottish Natural Heritage Review No. 100.

³ Stanton, C. 1998 Caithness and Sutherland landscape character assessment. Scottish Natural heritage review No. 103.

Local Development Plans and Supplementary Guidance

Highland:

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan

Orkney:

<http://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm>

Scottish Planning Policy

<http://www.gov.scot/Publications/2014/06/5823>

Institute of Environmental Management and Assessment (IEMA) and Landscape Institute – Guidelines for Landscape and Visual Impact Assessment

<http://www.iema.net/news/2016/01/08/GLVIA3-Guidelines-Now-Available/>

Scottish Natural Heritage and the Countryside Agency – Guidance for Landscape Character Assessment

<http://www.snh.org.uk/ww0/sharinggoodpractice/CCI/cci/guidance/Main/Content.htm>

Scottish Natural Heritage – Information and Guidance

<http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/>

Scottish Natural Heritage Guidance on Landscape and Seascape and Siting of Marine Aquaculture Developments

<http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/landscape-policy-and-guidance/landscape-planning-and-development/landscapeand-aquaculture/>

GENERAL POLICY 4E: GEODIVERSITY

Background and context

205 The PFW area is particularly rich in geodiversity. It comprises a variety of landscape and seabed features that contribute to our valued natural heritage resources. Its geological heritage is of significant scientific quality, which is of great educational value. It is also of particular importance in terms of its rarity and aesthetic appeal.

206 Geodiversity provides services such as freshwater and mineral resources; it helps regulate the climate and contributes to carbon sequestration and soil formation. It is therefore a key component of our marine and coastal ecosystems.

Information Box 11

Geodiversity is defined as a variety of geological environments, phenomena and processes that make those landscapes, rocks, minerals and soils, which in turn provide the framework for biodiversity. World class examples of geodiversity can be found in the North West Highlands Geopark.

Key legislation and policy guidance

207 Scotland's Geodiversity Charter¹ sets out why geodiversity is important, and presents a vision that geodiversity is recognised as an integral and vital part of our environment, economy, heritage and future sustainability to be safeguarded for existing and future generations in Scotland.

Current status

208 Orkney and northern Caithness are largely made up of beds of siltstone and sandstone. These were laid down around 370 million years ago during the Devonian Age when the area was part of a vast freshwater lake and is therefore particularly rich in fish fossils. The whole of Sutherland is rich in geological variety, with rock formations spanning over 2,800 million years. North Sutherland is mainly composed of relatively soft schist and granulite, interspersed with harder rock masses. A number of designated sites such as Marine Protected Areas, Sites of Special Scientific Interest and Geological Conservation Review sites include geological interests (see Map 3 and NMPi).

209 Highland Council is a signatory to the Geodiversity Charter and supports the work of the North West Highlands Geopark.

Pressures

210 The pressures on marine geodiversity can be from developments such as cable laying, oil and gas developments and onshore elements of renewable energy developments. Climate change and sea-level rise can also erode geological features.

General Policy 4E: Geodiversity

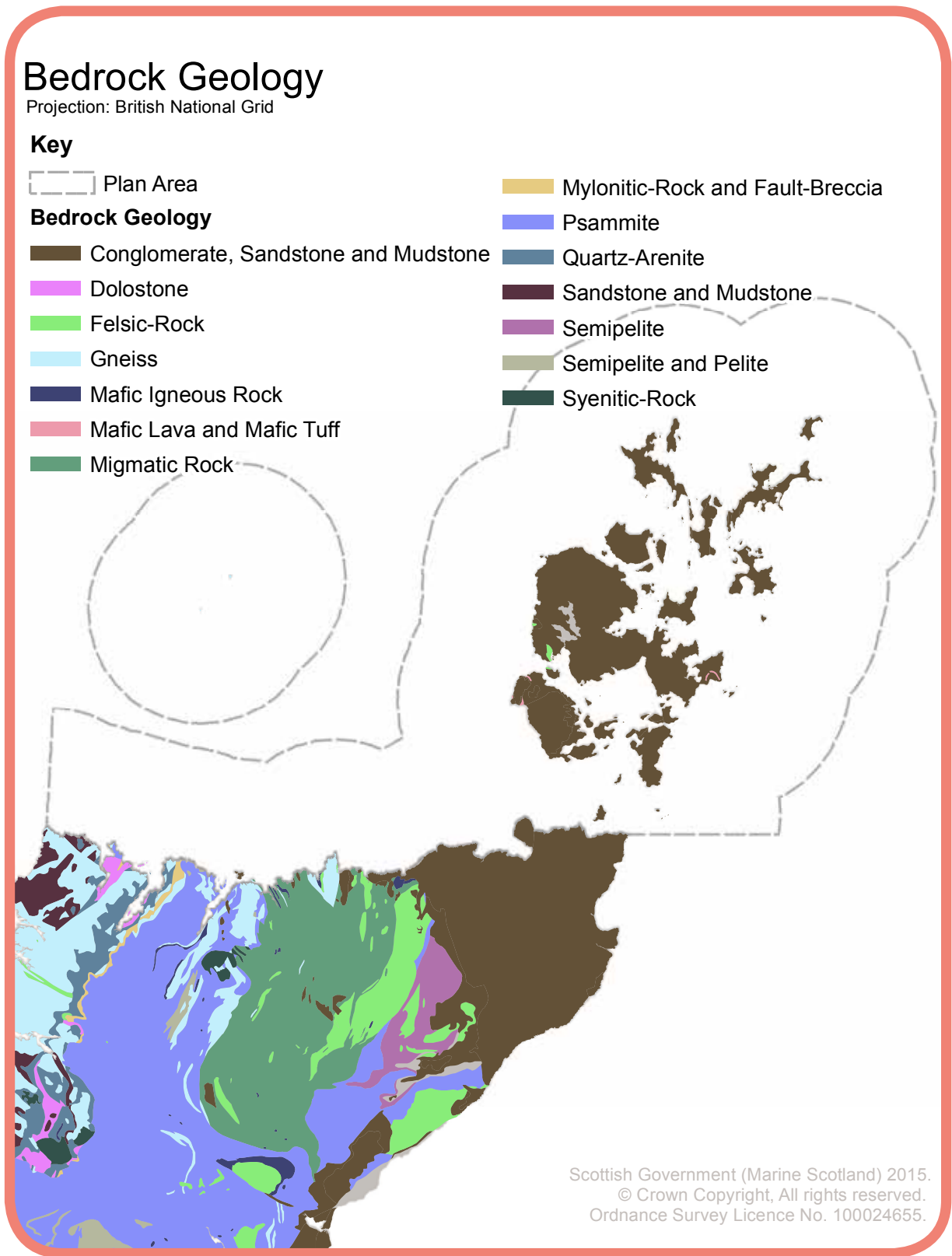
Development and/or activities will only be supported by this Plan where they:

- do not have a significant adverse effect on geodiversity interests of international, national and regional/local importance
- provide mitigation to minimise any adverse effects on such features

Justification

211 Geodiversity contributes to a variety of essential provisioning services, e.g. water circulation and habitat for species, therefore its protection underpins most marine development and activities.

Supporting spatial information



Map 7: Bedrock geology of the Pentland Firth and Orkney Waters area.











Seabed Habitat

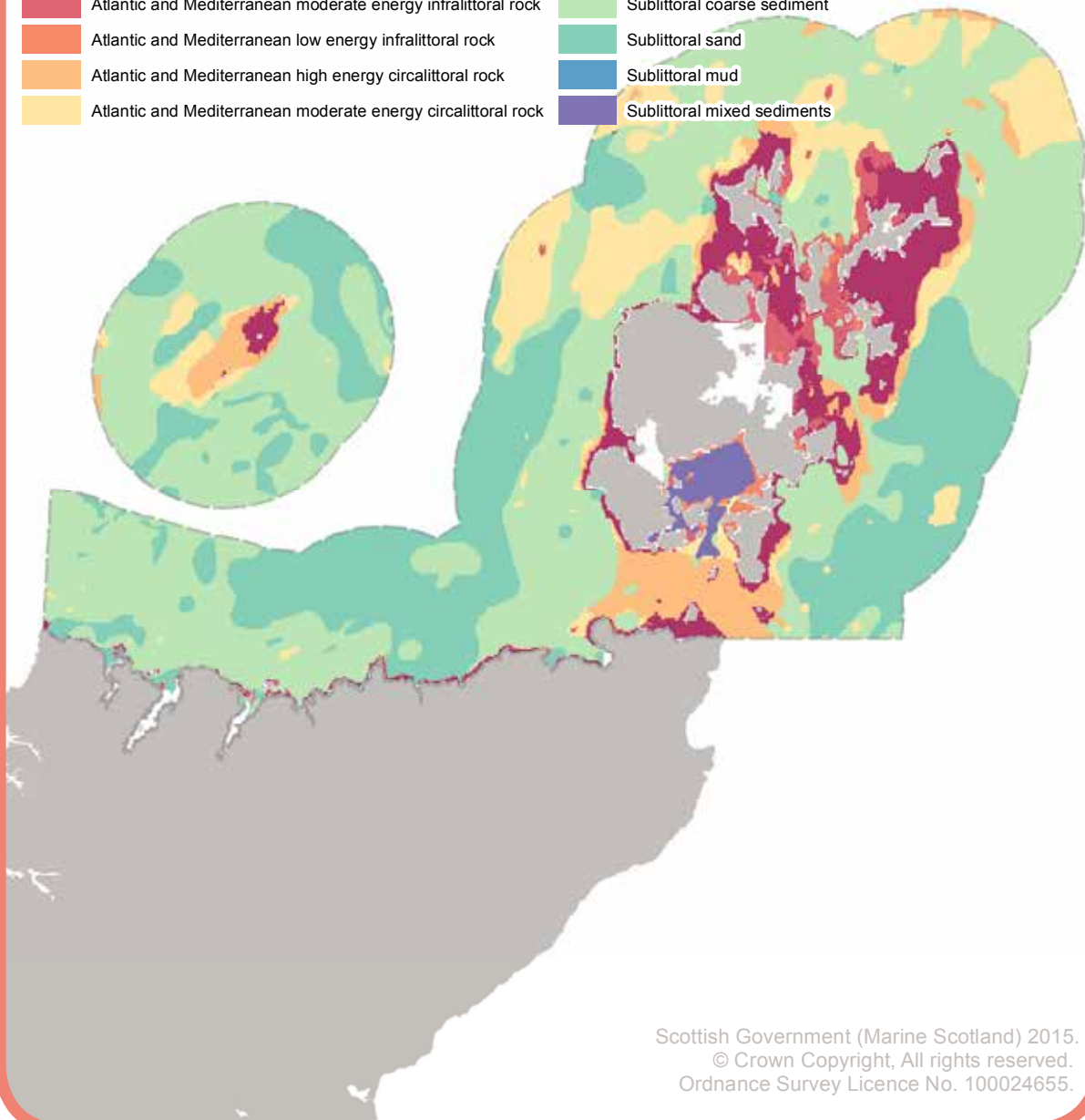
Projection: British National Grid

Key

 Plan Area

Seabed Habitat Type

	Atlantic and Mediterranean high energy infralittoral rock		Atlantic and Mediterranean low energy circalittoral rock
	Atlantic and Mediterranean moderate energy infralittoral rock		Sublittoral coarse sediment
	Atlantic and Mediterranean low energy infralittoral rock		Sublittoral sand
	Atlantic and Mediterranean high energy circalittoral rock		Sublittoral mud
	Atlantic and Mediterranean moderate energy circalittoral rock		Sublittoral mixed sediments



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Map 8: Seabed habitat in the Pentland Firth and Orkney Waters Plan area. Seabed habitats are classified according to the European Nature Information System (EUNIS) habitat classification system.

Future considerations

212 Issues such as climate change and changing priorities may alter the approaches taken to protect geodiversity.

Further information

¹ Scotland's Geodiversity Charter

<http://scottishgeodiversityforum.org/charter/>

NW Highlands Geopark Geodiversity Audit and Action Plan 2013-2016

www.nwgeopark.com/wp-content/uploads/GeodiversityAuditFinal.pdf

NW Sutherland Local Geodiversity Action Plan

<http://www.sutherlandpartnership.org.uk/Theme-5-Natural-resources-g.asp>

Scotland's Geodiversity: Development of the Basis for a National Framework

<http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1735>

Assessing the Sensitivity of Geodiversity Features in Scotland's Seas to Pressures Associated With Human Activities

<http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=2036>

GENERAL POLICY 5A: WATER ENVIRONMENT

Background and context

213 The water environment (inland, coastal and marine) is an important asset that provides habitat to support wildlife and ecosystems. It is used as a resource for a wide range of activities such as fisheries, recreation, tourism, aquaculture and the energy industry.

214 It is important that the water environment is protected to ensure that the ecological and environmental quality is maintained and, where possible, improved. This protection should enable continued, sustainable use for wildlife and the wide range of other activities that take place in the water environment.

Key legislation and policy guidance

215 There are a number of key pieces of legislation that aim to ensure the sustainable management and protection of inshore and offshore waters.

216 The Water Framework Directive (WFD)¹ requires member states to achieve “good ecological status/potential” for all waters out to three nautical miles by 2015. The Scottish Environment Protection Agency (SEPA) is responsible for producing, and has a major role in implementing, the River Basin Management Plans (RBMPs) for the Scotland and the Solway Tweed River Basin Districts in co-ordination with a wide range of organisations with interests in the water environment. The RBMPs set out how river basin planning will be implemented and timescales for implementation. Where improvements are likely to take longer, then extended objectives deadlines can be set over two further river-basin planning cycles, to 2021 and 2027. For those water bodies currently at good or better status then the objective is to prevent deterioration.

217 The WFD was transposed into Scottish law by the Water Environment and Water Services (Scotland) Act (WEWS) 2003². The Water Environment (Controlled Activities) (Scotland) Regulations 2011³ provide a mechanism for obtaining authorisation to carry out certain activities which may affect Scotland’s water environment.

218 The Marine Strategy Framework Directive (MSFD)⁴ aims to achieve “good environmental status” (GES) in Europe’s seas by 2020. The Directive was transposed into Scottish law by the Marine Strategy Regulations 2010⁵. The MSFD assessments are carried out at subregion level, i.e. the Greater North Sea and the Celtic Seas. The MSFD and WFD overlap in coastal waters as the WFD extends out to 3 nautical miles and overlaps with MSFD in coastal waters. The MSFD includes coastal waters (as defined by WFD) and out to the extent of the UK jurisdiction.

Information Box 12

Water Framework Directive (WFD)

The objectives of the WFD are to prevent deterioration and promote improvements in the water environment, in order that all water bodies achieve Good Ecological Status by 2015. River Basin Management Plans have been produced to help meet the aims of the Directive.

219 The Urban Waste Water Treatment Directive⁶ sets out timetables for the implementation of appropriate treatment for sewage discharges which, for example, would require secondary treatment for all sizeable communities unless the discharge is to highly dispersive receiving waters.

220 The revised Bathing Water Directive (2006/7/EC)⁷ was translated into Scottish Law by The Bathing Waters (Scotland) Regulations 2008⁸ and requires SEPA to take water quality samples throughout the bathing season (1 June to 15 September). The results of these sampling programmes are reported and made available to the public⁹.

221 The Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2013¹⁰ aims to improve the quality of water where shellfish grow. In Scotland, SEPA is the competent authority for assessing and classifying Shellfish Water Protected Areas in accordance with the Scotland River Basin District (Quality of Shellfish Water Protected Areas) (Scotland) Directions 2015¹¹. The objective is to prevent deterioration of shellfish water quality, and aim to achieve good shellfish water quality, as set out in the Water Environment (Shellfish Water Protected Areas: Environmental Objectives etc.) (Scotland) Regulations 2013¹². There are three Shellfish Water Protected Areas in the PFOW area (Bay of Firth, Kyle of Tongue and Loch Eriboll).

222 Compliance with the Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2013 in itself will not ensure the protection of public health, but their intention is to ensure that shellfisheries do not become contaminated thus adversely affecting the classification awarded by Food Standards Scotland (FSS). Public health in relation to food is set down in directly applicable EU wide food hygiene regulation, for which FSS is the Competent Authority in Scotland, and it is implemented domestically under the Food Hygiene (Scotland) Regulations 2006 (as amended). Whilst food business operators are ultimately responsible for ensuring that only safe food is placed on the market, FSS is responsible for a wide range of official controls, including routine *Escherichia coli* monitoring which assist in determining the hygiene status of protected areas, where those areas have also been classified under food law by FSS.

Current status

223 Currently, all water bodies in the Plan area are at “good ecological status” and any development or use of the marine environment should not cause a deterioration in this status.

224 The three Shellfish Water Protected Areas in the PFOW area have been sampled for compliance and all had an overall pass result for the years 2011-2013.

225 The classification of shellfish harvesting areas can change and the most up-to-date information can be obtained by contacting the FSS. In October 2015, there were no harvesting areas in Orkney and Kyle of Tongue had a classification of ‘A’ for Pacific oysters. Category ‘A’ sites are of the highest standard and means that shellfish can go directly for human consumption.

226 Work undertaken by Scottish Water aims to protect and enhance the water environment through the most cost-effective and sustainable approach. This work is underpinned by sound science and evidence to ensure that only measures resulting in a measurable environmental benefit are undertaken. Scottish Water note that the selection of shellfish harvesting sites should consider the location of sewage discharges and water quality information available from SEPA and FSS.

227 There are European Commission designated Bathing Beaches at Dunnet Bay and Thurso¹³. In 2013, both these sites met the more stringent guideline quality standards set out in the Bathing Waters Directive and the standard of these beaches should be maintained and, where possible, improved.

Pressures

228 The water environment is used for a wide variety of purposes, not all of which are compatible, e.g. shellfish harvesting areas and waste water treatment and discharge. The use and treatment of water is subject to strict regulation and water quality has improved over time.

229 The multiple uses of the water environment can cause issues, e.g. people taking part in water sports do not want the water to pose a risk to health. Careful planning is required to ensure that incompatible activities are not located in the same area, e.g. development of an incompatible activity near an established legitimate activity, such as a licensed discharge, may lead to requirements for enhanced levels of treatment above and beyond that agreed and set out in the licence.

General Policy 5A: Water environment

The Plan will support development(s) and/or activities in the marine environment when the proposal:

- does not cause any water body to deteriorate in status nor prevent the achievement of established objectives set out in the River Basin Management Plan for the Scotland river basin district
- contributes, where possible, towards objectives to improve the ecological status of coastal water bodies and the environmental status of marine waters
- does not cause deterioration in the standard of waters designated under European Commission Directives and national legislation
- is accompanied by sufficient information to enable a full assessment of the likely effects, including cumulative effects, on the water environment
- has taken into account existing activities in the proposed location for development and undertaken early consultation to ensure that activities that may not be compatible (e.g. development of an incompatible activity near an established legitimate activity, such as a licensed discharge) are not located together

Justification




230 The water environment is a vital habitat that supports a wide range of wildlife and ecosystems and is also used for a wide variety of purposes that are not always compatible. The water environment is strictly regulated by a range of legislative requirements. However, careful planning is required to ensure that, whenever possible, incompatible activities are not located together.

Supporting spatial information



Water Environment

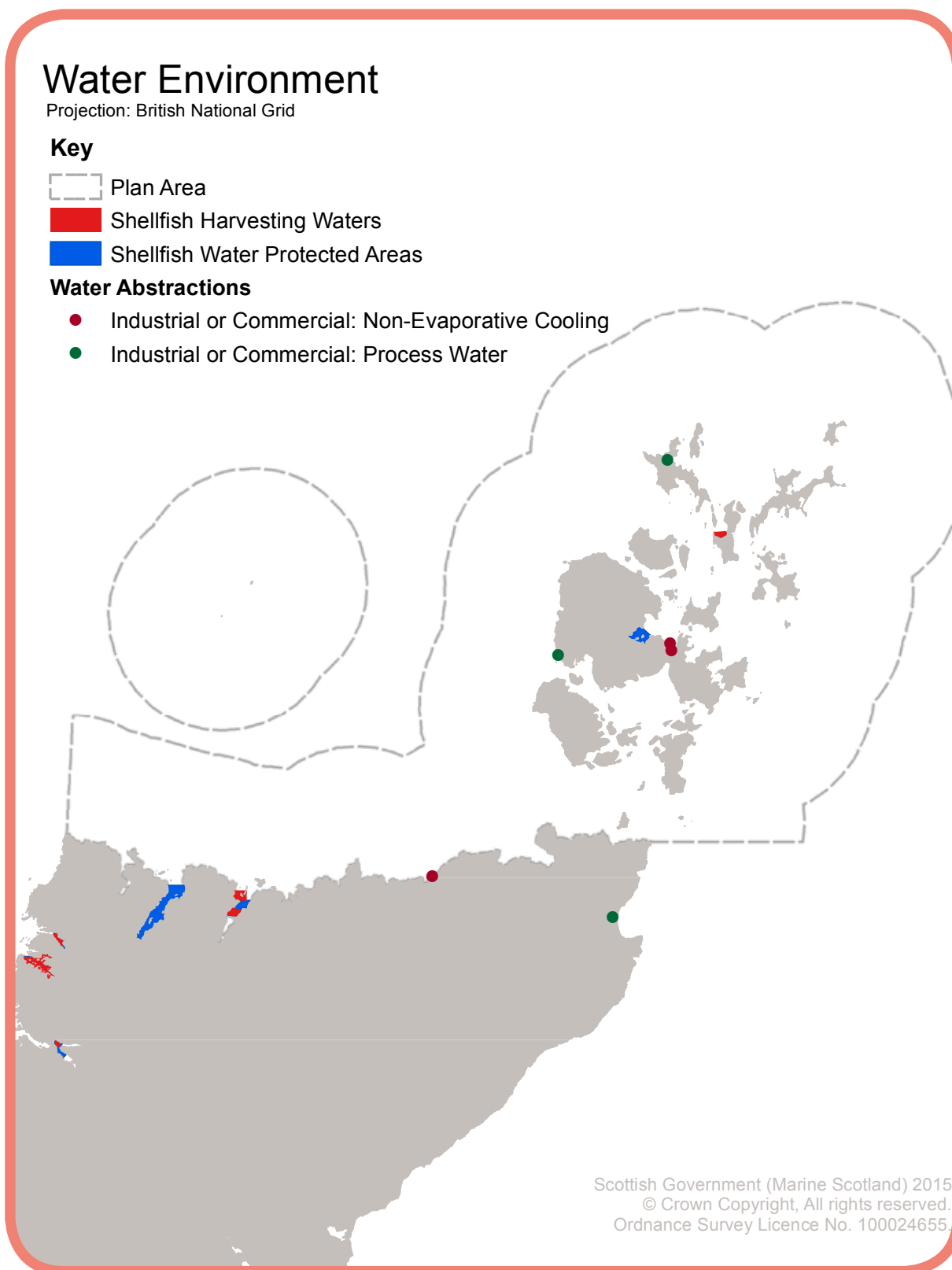
Projection: British National Grid

Key

-  Plan Area
-  Shellfish Harvesting Waters
-  Shellfish Water Protected Areas

Water Abstractions

-  Industrial or Commercial: Non-Evaporative Cooling
-  Industrial or Commercial: Process Water



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Map 9: The water environment in the Pentland Firth and Orkney Waters area showing designated shellfish areas and designated water abstractions.

Future considerations

231 The use and treatment of water is subject to strict regulation and there are ongoing efforts to maintain and improve water quality. Future work on the WFD is expected to give more attention to transitional and coastal waters and this should be taken into account when developing regional marine plans.

Further information

¹ Water Framework Directive

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060>

² Water Environment and Water Services (Scotland) Act (WEWS) 2003

<http://www.legislation.gov.uk/asp/2003/3/contents>

³ Water Environment (Controlled Activities) (Scotland) Regulations 2011

<http://www.legislation.gov.uk/ssi/2011/209/contents/made>

⁴ Marine Strategy Framework Directive

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0056>

⁵ Marine Strategy Regulations 2010

<http://www.legislation.gov.uk/uksi/2010/1627/contents/made>

⁶ Urban Waste Water Directive

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31991L0271>

⁷ Bathing Water Directive

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0007>

⁸ The Bathing Waters (Scotland) Regulations 2008

<http://www.legislation.gov.uk/ssi/2008/170/contents/made>

⁹ Scottish Environment Protection Agency – Results of Bathing Water Sampling Programme

<http://apps.sepa.org.uk/bathingwaters/Index.aspx>

¹⁰ The Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2013

<http://www.legislation.gov.uk/ssi/2013/324/contents/made>

¹¹ Scotland River Basin District (Quality of Shellfish Water Protected Areas) (Scotland) Directions 2015

<http://www.gov.scot/Publications/2015/03/8135/downloads>

¹² Water Environment (Shellfish Water Protected Areas: Environmental Objectives etc.) (Scotland) Regulations 2013

<http://www.legislation.gov.uk/ssi/2013/325/contents/made>

¹³ SEPA Bathing Water Reports

http://www.sepa.org.uk/media/143136/sepa_bathing_waters_2014-15_web.pdf

SEPA Site Data for Shellfish Water Protected Areas

<https://www.sepa.org.uk/environment/water/monitoring/protected-areas/shellfish-site-reports/>

GENERAL POLICY 5B: COASTAL PROCESSES AND FLOODING

Background and context

232 The marine, and particularly coastal, environments are highly dynamic systems. There are strong connections between physical processes within the coastal zone and the management of flood and erosion risks. As a result, there are close links between climate change adaptation to manage the flooding and erosion effects of sea-level rise.

233 Whilst this part of Scotland has experienced submergence for millennia, climate change projections suggest that future rates of sea-level rise in this part of Scotland may, in the coming decades, approach rates not experienced here for several thousand years. In addition, exposure to extreme weather and sea conditions means that a number of coastal settlements and other assets within the coastal zone are particularly vulnerable to coastal erosion and flooding. Sea levels are already rising in the PFOW area and the anticipated increased rate of rise is expected to cause more erosion and exacerbate the effects of storm surges and localised marine flooding.

234 Coastal erosion is being recognised as an important issue in Scotland at both national and local levels. It mainly affects our soft shorelines and can have both negative and positive effects. It can lead to loss of land and increasing flooding risk, with significant economic and social costs. It also releases coastal sediment to augment the sediment supply to natural and man-made coastal defences and maintains important habitats. On much of the soft shoreline, natural landforms make up the coastal defences; they depend on this supply of sediment. On defended coasts, intertidal sediments enhance the resilience of these defences. Conflict arises when coastal erosion causes instability adjacent to assets which are (or are perceived to be) static or fixed.

Key legislation and policy guidance

235 Responsible authorities under the Flood Risk Management (Scotland) Act 2009¹ and the Water Environment and Water Services (Scotland) Act 2003² have a duty to manage flood risk. These responsibilities enable planning authorities to help meet the requirements of the Water Framework Directive³. Ensuring close co-ordination between physical works, such as defences or marine developments, in coastal areas and action to manage flood risk is essential.

Information Box 13

Flood Risk Management Act 2009

The Flood Risk Management Act aims to reduce the adverse consequences of flooding on communities, the environment, cultural heritage and economic activity. It provides:

- a framework for coordination and cooperation between all organisations involved in flood-risk management
- assessment of flood risk and preparation of flood-risk management plans
- new responsibilities for Scottish Environment Protection Agency, Scottish Water and local authorities in relation to flood-risk management
- a revised, streamlined process for flood-protection schemes
- new methods to enable stakeholders and the public to contribute to managing flood risk
- a single enforcement authority for the safe operation of Scotland's reservoirs

236 Coastal erosion and flood risk will be included in the strategic appraisal of flood-risk management measures that SEPA is carrying out under the Flood Risk Management Act. This appraisal will identify areas that have a significant risk of coastal flooding in accordance with the Flood Risk Framework in Scottish Planning Policy (2014).

237 Scottish Planning Policy⁴ sets the national framework for considering developments at risk of flooding. It promotes a precautionary approach to flood risk from all sources. It advocates flood avoidance, by safeguarding flood storage and conveying capacity, along with flood reduction measures, such as Sustainable Drainage Systems (SuDS). SEPA has produced indicative maps⁵, available on their website, which show areas that are potentially at risk from flooding.

238 Development proposals that have the potential to alter the coast are also subject to screening under the Environmental Impact Assessment (Scotland) Regulations 1999⁶ and the Marine Works (EIA) Regulations 2007⁷ (as amended).

239 Whilst acknowledging the link to erosion-induced flooding, areas which experienced coastal erosion in the past, and are expected to be susceptible to future erosion, are being investigated within the National Coastal Change Assessment (NCCA) (see below). The NCCA uses a similar approach as Shoreline Management Plans which will support this Plan and linked terrestrial plans (e.g. Local Development Plans) to consider management policies and approaches to encourage adaptation and enhance resilience.

240 Locally, both the Orkney and Highland Local Development Plans have policies that support flood avoidance. In Orkney, a Strategic Flood Risk Assessment has been undertaken that supports the identification of flood-risk areas in more detail. In Highland, the Council has adopted supplementary guidance on flood risk that outlines how proposals that may be at risk of flooding, or cause flooding, will be considered. Development applications on the coast may require to be supported by a Flood Risk Assessment.

Current status

241 Around 12% of the Scottish coastline is recognised as in a state of erosion. Work has commenced on the National Coastal Change Assessment project, which focuses on erosion patterns in Scotland, including two pilot zones one of which will be in the PFOW area. This is an inter-agency research project to establish an evidence base to better enable sustainable development along our extensive coastal zone.

242 In Orkney, almost a third of important archaeological sites are either being damaged by, or are at risk from, coastal erosion, and Sanday beach in Orkney has eroded significantly over the last few years. Buildings and gardens are under threat in Thurso Bay, and some coastal footpaths require ongoing monitoring and maintenance. Whilst natural landforms protect a large amount of assets, within more developed areas, seawalls and rock armour are often used to protect roads, paths and buildings from the effects of both erosion and flooding.

243 Local authority plans have identified actions to alleviate flooding, including preparation of Flood Risk Management Plans. For example, there are proposals to redesign the Thurso boating pond to help manage flood events.

Pressures

244 Climate change poses the main risk to increased rates for erosion and flooding. Associated wind and wave conditions may prove particularly challenging for wave and tidal devices and aquaculture. New developments such as large areas of reclaimed land to increase harbour lay-down areas may contribute to coastal squeeze or changing sediment patterns. Parts of existing development and infrastructure may also be particularly vulnerable to erosion and flooding. Orkney's rich archaeological heritage is already under threat but the damage is likely to increase over the next few decades.

General Policy 5B: Coastal processes and flooding

The Plan will support proposals for development and/or activities, including any linked shore-base requirements, that demonstrate, potentially by way of a flood risk assessment:

- compliance with Scottish Planning Policy
- that they will not exacerbate present or future risks of flooding or erosion
- that sensitive uses, such as accommodation, should generally not be located in areas shown to be at risk of flooding unless appropriate measures are in place
- how resilience and adaptation strategies have been incorporated within proposed developments over their lifetime to adapt to the effects of climate change, coastal erosion and coastal flooding

Any development must not compromise the objectives of the Flood Risk Management Act.

Justification

245 Responsible authorities have a duty to manage and reduce flood risk under the Flood Risk Management (Scotland) Act 2009 and the Water Environment and Water Services (Scotland) Act 2003.

Supporting spatial information

246 This policy is not supported by specific spatial information as it changes regularly. Up-to-date mapping can be found on the SEPA website; details are in the *Further Information* section.

Future considerations

247 Over the next few generations, significant increased investment is likely to be required to manage the effects of coastal change and elevated sea levels. The new National Coastal Change Assessment project discussed above will make a significant contribution to our understanding of the issues arising. Subsequent regional marine plans may be able to provide more detailed flooding and erosion assessments based on emerging work by various agencies.

Further information

¹ Flood Risk Management (Scotland) Act 2009

<http://www.legislation.gov.uk/asp/2009/6/contents>

² Water Environment and Water Services (Scotland) Act (WEWS) 2003

<http://www.legislation.gov.uk/asp/2003/3/contents>

³ Water Framework Directive

http://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF

⁴ Scottish Planning Policy

<http://www.gov.scot/Publications/2014/06/5823>

⁵ SEPA Flood Maps

http://www.sepa.org.uk/flooding/flood_maps.aspx

⁵ SEPA's Land Use Vulnerability Guidance

<http://www.sepa.org.uk/media/143416/land-use-vulnerability-guidance.pdf>

⁶ Environmental Impact Assessment (Scotland) Regulations 1999

<http://www.legislation.gov.uk/ssi/1999/1/contents/made>

⁷ Marine Works (EIA) Regulations 2007 (as amended)

<http://www.legislation.gov.uk/uksi/2007/1518/contents/made>

SEPA's Technical Flood Risk Guidance for Stakeholders

<http://www.sepa.org.uk/media/162602/ss-nfr-p-002-technical-flood-risk-guidance-for-stakeholders.pdf>

SNH Coastal Erosion Guidance

<http://www.snh.gov.uk/about-scotlands-nature/rocks-soils-and-landforms/coasts/erosion/>

Rennie, A.F. & Hansom, J.D. (2011)

Sea level trend reversal: Land uplift outpaced by sea level rise on Scotland's coast. *Geomorphology*, 125, 193-202

Highland Council Supplementary Guidance

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/213/supplementary_guidance/12

Coastal Flooding In Scotland: A Guidance Document for Coastal Practitioners

<http://www.crew.ac.uk/publications/coastal-flooding-scotland-guidance-document-coastal-practitioners>

Coastal Erosion Susceptibility Model: data will be available in due course

GENERAL POLICY 6: HISTORIC ENVIRONMENT

Background and context

248 The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged. It can be described as “the cultural heritage of places”. The PFOW area has an exceptionally rich marine and coastal historic environment, which plays a vital role in the culture, infrastructure and economy of the region. The historic environment in Orkney is internationally renowned, whilst the northern Caithness and Sutherland coasts have a wealth of historic assets. The archaeology, designed landscapes, historic settlements, buildings and structures distributed throughout the area are abundant and, in many cases, represent a world-class resource.

249 The Plan area has an extensive range of heritage sites both above and below the low water mark, made up of a wide variety of site types from shipwrecks to submerged prehistoric landscapes. The conservation requirements and development implications of each type of site is different; it is important to understand the nature and conservation requirements of each type of site in order to understand the effect development may have (see *Further information* for more details).

Key legislation and policy guidance

250 The historic environment is recognised as an important resource by policy and legislation at all levels. The UK is a signatory to a number of international treaties regarding the preservation of cultural heritage, notably the European Convention on the Protection of the Archaeological Heritage (the ‘Valletta Convention’) and the UNESCO World Heritage Convention, which established the concept of World Heritage Sites. General duties to protect and enhance the historic environment are set out in the UK Marine Policy Statement, National Marine Plan in Scotland, and Scottish Planning Policy, which obliges planning authorities to have regard for archaeology when assessing applications.

251 At the UK and Scottish level, a range of legislation exists to protect specific sites within the historic environment, including the Marine (Scotland) Act 2010¹, the Ancient Monuments and Archaeological Areas Act 1979² (as amended), the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997³ (as amended), and the Protection of Military Remains Act 1986⁴ (as amended). Further non-statutory designations exist within the planning system. There are also provisions within the Marine (Scotland) Act 2010 and the Merchant Shipping Act 1995⁵ governing the removal of wrecks from the seabed which may offer protection to the marine historic environment. Protection of the historic environment is also established in other policies and guidance, such as the Crown Estate’s lease conditions and codes of practice for recreational wreck divers.

Information Box 14

Definitions of key terms

A *heritage asset* is a site with archaeological, architectural, artistic or historic significance.

Significance is the importance of the site in archaeological, architectural, artistic, historic, traditional, aesthetic, scientific or social terms. Understanding the type of significance a site has is crucial to its good management.

Setting is the way in which the surroundings of a heritage asset contribute to how it is experienced, understood and appreciated, and forms an important part of its significance.

Adverse effects or *impacts* are effects of a development which are harmful to its significance. These can be direct, indirect or cumulative.

Mitigation describes measures taken to reduce adverse impacts on a site, and include preservation in situ and preservation by record.

Table 3: Different types of heritage asset designation.

Relevant legislation/policy	Consenting authority	Statutory	Terrestrial/Marine	Designation
Marine (Scotland) Act 2010	Marine Scotland/OIC	Y	Marine	Historic Marine Protected Areas
Ancient Monuments and Archaeological Areas Act 1979 (as amended)	Historic Environment Scotland	Y	Terrestrial & marine	Scheduled Ancient Monuments
Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended)	Local authority	Y	Terrestrial	Listed buildings
Protection of Military Remains Act 1986 (as amended)	Ministry of Defence	Y	Terrestrial & marine	Protected Places
Protection of Military Remains Act 1986 (as amended)	Ministry of Defence	Y	Marine	Controlled Sites
Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended)	Local authority	Y	Terrestrial	Conservation areas
Ancient Monuments and Archaeological Areas Act 1979 (as amended)	No additional consents required, but Historic Environment Scotland consulted	Y	Terrestrial	Gardens & Designed Landscapes
Ancient Monuments and Archaeological Areas Act 1979 (as amended)	No additional consents required, but Historic Environment Scotland consulted	Y	Terrestrial	Battlefields
UNESCO World Heritage Convention	(No additional consents required)	N	Terrestrial & marine	World Heritage Sites
Supplementary Guidance: Listed Buildings and the Orkney Local List	Orkney Islands Council	N	Terrestrial	Orkney Local List

Current Status

252 The understanding and management of the historic environment relies on the accurate recording of heritage assets in publicly-accessible databases. Historic Environment Scotland maintains a national database known as Canmore, which holds records on historic sites in Scotland and UK waters adjacent to Scotland. Note that the majority of the marine historic environment is documented approximately at best, particularly for certain site types such as older wrecks and submerged prehistoric landscapes. Records are also held by local authorities in the Orkney Sites and Monuments Record and the Highland Historic Environment Record.

253 Much of the daily activity and economy of the communities living around the Plan area directly involves the historic environment. All of the major population centres around the Plan area, and the majority of smaller ones, are historic coastal settlements. Here in particular the historic environment co-exists with, and supports, a variety of industries and commercial activities, from tourism to retail and light industry, as well as housing a large proportion of the local community. Historic harbours, causeways and lighthouses are essential to the economic and transport infrastructure of the area.

Information Box 15

The historic environment is a major driver of tourism in the area: in 2013-14 approximately 1800 dive tourists visited Orkney, and staffed Historic Environment Scotland sites adjacent to the Plan area recorded 90,970 visits.

Pressures

254 Whilst the large number of visitors to historic sites in and around the Plan area brings many benefits, it also creates pressures. Theft and vandalism are growing concerns, and the number of visitors to key tourist attractions, such as Skara Brae, creates challenges for the management of these sites. Human activity near historic sites can also create pressures by affecting settings of monuments. Careful management of development at sea and in harbour areas so as to avoid or minimise adverse impacts on the settings of heritage assets is an ongoing responsibility. Requirements of navigation can also have detrimental effects on heritage assets or their settings, through activities such as dredging and the visibility requirements of new structures in the marine environment.

255 The historic environment in the Plan area is also affected by pressures from the natural environment, primarily from climate change. The increased frequency and intensity of storm events is placing coastal heritage sites under unprecedented threat, as structures and archaeology are damaged and destroyed on an annual basis, often before they can be properly recorded. Flooding events also place the historic environment under strain, as has been experienced in Kirkwall and St Margaret's Hope in recent years.

General Policy 6: Historic environment

Development(s) and/or activities with potential to have an adverse effect on the archaeological, architectural, artistic or historic significance of heritage assets, including their settings, will be expected to demonstrate that all reasonable measures will be taken to mitigate any loss of significance, and that any lost significance which cannot be mitigated is outweighed by social, economic, environmental, navigation or safety benefits.

Preservation in situ will always be the preferred form of mitigation. The results of any mitigation measures must be published in an agreed format, and all supplementary material lodged with an agreed publicly accessible archive.

Heritage assets of very high significance should be protected from all but minor adverse effects to their significance unless there are overwhelming social, economic or environmental benefits from the development(s) and/or activities. For these sites the highest levels of mitigation will be required. This includes sites where there is a substantial likelihood of the survival of human remains, and protected sites identified in Table 3.

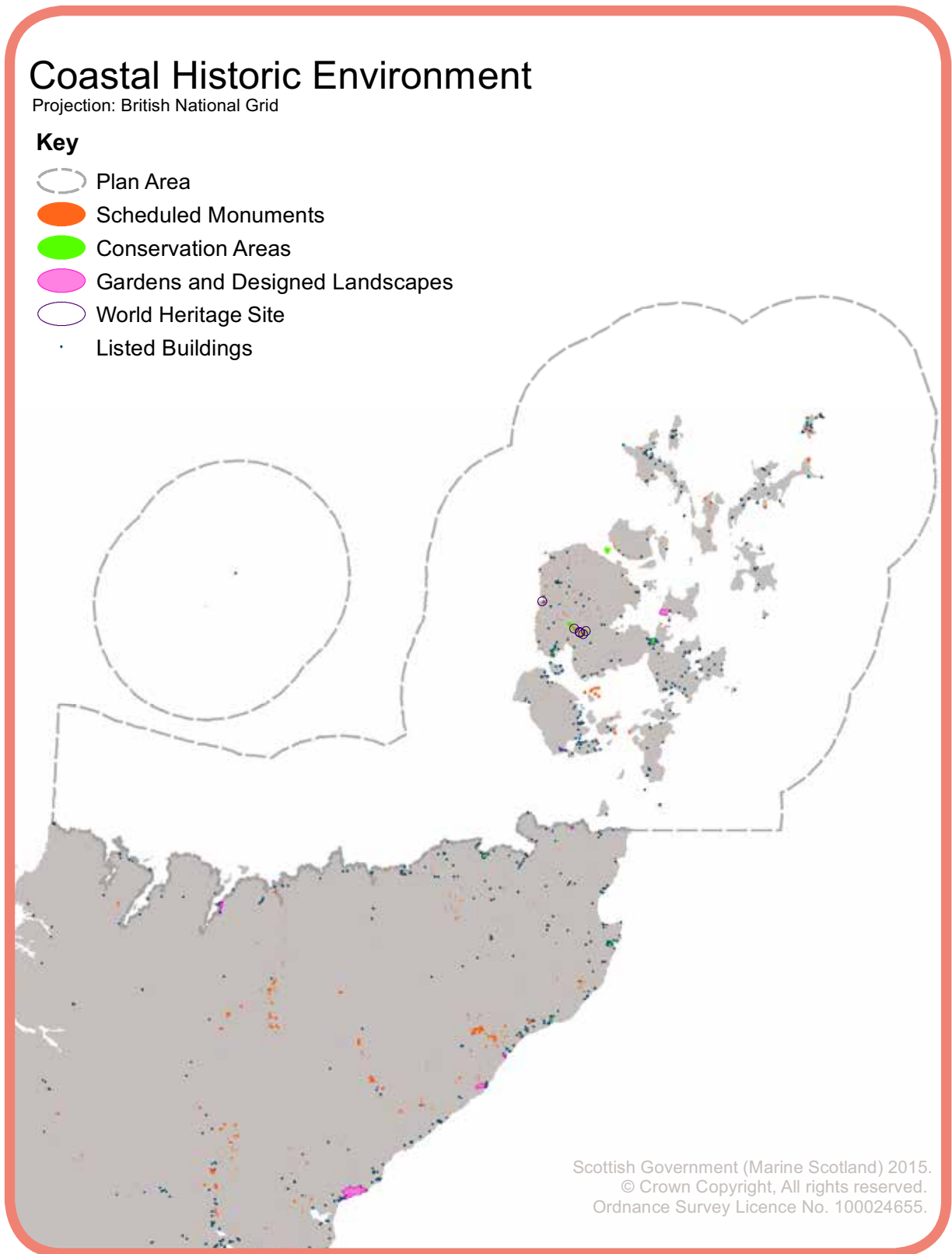
For those sites which are designated, licences or consents are likely to be required from the relevant authority before the commencement of development(s) and/or activities. Receiving these consents may be a condition of marine licence approval. Proposals for development(s) and/or activities that may affect the historic environment should provide information on the significance of known heritage assets and the potential for new discoveries to arise. They should demonstrate how any adverse impacts will be avoided, or if not possible minimised and mitigated. Where it is not possible to minimise or mitigate impacts, the benefits of proceeding with the proposal should be clearly set out.

Justification

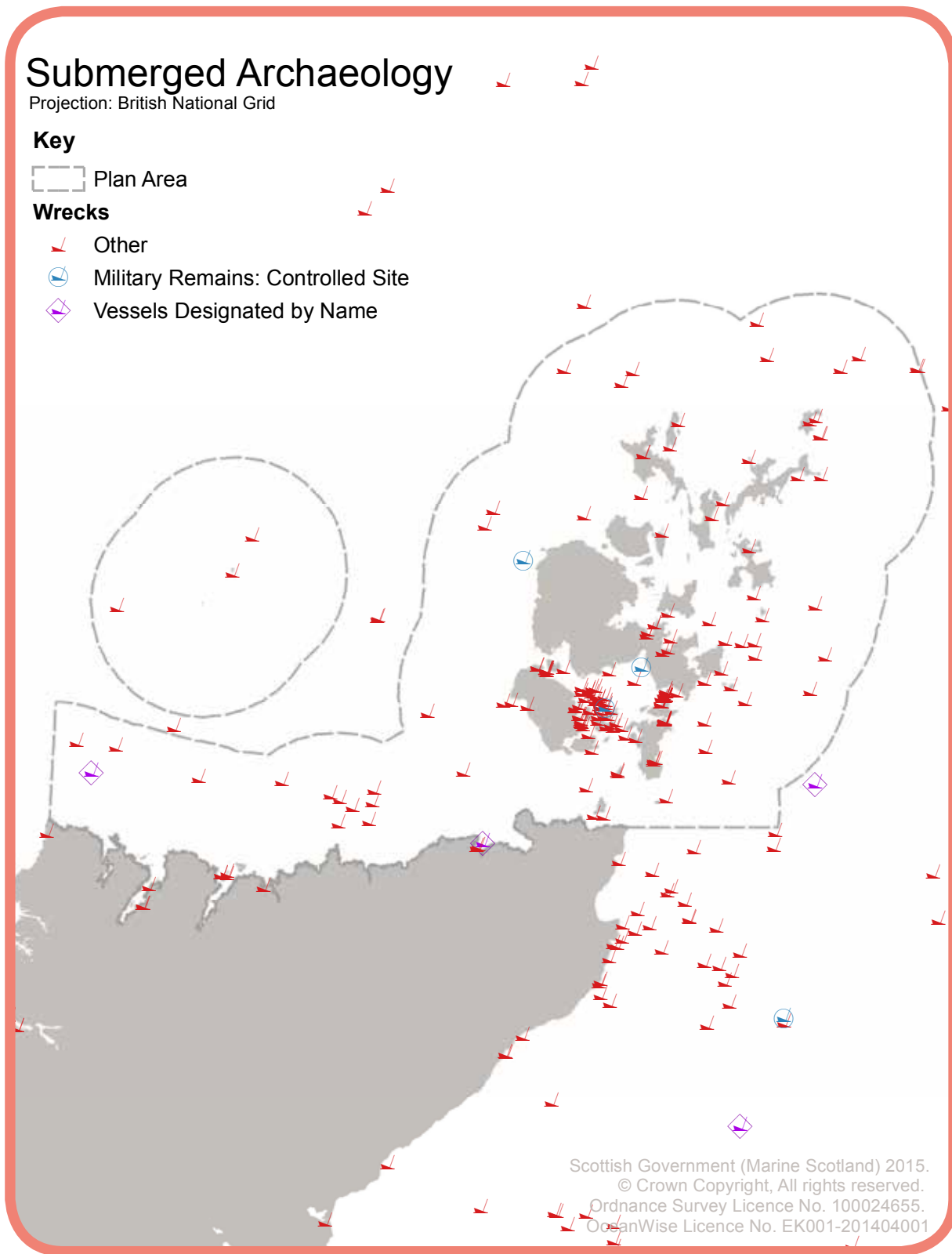
256 The historic environment is recognised as intrinsically important, both for what it can teach us about the previous inhabitants of our landscapes and for the emotional connection it can provide to those who have lived before us. It also houses the population, drives tourism and is crucial for maintaining transport links and other key infrastructure. It enables world-class archaeological and historical research to happen locally, and is central to the cultural imagination and self-identity of local communities in the region. Its importance is recognised in the Scottish Government's Historic Environment Strategy for Scotland, and in numerous international charters to which the UK is a signatory, Acts of the UK and Scottish Parliaments, and local authority policies in Highland and Orkney.

257 The chosen policy model, based in the first instance on the significance of heritage assets rather than designations, reflects the low level of current understanding of the marine historic environment. The majority of vessels lost off Scotland's coasts have never been located, and palaeo-environmental research is still in its early stages. This means that, when planning developments in the Plan area, a real likelihood exists of discovering previously unknown (and undesignated) heritage assets, which may be of very high significance. A precautionary approach is therefore necessary. In addition, a significance-based policy will ensure that mitigation required is proportionate and effective, with decisions based on sound evidence and analysis, therefore supporting sustainable economic growth. Over the long term, it is anticipated that taking this approach would lead to significant new research into the marine historic environment as a result of development in the Plan area, leading to greater understanding of the resource which will enable more informed assessment of future proposals.

Supporting spatial information



Map 10: This map shows designated historical environment sites including World Heritage Sites, Scheduled Monuments, Listed Buildings, Gardens and Designed Landscapes and Conservation Areas. This map does not show listed buildings within the Conservation Areas, the location of these listed buildings can be viewed on National Marine Plan interactive.



Map 11: Submerged archaeology in the Pentland Firth and Orkney Waters area.

Future considerations

258 Climate change is already causing profound change to the coastal archaeology of the Plan area, and this is likely to get worse over time. The requirement for protection of key sites and for excavation and recording capacity to keep pace with the rate of loss of heritage assets may have implications for future development.

259 There are currently no Historic Marine Protected Areas (HMPA) in the Plan area although one may be created in Scapa Flow during the lifetime of the Plan, subject to formal consultation processes. If created, this would require consenting bodies (including the harbour authority) to make decisions in accordance with the preservation objectives of the HMPA and any Marine Conservation Orders pertaining to it. This would enhance the protection of the marine historic environment, whilst giving clarity to developers about expectations for proposals.

260 In addition, as research into the marine historic environment continues, greater understanding of the marine archaeological resource, in particular submerged prehistoric landscapes, is likely to further improve the assessment of development proposals over time.

261 There is scope to produce more detailed guidance on the legislative framework, conservation requirements and implications for development of the marine and coastal historic environment to supplement this Plan.

Further information

Legislation and Policy

¹ Marine (Scotland) Act 2010

<http://www.legislation.gov.uk/asp/2010/5/contents>

² Ancient Monuments and Archaeological Areas Act 1979 (as amended)

<http://www.legislation.gov.uk/ukpga/1979/46/contents>

³ Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 (as amended): <http://www.legislation.gov.uk/ukpga/1997/9/contents>

⁴ Protection of Military Remains Act 1986 (as amended)

<http://www.legislation.gov.uk/ukpga/1986/35>

⁵ Merchant Shipping Act 1995

<http://www.legislation.gov.uk/ukpga/1995/21/contents>

The Marine Historic Environment Strategy for the Protection, Management and Promotion of Marine Heritage 2012-2015

<http://www.historic-scotland.gov.uk/marine-strategy-2012-15.pdf>

Supplementary Planning Guidance: Heart of Neolithic Orkney World Heritage Site (Orkney Islands Council, 2010)

<http://www.orkney.gov.uk/Service-Directory/R/heart-of-neolithic-orkney-world-heritage-site-spg.htm>

Supplementary Guidance: Listed Buildings and the Orkney Local List (Orkney Islands Council, 2011)

<http://www.orkney.gov.uk/Service-Directory/R/listed-buildings-and-the-orkney-local-list.htm>

Scottish Historic Environment Policy (Historic Scotland, 2011)

<http://www.historic-scotland.gov.uk/shep-dec2011.pdf>

Guidance

Historic Environment Guidance for Wave and Tidal Energy (Firth, 2013)

<http://www.historic-scotland.gov.uk/wave-tidal-energy-guidance-nov-13.pdf>

Model Clauses for Archaeological Written Schemes of Investigation: Offshore Renewables Projects (Crown Estate, 2010)

<http://www.thecrownestate.co.uk/media/5514/model-clauses-for-archaeological-written-schemes-of-investigation.pdf>

Protocol for Archaeological Discoveries: Offshore Renewables Projects (Crown Estate, 2014)

<http://www.thecrownestate.co.uk/media/148964/ei-protocol-for-archaeological-discoveries-offshore-renewables-projects.pdf>

Standard and Guidance for Nautical Archaeological Recording and Reconstruction (Institute for Archaeologists, 2013) http://www.archaeologists.net/sites/default/files/ClfAS&GNautical_1.pdf

Code of Practice for Wreck Divers (BSAC)

http://www.bsac.com/core/core_picker/download.asp?id=10203

Historic Marine Protected Areas – A Guide for Visitors, Investigators and Managers (Historic Scotland)

<http://www.historic-scotland.gov.uk/historic-mpa-guidelines.pdf>

Data sources and supplementary information

Highland Historic Environment Record

<http://her.highland.gov.uk/>

Orkney Archaeology Society

<http://orkneyarchaeologysociety.org.uk/index.php/information/orkney-archaeology>

Aviation Research Group Orkney & Shetland

<http://crashsiteorkney.com/>

Project Adair

<http://www.rcahms.gov.uk/rcahms-projects/project-adair>

Canmore

<http://canmore.rcahms.gov.uk/>

Northern Lighthouse Board

<http://www.nlb.org.uk/>

Rising Tides Project

http://www.st-andrews.ac.uk/tzp/rising_tides.html

GENERAL POLICY 7: INTEGRATING COASTAL AND MARINE DEVELOPMENT

Background and context

262 Taking an integrated approach to the management of coastal and marine development is essential to avoid potential adverse effects on the coastal and marine environment. Decision-makers and developers need to take account of both the marine and terrestrial elements of any development so that any direct and cumulative adverse effects can be avoided or appropriately mitigated.

263 Port and harbour, marine renewable energy and aquaculture developments, for example, often incorporate marine and terrestrial components with a potential requirement for multiple licences and consents. Marine licensing is required in the marine area up to mean high water springs and terrestrial planning control extends to mean low water springs, therefore, there is an overlap of consenting requirements in the intertidal zone. As a result, for certain developments there might be a need for both a marine licence and planning permission (e.g. electricity transmission cables connecting an offshore renewable energy array to the shore). In the case of renewable energy developments there could also be a requirement for a section 36 consent (Marine Scotland Licensing Operations Team) and decommissioning plan with a supporting bond (Department of Energy and Climate Change). Additionally, developments within the Orkney Harbour Area may require a works licence. General Policy 7: *Integrating coastal and marine development* aims to provide greater clarity and coordination of the various licensing and consent requirements for consenting authorities, developers and wider stakeholders.

264 Details of licensing and consent requirements are set out in Section 2 *How to Use the Plan*.

Key legislation and policy guidance

265 All public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area must do so in accordance with the UK Marine Policy Statement, Scotland's National Marine Plan and any subsequent regional marine plan, unless relevant considerations indicate otherwise. This applies to, but is not limited to, decisions on marine licensing, section 36 consent and terrestrial planning applications and enforcement.

266 Public bodies must have regard to the UK Marine Policy Statement and relevant Marine Plans when making decisions which are capable of affecting the UK marine area which are not enforcement or authorisation decisions. This applies to the preparation and adoption of local development plans and to other terrestrial planning functions.

267 The EU Environmental Impact Assessment (EIA) Directive¹, transposed into a variety of UK and Scottish legislation, applies to onshore and offshore developments identified in Annex 1 or 2 of the Directive. Its purpose is to ensure that the environmental effects of development are appropriately assessed, addressed and mitigated through the relevant consenting process.

268 Licensable marine activities that form part of a development proposal may require Environmental Impact Assessment under the Marine Works (EIA) Regulations 2007² (as amended) and/or the Electricity Works (EIA) (Scotland) Regulations 2000³ (as amended). Developments that require planning permission under the Town and Country Planning (Scotland) Act 1997⁴ (as amended), depending on their size and location, may require an EIA under the Environmental Impact Assessment (Scotland) Regulations 2011⁵.

269 Pre-screening consultation with Marine Scotland's Licensing Operations Team (MS-LOT) and the local planning authority is expected for developments that include marine and terrestrial components. In the case of works associated with a development that does not require an EIA in its own right, for example an electricity substation, it is expected that the EIA undertaken for the electricity generation would include these associated works.

270 Planning Circular 1/2015 *The relationship between the statutory land use planning system and marine planning and licensing*, sets out further guidance⁶.

Current status

271 The marine renewable energy projects currently being developed in the Pentland Firth and Orkney Waters all have marine and terrestrial components that will require various consents and supporting impact assessments. Equally, port and harbour developments to support growing economic sectors are likely to encounter these complex consenting issues. The following sections consider the marine and terrestrial consenting issues for these two key growth sectors that are likely to be developed across the intertidal zone within the Plan area.

Renewable energy developments

272 In addition to a Marine Licence and/or section 36 consent, consents may be required from other regulatory bodies such as local planning authorities, harbour authorities and the Scottish Environment Protection Agency. These bodies are expected to liaise closely to ensure that the various impact assessments and consents are delivered in an efficient and streamlined manner. To assist in tackling complex issues and/or to resolve areas of dispute anytime in the application process prior to determination, MS-LOT may decide to bring together a Marine Renewables Facilitators Group (MRFG). Further information on MRFGs is provided in Sectoral Policy 4: *Renewable energy*.

Port and harbour developments

273 Port and harbour developments within Harbour Areas may require a Marine Licence and/or planning permission depending on the proposal. Statutory Harbour Authorities may benefit from permitted development rights in classes 29 or 35 of the Town and Country (General Permitted Development) (Scotland) Order 1992⁷ (as amended).

274 Improvements to ports and harbours may require the harbour authority to apply to Scottish Ministers for additional powers through a Harbour Revision Order under the Harbours Act 1964⁸. Planning authorities are statutory consultees in this process. The various consenting bodies are expected to liaise closely to ensure that the various impact assessments and consents are delivered in an efficient and streamlined manner.

Pressures

275 Given the aspiration to sustainably develop key sectors including marine energy sector and aquaculture within the Plan area, there is potential for significant direct and cumulative impacts on sensitive coastal areas. Marine development is often dependant on land-based infrastructure including harbours, electricity substations or operation and maintenance bases.

General Policy 7: Integrated coastal and marine development

For development(s) and/or activities that require multiple licences, permissions and/or consents, applicants should undertake early pre-application engagement with the consenting authorities and relevant stakeholders.

For development(s) and/or activities that require an Environmental Impact Assessment and multiple licences, permissions and/or consents, applicants should produce a Consultation Strategy at the scoping stage.

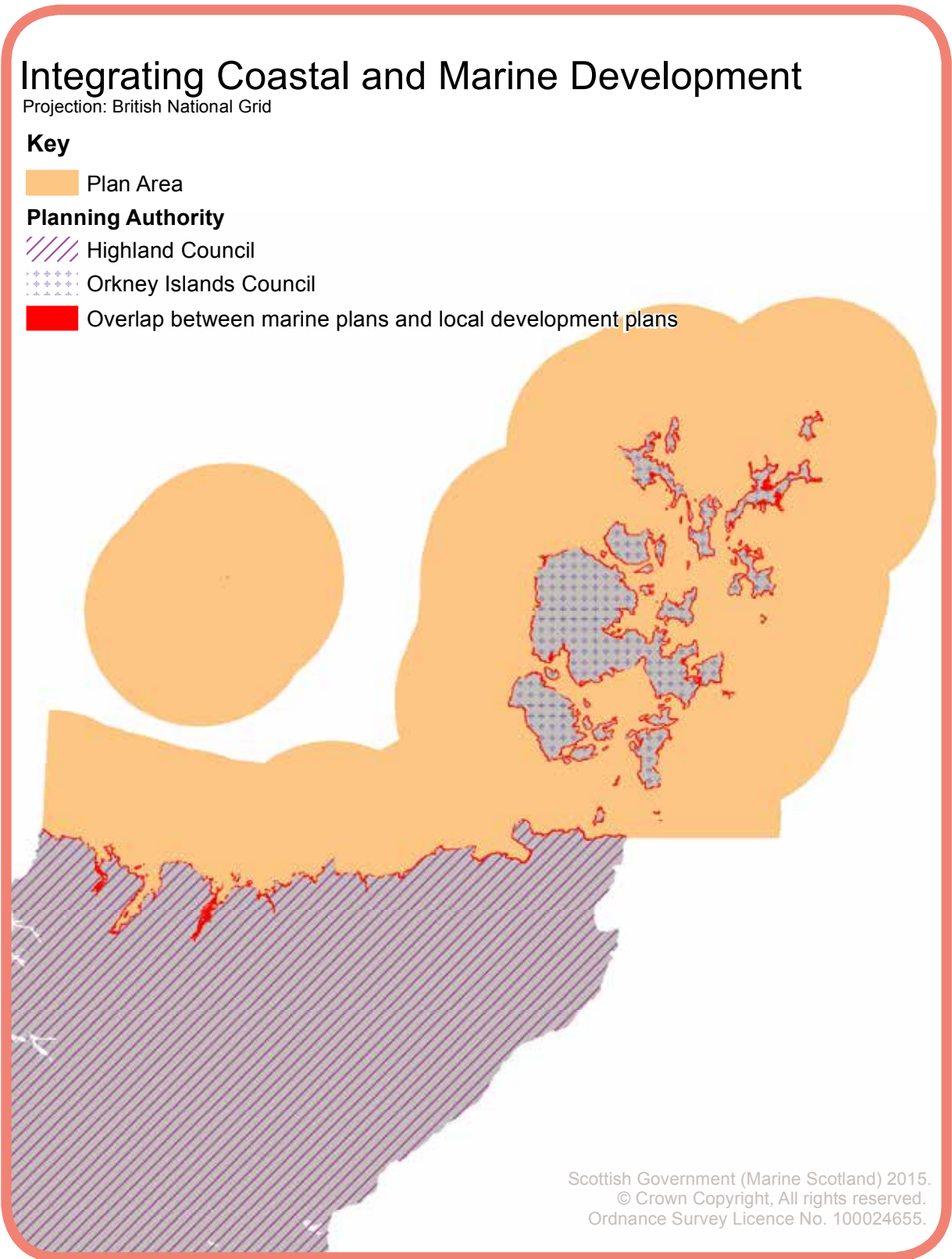
Where appropriate, proposals for construction projects should be supported by a construction environmental management plan which covers both the terrestrial and marine environment.

MS-LOT and other relevant consenting authorities should consult one another at an early stage to improve the efficiency of the consenting process and, where appropriate, coordinate and streamline the various consenting requirements.

Justification

276 The coastal and intertidal zones are areas of significant economic, ecological, recreational and landscape value. To protect these important resources the various regulatory requirements within these areas need to be coordinated to ensure that the potential impacts of development and activities are appropriately assessed and addressed. This policy aims to support an integrated approach to the authorisation of development in coastal areas and efficient consenting processes.

Supporting spatial information



Map 12: The Orkney Islands Council and Highland Council jurisdictions, the Plan area and the overlap of jurisdiction in the intertidal zone.

Future considerations

277 Future regional marine planning for Orkney and the North Coast will play an important role in coordinating coastal and marine development and activities. Further initiatives should be explored to support the integration of marine and terrestrial planning policy and the activities of regulators.

Further information

¹ EU Environmental Impact Assessment (EIA) Directive

<http://ec.europa.eu/environment/eia/home.htm>

² Marine Works (EIA) Regulations 2007 (as amended)

<http://www.legislation.gov.uk/uksi/2007/1518/made>

³ Electricity Works (EIA) (Scotland) Regulations 2000

<http://www.legislation.gov.uk/ssi/2000/320/contents/made>

⁴ Town and Country Planning (Scotland) Act 1997

<http://www.legislation.gov.uk/ukpga/1997/8/contents>

⁵ Environmental Impact Assessment (Scotland) Regulations 2011

http://www.legislation.gov.uk/ssi/2011/139/pdfs/ssi_20110139_en.pdf

⁶ Planning Circular 1/2015 *The relationship between the statutory land use planning system and marine planning and licensing*

<http://www.gov.scot/Publications/2015/06/5851/downloads>

⁷ Town and Country (General Permitted Development) (Scotland) Order 1992 (as amended)

<http://www.gov.scot/Topics/Built-Environment/planning/Development-Management/Permitted-Development>

⁸ Harbours Act 1964

<http://www.legislation.gov.uk/ukpga/1964/40/contents>

Guidance on the Electricity Works (EIA) (Scotland) Regulations 2000

<http://www.gov.scot/Topics/Business-Industry/Energy/Infrastructure/Energy-Consents/Guidance/EIA-Guidance>

Guidance on the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011

<http://www.gov.scot/Publications/2011/06/01084419/0>

GENERAL POLICY 8A: NOISE

Background and context

278 Noise and vibration has the potential to disturb, or be damaging to, a number of species. The full extent of this type of damage for some species is still relatively unknown at either an individual or population level and there is ongoing research to fill these data gaps.

279 Anthropogenic noise emitted within the marine environment has the potential to mask biologically relevant signals, can lead to a variety of behavioural reactions, affect hearing organs, and injure or even kill marine life. Sources of concern include explosions, shipping, seismic surveys, offshore construction and offshore industrial activities, e.g. dredging, drilling and piling, sonar of various types and acoustic deterrents.

280 The Marine Policy Statement¹ notes that noise from marine activities can also affect people. This could occur when a noisy activity associated with a development takes place close to shore e.g. piling or an increase in shipping traffic in the vicinity.

281 An EU Directive on Environmental Noise (EU 2002/49/EC)² that deals with noise impacts on people is currently under review. Excessive noise can have wide-ranging impacts on the quality of human life, health, and use and enjoyment of areas, including those areas with high visual quality. Its impact therefore needs to be considered and managed appropriately.

Key legislation and policy guidance

282 In accordance with the Marine Strategy Framework Directive (MSFD)³, the Scottish Government is required to address the potential impacts of underwater noise, one of the descriptors of Good Environmental Status. The descriptor is stated as “the introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment”.

283 As part of the data collection to monitor noise for the Marine Strategy Framework Directive, Marine Scotland’s Licensing Operations Team sends records on noisy activities (piling, explosives and Acoustic Deterrent Devices) to the Joint Nature Conservation Committee (JNCC) to contribute to a Noise Registry that will be the national recording programme for anthropogenic noise in the marine environment.

284 JNCC have guidelines for minimising the risk of injury and disturbance to marine mammals from underwater explosive seismic surveys^{4,5} and piling⁶.

285 Marine Scotland have published guidance⁷ for Scottish Inshore Waters in relation to ‘The Protection of Marine European Protected Species from Injury and Disturbance’. An evaluation of the effectiveness of Acoustic Deterrent Devices and other non-lethal measures on marine mammals has also been published by Marine Scotland⁸.

286 The National Physical Laboratory Good Practice Guide No. 133 provides guidance⁹ on best practice for in situ measurement of underwater sound, for processing the data and for the measurements using appropriate metrics.

Current status

287 An EU Directive on Environmental Noise that deals with noise impacts on people is currently under review.

288 Some developers are required to monitor noise and information on the type, level and duration of noise (both underwater and above water) expected to be generated throughout all stages of the development. Developers may be required to implement noise mitigation measures if the noise level is considered too high.

289 Noise mitigation measures could include marine mammal observers and passive acoustic monitoring, location of noise generating devices away from sensitive receptors, controlling noise generating activities during sensitive periods (i.e. breeding, rearing, migration), eliminating or controlling noise at source by enclosing or insulating the noise and routing ship movements away from sensitive receptors where feasible.

290 For some species there is limited information on the effect that noise can have and there is ongoing research to fill some of these knowledge gaps.

Pressures

291 Developers need to consider whether there is potential to affect a European Protected Species (EPS) such as otters or cetaceans and if so, what mitigation measures can be applied to avoid committing an offence, failing which, there would be a need to apply for an EPS licence.

292 The potential impact on all marine receptors therefore needs to be considered and managed appropriately. Licence applications that include noise activity would need to assess this and the risk to marine species.

General Policy 8A: Noise

This Plan will support development(s) and/or activities in the marine environment where:

- developers have avoided significant adverse effects:
 - of man-made underwater noise and vibration on species sensitive to such effects
 - of man-made noise, vibration and/or disturbance on the amenity of local communities and marine users
- applications for marine development(s) and/or activities that are likely to have significant noise impacts (on sensitive species and/or people) include a noise impact assessment or supporting information to describe the duration, type and level of noise expected to be generated at all stages of the development (construction, operation, decommissioning)
- mitigation measures are in place to minimise the adverse impacts associated with the duration and level of significant noise activity
- the cumulative effects of noise in the marine environment and on local communities have been assessed
- developers have considered whether the level of surface or underwater noise has the potential to affect a European Protected Species (EPS) and have noted that any development(s) and/or activities which have the potential to disturb an EPS (otters, cetaceans) will require an EPS licence
- developers have consulted with the local planning authority, Marine Scotland and Scottish Natural Heritage in relation to potential noise impacts as early as possible in the design and development of any marine-related project

Justification

293 Noise and vibration has the potential to disturb, or be damaging to, a number of species in the marine environment. There is also potential to have an adverse impact on the amenity of local communities and marine users. These impacts need to be taken into account at an early stage and mitigation measures put in place to minimise the impact.

294 There is a need to record levels of underwater noise to contribute to the aim of achieving Good Environmental Status for this descriptor under the Marine Strategy Framework Directive.

Supporting spatial information

295 There is no specific spatial information to support this policy.

Future considerations

296 There is ongoing research and data collection in relation to the impact of underwater noise and these data will inform the assessment of the potential of noise and vibration to disturb or be damaging to species in the marine environment. These data and the ongoing collection of data for the Noise Registry will all assist in assessing the potential risk of noise in the marine environment.

Further information

¹ Marine Policy Statement

<https://www.gov.uk/government/publications/uk-marine-policy-statement>

² European Directive on Environmental Noise

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32002L0049>

³ Marine Strategy Framework Directive

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0056>

⁴ Joint Nature Conservation Committee Guidelines For Minimising The Risk of Injury To Marine Mammals From Using Explosives

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/50007/jncc-ex-guide.pdf

⁵ Joint Nature Conservation Committee Guidelines For Minimising The Risk Of Injury And Disturbance To Marine Mammals From Seismic Survey

http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Seismic%20Guidelines_Aug%202010.pdf

⁶ Joint Nature Conservation Committee Statutory Nature Conservation Agency Protocol For Minimising The Risk Of Injury To Marine Mammals From Piling Noise

<http://www.gov.scot/Topics/marine/marine-environment/species/19887/20813/epsguidance>

⁷ Guidance: The Protection Of Marine European Protected Species From Injury and Disturbance

<http://www.gov.scot/Topics/marine/marine-environment/species/19887/20813/epsguidance>

⁸ Scottish Government report on Evaluating and Assessing the Relative Effectiveness of Acoustic Deterrent Devices and other Non-Lethal Measures on Marine Mammals

<http://www.gov.scot/Publications/2014/10/8271>

⁹ National Physical Laboratory Good Practice Guide No. 133

<http://www.npl.co.uk/upload/pdf/gpg133-underwater-noise-measurement.pdf>

OSPAR Assessment Of The Environmental Impact Of Underwater Noise

http://qsr2010.ospar.org/media/assessments/p00436_JAMP_Assessment_Noise.pdf

Southall et al. (2007). Marine Mammal Noise Exposure Criteria: Initial Scientific Recommendations. Aquatic Mammals 33: 411-521

http://sea-inc.net/assets/pdf/mmnoise_aquaticmammals.pdf

Brownlow et al. (2015) Investigation into the long-finned pilot whale mass stranding event, Kyle of Durness, 22nd July 2011.

http://www.strandings.org/reports/Kyle_of_Durness_Mass_Stranding_Report.pdf

GENERAL POLICY 8B: WASTE AND MARINE LITTER

Background and context

297 Despite some initiatives to reduce marine litter, it remains one of the most significant environmental problems affecting the marine environment. Some 20,000 tonnes of litter are dumped into the North Sea alone every year. Whilst around 80% of marine litter originates from a terrestrial source, the PFOW area, with its many beaches and coves, may have a higher potential for litter from marine sources.

Information Box 16

KIMO: Fishing for Litter project

Five vessels working out from Scrabster Harbour are part of the Fishing for Litter project run by Kommunenes Internasjonale Miljøorganisasjon (KIMO)¹.

KIMO directly provides fishing boats with large bags to deposit marine-sourced litter. When full, these bags are deposited safely on the quayside to then be collected for disposal.

This project reduces the volume of debris washing up on our beaches and also reduces the amount of time fishermen spend untangling their nets.

298 Marine litter can cause a variety of problems for wildlife, which may ingest plastic waste in particular. Litter can also be a hazard to navigation, spoil the coastline and pose environmental health issues.

Key legislation and policy guidance

299 Litter is a key consideration in the Marine Strategy Framework Directive². The target is for an overall reduction in the number of visible litter items within specific categories/types on coastlines from 2010 levels by 2020. The Directive requires Member States to have strategies to manage their seas in order to achieve Good Environmental Status by 2020. The Marine Scotland document 'A Marine Litter Strategy for Scotland'³, published in August 2014, requires that regional marine plans contribute to the reduction of marine litter.

Information Box 17

Dounreay particle clean-up

This project addressed a legacy of radioactive particles in the marine environment around the site. These were fragments of irradiated nuclear fuel discharged to sea as a result of practices in reprocessing during the 1960s and 1970s. The most hazardous fragments were located close to an old discharge point on the seabed.

The underwater clean-up ran from 2008-2012, targeting a 60-hectare area of seabed known as the 'plume' where the most hazardous particles are located. Particles recovered from the seabed were returned to Dounreay for safe disposal and monitoring continues.

Current status

300 The sparse population of the north Highland coast and Orkney Isles means that the amount of litter dumped by tourists is relatively lower than on more often-visited popular, densely-populated mainland areas. Litter tends to be in the form of wind-blown debris from both land and marine-based businesses such as farming and aquaculture. Some bays and beaches will be more susceptible to accumulating marine litter due to prevailing wind and currents. Community initiatives such as the Royal Yachting Association's 'Green Blue' project, along with local beach cleans and 'adopt a beach' projects, play a very valuable part⁴ in helping to reduce the problem. Sometimes these initiatives can identify the source of the problem and then help reach a solution.

Pressures

301 Marine litter, particularly plastics, kills a variety of seabirds, marine mammals and fish. It can also pose a navigational and safety hazard and cause entanglement of fishing gear. It can have significant impacts on the aesthetic value of our coastline and pose public health issues.

Information Box 18

Pick Up Three Pieces

Pick Up Three Pieces is an initiative which aims to encourage the public to pick up and dispose of marine litter when visiting Orkney's shores. Designated bins for disposal of marine litter have been established at a few key coastal locations. Pick Up Three Pieces aims to raise awareness of how individual actions can make a positive impact on the local and global environmental problem of marine litter.

General Policy 8B: Waste and Marine Litter

All developers and users of the marine environment should seek to minimise waste and discard all litter responsibly, recycling where possible.

Proposals for new development(s) or modifications to existing activities shall ensure that waste is reduced to a minimum and they do not add to marine litter.

Large developments may require a waste management plan, which shall be adhered to as a condition of the development, where appropriate. Where this is the case, a draft plan should be included in the application.

Where unavoidable litter is created, e.g. due to storms, a means of recovery, where reasonably practical, should be deployed.

Where appropriate, a decommissioning plan should be provided to ensure removal of redundant infrastructure.

Justification

302 Litter and waste reduction measures help to contribute to achieving Good Environmental Status, as required by the Marine Strategy Framework Directive. Regional marine plans should take account of marine litter as a requirement of the Marine Litter Strategy and the National Marine Plan.

Supporting spatial information

303 There is no specific spatial information to support this policy.

Future considerations

304 The increase in marine activity around the PFOW area will also increase the risk of new sources of waste and marine litter. In addition, microplastic is a relatively new concern: these are tiny plastic granules used as scrubbers in cosmetics and small plastic fragments derived from the breakdown of macroplastics⁵. These particles can bioaccumulate in marine organisms, causing harm through toxicity or by being mistaken for food particles. The changing climate may lead to more extreme weather events. This in turn, could lead to greater chances of marine litter being created including through, for example, land-based litter blowing out to sea. This can impact on wildlife, public health and amenity, as well as having a range of economic impacts.

Further information

¹ KIMO Fishing for Litter initiative

<http://www.kimointernational.org/FishingforLitter.aspx>

² Marine Strategy Framework Directive

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0056&qid=1461665476232&from=EN>

³ A Marine Litter Strategy for Scotland

<http://www.gov.scot/Publications/2014/09/4891/0>

⁴ Royal Yachting Association Green Blue project

<http://www.thegreenblue.org.uk/>

⁵ Cole, M., Lindequie, P., Hisband, C. and Galloway, T. (2011) Microplastics as Contaminants in the Marine Environment: A Review. *Marine Pollution Bulletin*, 62, 2588-2597.

European Marine Litter project

<http://www.marlisco.eu/partners.en.html>

Code of Practice on Litter and Refuse (Scotland) 2006

www.keepsotlandbeautiful.org/media/42455/0043662.pdf

Scottish Environment Protection Agency Waste Guidance

<http://www.sepa.org.uk/regulations/waste/guidance/>

GENERAL POLICY 9: INVASIVE NON-NATIVE SPECIES

Background and context

305 The introduction of non-native species poses a significant threat to the aquatic environment as they can have a negative impact in many ways, e.g. through competition with native species for resources, the transmission of diseases or parasites, habitat alteration, e.g. by becoming the dominant species in a habitat and ‘smothering’ other species or causing physical changes.

306 Shipping and aquaculture are two of the main vectors that may introduce or facilitate the spread of non-native species into the marine environment, e.g. in ballast water, via hull fouling and transfer of livestock and/or equipment from one area to another.

307 However, all users of the marine environment should ensure they minimise the risk of introducing non-native species by putting in place best practice biosecurity measures.

Information Box 19

New non-native species found

A new non-native species was found in Orkney by Marine Environmental Unit of Orkney Islands Council staff during their marine non-native species surveys in 2014. A Compass sea squirt (*Asterocarpa humilis*) was found in Kirkwall marina during a rapid assessment survey conducted in September 2014. It is not one of the seven high-risk species identified by the Marine Environmental Unit that would require further action if found.

This is the first record of this species in Orkney and its most northerly record to date. The compass sea squirt was first recorded in 2009 in England and in 2013 in Scotland. The native range of this species is in the southern hemisphere.

Key legislation and policy guidance

308 A three-stage approach of Prevention, Rapid Response and Control and Containment of non-native species is the approach taken by the Wildlife and Countryside Act 1981 as amended by the Wildlife and Natural Environment (WANE) (Scotland) Act 2011¹ and by the GB Non Native Species Framework Strategy². The three-stage approach has also been followed by the EU who have published a Regulation on invasive alien species that entered into force in January 2015³. The Scottish Government has a ‘Code of Practice on Non-native Species’ and the Water Framework Directive⁴ and the Marine Strategy Framework Directive⁵ both have requirements to minimise or avoid the introduction of non-native species by human activities.

309 In 2004 the International Maritime Organization (IMO) adopted (although has not yet ratified) a Ballast Water Management Convention⁶. In 2011 the IMO adopted Biofouling Guidelines⁷ and a set of guidance for recreational craft⁸ (these are both currently voluntary). These both contain information on the management measures vessels of all sizes can take to reduce the risk of introducing non-native species. A European Code of Practice for Recreational Boating and Invasive Alien Species is being developed by the Royal Yachting Association (through the European Boating Association).

310 Within Great Britain the Non-Native Species Secretariat provides biosecurity advice to prevent the spread of invasive plants and animals in British waters and many of the best practice measures are applicable to the marine environment.

311 Individual sectors also provide biosecurity advice, examples are the Green Blue website⁹ which provides guidance in relation to boating activity, the Scottish Canoe Association¹⁰ and the Royal Yachting Association website¹¹.

Current status

312 Within the marine environment, the prevention aspect of the three-stage approach is particularly important as, in most cases, it would not be possible to control a species once it had been introduced.

313 There are a variety of ways in which a suspected non-native species can be recorded and the GB Non-Native Species Secretariat has a range of useful information in relation to how this can be done.

Pressures

314 Orkney Islands Council has a ballast water management policy¹² and has implemented a monitoring programme to identify any adverse environmental impacts of ballast water management and shipping activities. This will include monitoring for the presence of invasive non-native species. A list of seven high-risk species have been identified and if any of these are found as part of the Scapa Flow monitoring programme then Orkney Islands Council will follow the guidance given to them by the GB Non-Native Species Secretariat in terms of the action required.

General Policy 9: Invasive non-native species

All developers and users of the marine environment should take into account the risk of introducing and spreading non-native species and put in place biosecurity and management measures to minimise this risk. These measures will be most effective when a co-ordinated and collaborative approach is taken by developers and users of the marine environment. Applications for marine-related development(s) and/or activities should demonstrate that the potential risks of spreading non-native species, and appropriate mitigation where needed, has been adequately considered in their proposal.

Existing Codes of Practice, species control agreements and orders (under the WANE Act), risk assessments and international guidelines should be used to develop these measures where relevant to the marine environment.

Where non-native species assessed as high risk are known to be present, mitigation measures (e.g. an eradication plan) or a contingency plan should be put in place to minimise the risk of spreading the species.

Justification

315 Invasive non-native species can have a negative impact on the marine environment and if all users of the marine environment put in place biosecurity and management measures this will reduce the risk of introducing and spreading non-native species. Creating and raising awareness of a wide range of marine users of the potential for non-native species to be introduced is important to ensure these measures are followed.

Supporting spatial information

316 Non-native monitoring in Orkney. Contact: Orkney Islands Council, Marine Services Marine Environmental Unit. Tel. 01856 873636.

Marlin website

<http://www.marlin.ac.uk/>

Marine Aliens

http://www.marlin.ac.uk/marine_aliens/

Future considerations

317 Managing the risk of introducing non-native species will be most effective where there is good awareness of the issue and a co-ordinated approach to putting in place measures to improve biosecurity, e.g. monitoring for non-native species. There is potential for marine users to consider implementing biosecurity plans in the PFOW area and this would be most effective if developers and marine users worked together to undertake monitoring and agree what action should be taken in the event of the introduction of a non-native species.

Further information

¹ **Wildlife and Natural Environment Code of Practice on Non-Native Species**

<http://www.gov.scot/Resource/0039/00398608.pdf>

² **GB Non-Native Species Secretariat**

<http://www.nonnativespecies.org/home/index.cfm>

³ **EU Regulation on Invasive Alien Species**

http://ec.europa.eu/environment/nature/invasivealien/index_en.htm

⁴ **Water Framework Directive**

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060>

⁵ **Marine Strategy Framework Directive**

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0056>

⁶ **Summary of International Maritime Organization Ballast Water Management Convention**

[http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Control-and-Management-of-Ships%27-Ballast-Water-and-Sediments-\(BWM\).aspx](http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Control-and-Management-of-Ships%27-Ballast-Water-and-Sediments-(BWM).aspx)

⁷ **International Maritime Organization Biofouling Guidelines**

[http://www.imo.org/blast/blastDataHelper.asp?data_id=30766&filename=207\(62\).pdf](http://www.imo.org/blast/blastDataHelper.asp?data_id=30766&filename=207(62).pdf)

⁸ **Link to IMODOCS:** (*Register to find Guidance for minimizing the transfer of invasive aquatic species as biofouling (hull fouling) for recreational craft* (Document BLG 16/5)).

<http://www.imo.org/About/Pages/DocumentsResources.aspx>

⁹ **The Green Blue** (advice on non-native species and boating activities)

<http://thegreenblue.org.uk/Boat-Users/Antifoul-and-Invasive-Species>

¹⁰ **Scottish Canoe Association guidelines**

<http://canoescotland.org/where-go/protecting-environment>

¹¹ **Royal Yachting Association**

<http://www.rya.org.uk/infoadvice/planningenvironment/advice/Pages/AdviceonAlienSpecies.aspx>

¹² **Orkney Islands Council Ballast Water Policy**

<http://www.orkneyharbours.com/pdfs/bwm/Ballast%20Water%20Management%20Policy%20for%20Scapa%20Flow%2010%20December%202013.pdf>

Biosecurity Information for Solway, Clyde and Shetland

Solway: <http://www.solwayfirthpartnership.co.uk/invasive-non-native-species>

Clyde: <http://clydeforum.com/attachments/biosecplan.pdf>

Shetland: <https://www.nafc.uhi.ac.uk/research/msp/biosecurity/BiosecurityPlan.pdf>

Scottish Natural Heritage Non-native Species Information

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/non-native-species/>

Alien Invasive Species and the Oil and Gas Industry

<http://www.ogp.org.uk/pubs/436.pdf>

Nall CR, Guerin AJ, Cook EJ. 2015. Rapid assessment of marine non-native species in northern Scotland and a synthesis of existing Scottish records. *Aquatic Invasions* 10(1): 107–121

http://www.aquaticinvasions.net/2015/AI_2015_Nall_etal.pdf

Section 5: Sectoral Policies

Introduction

318 A sectoral policy is one that is specifically relevant to the determination of an authorisation or enforcement decision for a particular type of development or activity. Having a suite of sectoral policies helps ensure the Plan is contributing to both high level government targets and helps meet our commitment to local sustainable development as outlined in the objectives.

319 The sectoral policy themes provide a consistent framework to ensure the Plan delivers sustainable development through the identification of policies that deliver economic, social and environmental benefits for each sector.

320 Proposed developments and activities must comply with legal requirements and should adhere to all of the general policies, be cognisant of all the other sectoral policies and consider the likely cumulative impacts. In all cases, marine safety is paramount. The associated text for each policy includes relevant supporting information that should be taken into account.

How they will be applied

321 All of the sectoral policies apply to development(s) and activities and:

- Should be applied proportionately
- Are not given in any order of priority: all have equal weight

See Section 2 *How to use the Plan* for more information on the planning and licensing process.

Policy format

322 To aid understanding of the Plan, all of the policies will be set out using the following format:

323 A summary of how each of the sectoral policies contributes to meeting the objectives of the Plan is included at the start of the section (Table 4).

324 An analysis of the likely socio-economic and environmental effects of each of the sectoral policies can be found in the Sustainability Appraisal⁵⁴. The Sustainability Appraisal also explores the likelihood of cumulative effects associated with the collective group of general and sectoral policies, including consideration of the wider policy and regulatory context. These findings should be read in conjunction with this Marine Spatial Plan.

⁵⁴ Pilot Pentland Firth and Orkney Waters Marine Spatial Plan - Sustainability Appraisal <http://www.gov.scot/Publications/2015/06/8421>

325 Background and context: in this section, a brief summary of the underlying reasons for the policy is set out.

326 Key legislation and policy guidance: the main legislative and policy drivers are provided; this is intentionally not an exhaustive list. It is acknowledged there are likely to be many supplementary and inter-linked policies and documents. Where legislation covers several policies, it will usually only be listed once in the most relevant policy to reduce repetition, therefore an element of cross-referencing will be required. A more comprehensive list is provided in Annex 2.

327 Current status: in this section, the baseline condition of the policy topic is outlined; where appropriate, further information may be found for most of these sectoral policies in the Sustainability Appraisal.

328 Pressures: the issues leading to significant pressures on the policy topic are outlined. In some cases, these pressures may be applicable to a number of the policies therefore an element of repetition is unavoidable.

329 Policy: this is the policy that will guide development and activities.

330 Justification: this outlines both the key legislative drivers and, where appropriate, the feedback from the consultation on the Planning Issues and Options Consultation paper that informed the drafting of the Plan.

331 Supporting spatial information: where data are readily available, links to the underlying spatial data are provided. In most cases, these data layers will be hosted on Marine Scotland's National Marine Plan interactive (NMPi), therefore reference to it will not be repeated in each policy. NMPi is regularly updated so it should be consulted to ensure the most up-to-date information is used. This will ensure that the latest information is accessible as new research becomes available.




332 Future considerations: some of the likely significant issues that may be encountered during the life of the Plan and any subsequent regional marine plans are summarised.



















































333 Further information: this section will provide information on the key documents referenced in the policy and sources of additional information.

334 Information boxes: throughout the Plan, information boxes are provided. These include supporting information, clarification of terms or legislation or provide examples related to the policy.




Table 4: The contribution of each of the Sectoral Policies to the Plan objectives.

Key:

-  Direct contribution
-  Indirect contribution
-  No clear contribution

Objective	Commercial fisheries	Aquaculture	Oil and gas	Renewable energy generation	Recreation, sport, leisure and tourism	Marine transport	Ports, harbours and dredging	Pipelines, electricity and telecommunications infrastructure	Marine aggregates	Defence
Support long-term productivity in the marine environment that provides benefits and prosperity for local communities and wider stakeholders.										
Support the transition to a low carbon economy.										
Encourage a sustainable coexistence and synergies between existing and new marine activities and developments, to the mutual benefit of multiple stakeholders.										
Provide reliable information on existing and proposed marine activities.										
Promote best practice to manage and make use of natural resources within sustainable limits.										

Objective	Commercial fisheries	Aquaculture	Oil and gas	Renewable energy generation	Recreation, sport, leisure and tourism	Marine transport	Ports, harbours and dredging	Pipelines, electricity and telecommunications infrastructure	Marine aggregates	Defence
Within an ecosystem approach, protect and enhance the biological, chemical and physical functioning of the marine and coastal environment, the scenic quality and coastal character.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Promote an ecosystem based approach to the management of human activities to support the achievement of Good Environmental Status of marine and coastal waters under Marine Strategy Framework Directive.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support the cultural and social well-being of local communities including the maintenance and enhancement of quality of life, and visual amenity in coastal areas.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support management of the marine environment, marine development and infrastructure that mitigates and is resilient to the effects of climate change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Objective	Commercial fisheries	Aquaculture	Oil and gas	Renewable energy generation	Recreation, sport, leisure and tourism	Marine transport	Ports, harbours and dredging	Pipelines, electricity and telecommunications infrastructure	Marine aggregates	Defence
Support sustainable management of the coastal zone and inshore waters, including minimising and mitigation of cumulative impacts from marine developments.										
Identify marine planning and/or governance related issues to inform the future regional marine planning process.										
Pilot the development of an integrated marine planning policy framework for the future North Coast and Orkney Scottish Marine Regions.										
Assist Plan users to navigate the complex legislative and policy framework more easily and effectively.										
Provide a clear strategic direction and greater certainty for prospective developers, investors and local communities in the Pentland Firth and Orkney Waters area.										

SECTORAL POLICY 1: COMMERCIAL FISHERIES

Background and context

335 Fishing is a long-established industry within the Pentland Firth and Orkney Waters and includes a range of different fisheries such as herring, mackerel, haddock, cod, whiting, saithe, monkfish and prawn. Additionally, the shellfish (lobster, brown and velvet crab, whelk and scallop) industry has an important role in this area. Fishing is an important and integral part of these communities and provides employment in areas where there may be few alternative opportunities. Fishing also contributes to supporting a self-sufficient community, particularly on the islands. Fishing in this region can often be carried out from small ports in remote, rural communities and can be an important link in maintaining the local community and associated services.

336 Fishing, by its very nature, is a dynamic industry and, when assessing any impact developments may have on this industry, the importance of safe access to all areas of the sea such as the seabed, water column and sea surface and navigational access to and from landfall areas that support vessels should be taken into account. Other considerations in relation to the impact that development may have are spawning and nursery areas, which may not necessarily be fished, but are important in maintaining fish stocks.

Key legislation and policy guidance

337 Within the UK finfish fisheries are managed through the EU Common Fisheries Policy (CFP) which, in Article 2.3, shall implement an ecosystem-based approach to fisheries management so as to ensure that negative impacts of fishing activities on the marine ecosystem are minimised, and shall endeavour to ensure that aquaculture and fisheries activities avoid the degradation of the marine environment. There are further requirements in relation to the Marine Strategy Framework Directive (MSFD). The MSFD aims to deliver Good Environmental Status (GES) and for fisheries requires that “populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock”.

338 There is an Inshore Fisheries Group (IFG) for Moray and the North Coast and Orkney Sustainable Fisheries Ltd is the Orkney Management Group, which is the equivalent of an IFG¹. Inshore Fisheries Groups are non-statutory bodies that aim to improve the management of Scotland’s inshore fisheries out to 6 nautical miles, and to give commercial inshore fishermen a strong voice in wider marine management developments. The National Marine Plan notes that inshore fishing interests should be represented on Marine Planning Partnerships by Inshore Fisheries Groups (or equivalent) whose management plans will inform and reflect the regional plan.

339 There is legal recognition and general acceptance of a public right to fish. However, that right is not absolute; it is restricted by statute and regulated by Ministers on the public's behalf through licensing and other means.

340 When determining an application for a marine licence under the Marine (Scotland) Act 2010 the Scottish Ministers must have regard to, amongst other considerations, the need to prevent interference with legitimate uses of the sea (Section 27(1)(a)(iii)).

341 Any objections raised regarding a development that is likely to have an impact on fishing will be given consideration when making a determination. Fishermen would have the opportunity to raise issues during the consultation process and any development that is likely to have an impact on fishing would require the developer to liaise with fishermen and take their concerns into account. If necessary, a liaison group, e.g. a Commercial Fisheries Working Group, would be set up to help resolve issues between the developers and fishermen.

342 For the renewables industry there is guidance in place to assist this process: the Fishing Liaison with Offshore Wind and Wet Renewables (FLOWW) Best Practice² Guidelines.

Current status

343 The Scottish Sea Fisheries Statistics are published each year and provide information in relation to fishing and associated employment in Scotland. The most recent document relates to 2014 and was published in September 2015³.

344 The following paragraphs summarise the findings of a Marine Scotland publication on Value Added in the Fish Supply Chain in Orkney and Northern Highlands^{4, 5}. Landings in Orkney are dominated by under 15m vessels landing crustaceans (predominantly crab) whereas in Scrabster the landings are dominated by demersal species from over 15m vessels as well as landings from larger crabbing vessels.

345 The fishing industry also supports employment onshore in terms of processing, transport and associated activities. This study outlines the value of landings in the Pentland Firth and Orkney Waters region and the impacts on the processing sector and the economic benefits to this region.

346 Within Orkney, a fisherman's cooperative business model has been set up by the Orkney Fishermen's Society and this is closely linked to providing product marketed as coming from Orkney waters to a range of UK supermarkets as well as live shellfish export to the EU and beyond. This success means that there is a high value associated with the inshore fishery and it is important for the marketing and reputation of the product that it is provided by the inshore fishery fleet. The fishermen in Orkney are also supported by the Orkney Fisheries Association and both these organisations make representations on behalf of the local fishing industry.

347 In Caithness and Sutherland there is a different type of industry in that Scrabster is traditionally a landing port although there is some primary processing industry in the area. The industry relies on export to markets in Scandinavia and Asia. The area does not have local organisations representing the fishermen in the way that Orkney does but if they are a member of a national organisation their interests will be represented at that level.

Pressures

348 Given the nature of the fishing industry, there is potential for interactions with a range of other sectors. Some of these may be positive but there is also potential for interactions that would require careful planning to avoid displacement or adverse socio-economic impacts on fishermen. Secondary interactions, such as impacts from non-native species, also need to be taken into account. There is also potential for pressures from fishing to have an environmental impact on the seabed and target and non-target species.

349 Marine developments have the potential to prevent or displace fishing activities and could damage fishing habitats, grounds, nursery or spawning areas and fish stocks. These impacts could be temporary or permanent depending on the type of development and the degree of disturbance.

350 Spatial information such as ScotMap and maps of spawning and nursery grounds can help determine where the important fishing grounds are. However, given that fishing may change over time, ongoing consultation will be essential to obtain up-to-date information. The effects of development in the long- and short-term should be considered as should the cumulative impact of developments in the area.

351 Consultation with local fishermen and the relevant organisations (including, but not limited to, Scottish Fishermen's Federation, Scottish Pelagic Fishermen's Association, Scottish White Fish Producers Association, Orkney Fisheries Association and Orkney Fishermen's Society) will be needed for any proposed development likely to affect fishing activities.

352 Use of best practice guidance (e.g. Fisheries Liaison with Offshore Wind and Wet Renewables (FLOWW)) is recommended for any proposed development.

Information Box 20

ScotMap

ScotMap is a Marine Scotland project which provides spatial information on the fishing activity of Scottish registered commercial fishing vessels under 15m in overall length. The data were collected during face-to-face interviews with individual vessel owners and operators and relate to fishing activity for the period 2007 to 2011. Interviewees were asked to identify the areas in which they fish, and to provide associated information on their fishing vessel, species targeted, fishing gear used and income from fishing.

The dataset, as of July 2013, is based on interviews of 1,090 fishermen who collectively identified 2,634 fishing polygons, the majority of which relate to creel (pot) fishing. The data collected were aggregated and analysed to provide raster data and mapped outputs of the monetary value, relative importance (relative value) and the usage (number of fishing vessels and number of crew) of seas around Scotland.

Not all fishermen initially targeted for the ScotMap project were interviewed (72% vessel coverage overall) and not all those interviewed provided earnings information (10% decline rate overall with regard to earnings disclosure).

Individuals defined their fishing areas with variable levels of precision. Users of these data should be aware of this, particularly of the coverage provided by the ScotMap data which varies regionally.

Sectoral Policy 1: Commercial fisheries

Taking account of the relevant EU policies and Directives marine planners and decision makers should aim to ensure:

- existing fishing opportunities and activities will be safeguarded wherever possible
- an ecosystem based approach to the management of fishing which ensures the sustainability of fish stocks and avoids damage to fragile habitats has been implemented
- consideration has been given to protection for vulnerable commercial stocks (in particular for juvenile and spawning stocks through continuation of sea area closures, where appropriate)
- other sectors take into account the need to protect fish stocks and sustain healthy fisheries for both economic and conservation reasons
- that appropriate consultation regarding proposed development(s) and/or activities have been undertaken with local fishers and representatives of local and national fisheries organisations and Inshore Fisheries Groups (or equivalent)

The following key factors should be taken into account when deciding on uses of the marine environment and the potential impact on fishing:

- the cultural and economic importance of fishing, in particular to vulnerable coastal and island communities
- the potential impact (positive and negative) of marine development(s) and/or activities on the sustainability of fish and shellfish stocks and resultant fishing opportunities in the Pentland Firth and Orkney Waters area
- the environmental impact on fishing grounds (such as nursery, spawning areas), commercially-fished species, habitats and species more generally
- the potential effect of displacement on: fish stocks; the wider environment; use of fuel; socio-economic costs to fishers and their communities and other marine users
- port and harbour operators should seek to engage with fishing and other relevant stakeholders at an early stage to discuss any changes in infrastructure, including commercial policy, that may affect them
- any port or harbour development(s) and/or activities should take account of the needs of the dependent fishing fleet with a view to avoiding commercial and environmental harm where possible

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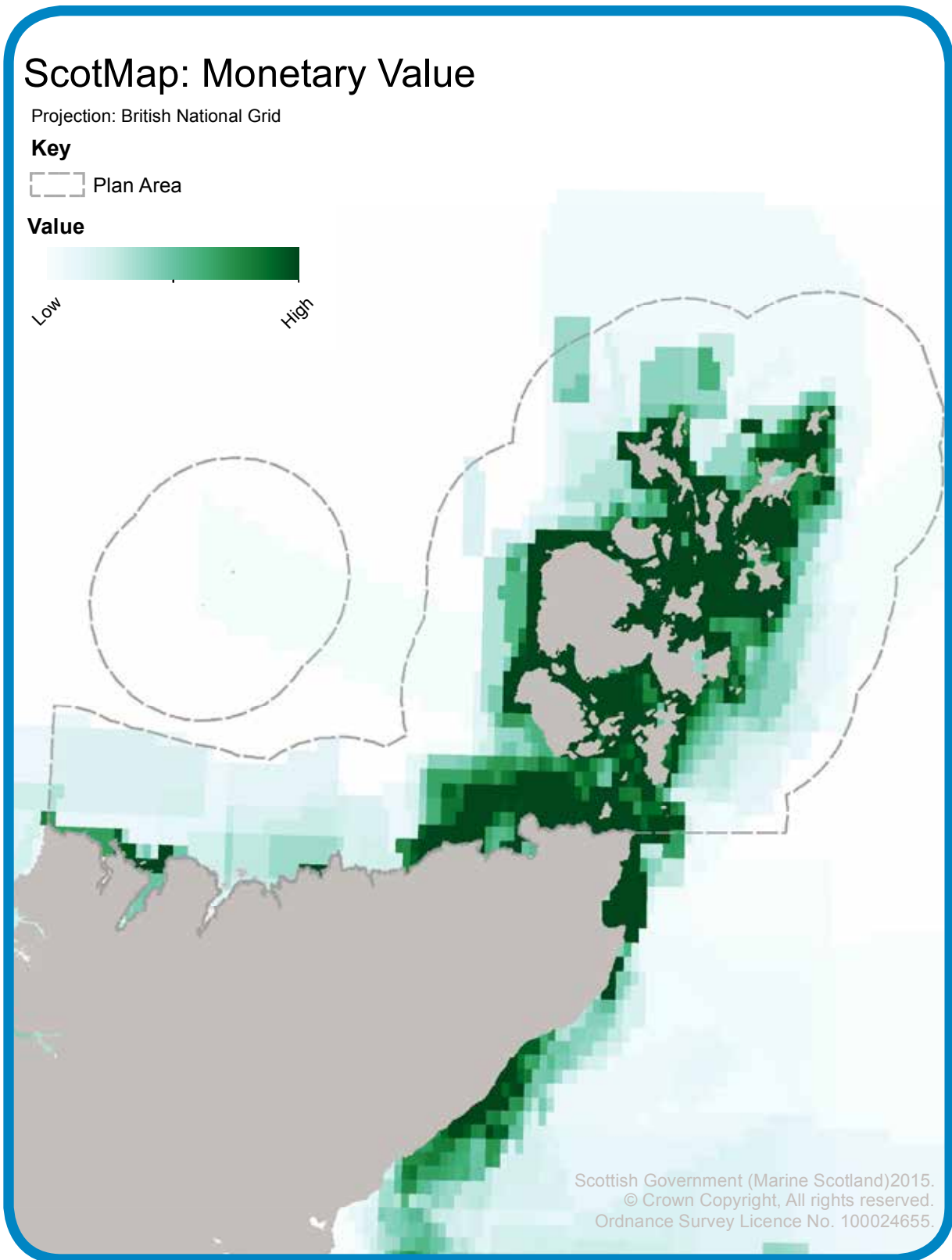
Sectoral Policy 1: Commercial Fisheries continued

- Inshore Fisheries Groups, or the local equivalent, should work to agree joint fisheries management measures within inshore waters
- where existing fishing opportunities or activity cannot be safeguarded, a Fisheries Management and Mitigation Strategy should be prepared as outlined in the National Marine Plan. All efforts should be made to agree the Strategy with local fisheries interests who should also undertake to provide transparent and accurate information and data to help complete the Strategy. The Strategy should be drawn up as part of the discharge of conditions of permissions granted

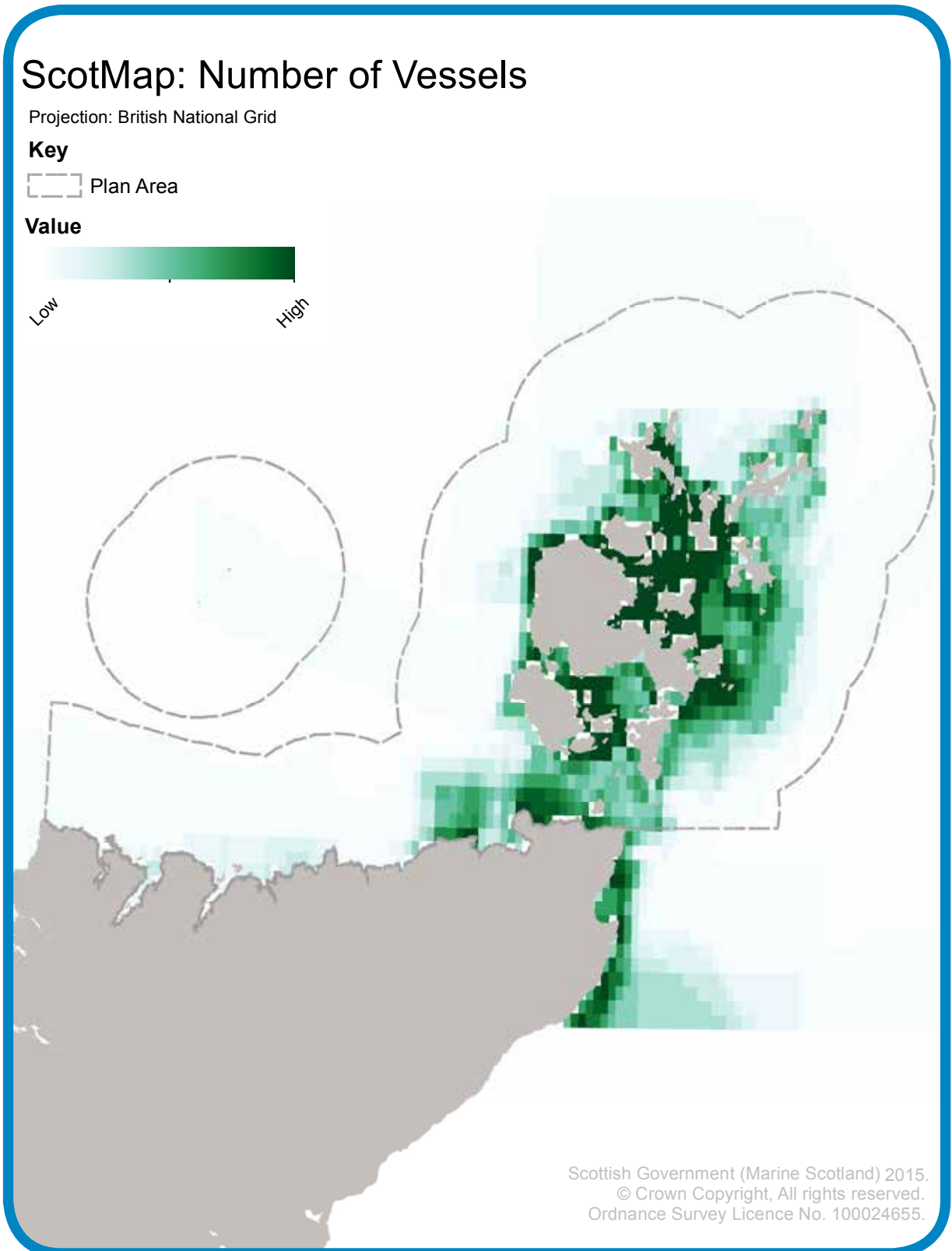
Justification

353 Fishing and the associated socio-economic benefits it brings to the local economy is important to the region. Development in the marine environment can have a number of impacts on the industry such as restricting access, damaging important habitats and displacing fishing effort to other areas. This policy seeks to safeguard the commercial fisheries industry and its associated benefits.

Supporting spatial information



Map 13: Monetary value of commercial fishing by boats under 15m in length in the Pentland Firth and Orkney Waters area between 2009 and 2011. Data comes from Marine Scotland's ScotMap project and was collected by interview.



Map 14: Number of vessels under 15m in length involved in commercial fishing between 2009 and 2011 in the Pentland Firth and Orkney Waters area. Data comes from Marine Scotland's ScotMap project and was collected by interview.

Future considerations

354 The future development of Marine Planning Partnerships, working with the Moray Firth and North Coast Inshore Fisheries Group, the Orkney Management Group and local organisations (such as the Orkney Fishermen's Society and Orkney Fisheries Association) and the local authorities could inform a regional model of marine management.

Further information

Inshore Fisheries Groups

¹ <http://www.gov.scot/Topics/marine/Sea-Fisheries/InshoreFisheries/IFGs>

² Fisheries Liaison with Offshore Wind and Wet Renewables (FLOWW) Good Practice Guidelines

<http://www.sff.co.uk/sites/default/files/FLOWW%20Best%20Practice%20Guidance%20for%20Offshore%20Renewables%20Developments%20Jan%202014.pdf>

³ Scottish Sea Fisheries Statistics

<http://www.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/PubFisheries>

⁴ Pentland Firth Orkney Waters Marine Spatial Plan: Value Added in the Fish Supply Chain in Orkney and Northern Highlands

<http://www.gov.scot/Publications/2014/12/2317/downloads>

⁵ The Importance for the Fish Processing and Merchanting Sector of Landings of Fish from the Waters of Pentland Firth and Orkney to the Local and Scottish Economies

<http://www.gov.scot/Publications/2014/12/5337>

ScotMap

<http://www.gov.scot/Topics/marine/science/MSInteractive/Themes/ScotMap>

Kingfisher Information Service – Offshore Renewables and Cables Awareness

<http://www.kis-orca.eu/>

KIMO International

<http://www.kimointernational.org/Home.aspx>

SECTORAL POLICY 2: AQUACULTURE

Background and context

355 Aquaculture in Scotland helps provide food for the domestic market, export income and a range of employment opportunities, especially in the Highlands and Islands. In the PFOW area, the industry provides considerable benefit for fragile economic areas, including supply chains, processing and research.

356 The Scottish Government supports the industry 2020 targets to grow the sector sustainably. To support these targets, a variety of research is underway by Marine Scotland, academia and various other research agencies.

Key legislation and policy guidance

357 Aquaculture for the purposes of this policy covers ‘fish farming’ which is legally defined in the Town and Country Planning (Scotland) Act 1997¹ (as amended) as “the breeding, rearing or keeping of fish or shellfish” (which includes any kind of crustacean or mollusc). This was amended by the Town and Country Planning (Marine Fish Farming) (Scotland) Regulations 2013² to include any kind of sea urchin. At the time of writing, seaweed cultivation is not covered by this Act.

358 Unlike most other marine development, marine fish farming out to 12 nautical miles requires planning permission under the Town and Country Planning (Scotland) Act 1997, not Marine Scotland as is the case for most marine activities. National guidance is provided in Scottish Planning Policy, with additional policy provided in the National Marine Plan. At the local level, the two local authorities, Orkney Islands Council and the Highland Council determine fish farming planning applications. Their respective Local Development Plans set out the key policies and criteria against which planning applications will be assessed. At present, seaweed cultivation farms require a licence from Marine Scotland. However, decisions must also accord with policies of the National Marine Plan and subsequent statutory regional marine plans for an area.

Information Box 21

Seaweed cultivation and harvesting

In 2013, the Scottish Government consulted on a policy statement regarding seaweed cultivation, the consultation analysis was published in 2014. Scottish Ministers are currently considering whether a formal consenting mechanism should be put in place to ensure that harvesting of wild seaweed and seagrass in Scotland is sustainable. A Strategic Environmental Assessment (SEA) is currently being undertaken and will be used to support these considerations. A policy statement on seaweed cultivation will await the outcome of the SEA of wild seaweed harvesting, given the clear interaction which exists.

359 In addition, Orkney Islands Council has detailed Planning Policy Advice³ to aid sustainable development of the sector and Highland Council is developing similar guidance. The policies in this document do not intend to add any further policy burden but to aid sustainable development by providing information on the wide variety of factors to be considered when developing this sector, including development of shore-based facilities such as processing plants.

360 In addition to planning permission, most marine fish farming requires a seabed lease from the Crown Estate. Fish farming developments may also require a marine licence or authorisation from various Marine Scotland departments for some activities. For example, a marine licence from MS-LOT is required to safeguard navigation, including access to anchorages. Marine Scotland Science implements measures that regulate the movement of live fish with a view to preventing the spread of fish diseases. It issues a marine licence covering navigation issues and deposits in the marine environment, including discharges from well boats when used for treating fish. When a commercial activity could cause disturbance to a European Protected Species, Marine Scotland may issue a licence for the activity. In addition, it is the licensing authority for seals under the Marine (Scotland) Act 2010⁴, and it can issue licences and guidance for the killing of seals to protect the welfare of farmed fish. Another section of Marine Scotland, the Fish Health Inspectorate, issues consents for an Aquaculture Production Business Authorisation under the Aquatic Animal Health (Scotland) Regulations 2009⁵.

361 Under the Water Environment (Controlled Activities) (Scotland) Regulations 2011⁶, the Scottish Environment Protection Agency (SEPA) regulates activities which may pose a risk to the water environment. For finfish farming, SEPA sets limits on the types and amount of fish (maximum allowable biomass) that can be held in a cage configuration and the amount of medicines (chemotherapeutants) that can be discharged into the environment from the fish cages. Known as a CAR licence, sites are assessed on the likely effects of discharges on an individual and cumulative basis, from a development on both the water column and the benthic environment. CAR licences are not required for shellfish farms. A parallel licensing regime exists under the Marine Act where chemotherapeutants are released from well boats following sea lice treatment.

Current status

362 Orkney and North Highland has a mix of both finfish and shellfish farming, mainly involving salmon, mussels and oysters. In Sutherland, there are several shellfish farms and two finfish farms in Loch Eriboll and a large oyster farm in the Kyle of Tongue but there are no active shellfish sites along the north coast of Caithness. Orkney has numerous finfish sites, mainly situated on the more sheltered eastern and southern coasts of the mainland, Hoy and Westray.

363 Current Scottish Planning Policy (2014)⁷ and the National Marine Plan have a presumption against further marine finfish farm developments on the north (and east) coasts to safeguard migratory fish species.

Pressures

364 Some key industry-specific pressures are the ability to attract suitably skilled staff, a perceived lack of space for new sites, suitably robust equipment that can deal with the challenging marine environment and in the case of shellfish, water quality. Work under way by Marine Scotland for the *Spatial Planning for Aquaculture* project will map areas of constraint and opportunity.

365 The impacts of sea lice and its treatments on farmed salmon, wild salmonids and the wider environment are a substantial challenge, with methods of improving sea lice control an urgent priority for research. Fish farm escapes can also pose a threat to wild salmonids, which has led to the development of technical standards for finfish aquaculture⁸. Aquaculture also has the potential to interact with inshore fisheries and recreation and tourism interests.

Sectoral Policy 2: Aquaculture

Aquaculture developments will be supported by the Plan where they are in compliance with:

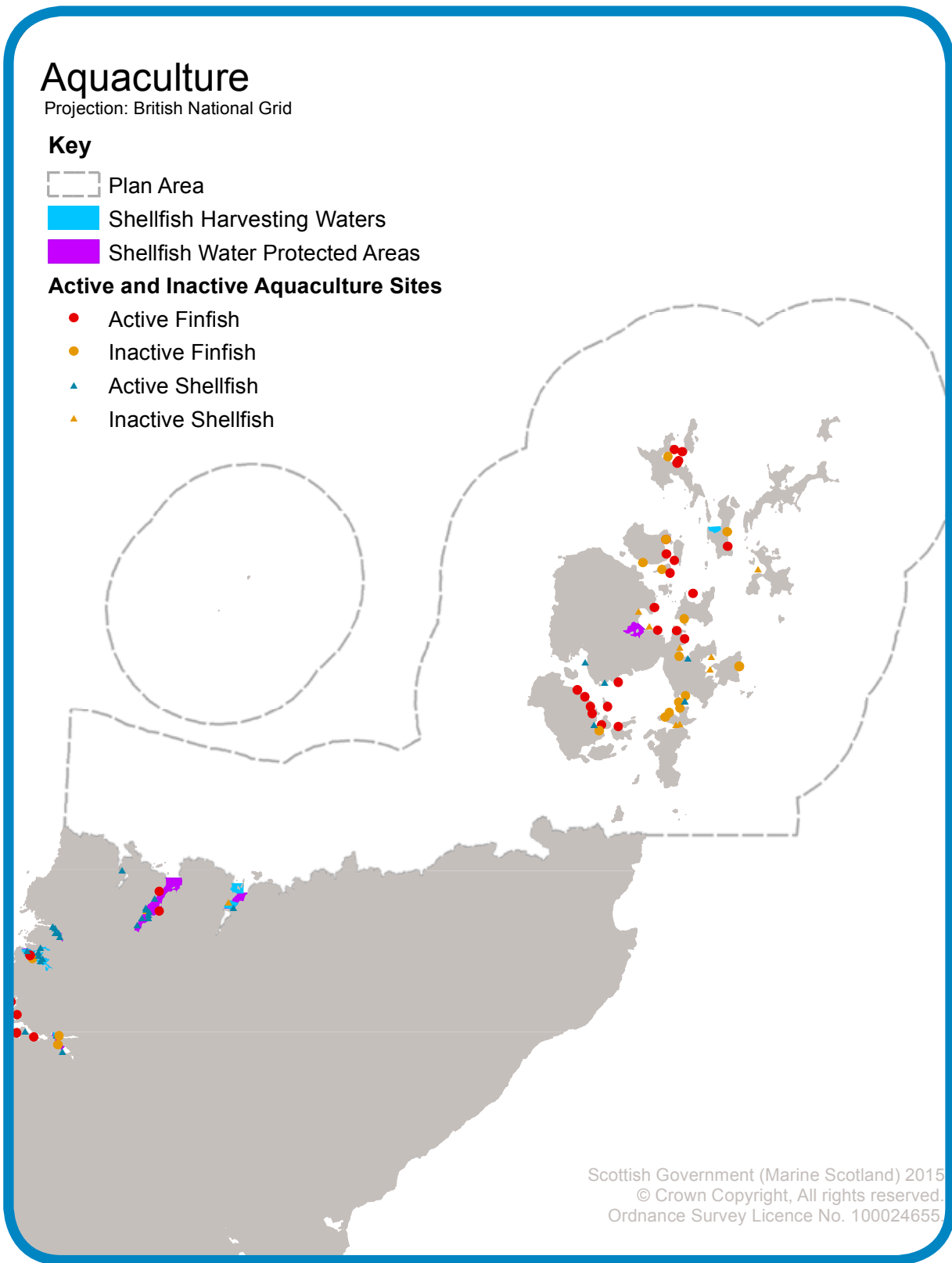
- Local Development Plans for Orkney Islands Council or Highland Council and any related planning guidance as appropriate
- any Marine Scotland or Scottish Environment Protection Agency licensing requirements and guidance

The Plan will support the sustainable growth of seaweed cultivation where it complies with any licensing or subsequent planning requirements.

Justification

366 This policy highlights the main considerations to be taken into account for this industry, which represents a significant element of the marine activity in the PFO.

Supporting spatial information



Map 15: Active finfish and shellfish aquaculture sites and shellfish water designations in the Pentland Firth and Orkney Waters Plan area. ‘Active’ in accordance with the Marine Scotland Fish Health Inspectorate definition relates to the status of a site that is stocked or fallow with the intention of restocking in the foreseeable future.

Future considerations

367 Subsequent regional marine plans will provide continued guidance and support for this sector where appropriate.

368 If there is a desire from the sector to move sites further offshore, further guidance may be needed on the impacts of new technologies and practices. Similar issues are also seen in other EU member states, with a view to promoting the development of fish farming further offshore. If in due course, developers wish to consider aquaculture sites beyond three nautical miles or as progress is made on multi-trophic aquaculture, whereby more than one species is farmed at a single site, further policy guidance or legislation may be required.

Further information

¹ Town and Country Planning (Scotland) Act 1997 (as amended)

<http://www.legislation.gov.uk/ukpga/1997/8/contents>

² Town and Country Planning (Marine Fish Farming) (Scotland) Regulations 2013

<http://www.legislation.gov.uk/ssi/2013/277/contents/made>

³ Orkney Aquaculture Planning Policy Advice

<http://www.orkney.gov.uk/Service-Directory/R/aquaculture-supplementary-guidance.htm>

⁴ Marine (Scotland) Act 2010

<http://www.legislation.gov.uk/asp/2010/5/contents>

⁵ Aquatic Animal Health (Scotland) Regulations 2009

<http://www.legislation.gov.uk/ssi/2009/85/contents/made>

⁶ Water Environment (Controlled Activities) (Scotland) Regulations 2011

<http://www.legislation.gov.uk/ssi/2011/209/contents/made>

⁷ Scottish Planning Policy 2014

<http://gov.scot/Publications/2014/06/5823>

⁸ Marine Scotland: A Technical Standard for Scottish Finfish Aquaculture

<http://www.gov.scot/Publications/2015/06/5747>

Planning Circular 1/2007: Planning Controls for Marine Fish Farming (In the process of being replaced)

<http://www.gov.scot/Publications/2007/03/29102026/1>

Scotland's Marine Atlas

<http://www.gov.scot/Topics/marine/science/atlas>

Scotland's Aquaculture

<http://aquaculture.gov.scot/>

A Fresh Start – The Renewed Strategic Framework for Scottish Aquaculture

<http://www.gov.scot/resource/doc/272866/0081461.pdf>

An Assessment of the Benefits to Scotland of Aquaculture

<http://www.gov.scot/Topics/marine/Publications/publicationslatest/farmedfish/AqBenefits>

Seaweed Consultation Report

<http://www.gov.scot/Publications/2014/11/5316>

Marine Scotland – Running a Fish Farm

<http://www.gov.scot/Topics/marine/Fish-Shellfish>

The Siting And Design Of Aquaculture In The Landscape: Visual And Landscape Considerations (2011)

<http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=113>

The Crown Estate: Aquaculture Guidance

<http://www.thecrownestate.co.uk/rural-and-coastal/coastal/aquaculture/>

Scottish Environment Protection Agency: Aquaculture Guidance

http://www.sepa.org.uk/water/water_regulation/regimes/aquaculture/marine_aquaculture.aspx

SECTORAL POLICY 3: OIL AND GAS

Background and context

369 Within Orkney, the oil and gas industry has played an important role since the 1970s in providing employment and supporting the wider local economy. Crude oil is imported to the Flotta Oil Terminal through a 30-inch subsea pipeline from several offshore installations in the Flotta Catchment Area (FCA). The terminal operators, Talisman Sinopec Energy, signed an agreement in 2012 to provide transportation and processing services to the Golden Eagle Development, which is located 70km north east of Aberdeen and the second largest oil discovery in the UK North Sea. It is expected this will ensure the operation of the terminal for many years and means there will be ongoing activities in the oil and gas industry within the Plan area.

370 Scapa Flow is also one of the principal locations in Europe for Ship-to-Ship (STS) operations of the transfer of crude and fuel oils. Scapa Flow offers a large, sheltered, deep-water designated anchorage for these operations. There have been over 180 STS transfers conducted in Scapa Flow since 1980.

371 In Caithness, the oil and gas industry will be supported by an agreement to build an oil supply base in Scrabster and the ongoing use of the airport at Wick John O'Groats as a transport hub for oil workers and ship crews.

Key legislation and policy guidance

372 Offshore oil and gas activity is well established and is subject to strict environmental regulations and considerations and these can be found at www.gov.uk/topic/oil-and-gas.

373 The Department for Energy and Climate Change (DECC) within the UK Government is responsible for regulating the licensing, exploration, exploitation (production) and decommissioning relating to the oil and gas industry. However, the regulatory functions other than those relating to safety and the environment have been transferred to a new Oil and Gas Authority.

374 DECC acts under powers Parliament has given to the Secretary of State for Energy and Climate Change in the Petroleum Act 1998 to regulate offshore oil and gas operations. DECC has also developed a comprehensive environmental legislative regime to underpin its regulatory activities.

375 Within the Plan area (out to 12 nautical miles) DECC is responsible for environmental impact assessment and habitat and species issues in relation to the Petroleum Act functions. However, DECC's environmental regulations relating to emissions and discharges do not apply in internal or controlled (0-3 nautical miles) waters and competence in relation to pollution matters in these areas rests with the Scottish Government.

Current status

376 The Scottish Government has its own oil and gas industry strategy¹, which reinforces the long-term future of the industry in Scotland and the priorities for industry, government and others to realise these opportunities. The Scottish Government has also pledged² to work with this sector to maintain competitiveness, facilitate the transfer of skills and knowledge to other sectors and to utilise Scottish-based skills in world markets. This will support Scotland's economic recovery.

377 There is likely to be ongoing activity in the offshore oil and gas sector for many years and the impact it can have in terms of interactions with other users, the environment, climate change and decommissioning, all need to be managed and taken into account.

378 No shale gas deposits or development pressures have been identified within the Plan area during the plan making process.

Pressures

379 Scotland will need a mixed energy portfolio, including hydrocarbons, to provide secure and affordable heat and electricity for decades to come. As use of renewable energy sources is increased, there is also a duty to minimise carbon emissions in line with climate change targets. The approach is one of careful stewardship of finite resources.

380 The Scottish Government supports a low carbon economy which involves the move away from fossil fuels based energy consumption towards investment in renewable energy and increased energy efficiency. However, oil and gas are set to remain a vital source of energy while we move towards a future based upon renewable energy and it is sensible to secure reserves domestically as far as possible for as long as they may be needed.

381 There is potential for both positive and negative interactions between oil and gas exploration and extraction and other marine users. The main interactions in the Pentland Firth and Orkney Waters, if there was further oil and gas related activity in this area, are likely to be with the offshore wind, marine renewables (wave and tidal stream) and fishing industries.

382 Marine renewables technology is still developing and knowledge is being gained regarding how spatially compatible this industry is likely to be with the oil and gas industry. However, the transfer of marine operations skills from the oil and gas industry has the potential to reduce costs of developing renewable projects.

383 The requirement for 500-metre exclusion zones around oil and gas infrastructure could interfere with fishing operations through displacement. Pipelines, unless buried, can also have an impact by causing an obstruction to fishing. Post lay trawls can be carried out to ensure the areas where pipelines have been laid are snag- and debris-free.

384 In some cases however, the fishing industry could benefit financially when employed by the oil and gas sector during installation, e.g. acting as guard vessels or as a fisheries liaison for geological surveys.

385 Oil and gas production can result in a range of environmental pressures, the main ones being oil spill, noise from exploration (e.g. seismic survey) and production and chemical or oil contamination of seawater, sediments and fauna. The operational pressures are mitigated through regulation but unplanned events, e.g. an oil spill, could result in damage to the environment.

386 Construction, protection and decommissioning of infrastructure can result in the local loss of species and habitat but can be mitigated to ensure the effect is limited to a small footprint. Infrastructure can also provide substrate for colonisation and shelter for fish.

Sectoral Policy 3: Oil and gas

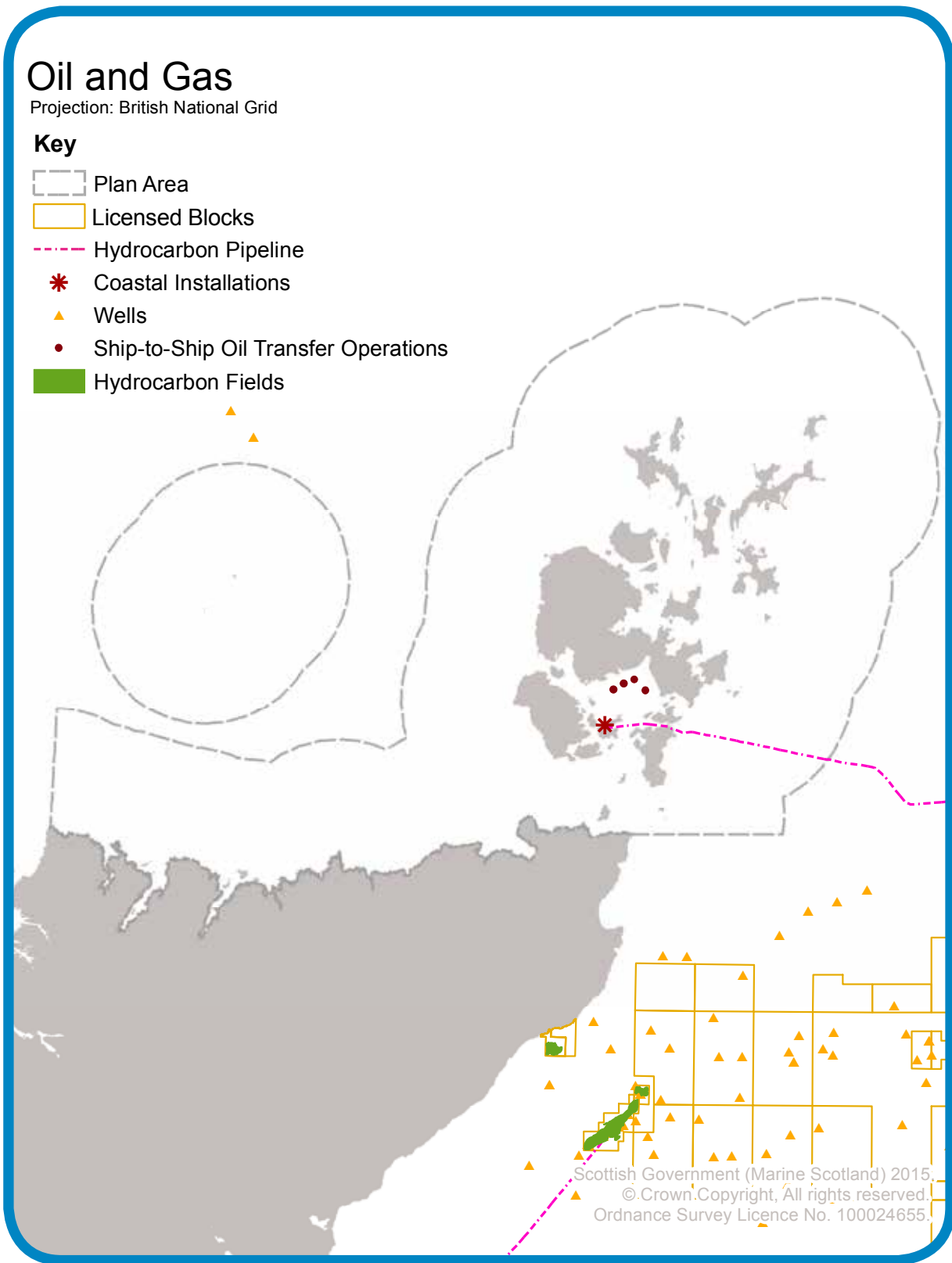
Exploration and production of oil and gas will be supported by this Plan, working with DECC, the Oil and Gas Authority and Competent Authority when:

- oil and gas exploration and production are conducted in accordance with regulations
- there is an approved Oil Pollution Emergency Plan in place that has the agreement with the appropriate authorities to respond to any accidental release of oil or gas and related hazardous substances
- all oil and gas platforms have in place nine nautical mile consultation zones in line with Civil Aviation guidance
- connections to shore base and associated infrastructure take into account environmental and socio-economic constraints
- appropriate monitoring programmes and detailed restoration and maintenance proposals based on standard best practice are in place
- re-use of oil and gas infrastructure is considered and, where not practicable, decommissioning takes place in line with standard practice, and as allowed by international obligations

Justification

387 The oil and gas industry has been a part of this area for many years and has made, and will continue to make, a significant contribution to the economy of the area. There are risks and potential impacts associated with this industry which will continue to be controlled by strict environmental regulations and considerations. In some cases there is also potential for the oil and gas industry and other marine users to work together to mitigate negative impacts.

Supporting spatial information



Map 16: Oil and gas infrastructure and activity in the Pentland Firth and Orkney Waters area.

Future considerations

388 DECC operates a competitive system of licence awards. Most licences are issued in licensing rounds, where applicants compete for exclusive licences over particular geographical areas. When DECC issues a production licence to a company (or group of companies), it is giving that licensee exclusive rights to explore for, drill for, and produce native oil and gas within a specified area. Licensees must be assured of this exclusive right before they make the necessary investments to develop oil and gas fields. Exclusivity also prevents competing companies trying to exploit the same resource.

389 In the area around the PFOW there is potential for some future development as during the DECC 28th Leasing Round³ there were some 'Promote Licences with Drill or Drop requirement' issued in Blocks near this area. This would require operators to review available data and develop a work programme within two years of the licence being issued. If this is not done then the licence may be dropped, or extended to undertake work commitments for the Block proposed by the operator.

390 The Oil and Gas Authority was established with the regulatory function split from DECC environmental functions. The EU Directive 2013//30/EU⁴ on the safety of offshore oil and gas operations will also be implemented by the Health and Safety Executive and DECC as joint competent authority.

Further information

¹ Scotland's Oil and Gas Strategy 2012-2020

<http://www.scottish-enterprise.com/knowledge-hub/articles/publication/oil-and-gas-industry-strategy>

² Scottish Government Supporting Economic Recovery – 10 Energy Pledges

<http://www.gov.scot/Topics/Business-Industry/Energy/Action/economic-recovery/10-Pledges>

³ Department of Energy and Climate Change – 28th Licensing Round

<https://www.gov.uk/oil-and-gas-licensing-rounds#th-round---awards>

⁴ EU Directive 2013//30/EU – Offshore Directive

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:178:0066:0106:EN:PDF>

Department of Energy and Climate Change – Information on Oil and Gas Regulation and Licensing

<https://www.gov.uk/government/publications/2010-to-2015-government-policy-energy-industry-and-infrastructure-licensing-and-regulation/2010-to-2015-government-policy-energy-industry-and-infrastructure-licensing-and-regulation>

Scottish Natural Heritage – Oil and Gas

<http://www.snh.gov.uk/land-and-sea/managing-coasts-and-sea/oil-and-gas/>

A Fishing Industry Guide to Offshore Operators

<http://www.gov.scot/Resource/Doc/158590/0043011.pdf>

Safety Zones

<http://www.legislation.gov.uk/ukpga/1987/12/part/III>

Civil Aviation Authority Policy and Guidance on Wind Turbines

<http://www.caa.co.uk/Safety-initiatives-and-resources/Safety-projects/Windfarms/Windfarms/>

Health and Safety Executive – Offshore Directive

<http://www.hse.gov.uk/offshore/directive.htm>

SECTORAL POLICY 4: RENEWABLE ENERGY GENERATION

Background and context

391 Scotland has set a target of generating the equivalent of 100% of Scotland's electricity demand from renewable resources by 2020 and to deliver an 80% reduction in greenhouse gas emissions by 2050. The PFOW area is very well placed to contribute to achieving these targets by utilising offshore wind and marine renewables (wave and tidal stream) resource.

392 The PFOW area has some of the best sources of marine renewable energy generation (also referred to as marine renewables or marine energy) in the UK¹ and the Orkney-based European Marine Energy Centre (EMEC)² provides a globally unique facility for testing marine energy devices. The area currently has a total of 12 Crown Estate Agreements for Lease areas, seven held by developers and five held by EMEC for sea trials and testing. One commercial project (Meygen Phase 1) was licensed and consented in January 2014.

393 Sustainable growth of marine renewable energy and the potential for co-existence with other marine users is a key objective of the Plan. This could mean using renewables in combination with other sectors or sharing space, where health and safety requirements permit, with other marine users. For example, the Plan Options identified in the Sectoral Marine Plans³ have the potential for some of the area to be developed by the marine renewable sector and any part of the area that is not taken up by this industry has the potential to be utilised by other marine users.

Key legislation and policy guidance

394 Two reports published by the Scottish Government, the Marine Energy Group's Roadmap 2009⁴ and the Offshore Wind Energy Group's Offshore Wind Route Map 2013⁵ outlined the opportunities and challenges associated with the development of the offshore and marine renewable energy industry.

395 The UK Marine Policy Statement⁶ notes that contributing to securing the UK's energy objectives, while protecting the environment, will be a priority of marine planning and outlines a number of issues to be taken into consideration by marine planners when developing marine plans.

396 Scotland's policy on how energy targets will be met is described in the Electricity Generation Policy Statement 2013⁷ and highlights ways in which offshore renewable energy can contribute to the Scottish targets.

397 National Planning Framework 3⁸ notes that terrestrial and marine planning have a key role to play in reaching Scotland's ambitious energy targets by facilitating development, linking generation with consumers and guiding new infrastructure to appropriate locations.

398 Planning for offshore renewable energy in Scotland has resulted in Sectoral Marine Plans to steer the location of commercial scale (i.e. 30MW for wave and tidal and 100MW for offshore wind) offshore renewable energy developments. Within the PFOW area there are seven Plan Options, one for wind, two for wave and four for tidal.

Information Box 22

European Marine Energy Centre (EMEC)

EMEC was established in 2003 and provides a unique open-sea testing facility for wave and tidal technologies.

Orkney is an ideal base for such a centre as it combines robust testing conditions in a harsh marine environment with proximity to sheltered waters and harbours.

EMEC has 14 full-scale test berths and also offers two scale test sites where smaller scale devices, or those at an earlier stage in their development, can be tested in less challenging conditions.

399 The Plan Option areas represent the strategic development zones in which commercial scale projects should be sited although it is not expected that the whole of each Plan Option area will be fully developed. Plan Options are considered the preferred strategic locations for the sustainable development of offshore wind and marine renewables. Developers can propose using areas outwith these Plan Options but this may present a higher risk in consenting terms.

400 The geographical scope is 0-200 nautical miles for the Sectoral Marine Plans and their associated Regional Locational Guidance⁹ whereas this Marine Spatial Plan and its Regional Locational Guidance¹⁰ covers 0-12 nautical miles.

Current status

401 The PFOW area has been recognised as a place where there are unparalleled opportunities for marine renewable energy development. The European Marine Energy Centre is the only one of its kind in the world and the PFOW was designated as a Marine Energy Park in July 2012¹¹. The Marine Energy Park is designed to accelerate the commercialisation of wave and tidal stream technologies and to promote the region on a worldwide scale to secure economic and social benefits.

402 The PFOW area has seven Crown Estate Agreements for Lease that can be used for marine renewable energy development, these will be considered as “planned development at the licensing stage” for the Plan. A further five areas are leased to EMEC for sea trials, two of which are not planned to be grid connected. As noted above there are also seven Plan Options identified in this area by the Sectoral Marine Plans.

403 Both Agreement for Lease and Plan Options are large areas and renewable energy developers would be unlikely to utilise the total area so there are options for sharing and co-location with other industries as noted above.

404 Any proposals for offshore wind or marine renewable development will be subject to licensing and consenting processes. The Plan Options and other material considerations will be taken into account by decision-makers but each application is considered on a case-by-case basis.

405 Regional Locational Guidance specific to the PFOW area has been produced and this provides a decision support tool for developers, councils and government.

406 There are a wide variety of data being collected as part of EMEC's work and the ongoing requirement for monitoring and research as part of the licensing and consenting process for proposed development in the Agreement for Lease areas. These data are a valuable resource in helping assess the impact of marine renewable developments on a variety of receptors.

Pressures

407 The knowledge regarding the pressures and impacts associated with offshore wind and marine renewables differ to some extent owing to the industries being at different stages of development. The pressures and impacts will also differ in terms of the technology type, size, structure and siting, of the device(s).

408 There is potential for impact on existing marine users and the marine environment, e.g. competition for space, navigational restrictions, fishing displacement, and impacts on sectors such as marine recreation and tourism and shipping and defence.

409 The impacts on the marine environment include, but are not limited to, visual impact, adverse impacts of noise on marine fish and mammals, collision risk to birds and marine mammals and effects on hydrodynamics and consequent sediment movement.

410 As marine renewables, i.e. wave and tidal stream, are at an early stage of development, it is acknowledged that there remain knowledge gaps regarding the impact of some of these pressures. There is ongoing research, particularly in the PFOW area, to provide the evidence required to better understand the impact that marine technologies may have on the marine environment.

411 There is a need for more research to assess the impact on existing marine users, e.g. fishing displacement, shipping, tourism and recreation. As the industry develops there will be a need to undertake monitoring at all stages of the development to obtain the evidence needed to inform decision-making.

412 Although there are a variety of pressures and some of the impacts are not well understood, many of these can be avoided or minimised by ensuring that there is early communication between all sectors to identify the impacts and mitigation measures. Use, and ongoing improvement, of Regional Locational Guidance developed with stakeholders will assist with fine-scale siting for development in areas where there is least constraint.

413 There are several sets of guidance that have been issued including, but not limited to, the Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) Offshore Renewables and Fisheries Liaison Guidance¹², updates to existing government guidance for mariners and developers from the Nautical and Offshore Renewable Energy Liaison group (NOREL)¹³ and Historic Environment Scotland¹⁴ guidance for wave and tidal energy, which has been issued to ensure that such development is sustainable with respect to the historic environment. Other guidance includes the Maritime and Coastguard Agency Marine Guidance Notes (MGN¹⁵ 371 and 372, or subsequent updates) in relation to offshore renewable energy installations and the International Association of Marine Aids to Navigation and Lighthouse Authorities recommendations on the Marking of Man-Made Offshore Structures¹⁶.

414 To assist in tackling complex issues and/or to resolve areas of dispute anytime in the application process prior to determination, MS-LOT may decide to bring together a Marine Renewables Facilitators Group (MRFG)¹⁷. This is a group of experts who liaise with MS-LOT to provide advice in relation to proposed marine renewable developments. The members of the group provide feedback at various stages of the process as and when required.

Sectoral Policy 4: Renewable energy generation

All proposals for offshore wind and marine renewable energy development are subject to licensing and consenting processes.

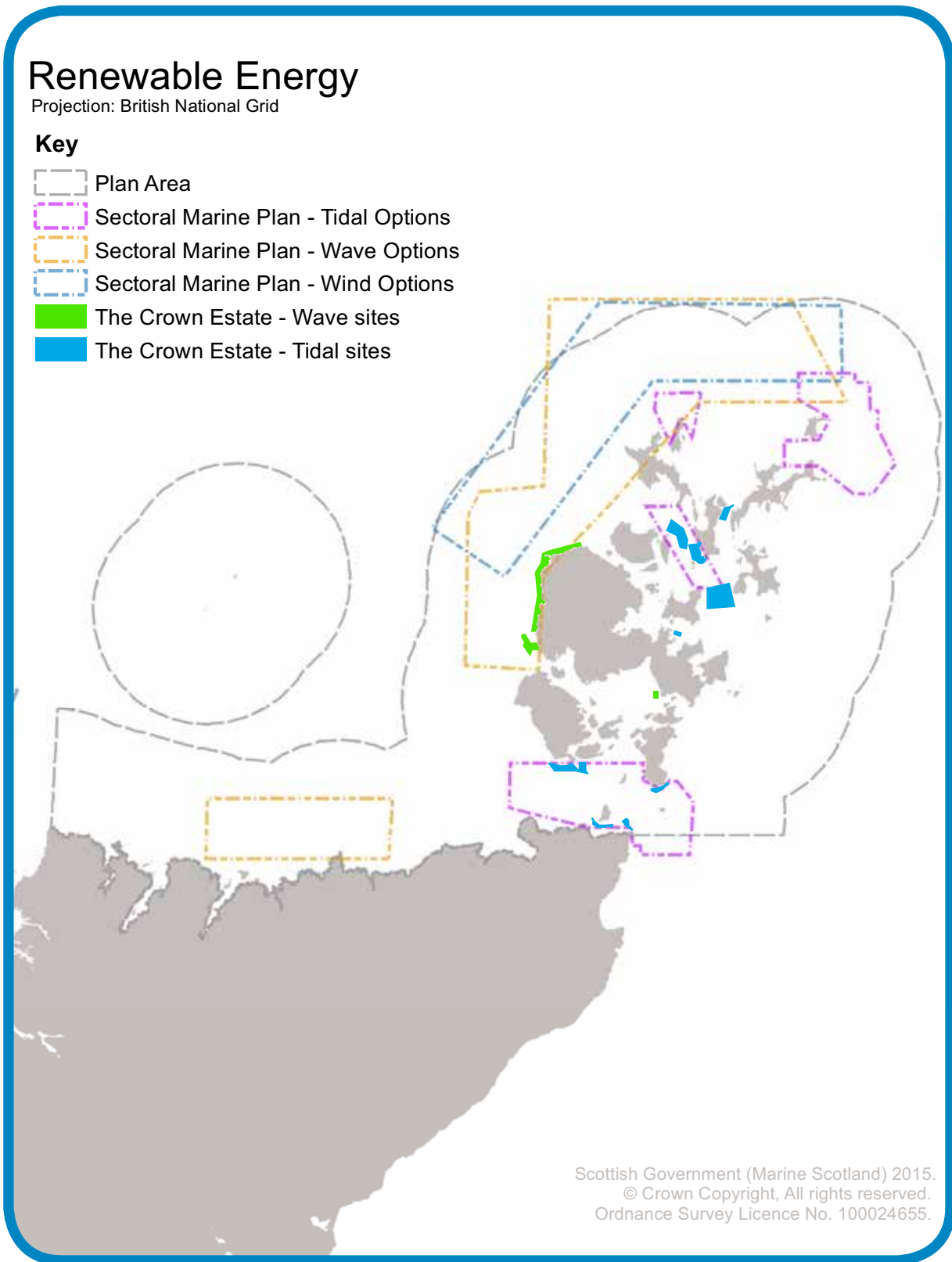
The Plan will support proposals when:

- proposals for commercial scale developments are sited in the Plan Option areas identified through the Sectoral Marine Plan process. These are considered the preferred location for the sustainable development of offshore wind and marine renewables
- the potential for co-existence in, and multiple use of, Plan Option areas and Agreement for Lease areas by other marine users has been discussed with stakeholders and given due consideration
- due regard has been paid to relevant factors in Regional Locational Guidance
- connections to shore and National Grid connections have been considered against the appropriate policies in the relevant Local Development Plan(s)
- early and effective communication and consultation with all affected stakeholders has been established to avoid or minimise adverse impacts
- any adverse impacts are satisfactorily mitigated

Justification

415 The PFW area has some of the best marine renewable energy resources in the UK and could help support Scotland's ambitious energy targets. This potential has been recognised by the Agreement for Lease areas and the seven Plan Options located in this area. The industry is at an early stage of development but an increase in growth of this sector may result in a big change in the use of the marine environment in this area. This potential growth may impact on other marine users and marine planning such as the Sectoral Marine Plans and this Marine Spatial Plan aims to guide development to areas of least constraint. Early consultation with other marine users and the consideration of shared use will help mitigate adverse impacts.

Supporting spatial information



Map 17: Leased Crown Estate sites for marine renewable activities and draft Plan Options for renewable developments as suggested in Marine Scotland's Sectoral Marine Plan.

Future considerations

416 This is a growing industry that is in the early stages of development so understanding of, and data regarding, what the effects and pressures of this industry will be on other marine users has some gaps. As data continues to be collected there will be a better understanding of these effects and pressures.

417 Floating offshore wind is a technology that is currently developing and Marine Scotland has created Regional Locational Guidance that identifies possible areas where test sites for deep water floating technology could be located. One of these areas is off Westray and as this is an area of potential development that would need to be taken into consideration in the future as the technology develops.

418 There is a need for ongoing monitoring and research with regard to the impact of this industry. The results of this will provide the data required to assess any impact and inform how future development will take place.

419 Once the Plan Options within the Sectoral Marine Plans have been finalised, there will need to be consideration and assessment of impacts that development of these areas may have on any relevant Marine Protected Areas, Special Protection Areas or other designated sites.

420 Ongoing improvements to the Regional Locational Guidance will also help inform siting of developments in areas where there is the least constraint. Ongoing development of more detailed mapping methods to identify opportunities and constraints will help the statutory marine planning process refine e.g. the Plan Option areas.

Further information

¹ Crown Estate Report on UK Wave and Tidal Key Resource Areas

<http://www.thecrownestate.co.uk/energy-minerals-and-infrastructure/wave-and-tidal/publications/>

² EMEC website

www.emec.org.uk

³ Sectoral Marine Plans

<http://www.gov.scot/Topics/marine/marineenergy/Planning>

⁴ Marine Energy Road Map

<http://www.gov.scot/Resource/Doc/281865/0085187.pdf>

⁵ Scotland's Offshore Wind Route Map

<http://www.gov.scot/Resource/0041/00413483.pdf>

⁶ UK Marine Policy Statement

<https://www.gov.uk/government/publications/uk-marine-policy-statement>

⁷ Electricity Generation Policy Statement 2013

<http://www.gov.scot/Resource/0042/00427293.pdf>

⁸ National Planning Framework 3

<http://www.gov.scot/Publications/2014/06/3539>

⁹ Sectoral Marine Plans - Regional Locational Guidance

<http://www.gov.scot/Topics/marine/marineenergy/Planning> and short url link added to the below as a place holder until published online

¹⁰ Pilot Pentland Firth and Orkney Waters Marine Spatial Plan – Regional Locational Guidance

www.gov.scot/pilotpentlandfirhandorkneywatersmarinespatialplan-regionallocationalguidance

¹¹ Marine Energy Park website

<http://www.hi-energy.org.uk/hi-marine-energy-park.htm>

¹² Fishing Liaison with Offshore Wind and Wet Renewables (FLOWW) Offshore Renewables and Fisheries Liaison Guidance

<http://www.thecrownestate.co.uk/media/5693/floww-best-practice-guidance-for-offshore-renewables-developments-recommendations-for-fisheries-liaison.pdf>

¹³ The Nautical and Offshore Renewable Energy Liaison NOREL

<http://www.thecrownestate.co.uk/energy-and-infrastructure/offshore-wind-energy/>

¹⁴ Historic Scotland Guidance

<http://www.historic-scotland.gov.uk/wave-tidal-energy-guidance-nov-13.pdf>

¹⁵ Maritime and Coastguard Agency Marine Guidance Notes

MGN 371 <https://www.gov.uk/government/publications/mgn-371-offshore-renewable-energy-installations-oreis>

MGN 372 <https://www.gov.uk/government/publications/mgn-372-guidance-to-mariners-operating-in-vicinity-of-uk-oreis>

¹⁶ Marking of Man-Made Offshore Structures

<http://www.iala-aism.org/products/publications/1507091219/markings-of-man-made-offshore-structures-139>

¹⁷ Marine Renewables Facilitators Group

<http://www.gov.scot/Topics/marine/science/MSInteractive/MSVirtualTeam>

SECTORAL POLICY 5: RECREATION, SPORT, LEISURE AND TOURISM

Background and context

421 The marine and coastal area in the PFOW area supports a wide range of activities associated with recreation, sport, leisure and tourism that make a significant contribution to the local economy and quality of life. The area is renowned for a wide variety of activities that can take place in or around the marine environment, e.g. surfing at Thurso, diving the Scapa Flow wrecks and the growing cruise ship trade.

422 For the purposes of this policy the term 'recreation, sport, leisure and tourism' encompasses activities that make use of the marine environment in some way. They include, for example, recreational boating, competitive sport, paddlesports, surfing, diving, fishing, swimming, walking coastal paths, birdwatching, painting, eating seafood and attending marine-themed festivals and events.

423 It is acknowledged that the qualities considered important from a tourism perspective and those important from a sport and recreation perspective may differ. However, in some cases it is not possible to differentiate, e.g. someone visiting Orkney (as a tourist) to dive the Scapa Flow wrecks (as a sport).

424 Many of the activities are based on the wildlife, the scenery or enjoying water-based or waterside activities either near, on, in or under the sea. These activities therefore rely on having a marine environment that is biodiverse, clean and safe. For the local economy and jobs to continue to be supported by this industry, the marine environment and the pressures on it need to be managed to allow these activities to continue sustainably.

Key legislation and policy guidance

425 The National Planning Framework 3 notes the importance of our coastal areas as an outstanding natural resource and that national and regional marine plans will provide policies to achieve sustainable development, protection and, where appropriate, enhancement of the marine area.

426 Scottish Planning Policy supports an integrated approach to coastal planning and the importance of the coastline as a resource both for development and for its particular environmental quality.

427 There is a national tourism strategy developed by the Scottish Tourism Alliance – Tourism Scotland 2020¹ – and both Visit Scotland's National Tourism Development Framework² and the Marine Tourism Strategy³ are aligned with this strategy.

428 The Marine Tourism Strategy has been developed by a working group of industry leaders and user groups together with public agencies and enterprise bodies to focus on the sustainable growth of Scotland's marine leisure sector.

429 Within the PFOW area there is a Highland Tourism Partnership that has produced a Highland Tourism Action Plan that outlines the priorities for delivering the Tourism 2020 strategy in the Highland area. The North Highland Initiative is an organisation committed to working with its members, the wider tourism industry and key public sector stakeholders to grow the value of tourism in the North Highland region through destination development and targeted marketing, e.g. the North Coast 500 initiative. Orkney Islands Council work with Visit Scotland and the Orkney Tourism Group to promote and develop the tourism industry.

Information Box 23

Scapa Flow – Diving

Scapa Flow ranks as one of the world's top diving destinations. The wrecks of battleships, and the history behind them, make Scapa Flow a world-renowned location for diving. The marine life living in and around the wrecks adds to the attraction of diving in the area. Seventy-four German ships were sunk in 1919 to prevent them being divided up amongst the allies. Many were recovered for salvage but those remaining submerged have helped make Scapa Flow into one of the most popular dive sites in Europe.

Thurso – Surfing

The Scottish Surfing Federation note that the North Coast of Scotland has been instrumental to the development of the sport both within Scotland and the UK as a whole. Surfers first started visiting the North Coast of Scotland over 40 years ago and in 1973 the first Scottish Surfing Championships were held at Bettyhill near Thurso. Since then, there have been numerous surf competitions focused in the Thurso area at local, national and international level. There has also been a general increase in the number of surfers using the area for their sport.

Current status

430 The area has many local businesses and clubs that either make a living from supporting tourism in the marine environment or use it for recreation and leisure. These are well established and contribute to the local economy and the well-being of locals and visitors alike.

431 As well as being an important area for tourism, the marine and coastal area is enjoyed and valued for recreation, sport and leisure by local people.

432 There are some region specific data in relation to use of the marine environment for recreation, leisure and tourism, e.g. information and spatial data on recreational vessels in the Shipping Study⁴ carried out by Marine Scotland and maps from sea kayaking and canoeing guides. Information on Sailing Tourism in Scotland⁵ was collected by Scottish Enterprise in 2010 and represents the most comprehensive and up-to-date published information for this sector.

433 However, there are limited data on how many visitors to, or local people living in, Orkney, Caithness and Sutherland would use, or enjoy, the marine and coastal environment for recreation, sport, leisure and tourism. This is an acknowledged data gap for Scotland as a whole and is being addressed by a Marine Recreation and Tourism study funded by Marine Scotland, the Contract Research Fund, the Crown Estate and the Scottish Coastal Forum, which is being undertaken in 2014-2016. This study will include a case study of the PFOW.

434 The project will provide the baseline information on recreation and tourism activities in the marine environment plus spatial, temporal, economic and, where possible, social data about this sector.

Pressures

435 The majority of use of the marine environment for recreation, sport, leisure and tourism takes place in the inshore area, i.e. within 12 nautical miles. Some activities, such as yacht cruising, are wide ranging while others, such as wreck diving, are focused on key areas. Activities often vary seasonally, e.g. wildlife watching is tied in with the natural cycles of breeding and migration. The freedom of use of the marine environment is one of its main attractions for recreation, sport and leisure pursuits and any restriction on this is likely to have an adverse effect on participation in them.

436 There is the potential for interactions, potentially positive, negative and neutral, with existing and future marine users. There is support for co-existence of activities where possible to ensure sustainable growth of the marine recreation and tourism sector, including the need to co-ordinate between onshore and offshore planning processes.

437 Early consultation regarding, and careful planning of, any development in the marine environment could ensure that pragmatic and safe shared use is established with any short or long term impacts minimised or mitigated.

438 In some cases there is a need for a strategic approach to the development of land-based facilities to support existing and future recreational, sporting and leisure use of the marine environment. These might include slipways, car parks and toilets. However, these will generally be small-scale in keeping with their surroundings. Opportunities to share or improve infrastructure or facilities should be discussed as part of any consultation in relation to proposed marine developments.

Sectoral Policy 5: Recreation, sport, leisure and tourism

The Plan will support the sustainable development of marine recreation, sport, leisure and tourism.

The Plan will support proposals for recreation, sport, leisure and tourism development(s) and/or activities where:

- they do not adversely affect the natural and historic environment which is the resource that recreation, sport, leisure and tourism rely upon
- codes of best practice and guidance such as those for biosecurity planning, non-native species and Marine Wildlife Watching are complied with

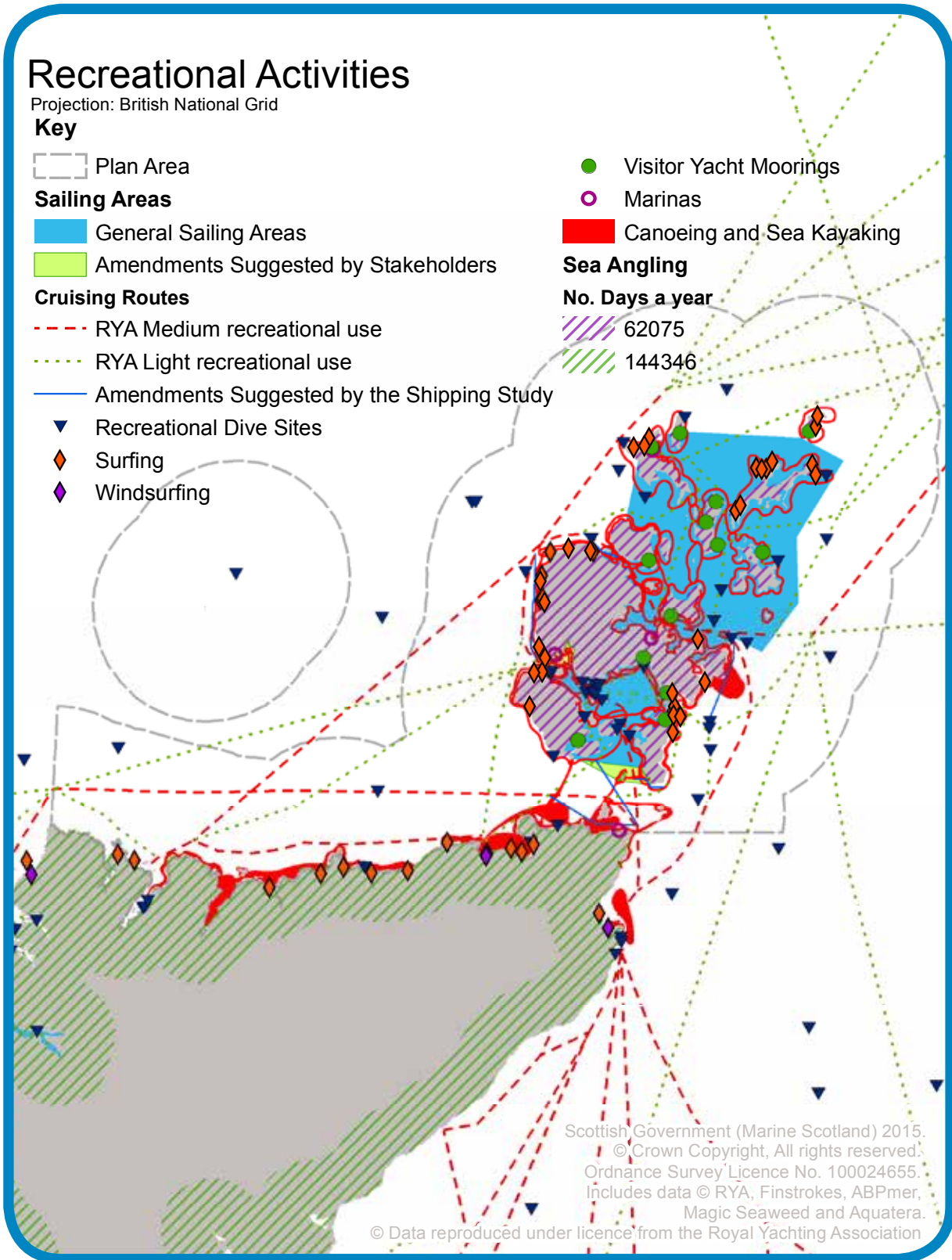
The Plan will support proposals for development(s) and/or activities of other sectors where:

- during planning, construction and operation they minimise or mitigate any disruption and/or disturbance to recreation, sport, leisure and tourism activities, including the natural and historic environment as a resource that these activities rely upon
- the impact the development has on access, navigational routes and navigational safety in relation to recreation, sport, leisure and tourism activities has been minimised or mitigated
- consultation and engagement with relevant users of the marine environment has been undertaken to ensure the measures used to minimise or mitigate disruption or disturbance are appropriate
- consideration has been given to the facility requirements of marine recreation, sport, leisure and tourism users and the potential for co-operation and sharing infrastructure and/or facilities taken into account

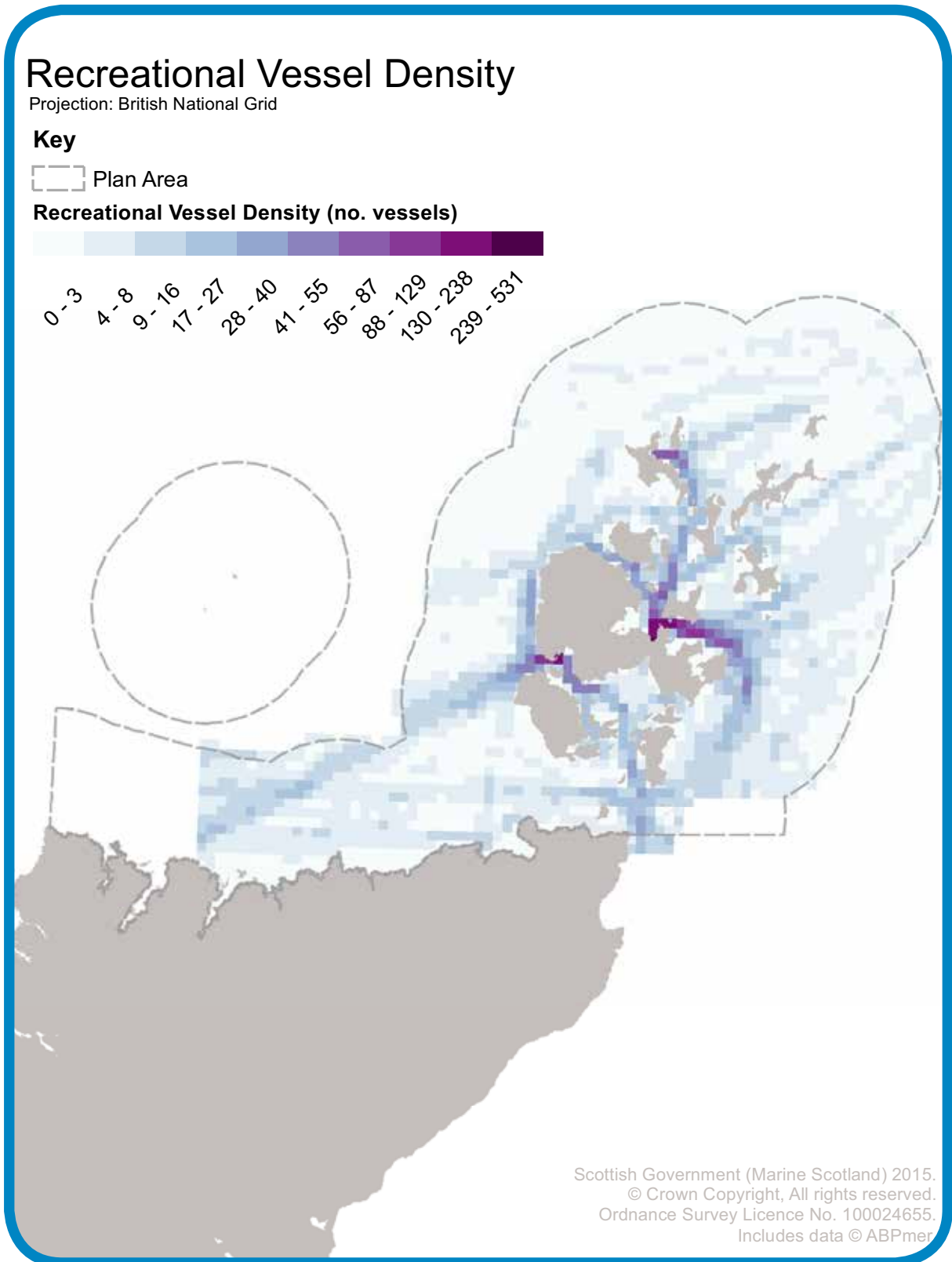
Justification

439 Marine recreation, sport, leisure and tourism activities are important to this region both in terms of supporting the local economy and enhancing the local communities' quality of life and well-being. The freedom of use of the marine environment is one of the main attractions of such activities and any restriction is likely to have an impact. Early consultation and careful planning will help minimise or mitigate these impacts and could provide opportunities for co-operation to the mutual benefit of users of the marine environment.

Supporting spatial information



Map 18: Recreational activities in the Pentland Firth and Orkney Waters area including key surfing and windsurfing beaches, Royal Yachting Association cruising routes and sailing areas, recreational dive sites, sea kayaking and canoeing areas and the number of days spent sea angling in each region (Orkney and Highland regions) as reported in the Scottish Government Sea Angling Report.



Map 19: Density of recreational shipping in the Pentland Firth and Orkney Waters area. These data were produced for the Marine Scotland Pentland Firth and Orkney Waters Shipping Study and were collected using Automatic Identification System (AIS) data. These data cover the summer months of 2011 and 2012 and represent about 17% of recreational vessels visiting the local marinas.

Future considerations

440 The ongoing Marine Recreation and Tourism study will have a case study for the Pentland Firth and Orkney Waters region and will provide data to improve knowledge of which marine-based tourism and recreation activities take place in the region. These data will also provide information on how such activities contribute to the local economy.

441 Spatial data collected via this study will be added to National Marine Plan interactive.

Further information

¹ Tourism Scotland 2020

<http://scottishtourismalliance.co.uk/wp-content/uploads/2013/03/Scottish-Tourism-Strategy-TourismScotland2020.pdf>

² National Tourism Development Framework

[http://www.visitscotland.org/pdf/Tourism Development Framework - FINAL.pdf](http://www.visitscotland.org/pdf/Tourism%20Development%20Framework%20-%20FINAL.pdf)

³ Marine Tourism Strategy

<http://scottishtourismalliance.co.uk/nature-heritage-activities/marine-tourism/>

⁴ Marine Scotland Shipping Study

<http://www.gov.scot/Publications/2012/12/1868/downloads>

⁵ Sailing Tourism in Scotland

<http://www.evaluationsonline.org.uk/evaluations/Browse.do?ui=browse&action=show&id=369&taxonomy=TOU>

National Planning Framework 3

<http://www.gov.scot/Publications/2014/06/3539>

Scottish Planning Policy

<http://www.gov.scot/Publications/2014/06/5823>

Highland Tourism Partnership

http://www.highland.gov.uk/info/1457/tourism_and_visitor_attractions/148/tourism/3

North Highland Initiative

<http://www.northhighlandinitiative.co.uk/>

North Coast 500

<http://www.northcoast500.com/home.aspx>

Orkney Tourism Group

http://www.highland.gov.uk/info/1457/tourism_and_visitor_attractions/148/tourism/3

Visit Scotland Visitor Survey Data

http://www.visitscotland.org/research_and_statistics/visitor_research/all_markets.aspx

sportscotland and Scottish Governing Bodies of Sport

<http://www.sportscotland.org.uk/> and

<http://www.sportscotland.org.uk/contacts/sgbs/?p=3>

SECTORAL POLICY 6: MARINE TRANSPORT

Background and context

442 Virtually all marine activities rely on some form of marine transport. It forms the backbone of both existing and evolving marine commercial and leisure sectors. The trans-boundary nature of maritime activities also requires co-operation across local, regional, country and international boundaries. As an island community, Orkney is particularly reliant on life-line ferries and cargo ships for inter-island and mainland transport links and provision of most goods.

Information Box 24

Examples of marine transport activity in the PFO

- Ferries
- Cargo ships
- Cruise liners
- Tugs
- Tankers
- Offshore vessels for energy industries
- Fishing/Aquaculture
- Recreation craft
- Powerboats
- Wildlife cruises
- Dive charters
- Kayakers

443 As competition for marine space grows, potential impacts on shipping and maritime safety have to be reconciled. Safety is the paramount consideration in all aspects of marine traffic.

Key legislation and policy guidance

444 The marine safety regime is underpinned by international safety, security and pollution control regulations and codes issued by the International Maritime Organisation. A series of measures have been introduced to support safety at sea and protection of the marine environment including conventions, recommendations and other instruments which are implemented in UK waters by the Maritime and Coastguard Agency. These include:

- The International Convention for the Safety of Life at Sea 1974 (SOLAS)¹
- International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (MARPOL)²

- The Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREG)³
- The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW)⁴
- The Merchant Shipping (International Safety Management (ISM) Code) Regulations 1998⁵
- United Nations Convention on the Law of the Sea III, known as UNCLOS III, was adopted in 1982. Its purpose is to establish a comprehensive set of rules governing the oceans⁶

Information Box 25

UNCLOS

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) came into force in 1994. It is an international treaty that provides a regulatory framework for the use of the world's seas and oceans, inter alia, to ensure the conservation and equitable usage of resources and the marine environment and to ensure the protection and preservation of the living resources of the sea. UNCLOS also addresses such other matters as sovereignty, rights of usage in maritime zones, artificial installations and structures and navigational rights.

Current status

445 The Marine Scotland Shipping Study for Pentland Firth and Orkney Waters 2012⁷ provides a detailed picture of some aspects of shipping activity in the PFOW area. The study considered commercial shipping and recreational vessel activity including yachts (cruising and racing), power boats, motor cruisers, recreational and sports fishing (e.g. sea angling), wildlife cruises and recreational diving. Commercial fishing (under licence) was excluded from the work as this is covered by other licensing requirements. Military and naval vessel activity was also excluded.

446 Detailed data on the key routes and activities within this study, along with the range of other topics covered in this Plan, make a contribution to safeguarding marine safety by highlighting the complex issues to be considered. For example, anchorages used by recreational vessels and the main routes used by fish farm vessels are plotted, which could help inform recreational decision-making.

447 The busiest commercial shipping routes are the Outer Sound, the approaches to the main harbours and the ferry routes. For recreational vessels, the main summer seasonal activity focused around the Orkney mainland and the links between Caithness and the eastern approaches to Orkney. However, it is recognised all vessels have the rights of innocent passage and freedom of navigation: a particular consideration in inclement weather where shelter from storms is vital. As some renewable energy developments are proceeding to deployment, marine traffic will increase, followed by ongoing operations and maintenance activities.

Pressures

448 As development, such as marine tidal devices and shipping, along with a growing aquaculture industry and all other marine traffic, accelerates, there will be a corresponding increase in marine traffic. This has the potential for a number of cumulative impacts including increased risks of collision and pollution or the introduction of invasive non-native species and may add additional pressure to recreational marine users. In addition, anchoring can have important benthic impacts. Pinch-points around the Pentland Firth area, for example, could lead to congestion or displacement issues. This anticipated increase in marine traffic will require careful consideration of Emergency Towing Vessel provision for the PFOW area.

Sectoral Policy 6: Marine transport

Development(s) and/or activities will be supported by this Plan when it can be demonstrated that:

- Adverse impacts on existing or planned shipping and ferry routes, navigational safety and access to ports and harbours have been avoided or appropriately mitigated, taking account of movements in all weather conditions

Proposed development(s) and/or activities which would have an adverse impact on efficient and safe movement of shipping between ports, harbours and other recognised anchorages should be refused.

Justification

449 Maritime safety is the paramount consideration for any marine activity therefore must be safeguarded.

Supporting spatial information

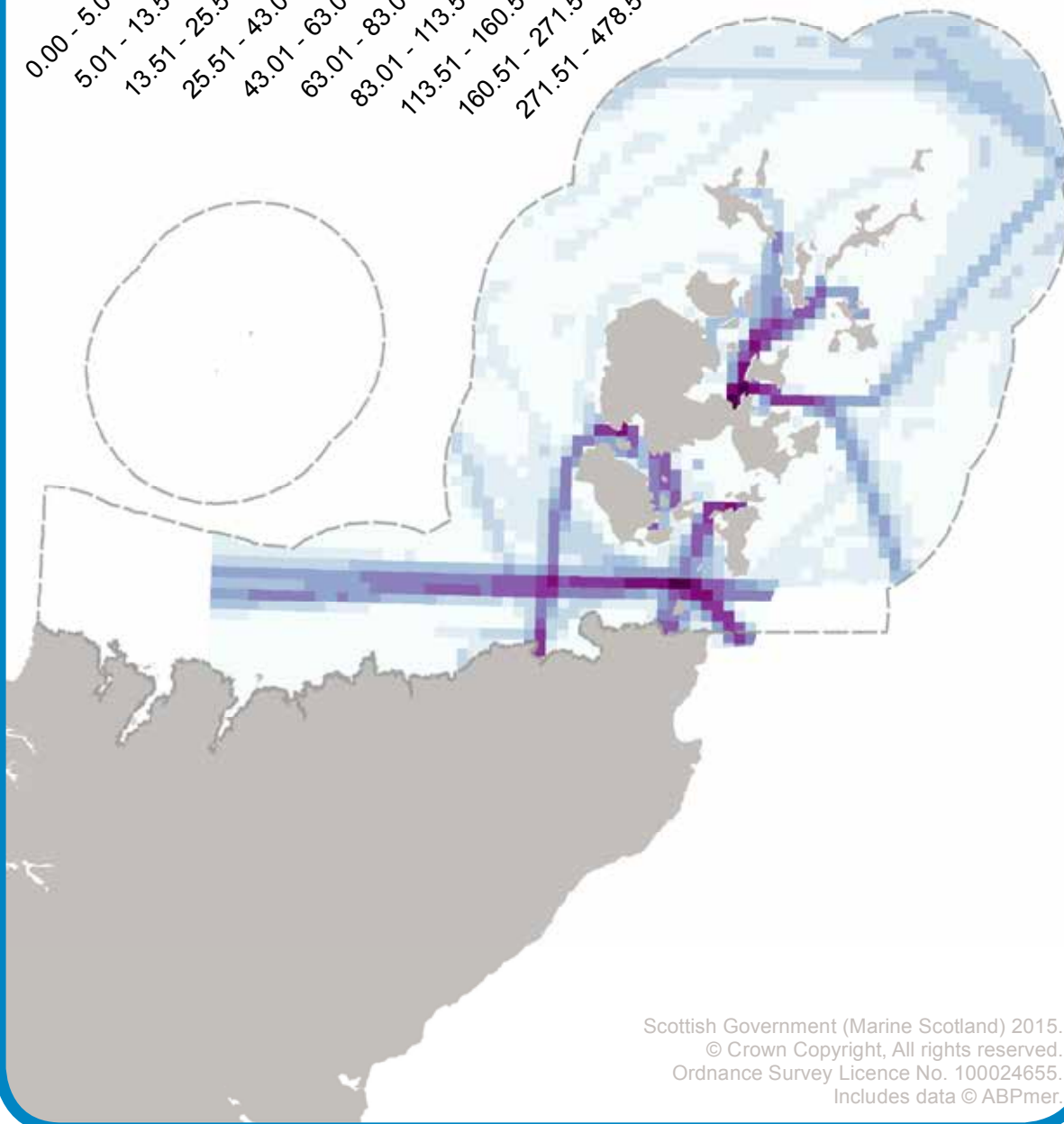
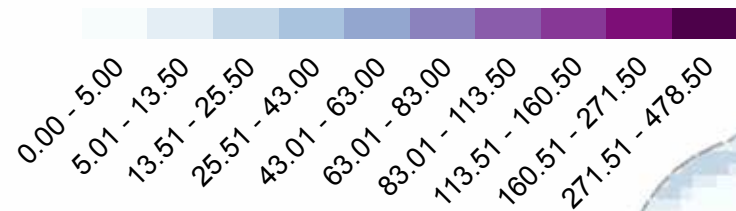
Non-Recreational Shipping Density

Projection: British National Grid

Key

 Plan Area

Shipping Density (no. of vessels)



Scottish Government (Marine Scotland) 2015.
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Includes data © ABPmer

Map 20: Non-recreational shipping density in the Pentland Firth and Orkney Waters Area. These data were produced for the Marine Scotland Pentland Firth and Orkney Waters Shipping Study and were collected using Automatic Identification System (AIS) data. These data cover the summer months of 2012.

Future considerations

450 As the rate and volume of maritime activity increases, safety will remain the paramount consideration. If changes to patterns of Arctic sea ice open up new shipping routes, this could lead to a significant increase in commercial traffic around the PFW area. This could also lead to the increase of risk from invasive non-native species.

Further information

¹ The International Convention for the Safety of Life at Sea 1974 (SOLAS)

[http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-\(SOLAS\),-1974.aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-(SOLAS),-1974.aspx)

² International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (MARPOL)

[http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx)

³ The Convention on the International Regulation for Preventing Collisions at Sea 1972 (COLREG)

<http://www.imo.org/About/Conventions/ListOfConventions/Pages/COLREG.aspx>

⁴ The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (STCW)

<http://www.imo.org/OurWork/HumanElement/TrainingCertification/Pages/STCW-Convention.aspx>

⁵ The Merchant Shipping (International Safety Management (ISM) Code Regulations 1998

http://www.legislation.gov.uk/ukxi/2014/1512/pdfs/ukxi_20141512_en.pdf?regulation-8-1

⁶ United Nations Convention on the Law of the Sea (UNCLOS)

http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

⁷ Shipping Study of the Pentland Firth and Orkney Waters

<http://www.gov.scot/Publications/2012/12/1868/downloads>

Strategic Area Navigation Appraisal Project SANAP

http://www.thecrownestate.co.uk/media/151976/strategic_area_navigation_appraisal__sanap_.pdf

SECTORAL POLICY 7: PORTS, HARBOURS AND DREDGING

Background and context

451 Ports, harbours, marinas, piers and slipways (collectively referred to as ports and harbours hereafter), provide essential infrastructure to support the transportation, employment and recreational needs of local communities and the wider economy. Ferry, freight, commercial fisheries, tourism, aquaculture and marine renewable energy businesses rely on ports and harbours and the growth of these sectors is dependent on the availability of appropriate harbour facilities. Successfully operating ports also need to be serviced by available maintenance dredging and onshore support facilities and have land available for the growth of port-related business, industry and services. Dredging and the dumping of the associated spoil may also be required in areas out with ports and harbours.

Key legislation and policy guidance

452 As ports and harbours straddle the intertidal zone, they also straddle terrestrial planning and marine licensing legislation. Marine licences under the Marine (Scotland) Act 2010 are required for most construction activity below mean high water springs level. Close co-operation between the various decision-making bodies will help ensure that an integrated approach is taken (see General Policy 7: *Integrating coastal and marine development*), as required by both the terrestrial and marine planning legislation and guidance.

453 The Orkney County Council Act 1974 empowers Orkney Islands Council as the Harbour Authority to exercise powers within the harbour area. The harbour area includes Scapa Flow and its approaches, Wide Firth, Shapinsay Sound, Stromness, Kirkwall and the Flotta Oil Terminal. Each of the Isles ferry terminals is a Harbour Area in its own right by virtue of additional Acts after the 1974 Act, which extended the harbour areas.

454 In Highland, the main north coast ports and harbours are Scrabster and Gills Bay. Scrabster is run by a harbour trust whilst Gills Harbour (which incorporates Gills Bay) is managed by a community-owned company.

455 Ongoing maintenance and capital dredging activity required for ports and harbours and the related disposal of spoil at approved dump sites for spoil require a marine licence as controlled by Marine Scotland.

Current status

456 Orkney Islands Council aims to ensure that Orkney's piers and harbours are operated safely and maximise economic benefits for Orkney. There are 29 piers, harbours and slipways in Orkney that support a range of activities from large commercial industries to connecting remote small island communities. The main commercial ports are at Hatston, Kirkwall, Stromness and Lyness. These ports support a variety of sectors including commercial fisheries, freight and cargo, oil and gas, renewable energy, cruising liners, aquaculture and ferry transportation.

457 Orkney Islands Council and its partners have made significant investments in port infrastructure to support the development of growth industries. Along with the European Regional Development Fund, it has made an £8 million investment to extend the Hatston pier to support the marine renewables sector, which was completed in March 2013. Lyness Harbour and the adjoining development area is strategically placed to also provide operation and maintenance support to the renewable energy sector. Phase 1 of the £3.2 million Lyness Harbour upgrade is complete and is currently being used by various marine energy developers. Copland's Dock is a new £9.5 million pier and access road development in Stromness supported by Orkney Islands Council, European Regional Development Fund and the Scottish Government. The pier was completed in December 2013, again supporting the marine renewable energy sector, along with inshore fisheries and aquaculture.

458 There are 17 harbours along the north Caithness Coast including Scrabster, the main harbour. Scrabster Harbour has been successful in maintaining a diverse income which includes fishing, timber, passenger transport, oil and gas, recreation and renewables. Phase 1 of its proposed expansion has been completed; this comprises new quays, laydown areas, tanker berths and a deep-water approach channel. This will be followed by Phase 2 which includes development of the 32-acre Enterprise Area at Scrabster Mains Farm, which will facilitate the growth of the harbour. Gills Harbour is also a strategically important harbour due to its close proximity to many of the sites which have been leased by the Crown Estate for marine renewables development and the ferry service connection to Orkney.

459 Detailed information on the land use policy and land allocations adjoining ports and harbours can be found in the relevant local authority Local Development Plans, master-plans and development briefs. These highlight projects that integrate terrestrial and marine planning.

Pressures

460 As the marine renewables industry evolves, there may be competition for laydown/operational space. Heavy traffic in the proximity of the main ports and harbours generated by these growing offshore marine energy industries may also lead to local congestion at the harbours and connecting road network. As more projects come on-stream, there may also be a heavy demand for both skilled labour and boats to service the port and harbour operations.

461 Dredging and disposal of material can have a significant environmental effect. For example it can cause loss or damage to habitats and species and exposure of buried archaeological remains. Changing coastal processes and climate change could alter patterns of sediment deposition, leading to an increased requirement for the dredging of ports and harbours. This, in turn, could add pressure to related dredge spoil sites.

Sectoral Policy 7: Ports, harbours and dredging

The sustainable growth of the ports and harbours within the Pentland Firth and Orkney Waters area, particularly within existing facilities, will be supported by the Plan where:

- access to ports and harbours is not restricted
- safety considerations are primary
- navigational routes are not compromised

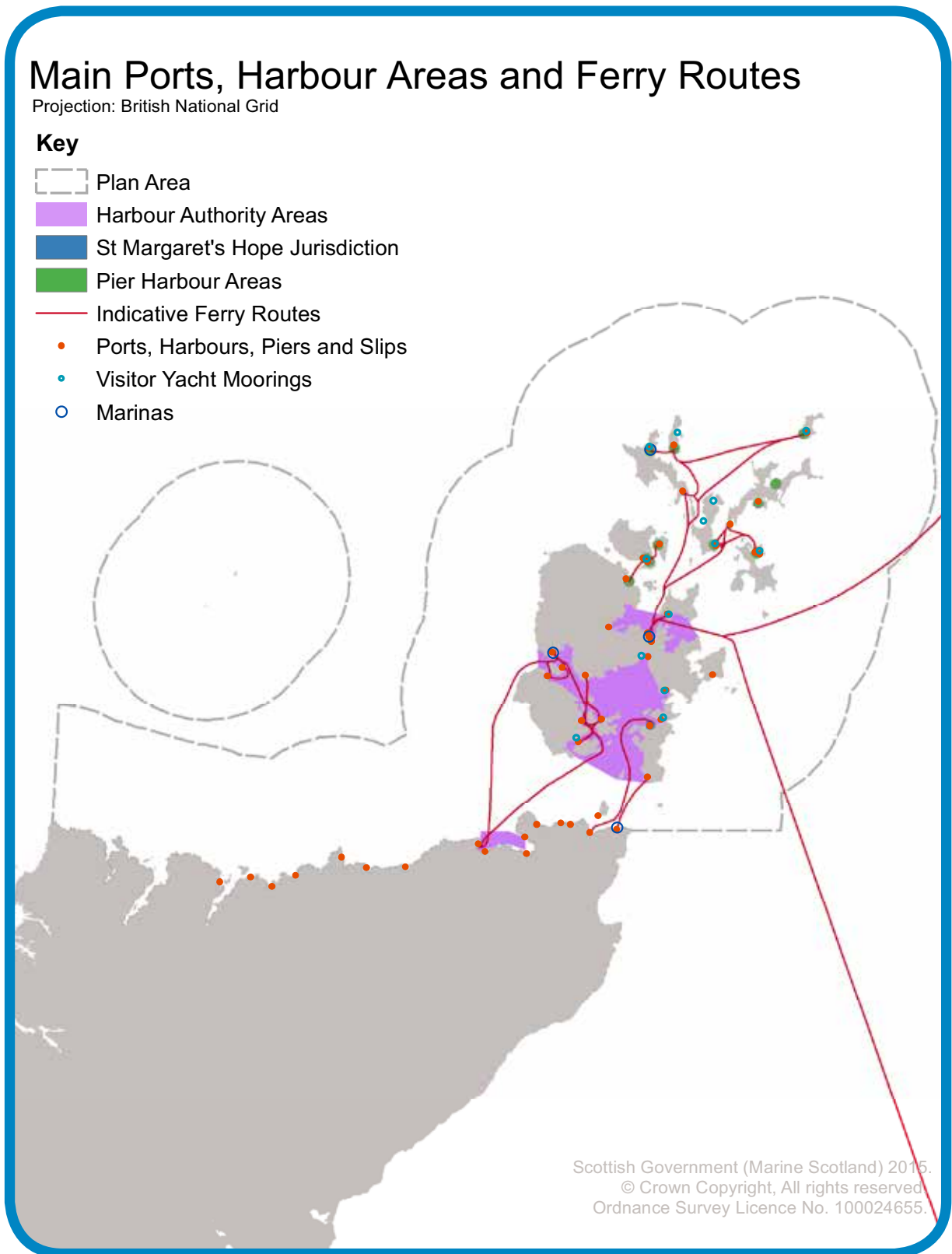
Dredging within the Pentland Firth and Orkney Waters area will be supported by the Plan where:

- dredged material is recycled or disposed of in appropriate locations

Justification

462 Most maritime activities rely on ports and harbours for the interface between sea and land. As such they are a vital link for the safe onward travel of both people and goods.

Supporting spatial information



Map 21: Main ports, harbours and ferry routes in the Pentland Firth and Orkney Waters area.

Future considerations

463 As maritime industries expand, they have the potential to impact on the operation of ports and harbours, e.g. through the creating of choke points and obstructing shipping routes. Fine grain spatial planning of strategically important ports and harbours, and appropriate supporting policies, could be developed for potentially congested multi-use marine areas to operate effectively. It could be an aspiration for future regional marine plans to support commercial scale deployment of marine renewable energy projects, integrating compatibility with other port and harbour users.

464 Climate change has the potential to increasingly affect ports and harbours with increased storm surges. The winter storm surge of December 2012 demonstrated what significant environmental, social and economic impacts they can have on Highland and Orkney Harbours.

Further information

Orkney Islands Council Local Development Plan

<http://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm>

Highland Council Local Development Plan

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans

Orkney Islands Council Harbours

<http://www.orkneyharbours.com/>

Orkney Ports Handbook

<http://www.orkneyharbours.com/pdfs/PortsHandbook-2012-V5.pdf>

A New Vision For Thurso

http://www.highland.gov.uk/download/downloads/id/2542/report_of_the_wick_and_thurso_charrettes_3_thurso_low_resolution&rct=j&frm=1&q=&esrc=s&sa=U&ei=a32_VNL0B8-v7AbB7YCYCQ&ved=0CBQQFjAA&usg=AFQjCNGgKkUukzFbbbrzprg-MhtKSTzB_g

Scrabster Harbour

<http://www.scrabster.co.uk/>

SECTORAL POLICY 8: PIPELINES, ELECTRICITY AND TELECOMMUNICATIONS INFRASTRUCTURE

Background and context

465 The infrastructure associated with the supply or management of oil and gas, potable and waste water, electricity and telecommunications is vital to maintain these services. The drive for improved communication, connectivity and improved service has increased use of the marine area. Growth of the marine and offshore energy sector will increase demand for upgrades to existing infrastructure and for new connections. There will be a continued need to maintain and protect infrastructure associated with potable and waste water and, where necessary, improve the infrastructure. The costs of operating, maintaining and developing the electricity network in the PFOW area are passed on to electricity customers served by the North of Scotland area so need to be economically justified.

466 In the PFOW area, Scottish and Southern Energy Power Distribution (SSEPD) has been undertaking work in relation to the 'Orkney Caithness' 132kV¹ reinforcement connection since the Crown Estate Leasing Round in 2010. The existing cables between Orkney and Caithness are at full capacity and SSEPD are looking at options to develop a new connection to allow marine renewable developers to connect to the transmission network on Caithness. This will provide grid access for marine renewable projects and, potentially, onshore wind projects across the whole of Orkney. SSEPD has undertaken ongoing planning and consultation² in Orkney regarding grid capacity and land fall for cables. There may also be a need to upgrade or provide additional new cables to allow the connection of new onshore renewable developments on the islands within Orkney.

467 One of the Scottish Government's Digital Strategy³ projects will see rural and island communities in the Highlands and Islands benefit from the roll out of high speed broadband. This investment in broadband infrastructure is intended to bring economic and social benefits to many isolated communities and encourage growth in related jobs. Highlands and Islands Enterprise entered into a contract with BT in March 2013 to deliver access to fibre broadband to around 84% of homes and businesses in Highlands and Islands by the end of 2016. The project involves installing 800km of new fibre infrastructure and the installation of the approximately 385km of subsea cabling is now completed.

468 Infrastructure associated with the electricity network, communications and oil and gas industry such as pipelines are required to be protected by exclusion zones. Infrastructure associated with water supply and treatment such as freshwater pipelines between islands, and final effluent discharge pipelines and combined sewer and emergency overflows, also need to be safeguarded.

Key legislation and policy guidance

469 The Submarine Telegraph Act 1885⁴ applies to cables in UK waters and was most recently updated by the Merchant Shipping Act 1995⁵. This Act aims to protect cables by, amongst other things, making it an offence to damage a cable and restricting vessels and fishing activities within certain distances of cables. The United Nations Convention on the Law of the Sea (UNCLOS) 1982⁶ enhanced the international regulation to include all submarine cables. The International Regulations for Preventing Collisions at Sea 1972 (COLREGS)⁷ also provides for vessels engaged in cable operations or fishing to have the ability to work as required within a traffic separation scheme.

470 There are recommendations in place for safety zones around some marine structures, e.g. the oil and gas industry has a requirement for safety zones of 500m around subsea installations established by Offshore Installations (Safety Zones) Orders under Section 22 of the Petroleum Act 1987. Oil and Gas UK⁸ and the Health and Safety Executive⁹ provide guidance on this issue.

471 Developers who apply for a licence to undertake work that will be within one nautical mile of the known location of a submarine cable will need to determine whether there is likely to be a conflict between the proposed development and the submarine cable and, if so, work together with the asset owner to mitigate this conflict. Developers will need to ensure they have crossing and proximity agreements from existing tenants in close proximity to their work and work restriction zones before obtaining the necessary lease or licence from the Crown Estate¹⁰.

472 Subsea Cables UK is a forum of national and international companies which own, operate or service submarine cables in the UK and surrounding waters and has the principal goal of promoting marine safety and safeguarding of submarine cables from man-made and natural hazards. Subsea Cables UK provides guidance¹¹ on a range of issues regarding cables and their potential interaction with other industries.

473 The Crown Estate has published and supported several publications¹² dealing with submarine cables and offshore renewable energy installations and provides recommendations to reduce conflict between the submarine cable and renewable industries where the activities or future maintenance requirements for one may pose a risk for the other.

474 The Kingfisher Information Service – Offshore Renewable and Cable Awareness (KIS-ORCA) project provides charts with the location of power and telecommunication cables. The legislation, such as that noted above, and also detailed in the Mariners Handbook (2009, 9th Edition, UKHO NP100 Page 2014) outlines the core legal principles and responsibilities in relation to cables and telecommunications infrastructure while KIS-ORCA details best practice for fishermen and their responsibility when it comes to avoiding fouling and/or damaging snagged cables. The Mariners Handbook (2009) specifically highlights that fishing should not be undertaken over subsea cables and this awareness reinforcement is important in reducing risks for both mariners and the cables.

Current status

475 Intergovernmental work began in 2012 to progress Scottish island renewables deployment and grid connections and led to additional support for the islands being announced in December 2013. This work has resulted in a Scottish Islands Renewables Delivery Forum being established to develop a series of actions to support the delivery of island renewables, one of which is to convene a working group to pursue research funding to support Orkney grid reinforcement.

476 The Maritime and Coastguard Agency also provides guidance in Marine Guidance Note 371 (or subsequent updates) in relation to cables associated with Offshore Renewable Energy Installations.

477 The network owner, Scottish and Southern Energy Power Distribution (SSEPD), has recently consulted on the electricity network on Orkney and options for reinforcement. SSEPD continue to liaise with the intergovernmental group regarding project development. In addition, there are ongoing discussions with onshore wind developers about potential future interests in the islands.

478 There are a number of technical options for Orkney grid reinforcement such as transmission reinforcement for contracted developers, distribution reinforcement for general use, nominated developers or marine research and development of a private wire.

Pressures

479 The most common proven¹³ cause of damage to submarine cables is ship anchors followed by risk from fishing activity. Where sediment conditions permit, cables can be buried throughout their length, however not all cables can be, or should be, buried for a variety of reasons. Burial protects the cable and minimises risk of interactions which can be a danger to maritime activity through snagging of the cable with fishing gear or anchors. Dredging, mooring and installing infrastructure on the seabed also has the potential to affect existing cables but can be mitigated with effective management of the marine environment and the correct use of cable awareness information and navigational charts. Reactive measures following damage to cables is potentially expensive and can cause disruption to power generation and distribution and telecommunications.

480 In some cases it may not be feasible to bury a cable and, where appropriate, other recognised and approved measures should be used to protect the cable on a case-by-case basis. Risk assessments should direct the choice of feasible, practicable and cost-effective alternative methods of cable protection. In some instances, it may not be desirable or practicable to bury cable for physical, economic or environmental impact reasons, and surface-laid cable may be the sensible and achievable solution.

481 As well as undertaking appropriate protection measures for their cables and other marine users, cable owners provide information via cable awareness projects such as KIS-ORCA, where cable information is given freely to fishermen and other seabed users in order that they can avoid potential snagging of cables. After laying, cable routes should be notified to UK Hydrographic Office (UKHO) who will update charts in accordance with UKHO policy.

482 The installation and operation of cables has the potential to have an adverse impact on the marine environment, e.g. through direct physical damage or through the presence of Electromagnetic fields (EMF), which may have an effect on some marine species. However, carefully planned routes can mitigate many of the issues during installation and further research is being carried out on the impact of EMF. Initial results suggest there are minimal effects and that burial of the cable mitigates this risk.

Continued on next page

Sectoral Policy 8: Pipelines, electricity and telecommunications infrastructure

Safeguarding existing pipelines, electricity and telecommunications cables

Development(s) and/or activities that could potentially damage cables or pipelines should comply with relevant industry requirements with regard to any proposed works and safety considerations. Information sources such as KIS-ORCA can be used to ensure the location of cables are known and taken account of when carrying out such activities.

Electricity and telecommunications infrastructure

When laying or replacing electricity and telecommunications infrastructure the following considerations should be taken into account on a case-by-case basis:

Developers should ensure that they have engaged with other developers and decision makers at an early planning stage and taken a joined-up approach to minimise impacts on the marine historic and natural environment, the assets, infrastructures and other marine users. Appropriate and proportionate environmental consideration and risk assessments should be provided which may include cable protection measures and mitigation plans.

Any deposit, removal or dredging carried out for the purpose of executing emergency inspection or repair works to any cable is exempt¹⁴ from the marine licensing regime with approval by Scottish Ministers. However, cable replacement requires a marine licence and is subject to the marine licensing process. Marine licensing guidance should be followed when considering any cable development and activity.

Cables should be suitably routed to provide sufficient requirements for installation and cable protection. New cables should implement methods to minimise impacts on the marine historic and natural environment, the assets, infrastructures and other marine users where operationally possible and in accordance with relevant industry practice.

Cables should be buried to maximise protection where there are safety or seabed stability risks to reduce conflict with other marine users and to protect the assets and infrastructure. However, it should be noted that not all cables will, or can, be buried depending on project requirements and circumstances.

Where burial is demonstrated not to be feasible, cables may be suitably protected through recognised and approved measures (such as rock or mattress placement, cable armouring, shore end marker beacons and admiralty chart updates) where practicable and cost-effective and as risk assessment direct.

Sectoral Policy 8: Pipeline, electricity and telecommunications infrastructure continued

The need to reinstate the seabed, undertake post-lay surveys and monitoring and carry out remedial action where required.

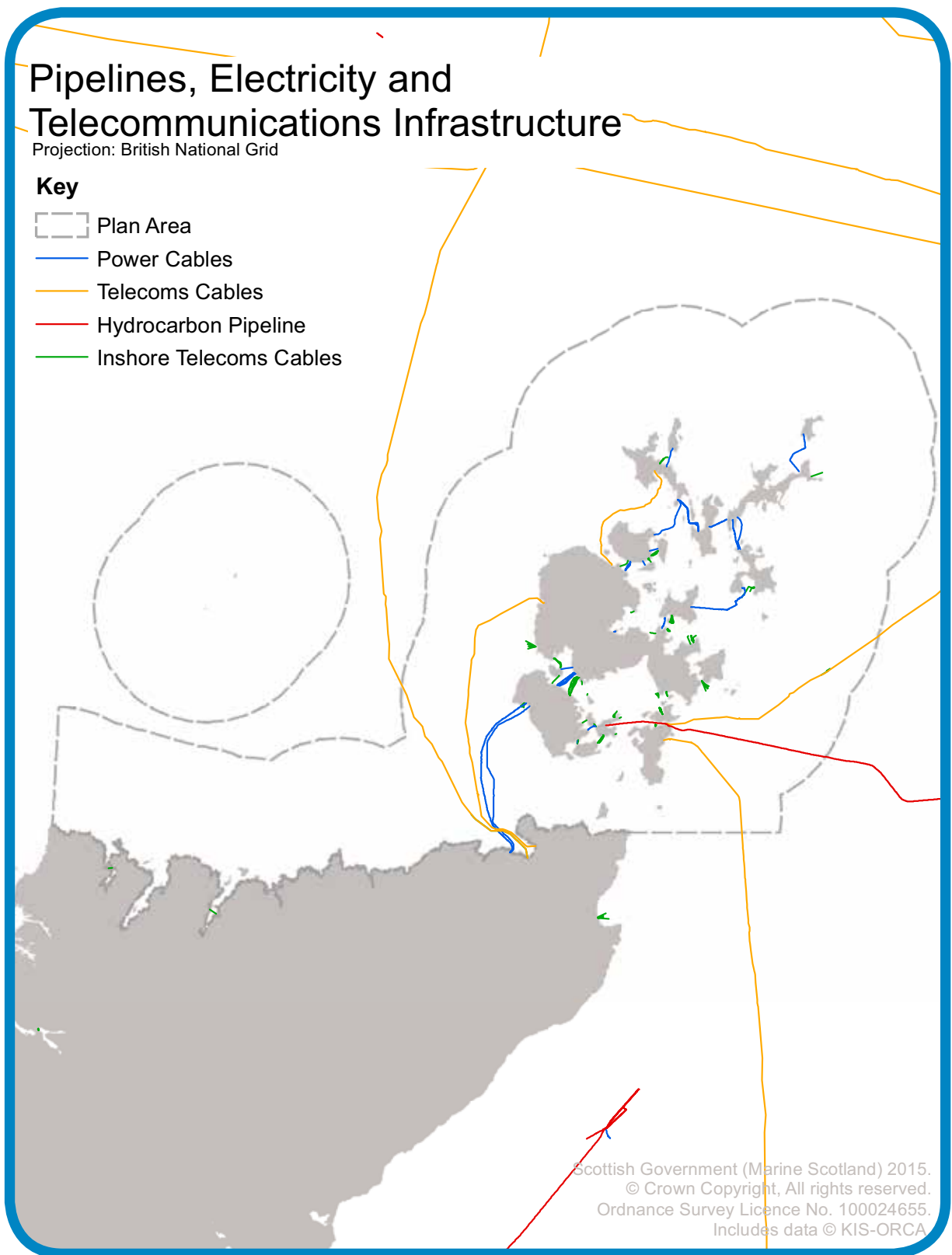
The proposed land fall of power and telecommunications equipment and cabling will be considered against the appropriate policies in the relevant Local Development Plan(s).

A risk-based approach should be applied by network owners and decision-makers to the removal of redundant cables, with consideration given to cables being left in situ where this would minimise impacts on the marine, historic and natural environment and other marine users.

Justification

483 Pipelines, electricity and telecommunications infrastructure are important both regionally and nationally and will be vital for the foreseeable future. It is important to reduce the potential risks to the assets and other marine users and this can be achieved by sound project planning and putting in place appropriate protection measures where required and practicable. The selection of these measures will require developers to engage with relevant stakeholders at an early planning stage in order that the measures undertaken are feasible, practicable and cost-effective.

Supporting spatial information



Map 22: Pipelines, electricity and telecommunications infrastructure in and around the Pentland Firth and Orkney Waters area. The map includes power cables to, and between, the Orkney Islands, telecommunication cables and hydrocarbon pipelines.

Future considerations

484 There will be ongoing discussions regarding the ‘Orkney Caithness’ connection and the choice of location for the substation in Orkney.

485 The Scottish Government supports the development of network infrastructure in the right places. The outputs of new research and strategies such as the Irish-Scottish Links on Energy Study will be taken into account to improve the knowledge of interactions between cables and other activities. The information from this process will help inform marine spatial planning in the PFOW area.

Further information

¹ Orkney Caithness project:

<http://www.ssepd.co.uk/OrkneyCaithness/>

¹ and related documents:

[http://www.ssepd.co.uk/OrkneyCaithness/ProjectDocuments/.](http://www.ssepd.co.uk/OrkneyCaithness/ProjectDocuments/)

² Scottish and Southern Energy – Information on Connecting Orkney consultation

<http://www.ssepd.co.uk/ConnectingOrkney/>

³ Scotland’s Digital Future: A Strategy for Scotland – Scottish Government 2011

<http://www.gov.scot/Resource/Doc/343733/0114331.pdf>

⁴ Submarine Telegraph Act 1885

<http://www.legislation.gov.uk/ukpga/Vict/48-49/49/contents>

⁵ Merchant Shipping Act 1995

<http://www.legislation.gov.uk/ukpga/1995/21/contents>

⁶ The United Nations Convention on the Law of the Sea (UNCLOS)

http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf

⁷ The International Regulations for Preventing Collisions at Sea 1972 (COLREGS)

<http://www.imo.org/About/Conventions/ListOfConventions/Pages/COLREG.aspx>

⁸ UK Oil and Gas – Information On Safety Zones

<http://oilandgasuk.co.uk/product/establishment-and-buoyage-of-safety-zones-around-subsea-installations/>

⁹ Health and Safety Executive Safety Zones Around Oil And Gas Installations In Waters Around The UK

<http://www.hse.gov.uk/pubns/indg189.pdf>

¹⁰ Crown Estate Heads of Terms for Submarine Telecommunications Cables

http://www.thecrownestate.co.uk/media/5700/heads_of_terms_for_submarine_telecoms_cables.pdf

¹¹ Subsea Cables UK Guidance

<http://www.escaeu.org/guidelines/>

¹² Crown Estate Proximity Study

<http://www.thecrownestate.co.uk/media/5658/ei-km-in-pc-cables-082012-proximity-of-offshore-renewable-energy-installations-submarine-cable-infrastructure-in-uk-waters-guideline.pdf>

¹³ Green, M. and Brooks, K. (2011) The Threat of Damage to Submarine Cables by the Anchors of Ships Underway. CIL-ICPC Workshop on the Protection of Submarine Cables 14-15 April 2011, Singapore.

<http://cil.nus.edu.sg/wp/wp-content/uploads/2011/04/Mick-Green-and-Keith-Brooks-The-Threat-of-Damage-to-Submarine-Cables-by-the-Anchors-of-Cables-Underway.pdf>

International Cable Protection Committee (2009) Damage to Submarine Cables Caused by Anchors. Loss Prevention Bulletin 18 March 2009

¹⁴ The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011 (Amended 2012)

<http://www.legislation.gov.uk/sdsi/2011/9780111012284/contents>

and The Marine Licensing (Exempted Activities) (Scottish Offshore Region) Order 2011 (Amended 2012)

<http://www.legislation.gov.uk/ssi/2011/57/contents/made>

Local Development Plans:

<http://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm>

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan

SECTORAL POLICY 9: MARINE AGGREGATES

Background and context

486 Marine aggregates are sand, gravel or crushed rock used in construction, principally as a component of concrete or for land reclamation and coastal defence projects. In Scotland, there is currently limited demand for marine aggregates as land supplies are more readily accessible. However, if there are significant technological and economic changes, there may be potential for the balance to change.

Key legislation and policy guidance

487 Marine aggregate removal is regulated by Marine Scotland as part of its licensing duties, under the Marine (Scotland) Act 2010¹. A Crown Estate seabed lease is also required for the areas within which dredging will occur. The Crown Estate is reviewing its marine minerals licensing obligations. To assist with this process, it is undertaking a Habitats Regulations Assessment of the potential impacts of mineral extraction on Natura and Ramsar sites.

Current status

488 The Crown Estate Commissioners own the mineral rights to the seabed extending out to the edge of the UK continental shelf. Work undertaken by the British Geological Survey on behalf of the Crown Estate maps these mineral resources. This work shows relatively extensive areas around Orkney and in the Pentland Firth with potentially workable mineral deposits. However, these data are based on a desk study and would require verification on a case-by-case basis before any extraction could commence.

Pressures

489 There are no current licences for marine aggregate extraction in the PFOW area that require safeguarding.

Sectoral Policy 9: Marine Aggregates

Proposals for new marine aggregate extraction sites should ensure they do not compromise existing activities.

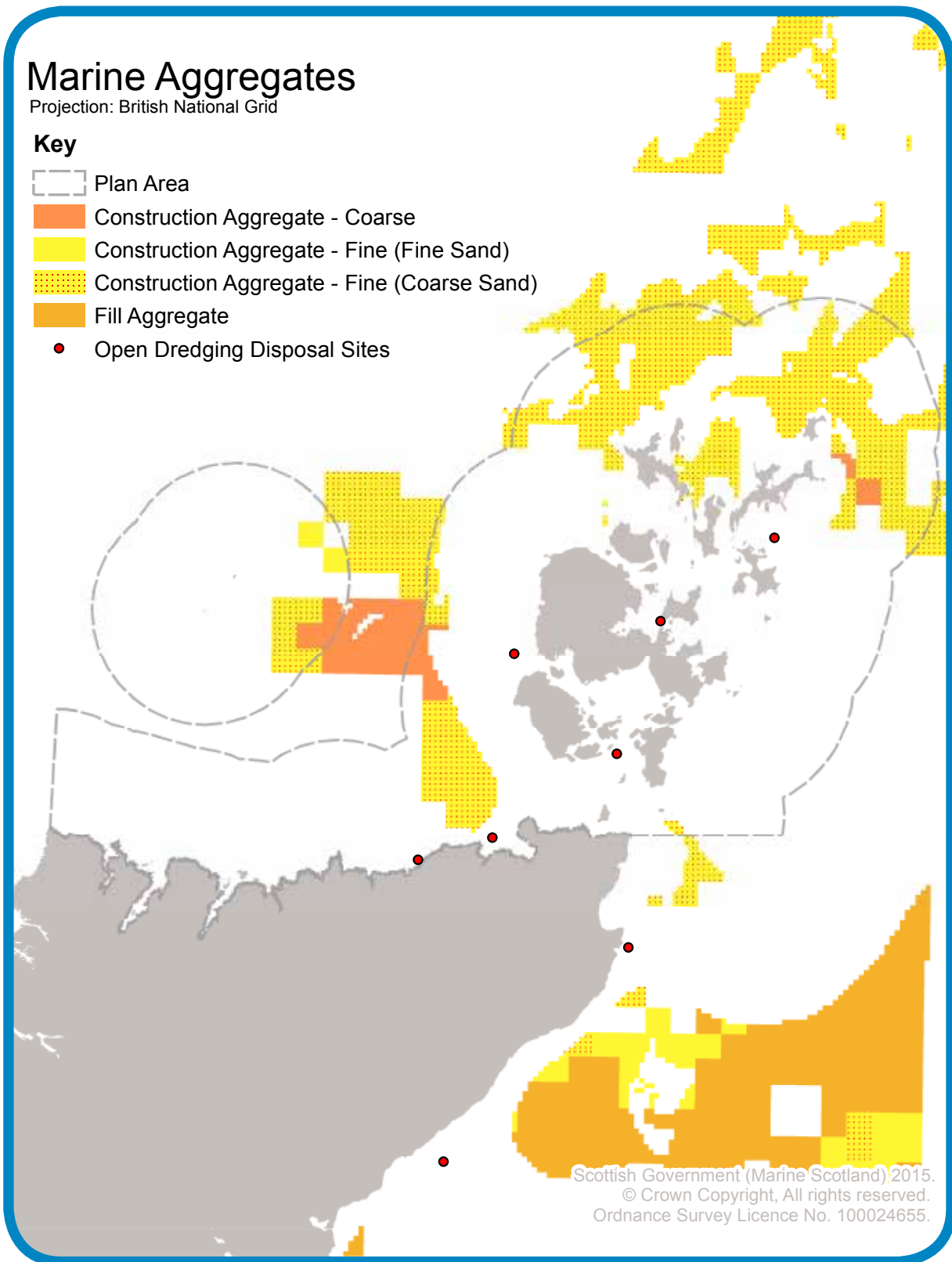
Decision makers should ensure marine environmental issues are considered and appropriately safeguarded.

Any marine development should consider any impacts on existing or potential marine aggregate resources.

Justification

490 Although there is no marine aggregate activity in the region at the moment, potential for growth of future developments should be safeguarded. Any subsequent development would have to ensure that all appropriate environmental issues were considered and mitigated appropriately.

Supporting spatial information



Map 23: Marine aggregate deposits in and around the Pentland Firth and Orkney Waters area. This map also includes open disposal sites for dredging activity.

Future considerations

491 Subsequent regional marine plans may have to consider measures to safeguard mineral resources. If recovery technology is improved or more competitive sources of aggregates become available, policies will have to be flexible to accommodate changing requirements and considerations.

Further information

¹ Marine (Scotland) Act 2010

<http://www.legislation.gov.uk/asp/2010/5/contents>

Mineral Resources of the Scottish Waters and the Central North Sea

<http://www.thecrownestate.co.uk/energy-minerals-and-infrastructure/downloads/mineral-resource-assessments/>

General guidance

<http://www.bgs.ac.uk/mineralsUK/planning/legislation/home.html>

SECTORAL POLICY 10: DEFENCE

Background and context

492 Defence is a reserved issue but there is a benefit in identifying the implications of defence marine use for other marine users and to minimise potential impacts.

493 The Ministry of Defence (MOD) uses several areas in, or adjacent to, the Marine Spatial Plan area, mainly for military training purposes. Cape Wrath, in particular, is an important exercise area, firing range and a firing danger area used for major live-firing exercises often in conjunction with North Atlantic Treaty Organization (NATO) forces. A naval exercise area is located immediately west of the PFOW area. There is an exercise and firing danger area to the east of the area.

494 Military firing ranges are not in constant use but are used for mission specific and pre-deployment training. Other activities may be permitted in the area where these are consistent with operational requirements. Permanent installations will be at risk from live-firing damage and are therefore unlikely to be compatible.

Key legislation and policy guidance

495 The MOD can regulate or restrict the use of sea areas either temporarily or permanently under the provisions of the Military Lands Act 1892¹ and 1900² and the Land Powers Defence Act 1958³.

496 The MOD has a Secretary of State's policy statement on health, safety and environmental protection⁴ and a strategy for Sustainable Development⁵. These documents outline MOD's commitment and obligations to protecting the environment including the marine environment.

Current status

497 The exercise areas in the PFOW are used extensively for defence training throughout the year.

498 Defence is a reserved matter and future defence plans cannot be assessed beyond a high level for this region. The assumption is made that such activities will remain constant.

Pressures

499 MOD activity can have an impact on other marine users such as fisheries, recreational boating and shipping when there are temporary restrictions on use of the area. The fishing industry and the MOD have an agreed code of conduct⁶ which aims to resolve conflicts.

500 Other developments such as aquaculture, oil and gas and marine renewables may cause navigational issues for MOD activity and new infrastructure can, in some cases, lead to disruption to MOD activity, e.g. radar activity.

501 Impacts on the marine environment can include introduction of non-native species via ballast water and hull fouling, noise from sonar activity and use of live explosives, pollution, e.g. release of oil and other hazardous substances, and operational activity and port developments having an impact on habitat and species. The MOD has processes in place to manage its impacts on the marine environment to minimise adverse effects. The MOD has worked with Scottish Natural Heritage and Joint Nature Conservation Committee to develop environmental risk assessments for their various exercises. This includes use of a model which sets thresholds for different noisy activities based on the number of marine animals in the area.

502 The MOD is committed to the protection of the natural and historic environment and seeks to comply with relevant legislation where applicable to defence activities. However, it is recognised that defence-related activities, including extensive test and evaluation functions, may pose risks to the marine environment and the MOD may be exempt from legislative duties on the grounds of over-riding public interest in some cases. Where defence has exemptions from legislation, MOD maintains arrangements that are, as far as reasonably practicable, at least as good as those required by UK legislation.

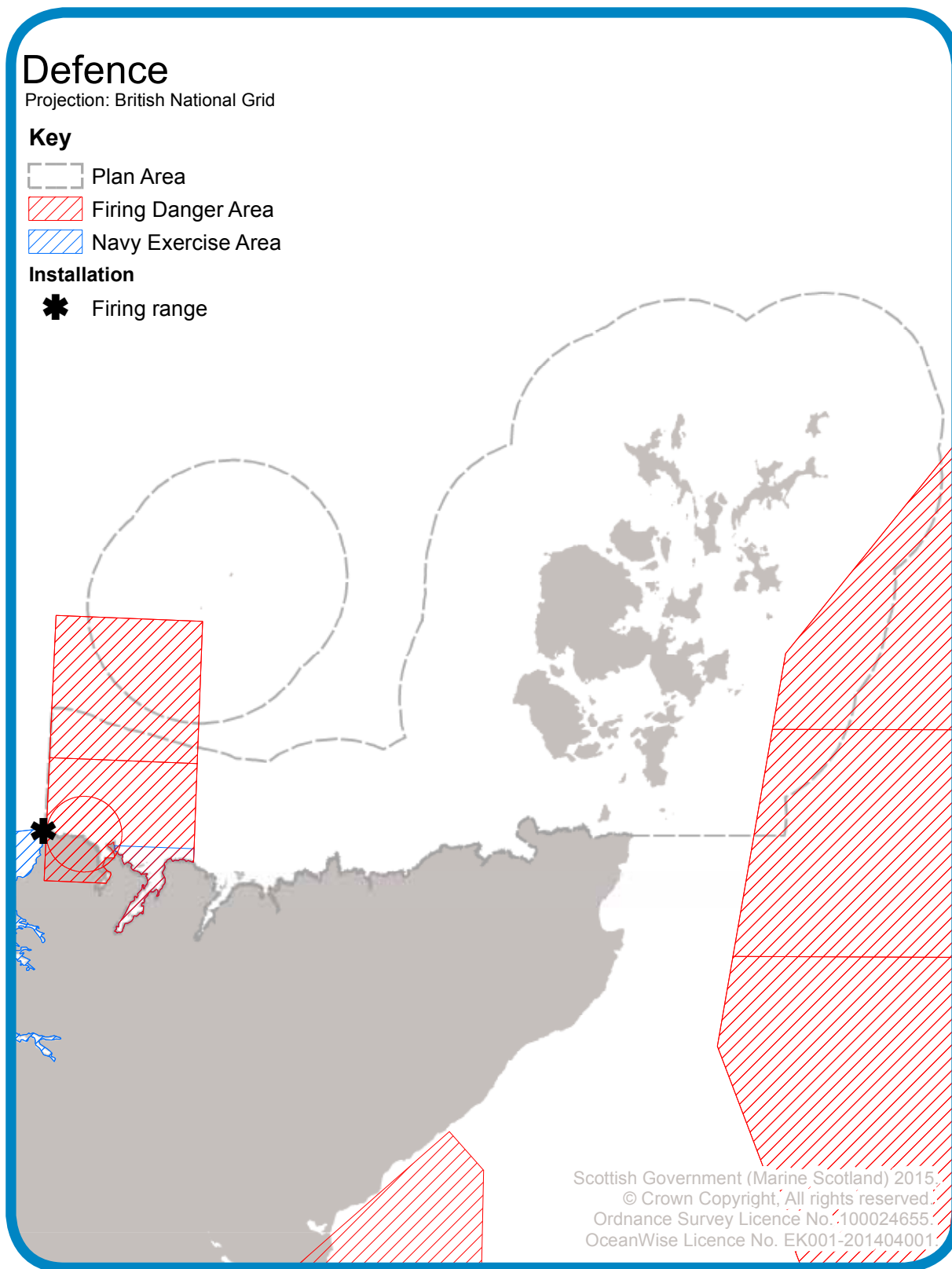
Sectoral Policy 10: Defence

Development proposals in the Pentland Firth and Orkney Waters area that are in, or affect, Ministry of Defence exercise areas, firing ranges or firing danger areas must ensure that agreement for such use of the area has been agreed with the Ministry of Defence.

Justification

503 The MOD has practice exercise areas that are in, or near, the PFOW area and this means there are restrictions on what other activity can take place in these areas. As certain developments may not be compatible with MOD activities there is a requirement for early discussions with the MOD to reach agreement as to whether the development will have an effect on their activities.

Supporting spatial information



Map 24: Military practice and exercise areas in the Pentland Firth and Orkney Waters area. The map also shows the firing range installation at Cape Wrath.

Future considerations

504 The assumption is made that such activities will remain constant.

Further information

¹ Military Lands Act 1892

<http://www.legislation.gov.uk/ukpga/Vict/55-56/43>

² Military Lands Act 1900

<http://www.legislation.gov.uk/ukpga/Vict/63-64/56/contents>

³ Land Powers Defence Act 1958

<http://www.legislation.gov.uk/ukpga/Eliz2/6-7/30/contents>

⁴ Secretary of State's Policy Statement on Health, Safety and Environmental Protection

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/353935/201408_SofS_Policy_Statement_Fallon.pdf

⁵ Ministry of Defence Sustainable Development strategy

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/27615/20110527SDStrategyPUBLISHED.pdf

⁶ Code of Conduct Between MOD and Fishing Industry

[http://webarchive.nationalarchives.gov.uk/20081120170436/http://royalnavy.mod.uk/upload/pdf/%5B\(1423\)-08-07-2002%5DUK_FV_Code_for_www.pdf](http://webarchive.nationalarchives.gov.uk/20081120170436/http://royalnavy.mod.uk/upload/pdf/%5B(1423)-08-07-2002%5DUK_FV_Code_for_www.pdf)

Brownlow et al. (2015) Investigation into the long-finned pilot whale mass stranding event, Kyle of Durness, 22nd July 2011.

http://www.strandings.org/reports/Kyle_of_Durness_Mass_Stranding_Report.pdf

Glossary

Activities: Include current or future use that is covered by a public right of use (e.g. navigation, rights of access) or use that requires a specific statutory consent from a competent authority (e.g. dredging). The term activities also includes any other legitimate use that is not specifically addressed by a public right, e.g. recreational activities such as surfing, open water swimming etc.

Amenity: A positive element or elements that contribute to the overall character or enjoyment of an area.

Amenity Value: The pleasant or satisfactory aspects of a location which contribute to its character and the overall enjoyment of residents or visitors.

Anchorage: Those anchorages marked on Admiralty charts and those listed in the Clyde Cruising Club Sailing Directions and the Anchorages N & NE Scotland and Orkney Islands.

Appropriate Assessment: The assessment that is required by Habitats Regulations (Conservation (Natural Habitats, &c.) Regulations 1994) to determine the potential effect of a project or plan on a Special Protected Area or Special Area of Conservation with respect to their qualifying interests.

Aquaculture: The breeding, rearing or keeping of fish or shellfish as legally defined in the Town and Country Planning (Scotland) Act 1997.

Biodiversity: The variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they form part; this includes diversity within species, between species and of ecosystems.

Biosecurity: Measures and procedures to reduce the risk of harm to an environment from a biological source.

Carbon Capture and Storage: The process in which carbon is captured at its emission source and stored.

Carbon Sinks: A natural environment viewed in terms of its ability to remove carbon dioxide from the atmosphere and store it, e.g. a forest.

Coastal Squeeze: The intertidal habitat loss arising due to the high water mark being fixed (e.g. by flood defences) and the low water mark migrating landwards due to sea level rise.

Conservation Areas: Areas of special architectural or historic interest identified by the planning authority. They may be any area, but tend to be the centres of historic settlements.

Controlled Sites: Created by the Protection of Military Remains Act 1986 (as amended). Controlled sites are areas around wrecked military vessels specified in

the Protection of Military Remains Act 1986 (Designation of Vessels and Controlled Sites) Order 2012. A licence is required from the Ministry of Defence to access the seabed within the specified area, and to disturb the remains in any way.

Cumulative Impacts: Changes to the environment that are caused by an action in combination with other past, present and future human actions.

Decarbonisation: The reduction in carbon emissions produced by energy sources.

DECC: Department of Energy and Climate Change.

Development(s): Are defined as construction that requires a specific form of statutory consent from a competent authority to utilise a defined area. This can include new developments or alterations, extensions or changes in material use to existing developments that require a statutory consent. The definition of development for purposes of this Plan includes but is not limited to the definition provided under the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006.

Diadromous Fish: A species of fish that migrates between fresh and salt water.

Dredging: The removal of material from the seabed, for a variety of purposes, including the clearing of channels for navigation, or the extraction of minerals.

Ecological Integrity: The abundance and diversity of organisms and processes responsible for ecosystem resilience and biological diversity.

Ecosystem: A dynamic interlinked complex of plant, animal and micro-organism communities and their non-living environment interacting as an ecological unit. An ecosystem can range in size, e.g. from the size of an intertidal pool to the size of the Earth's oceans.

Ecosystem Approach: An ecosystem-based approach to the management of human activities means an approach which ensures the collective pressure of human activities is kept within the levels compatible with the achievement of good environmental status; that does not compromise the capacity of marine ecosystems to respond to human induced changes; and that enables the sustainable use of marine goods and services.

Ecosystem Services: Ecosystem services are the benefits provided by ecosystems that contribute to making human life both possible and worth living.

EMEC: European Marine Energy Centre, based in Orkney.

Environmental Impact Assessment (EIA): An assessment of a specific development and its impacts on the surrounding environment.

EU Birds Directive: EU Directive 79/409/EEC on the Conservation of Wild Birds, as amended.

EU Habitats Directive: EU Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna, as amended.

EU Marine Strategy Framework Directive (MSFD): EU Directive 2008/56/EC on establishing a framework for community action in the field of marine environmental

policy, known as the Marine Strategy Framework Directive.

EU Water Frameworks Directive (WFD): EU Directive 2000/60/EC establishing a framework for community action in the field of water policy.

European Protected Species (EPS): Plant and animal species listed under Schedules 2 and 4 of the Habitats Regulations 1994.

FLOWW: Fishing Liaison with Offshore Wind and Wet Renewables.

Gardens and Designed Landscapes: Defined as “grounds that are consciously laid out for artistic effect”, and typically surround large historic country houses.

Geodiversity: The variety of geological environments, phenomena and processes that make those landscapes, rocks, minerals and soils, which, in turn, provide the framework for biodiversity.

Geological Conservation Review Sites: Sites identified by the geological conservation review as providing a special understanding or appreciation of the geological history and Earth science of Britain.

Good Environmental Status (GES): Descriptors set by the Marine Strategy Framework Directive which describe what the environment will look like when Good Environmental Status has been achieved.

Greenhouse Gases: Gases that contribute to the greenhouse effect by absorbing infrared radiation. Carbon dioxide and chlorofluorocarbons are examples of greenhouse gases.

Heritage Asset: A site with archaeological, architectural, artistic or historic significance.

Historic Marine Protected Areas (HMPAs): Created by the Marine (Scotland) Act 2010 to replace the provisions of the Protection of Wrecks Act 1973. Generally only for territorial waters adjacent to Scotland, but areas above mean high water springs can be included in certain circumstances.

Inshore Waters: Term used generally to describe all waters within 12 nautical miles of the coast.

Intertidal: The coastal area between the mean high water level and the mean low water level.

Intrinsic Value: The value of biodiversity, independent from the benefits it provides to humanity.

Invasive Non-Native Species: Animals or plants that have the ability to spread, causing damage to the environment, the economy, or our health and the way we live. A non-native species is a species, subspecies or lower taxon, introduced outside its natural past or present distribution.

JNCC: Joint Nature Conservation Committee.

KIS-ORCA: Kingfisher Information Service – Offshore Renewables Cable

Awareness.

Landscape: The visible features of an area of land, often considered in terms of the aesthetic appeal of the area.

Listed Buildings: Any structure in a planning authority area (above mean low water springs), but are generally those structures which are in use or capable of re-use.

Local Development Plan (LDP): An in-depth land use plan produced by local planning authorities, e.g. Orkney Islands Council and Highland Council.

Local Nature Reserves (LNRs): Protected areas with biological or geological features that are of special local interest.

Marine Licence: A licence for a 'licensable marine activity' under Part 4 of the Marine (Scotland) Act 2010.

Marine Protected Areas (MPAs): Sites designated in accordance with the Marine (Scotland) Act 2010 and the UK Marine and Coastal Access Act 2009 for the purposes of protecting biodiversity, geodiversity and historical assets. It may also be used in the generic sense as 'marine protected areas' to refer to any designated area that contributes to the MPA network in Scotland's seas.

(UK) Marine Policy Statement: The Marine Policy Statement (MPS) is the framework for preparing marine plans and taking decisions affecting the marine environment.

Marine Spatial Planning: A process to consider multiple users of the sea to minimise conflicts and to ensure that marine ecosystems are adequately protected.

Marine users: Refers to the broad range of legitimate users of the marine environment for purposes such as, but not limited to, recreation, fishing, shipping, passenger transport and other economic activities.

Mean High Water Springs: The highest water level that spring tides reach (on average).

Mean Low Water Springs: The lowest water level that the spring tide reaches (on average).

Mitigation: The action of reducing the severity or seriousness of a consequence.

MOD: Ministry of Defence.

National Marine Plan: A marine plan that will shape national objectives and policies surrounding Scotland's coastal and marine management.

National Marine Plan interactive (NMPi): An interactive mapping tool produced by Marine Scotland to help with marine planning.

National Scenic Areas (NSAs): Areas of national importance due to their landscape quality.

Natura Sites: An EU-wide network of nature conservation sites (SPAs and SACs) established by EU legislation (EC Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna and EC Directive 79/409/EEC on the

Conservation of Birds).

Nautical Miles: The unit of length used in marine navigation. One nautical mile is slightly longer than a statute mile, equal to 1.15 statute miles and 1.85 kilometres.

NPF3: National Planning Framework 3.

Ocean Acidification: Ocean acidification refers to a reduction in the pH of the ocean over an extended period of time.

Orkney Local List: Created by Supplementary Guidance: Listed Buildings and the Orkney Local List (Orkney Islands Council, October 2011). Within the Orkney planning authority area (i.e. down to mean low water springs) buildings and structures meeting the criteria set out in this policy are considered to be on the Orkney Local List. This is a non-statutory designation which is a material consideration in the planning process.

OSPAR: The commission which manages work under the OSPAR Convention (Convention for the Protection of the Marine Environment of the North East Atlantic).

Planning Issues and Options Consultation Paper: A document that sets out suggested planning options produced to help support the preparation of the draft pilot Marine Spatial Plan.

Precautionary Principle: Where there is uncertainty over the consequences of an activity, full scientific proof of a possible environmental impact is not required before action is taken to prevent that impact. If there is a risk that proposed activities might have a significant and irreversible impact on important natural heritage resources, a precautionary approach should be applied. Potential impacts, alternative development options, and sources of uncertainty should be analysed. If the risk cannot be averted, the activity should only be allowed if it can be adapted when unacceptable impacts are detected.

Priority Marine Features (PMFs): Species and habitats which have been identified as being of conservation importance to Scotland. Most are a subset of species and habitats identified on national, UK or international lists.

Protected Places: Created by the Protection of Military Remains Act 1986 (as amended). Protected places are the sites of all military aircraft which have crashed in service, and certain military vessels named in the Protection of Military Remains Act 1986 (Designation of Vessels and Controlled Sites) Order 2012.

Provisioning Services: Ecosystem services that result in a product used by humans, e.g. food or energy.

Quality of Life: The standard of health, comfort, and happiness experienced by an individual or group.

Ramsar: Wetlands of international importance designated under the Ramsar convention.

River Basin Management Plans: Plans which set out measures to improve water in

rivers, lakes, estuaries, coasts and in groundwater.

Scheduled Monuments: Currently governed by the Ancient Monuments and Archaeological Areas Act 1979 (as amended) and may be designated at any site of historic or archaeological importance on land or in territorial waters, but are generally archaeological sites which no longer have a practical use.

Seascape: Landscapes with views of the coast or sea and the adjacent marine environment with cultural, historical and archaeological links to each other.

SEPA: Scottish Environment Protection Agency.

Setting (in relation to historic environment): The way in which the surroundings of a heritage asset contributes to how it is experienced, understood and appreciated.

Significance (in relation to historic environment): The importance of the site in archaeological, architectural, artistic or historic terms.

Sites of Special Scientific Interest (SSSIs): A nationally designated protected area, identified as containing a biological or geological feature of special interest.

SNH: Scottish Natural Heritage.

Special Area of Conservation (SACs): Special Areas of Conservation (SACs) are strictly protected sites designated under the EC Habitats Directive (EC Directive 92/43/EEC) designed to help conserve a range of habitats and species.

Special Protection Areas (SPAs): Protected sites classified in accordance with Article 4 of the EC Birds Directive (EC Directive 79/409/EEC) for rare and vulnerable birds.

Strategic Environmental Assessment (SEA): The assessment of plans, programmes and strategies for their environmental impacts, as opposed to assessing individual developments or projects.

Sustainable Development: Development that meets the needs of the current generation without compromising the ability of future generations to meet their needs.

Sustainable Economic Growth: Building a dynamic and growing economy that will provide prosperity and opportunities for all, while respecting the limits of our environment for the sake of future generations.

Synergies: The interaction or co-operation of two or more organisations, substances, or other agents to produce a combined effect greater than the sum of their separate effects.

Terrestrial Planning: The term ‘terrestrial planning’ is used to refer to all elements of the land use planning system and therefore encompasses the National Planning Framework, local development plans, land use plans, and is synonymous with terms such as ‘town planning’, ‘town and country planning’, ‘land use planning’ and ‘urban and regional planning’.

UNCLOS: United Nations Convention of the Law of the Sea.

Well-being: The state of being comfortable, healthy and happy.

World Heritage Sites: Created by the UNESCO World Heritage Convention 1972. World Heritage Sites are designated by a committee of UNESCO for their outstanding universal value, as assessed against a range of criteria, both cultural and natural.

Annex 1: List of Stakeholders

This list is updated on a regular basis so the list below may not be exactly the same as the one used at the time of the consultation events. Also, the names of individuals are not listed here. If you wish to be added or removed from the list please send an email to:

PFOWmarinespatialplan@scotland.gsi.gov.uk

Government Bodies

Civil Aviation Authority	Marine Scotland
Defence Estates	Maritime and Coastguard Agency
Defence Infrastructure Organisation	Member of Scottish Parliament
Department of Energy and Climate Change (DECC)	National Air Traffic Control (NATS Safeguarding)
Department of Environment, Food and Agriculture (Isle of Man)	Northern Lighthouse Board
Dounreay Site Restoration	Nuclear Decommissioning Authority
Health and Safety Executive	Scottish Environment Protection Agency (SEPA)
Hi Trans	Scottish Natural Heritage
Highlands and Islands Enterprise Orkney	Scottish Water
Highlands and Island Enterprise	SportScotland
Historic Environment Scotland	The Crown Estate
Joint Nature Conservation Committee	The Scottish Government
Local Member of Parliament	Transport Scotland

Local Government

All elected members	Orkney Islands Council Marine Services
Highland Council (including Harbour Authority)	Shetland Island Council
Orkney Islands Council (Community Council Liaison)	World Heritage Site Coordinator: Heart of Neolithic Orkney
Orkney Islands Council (including the Harbour Authority)	

Business and Industry

A & W Sinclair
Aquamarine Power
Arch Henderson
Armadale Salmon Fishing
Associated British Ports
Association of Salmon Fishery Boards
Association of Scottish Shellfish Growers
Atlantic Salmon Trust
Babcock International
Blargoans Ltd
Briggs Marine
Brimms Tidal Array
British Hydropower Association
British Ports Association
British Telecoms
British Trout Association
Brough Head Wave Farm Ltd
C Ris Energy
Caithness and North Sutherland
Regeneration Partnership (CNSRP)
Caithness Chamber of Commerce
Caithness District Salmon Fishery Board
Caithness Partnership
Caithness Renewables
Caithness Seacoast
Calder Engineering
Care Inspectorate
Cragie Engineering Sales and Services Ltd
DP Marine Energy
Dunbeath Engineering
Edward Mackay Ltd
European Marine Energy Centre
Exodus Group
Federation of Small Businesses
Fendercare Marine
Fishermen's Association Ltd
Forum Energy Technologies
G&A Barnie
Gills Harbour Ltd
Gow's Lybster Ltd
Halton Charters
Highland and Islands Airports
Hugh Simson (Contractors) Ltd
Institute of Fisheries Management
Institution of Engineers and Shipbuilders in
Scotland
International Container Hubs Ltd (ICHL)
Invest Caithness
James Wilson (Orkney) Ltd
JGC Engineering & Technical Services Ltd
John O'Groats Ferries
Leslie Burgher Chartered Architect
MacRoberts Energy Group
Mainstream Renewable Power
Malakoff Limited
Marine Current Turbines
Marine5
Meridian Salmon Farms Ltd
MeyGen Ltd
MM Miller
Moray and North East Inshore Fisheries
Group
Narec
National Grid UK
Natural Power
Navertech
NCS Survey
Network Rail
Northern District Salmon Fishery Board
Numax Energy Services

Oil and Gas UK	Scottish Salmon Producers Organisation
Open Hydro	Scottish Sea Farms Ltd
Orcades Marine	Scottish Surfing Federation
Orcadian Wildlife	Scottish Whitefish Producers Association
Orkney Creel Fishermen's Association	Scrabster Harbour Trust
Orkney Ferries	Scrabster Port Services
Orkney Fisheries Association	Sea Generation Ltd
Orkney Fishermen's Society	SeaFish
Orkney Renewable Energy Forum	Serco North Link Ferries
Orkney Renewable Energy Ltd	St Margaret's Hope Pier Trust
Orkney Research Centre for Archaeology (ORCA) Marine	Subsea 7
Orkney Shellfish	Sustainable Inshore Fisheries Trust
Orkney Sustainable Fisheries	Sutherland Partnership
Pager Power	UK Chamber of Shipping
Pelagian Ltd.	West Sutherland Fisheries Trust
Pentland Ferries	Wind Prospect Group
Pulteneytown People's Project	Xodus Group
Red7Marine	
Res Group/Renewable Energy Systems Ltd	
Rivers and Fisheries Trusts of Scotland (RAFTS)	
RWE npower renewables	
Salmon and Trout Association	
Salmon Net Fishing Association	
Scibbilib Consultancy Ltd	
Scotrenewables Tidal Power Ltd	
Scottish & Southern Energy Ltd	
Scottish Enterprise	
Scottish European Green Energy Centre	
Scottish Federation of Sea Anglers	
Scottish Fishermen's Federation	
Scottish Inshore Fisheries Groups	
Scottish Pelagic Fishermen's Association	
Scottish Power Renewables UK Ltd	
Scottish Renewables	

Academic Institutes

Environmental Research Institute
ICIT Heriot-Watt University
James Hutton Institute

Scottish Association for Marine Science
University of the Highlands and Islands

Community, Recreation and Interest Groups

All Community Councils (Highland)
All Community Councils (Orkney Islands)
Caithness Archaeological Trust
Caithness Biodiversity Group
Caithness Diving Club
Caithness Kayak Club
Clyde Cruising Club
Clyde Forum
Crofting Commission
Durness Development Group Ltd
Environmental Concern Orkney
Friends of the Earth Scotland
Halladale River Superintendent
Kirkwall Kayak Club
National Farmers Union
Orkney Archaeological Trust
Orkney Disability Forum
Orkney Field Club
Orkney Heritage Society
Orkney Islands Sea Angling Association
Orkney Marinas
Orkney Sailing Club
Orkney Sea Kayaking Association
Orkney Skate Trust
Orkney Surf Club
Orkney Tourism Group
Orkney Trout Fishing Association
Pentland Canoe Club
Pentland Firth Yacht Club

Ramblers Scotland
River Naver Superintendent
RNLI Stations
Royal Yachting Association
Royal Yachting Association Scotland
Royal Society for the Protection of Birds
Royal Society for the Protection of Birds (Scotland)
Sail Orkney
Scottish Canoe Association
Scottish Environment LINK
Scottish Sea Angling Conservation Network
Scottish Wildlife Trust
SeaKayaking Leisure Group
Stromness Sailing Club
Sutherland Biodiversity Group
The Cruising Association
VisitScotland
Volunteer Action Orkney
Whale and Dolphin Conservation
Wick Harbour Authority
World Wide Fund for Nature (Scotland)

Annex 2: Legislation, Policy and Plans

504 The table below sets out the key legislation, policy and plans that have informed the preparation of this Plan. The table does not provide an exhaustive list of all relevant legislation, policies and plans, it aims to identify the key relevant documents.

505 The Strategic Environmental Assessment Appendix 1: *Analysis of key environmental objectives* contains an overview of relevant data sources and an analysis of key environmental objectives considered relevant to the Plan.

Table 5: Legislation, Policy and Plans

Legislation/Policy/Plans/ Strategies	Date	Summary
Legislation		
United Nations Convention on the Law of the Sea (UNCLOS)	1973 - 1982	The Law of the Sea Convention defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources.
http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf		
EU Marine Strategy Framework Directive	2008	Sets targets and 11 indicators to achieve Good Environmental Status (GES) of the seas.
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0056&from=EN		
EU Marine Spatial Planning Directive	2014	The Directive creates a common framework for marine spatial planning in Europe.
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0089&from=EN		
EU Habitats Directive and Habitat Regulations	1992 1994	The Habitats Regulations afford protection to certain habitats and species identified in the Habitats Directive, including those requiring strict protection (European protected species).
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20070101&from=EN		
EU Birds Directive	2009	Makes provision for the protection of bird species naturally occurring in the EU.
http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0147&from=EN		

Water Framework Directive and Water Environment and Water Services (Scotland) Act (WEWS)	2000 2003	The Water Framework Directive was introduced in 2000 to establish systems to manage the water environment, and was transposed into Scots Law in 2003. Implemented through the River Basin Management Plans for Scotland.
http://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF http://www.legislation.gov.uk/asp/2003/3/pdfs/asp_20030003_en.pdf		
Bathing Water Directive	2006	Put in place measures to safeguard public health and clean bathing waters. Member States are required to monitor and assess the quality of bathing waters.
http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0007		
Marine & Coastal Access Act	2009	Establishes the requirement for marine policy to be developed at the UK level.
http://www.legislation.gov.uk/ukpga/2009/23/pdfs/ukpga_20090023_en.pdf		
Marine (Scotland) Act	2010	Establishes the requirement for a national marine plan and regional marine plans. Makes provision for marine planning partnerships to prepare regional marine plans.
http://www.legislation.gov.uk/asp/2010/5/pdfs/asp_20100005_en.pdf		
Scottish Marine Regions Order 2015	2015	This legislation establishes the Scottish Marine Regions boundaries.
http://www.legislation.gov.uk/sdsi/2015/9780111027004		
Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006	1997/2006	The main planning law in Scotland is The Town and Country Planning Act (Scotland) 1997 as amended by The Planning etc. (Scotland) Act 2006. From August 3, 2009 the majority of the 2006 Act came into force.
http://www.legislation.gov.uk/asp/2006/17/pdfs/asp_20060017_en.pdf		
Policy/Plans/Strategies		
UK Marine Policy Statement	2011	Framework for preparing marine plans and taking decisions affecting the marine environment.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69322/pb3654-marine-policy-statement-110316.pdf		
Scotland's National Marine Plan	2015	Sets out national objectives and policies to support the sustainable development of Scotland's seas.
http://www.gov.scot/Publications/2015/03/6517		

National Planning Framework 3	2014	Scotland's Third National Planning Framework, the spatial expression of the Government Economic Strategy, sets out a long-term vision for development and investment across Scotland over the next 20 to 30 years.
http://www.gov.scot/Resource/0045/00453683.pdf		
Scottish Planning Policy	2014	Scottish Planning Policy (SPP) is a statement of Scottish Government policy on how nationally important land use planning matters should be addressed across the country.
http://www.gov.scot/Resource/0045/00453827.pdf		
The Government Economic Strategy	2011	The Scottish Government Economic Strategy aims to make Scotland a more successful country, with opportunities for all to flourish, through increasing sustainable economic growth.
http://www.gov.scot/Resource/Doc/202993/0054092.pdf		
Scottish Historic Environment Policy	2011	The <i>Scottish Historic Environment Policy</i> (SHEP) document sets out Scottish Ministers' policies for the historic environment, provides greater policy direction for Historic Scotland (now Historic Environment Scotland) and provides a framework that informs the day-to-day work of a range of organisations that have a role and interest in managing the historic environment.
http://www.historic-scotland.gov.uk/shep-dec2011.pdf		
National Renewables Infrastructure Plan (N-RIP)	2010	The purpose of the National Renewables Infrastructure Plan (N-RIP) is to support the development of a globally competitive offshore renewables industry based in Scotland.
http://www.scottish-enterprise.com/~media/SE/Resources/Documents/Sectors/Energy/energy-renewables-reports/National-renewables-infrastructure-plan.ashx		
Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters	2013	The Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters represent Scottish Ministers' proposed spatial policy for the development of commercial scale offshore renewable energy at a national and regional level.
http://www.gov.scot/Resource/0042/00428241.pdf		

Wind, wave and tidal regional locational guidance	Ongoing	Regional Locational Guidance (RLG) for offshore renewable energy has been developed and will sit within the wider marine planning structure being developed by Marine Scotland. This guidance will contain information in relation to the options for future offshore wind, wave and tidal energy emerging from the Sectoral Marine Planning process.
<p>http://www.gov.scot/Topics/marine/marineenergy/Planning/windrlg</p> <p>http://www.gov.scot/Topics/marine/marineenergy/Planning/waverlg</p> <p>http://www.gov.scot/Topics/marine/marineenergy/Planning/tidalrlg</p>		
Pentland Firth and Orkney Waters Marine Spatial Plan Framework and Regional Locational Guidance for Marine Renewable Energy	2011	Sets out a high level framework for taking forward a pilot Marine Spatial Plan for Pentland Firth and Orkney Waters and identifies the categories of information required to underpin the Plan.
<p>http://www.gov.scot/Resource/Doc/295194/0115355.pdf</p>		
Modern Trust Ports for Scotland: Guidance for Good Governance	2012	This guidance seeks to cover issues of importance to Scotland and its trust ports which vary considerably in size and operation both within Scotland and from counterparts in England and Wales.
<p>http://www.transport.gov.scot/sites/default/files/documents/rrd_reports/uploaded_reports/j249946/j249946.pdf</p>		
Working together for the Highlands: The Programme of The Highland Council 2012–2017	2012	Programme sets out the Council's priorities for 2012-2017.
<p>http://www.slcvo.org.uk/Downloads/News/ProgrammefortheCouncil201217.pdf</p>		
Orkney Islands Council, Council Plan 2013–2018	2013	The Council Plan sets out the Council's priorities for 2013-2018.
<p>http://www.orkney.gov.uk/Files/Council/Council-Plans/Our_Plan_2013-2018.pdf</p>		
Highland-wide Local Development Plan	2012	The Plan sets out the overarching vision statement, spatial strategy and general planning policies for the whole of the Highland Council area, except the area covered by the Cairngorms National Park Local Plan.
<p>http://www.highland.gov.uk/download/downloads/id/1505/highland-wide_local_development_plan</p>		
Caithness Local Plan	2002 (As continued in force, April 2012)	The Plans sets out land use planning strategy and policies for Caithness.
<p>http://www.highland.gov.uk/downloads/download/262/local_plan-caithness</p>		

Sutherland Local Plan	2010 (As continued in force, April 2012)	The Plans sets out land use planning strategy and policies for Sutherland.
http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/400/sutherland_local_plan		
Orkney Local Development Plan (Adopted April 2014)	2014	The Plan sets out the vision statement, spatial strategy and general land use planning policies for Orkney.
http://www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm		
River Basin Management Plan for the Scotland River Basin District	Second cycle of plans due to be published at the end of 2015	The plan aims to maintain and improve the ecological status of the rivers, lochs, estuaries, coastal waters and groundwater areas in Orkney and Shetland.
http://www.sepa.org.uk/environment/water/river-basin-management-planning		
North Highland Area Management Plan	2010–15	The plan aims to maintain and improve the ecological status of the rivers, lochs, estuaries, coastal waters and groundwater areas in North Highland.
http://www.sepa.org.uk/media/75570/doc-21-nh-catchment-summaries-caithness-and-sutherland.pdf		
Highland Biodiversity Action Plan	2015–2020	Action plans to support the conservation of biodiversity in across Highland, Caithness and Sutherland.
Caithness Biodiversity Action Plan	2003	
Sutherland Biodiversity Action Plan	2003	
http://www.highlandbiodiversity.com/highland-bap.asp http://www.highlandbiodiversity.com/userfiles/file/acion-plans/caithness.pdf http://www.highlandbiodiversity.com/userfiles/file/acion-plans/sutherland.pdf		
Orkney Local Biodiversity Action Plan	2013-2016	Action plan to support the conservation of biodiversity in Orkney.
http://www.orkney.gov.uk/Files/Planning/Biodiversity/Orkney_LBAP_with_appendices.pdf		
Highland Local Transport Strategy	2010	The Local Transport Strategy sets the direction for transport in the Highlands at a local level for 2011/12, 2012/13 and 2013/14.
http://www.highland.gov.uk/download/downloads/id/762/highland_local_transport_strategy_draft_document		
Orkney Local Transport Strategy	2007	The Local Transport Strategy is a framework for how the Council intends to deliver on its own and national transport objectives at a local level, and it also includes an action plan detailing how the Council's challenges will be met and opportunities achieved.
http://www.orkney.gov.uk/Files/Transport/Local%20Transport%20Strategy.pdf		



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ISBN: 978-1-78544-958-1

This document is also available on The Scottish Government website:
www.gov.scot

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS59966 (03/16)

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