

Item: 12

Development and Infrastructure Committee: 8 November 2022.

Orkney Islands Regional Marine Plan: Consultation Draft.

Report by Corporate Director for Neighbourhood Services and Infrastructure.

1. Purpose of Report

To consider endorsement of the Orkney Islands Regional Marine Plan: Consultation Draft and supporting information, prior to submission to Scottish Ministers.

2. Recommendations

The Committee is invited to note:

2.1.

That, in terms of The Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020, the Council is required to prepare an Orkney Islands Regional Marine Plan: Consultation Draft and supporting information for approval by Scottish Ministers prior to formal public consultation.

2.2.

That the Orkney Islands Regional Marine Plan: Consultation Draft, attached as Appendix 1 to this report, together with supporting information, have been prepared with input from a wide range of stakeholders, including local communities, the Orkney Marine Planning Advisory Group and Marine Scotland.

2.3.

That the supporting information comprises the following draft documentation, attached as Appendices 2 to 7 respectively to this report:

- Children's Rights and Wellbeing Impact Assessment.
- Equality Impact Assessment.
- Habitats Regulations Appraisal Record.
- Island Communities Impact Assessment.
- Partial Business Regulatory Impact Assessment.
- Strategic Environmental Assessment: Draft Environmental Report.

2.4.

That the 2020 Direction requires that, when preparing the Orkney Islands Regional Marine Plan: Consultation Draft, the Council must pay regard to National Planning Framework 4, which is due to be adopted by Scottish Ministers in Autumn 2022.

2.5.

That the Orkney Islands Regional Marine Plan: Consultation Draft, has been prepared to align with Draft National Planning Framework 4, which was published by Scottish Ministers on 10 November 2021, and will be reviewed and updated to align with the adopted National Planning Framework 4 when it is published.

2.6.

That, when submitted to Scottish Ministers for approval for public consultation, the Orkney Islands Regional Marine Plan: Consultation Draft and supporting information will be subject to potential amendment in response to feedback from Marine Scotland.

2.7.

That it is anticipated that the Orkney Islands Regional Marine Plan: Consultation Draft and supporting information will be deposited for formal public consultation in Summer 2023, subject to approval by Scottish Ministers.

It is recommended:

2.8.

That the Orkney Islands Regional Marine Plan: Consultation Draft and supporting information, referred to at paragraphs 2.2 and 2.3 above, be endorsed for submission to Scottish Ministers for approval for public consultation.

2.9.

That powers be delegated to the Corporate Director for Neighbourhood Services and Infrastructure, in consultation with the Chair and Vice Chair of the Development and Infrastructure Committee, to amend the Orkney Islands Regional Marine Plan: Consultation Draft, and supporting information, to align with the requirements of the adopted National Planning Framework 4 when published, and thereafter submit the Orkney Islands Regional Marine Plan: Consultation Draft, and supporting information, to Scottish Ministers.

3. Background

3.1.

The Marine (Scotland) Act 2010 introduced a new era for the management of Scotland's seas, including provision for local stakeholders to prepare statutory regional marine plans for the eleven Scottish marine regions. A regional marine plan contains statutory policies and spatial information to guide public authority decision making on marine development and activities, including but not limited to, marine licence, section 36 consent for electricity generation and relevant planning applications.

3.2.

The Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020 (the Direction), commenced on 27 November 2020, delegating functions to the Council to prepare a statutory Orkney Islands Regional Marine Plan (OIRMP) and supporting documents. The Council is responsible for delivering these functions on behalf of Scottish Ministers.

3.3.

The Orkney Marine Planning Advisory Group (OMPAG) provides technical advice and guidance to the Council on the preparation of the OIRMP. OMPAG membership includes:

- Orkney Sustainable Fisheries.
- Orkney Harbour Authority.
- Orkney Renewable Energy Forum.
- Orkney Marinas.
- Orkney Marine Services Association.
- Orkney Sub-aqua Club.
- International Centre for Island Technology/Heriot Watt University.
- NatureScot.
- Scottish Environment Protection Agency.
- Historic Environment Scotland.
- Crown Estate Scotland.
- Salmon Scotland.
- Visit Scotland.
- Repsol Sinopec Resources UK.
- Royal Society for the Protection of Birds Scotland.
- Scottish and Southern Electricity Networks.

4. Orkney Islands Regional Marine Plan: Consultation Draft

4.1.

The Orkney Islands Regional Marine Plan: Consultation Draft (OIRMP: Consultation Draft) is attached as Appendix 1 to this report. The purpose of the OIRMP is to provide a statutory policy framework for public authorities, including regulators, planners and other decision-makers to make decisions on sustainable development and activities. Public authorities are required to take any authorisation or enforcement decision in accordance with the appropriate regional marine plan. The policies in the Plan have been prepared paying due regard to the National Marine Plan (2015) and Draft National Planning Framework 4 (Draft NPF4).

4.2.

The OIRMP: Consultation Draft contains a vision, aim and objectives, general policies on social, economic and environmental matters, and sector policies for Orkney's key marine economic sectors. These policies are for and in connection with the sustainable development of the Orkney Islands Scottish marine region, which extends from Mean High Water Springs to the 12 nautical mile limit, in accordance with the Marine (Scotland) Act 2010.

4.3.

The OIRMP: Consultation Draft has been prepared with significant input from the Orkney Marine Planning Advisory Group (OMPAG) to the drafting of the plan's vision, aim and objectives. Policy sub-groups were set up for OMPAG members to discuss and feed into the drafting of the general and sector policies. Thirteen policy sub-group meetings were held between December 2021 and February 2022. These meetings enabled in-depth discussion and feedback from OMPAG members to help shape robust policies. Changes were made to draft policies in response to this feedback and an initial draft plan was circulated to the OMPAG members for six weeks between April and May 2022 for further written comment. These comments have informed the preparation of the OIRMP: Consultation Draft.

4.4.

Local communities and wider stakeholders have been and will continue to be engaged in the plan making process in accordance with the Orkney Islands Regional Marine Plan: Statement of Public Participation (SPP), which was endorsed by this Committee and approved by Scottish Ministers in 2021. In addition to the requirements of the SPP, community engagement has been carried out during Spring/Summer 2022 to inform the preparation of the OIRMP: Consultation Draft and raise awareness of the purpose and scope of the plan. This included in person public events and school visits in Stronsay, Hoy, Sanday, Westray, St Margaret's Hope, Kirkwall and Stromness.

4.5.

The timetable for the preparation of the OIRMP: Consultation Draft, and supporting information, is detailed in the SPP. The SPP identifies that these documents should be endorsed by the Council in December 2022 for submission to Scottish Ministers.

4.6.

The Direction requires that, when preparing the OIRMP: Consultation Draft, the Council must pay regard to the National Planning Framework. The OIRMP needs to align with the requirements of National Planning Framework 4 (NPF4), particularly on matters including aquaculture, coastal development, ports and harbours, climate change and nature recovery. The OIRMP: Consultation Draft has therefore been drafted to align with the policies and wider provisions within Draft NPF4 which was published by Scottish Ministers on 10 November 2021. The Scottish Government Chief Planner has communicated to planning authorities that the final NPF4 is expected to be adopted and published in Autumn 2022. It is therefore proposed that

the OIRMP: Consultation Draft should be reviewed and updated to align with the adopted NPF4 when published.

5. Supporting Documents

The Direction requires the Council to prepare supporting documents to be deposited for public consultation alongside the Orkney Islands Regional Marine Plan: Consultation Draft. These are:

- Children's Rights and Wellbeing Impact Assessment: Draft, attached as Appendix 2 to this report.
- Equality Impact Assessment: Draft, attached as Appendix 3 to this report.
- Habitats Regulations Appraisal Record: Draft, attached as Appendix 4 to this report.
- Island Communities Impact Assessment: Draft, attached as Appendix 5 to this report.
- Partial Business Regulatory Impact Assessment, attached as Appendix 6 to this report.
- Strategic Environmental Assessment: Draft Environmental Report, attached as Appendix 7 to this report.

6. Public Consultation

6.1.

The Direction requires the Orkney Islands Regional Marine Plan: Consultation Draft (OIRMP: Consultation Draft), and supporting information, to be approved by Scottish Ministers prior to being deposited for a 12-week period of public consultation. The supporting documents, referred to at section 5 above, should be deposited for consultation alongside the OIRMP: Consultation Draft, in accordance with the relevant statutory requirements. The indicative timescale for the consultation to take place is Summer 2023, subject to approval by Scottish Ministers.

6.2.

The Statement of Public Participation (SPP) details how the consultation will be undertaken and publicised. Written representations on the OIRMP: Consultation Draft, and supporting documents, will be invited. Consultation events will be held in multiple locations across Orkney's Mainland and isles communities in order to raise awareness of the consultation and maximise participation opportunities. The consultation and associated events will be advertised in public buildings, online, via email and in the printed press. Consultation information will be available on the Council's website and will be sent out in email alerts to the 350+ stakeholders on the Council's Marine Planning Stakeholder Database.

6.3.

Representations received about the OIRMP: Consultation Draft, and supporting documents, will be considered by the Council, on behalf of Scottish Ministers, and appropriate modifications will be made to the OIRMP: Consultation Draft. A report

setting out any modifications made to the OIRMP: Consultation Draft and reasons for any modifications will be prepared. It is anticipated that a final OIRMP would then be considered by this Committee for endorsement in November 2023. The final OIRMP could then be submitted to Scottish Ministers for adoption in 2024. If Scottish Ministers determine that an independent investigation is required prior to adoption of the OIRMP, this will likely add approximately one year to this plan adoption timeline.

7. Equalities Impact

An Equality Impact Assessment has been undertaken and is attached as Appendix 3 to this report.

8. Island Communities Impact

An Island Communities Impact Assessment has been undertaken and is attached as Appendix 5 to this report.

9. Environmental Implications

A Strategic Environmental Assessment has been undertaken in respect of the Orkney Islands Regional Marine Plan: Consultation Draft. The Strategic Environmental Assessment: Draft Environment Report, attached as Appendix 7 to this report, will undergo public consultation along with the Orkney Islands Regional Marine Plan: Consultation Draft, and the responses received will be taken into account in a Post-Adoption Statement.

10. Links to Council Plan

10.1.

The proposals in this report support and contribute to improved outcomes for communities as outlined in the Council Plan strategic priority of Enterprising Communities.

10.2.

The proposals in this report relate directly to Priority 4.5: Establish Crown Estates marine management pilot status and Marine Planning Authority functions, with focus on Island Authority governance and local expertise model of the Council Delivery Plan.

11. Links to Local Outcomes Improvement Plan

The proposals in this report support and contribute to improved outcomes for communities as outlined in the Local Outcomes Improvement Plan priorities of Community Wellbeing and Sustainable Recovery.

12. Financial Implications

12.1.

All resources associated with the preparation of the Orkney Islands Regional Marine Plan: Consultation Draft, and supporting information, mainly in the form of staff time, has been contained within existing Planning Service revenue budgets and the Marine Scotland annual grant funding for marine planning staff costs.

12.2.

In financial year 2022/23 Marine Scotland provided an annual grant of £70,000 to the Council to support the delivery of delegated regional marine planning functions, including staff costs. Budgets to support the delivery of these functions are confirmed by Marine Scotland on an annual basis following the allocation of the overall Scottish Budget.

13. Legal Aspects

13.1.

The Marine (Scotland) Act 2010 (the 2010 Act) and the UK Marine and Coastal Access Act 2009 (the 2009 Act) provide the statutory framework for marine planning and management. The 2010 Act legislates for marine planning, licensing and conservation activities in Scottish inshore waters (0-12 nautical miles) whilst the 2009 Act provides executive devolution to Scottish Ministers for marine planning, licensing and conservation powers in the offshore region (12-200 nautical miles).

13.2.

The 2010 Act established responsibility for Scottish Ministers to prepare a national marine plan for Scotland and provisions to prepare regional marine plans for the eleven adopted Scottish marine regions. The 2010 Act requires that the national marine plan must be in conformity with the current UK Marine Policy Statement and regional marine plans must be in conformity with the adopted national marine plan unless relevant considerations indicate otherwise. The 2010 Act makes provision for Scottish Ministers to delegate functions in relation to regional marine plans to a nominated person(s) and public authorities with an interest in the region.

13.3.

Both Acts require that public authorities must take authorisation or enforcement decisions in accordance with the adopted national marine plan and the appropriate adopted regional marine plan, unless relevant considerations indicate otherwise. Public authorities are also required to have regard to the appropriate regional marine plan in making any decision which relates to the exercise by them of any function capable of affecting the Scottish marine area. Adopting the recommendations in this report will assist the Council in fulfilling its duties under the Acts.

13.4.

Section 27 of The Islands (Scotland) Act enables the Council to deliver regional marine planning as a single public authority. The Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020 came into force on 27 November 2020. It designated the Council as the Delegate for the purposes of the Direction.

14. Contact Officers

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Shona Turnbull, Marine Planner, extension 2542, Email shona.turnbull@orkney.gov.uk

15. Appendices

Appendix 1: Orkney Islands Regional Marine Plan: Consultation Draft.

Appendix 2: Children's Rights and Wellbeing Impact Assessment: Draft.

Appendix 3: Equality Impact Assessment: Draft.

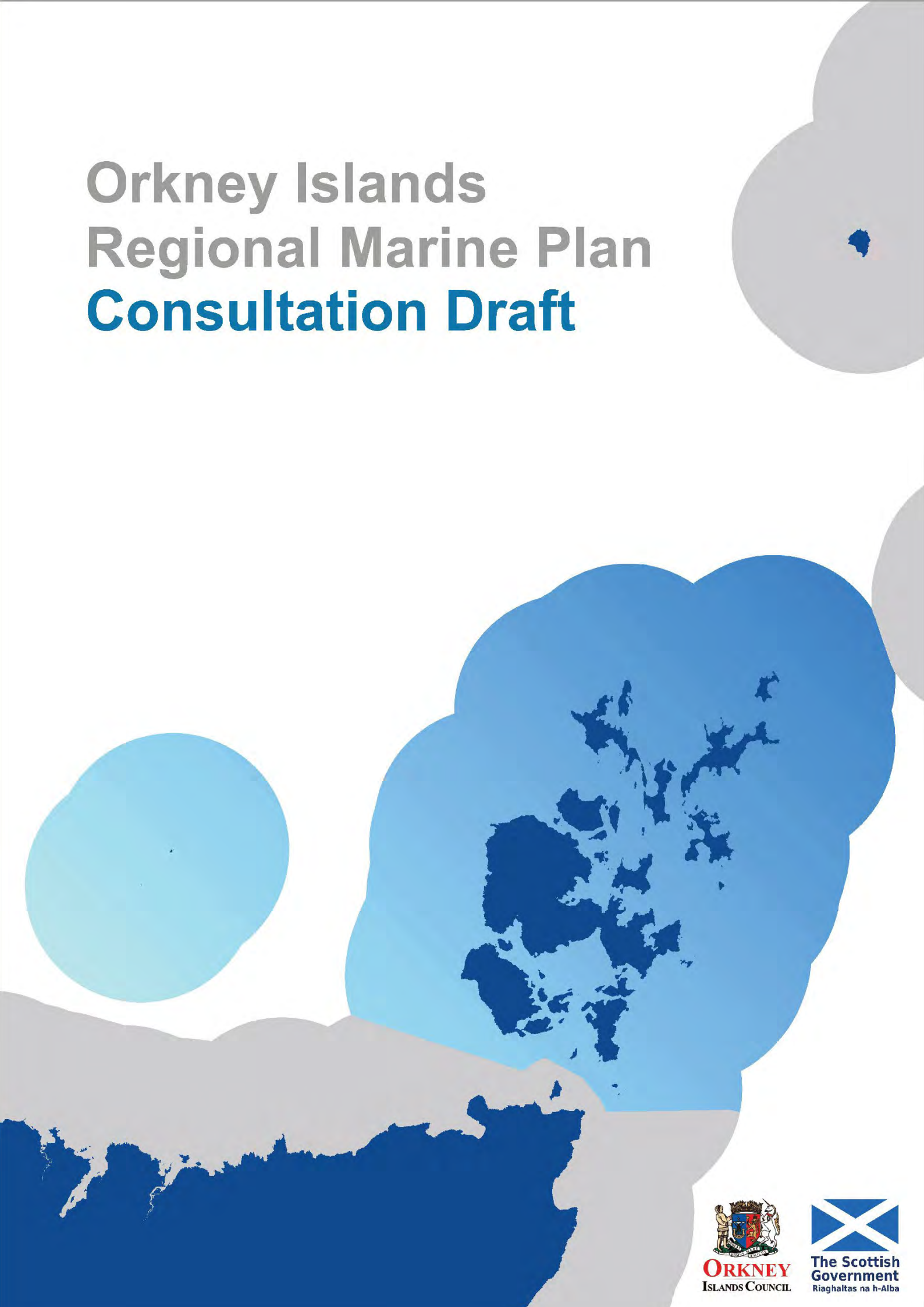
Appendix 4: Habitats Regulations Appraisal Record: Draft.

Appendix 5: Island Communities Impact Assessment: Draft.

Appendix 6: Partial Business Regulatory Impact Assessment.

Appendix 7: Strategic Environmental Assessment: Draft Environmental Report.

Orkney Islands Regional Marine Plan **Consultation Draft**



Title	Orkney Islands Regional Marine Plan: Consultation Draft
Recommended citation	Orkney Islands Regional Marine Plan: Consultation Draft (Orkney Islands Council 2023)
Responsible authority	Orkney Islands Council
Subject	Regional marine planning
Frequency of updates	Every five years
Contact	Development and Marine Planning team: marine.planning@orkney.gov.uk

Consultation on this draft Plan

Once approval has been granted by Scottish Ministers, this consultation draft Plan and its associated documents will be deposited for a 12-week public consultation period. The consultation information can be found at xxxxxxxx. The deadline for responses to this consultation is xxxxxxxx.

Representations about this Orkney Islands Regional Marine Plan: Consultation Draft can be submitted to the Development and Marine Planning team at Orkney Islands Council, by email: marine.planning@orkney.gov.uk or in writing: Development and Marine Planning, Orkney Islands Council, School Place, Kirkwall KW15 1NY.

Following the public consultation, the consultation draft Plan will be modified in response to the comments received, and a report will be prepared detailing any modifications that have been made and the reasons for those modifications. The updated Plan will then be submitted to Scottish Ministers to seek approval to adopt and publish the final Plan.



Foreword

(To be inserted with input from the appropriate Scottish Minister and Chair of Development and Infrastructure Committee and Orkney Marine Planning Advisory Group).



Executive Summary

Our seas and coast are an integral part of day-to-day life in Orkney and play a significant role in the local economy, transportation, recreation and our unique way of life. This Orkney Islands Regional Marine Plan: Consultation Draft ('the Plan') marks an important milestone in the ongoing sustainable management of our marine environment.

Orkney Islands Council has prepared this draft Plan on behalf of Scottish Ministers in accordance with the Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020.

The Plan sets out an integrated planning policy framework to guide marine development and activities, whilst ensuring the quality of the marine environment is protected, and where appropriate, enhanced. It supports the delivery of a vision for Orkney's coastal and marine environment, economy and communities. This vision will be delivered through the Plan objectives and implementation of the policies. To accord with the statutory purpose of a regional marine plan, the Plan's policies relate directly to public authority decision making on development and activities, and the consideration of use in the marine environment.

Public authorities are required to take any authorisation or enforcement decision in accordance with the appropriate regional marine plan. The Plan will be used by the Marine Scotland Licensing Operations Team (MS-LOT) in the determination of marine licence and section 36 consent applications that are within, or affect, the Orkney Islands marine region. Orkney Islands Council will use the Plan in the determination of relevant planning applications and/or works licence applications.

The Plan's policy framework consists of a suite of general policies and a suite of sector policies. These policies express intent and guide decisions to achieve the Plan's aim and objectives and the delivery of sustainable development in Orkney. Once adopted, the implementation of the Plan will be monitored and evaluated to consider the extent to which the aim of the Plan and its objectives are being met. This monitoring and evaluation process will inform the ongoing review of the Plan's effectiveness, using appropriate indicators.



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Section 1: Introduction

Purpose of the Orkney Islands Regional Marine Plan

- 1.1 This consultation draft Orkney Islands Regional Marine Plan ('the/this Plan') has been prepared to guide decision making that will contribute to the achievement of sustainable development, activities and use in the Orkney Islands marine region.
- 1.2 The Marine (Scotland) Act 2010 requires a regional marine plan to state the Scottish Ministers' policies for and in connection with the sustainable development of the area to which the plan applies and on the contribution of Nature Conservation Marine Protected Areas, and other relevant conservation sites, to the protection and enhancement of that area. The Plan is a regional marine plan prepared and adopted in accordance with this statutory purpose.
- 1.3 The Plan has been prepared by Orkney Islands Council, in accordance with the Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020 and the National Marine Plan (NMP). The Orkney Marine Planning Advisory Group has provided expert input on environmental, social, economic and recreation matters to inform the preparation of the Plan.¹

How to use the Plan policy framework

- 1.4 Public authorities are required to take any authorisation or enforcement decision in accordance with the appropriate regional marine plan, unless relevant considerations indicate otherwise. Public authorities are also required to have regard to the appropriate regional marine plan in making any other decision which relates to the exercise by them of any function capable of affecting the Scottish marine area.²
- 1.5 The Plan provides a statutory policy framework to assist public authorities, including regulators, decision makers and planners, to make decisions on sustainable development and activities (see Table 1) within, or that affect, the Orkney Islands marine region (see Map 1). The Plan should guide the decisions and actions of those preparing proposals for development and activities.
- 1.6 Appendix 1 contains a summary of the relevant licence and consent regimes, and associated processes, administered by public authorities to manage development and activities in the Orkney Islands marine region. These

¹ Orkney Marine Planning Advisory Group
<https://www.orkney.gov.uk/Service-Directory/D/marine-planning-advisory-group.htm>

² Marine (Scotland) Act 2010 <https://www.gov.scot/publications/marine-scotland-act/>



decision-making regimes are the primary mechanism for implementing the Plan's policies and objectives.

- 1.7 The Plan is structured into four sections:
 1. Introduction;
 2. General Policies;
 3. Sector Policies; and
 4. Monitoring, Evaluation and Review.
- 1.8 These sections are supported by appendices that provide further information to assist Plan users.
- 1.9 The Plan's policy framework consists of a suite of general policies and a suite of sector policies. These policies express intent and guide decisions to achieve the Plan's aim and objectives (see Table 2).
- 1.10 All policies in the Plan are afforded equal weight in decision making and should be considered in conjunction with each other. All the policies should be considered alongside the relevant legislation, policies and plans; key documents are outlined in Appendix 2.
- 1.11 To enable the general and sector policies to be interpreted and implemented by decision makers, and clearly understood by other Plan users, Table 1 provides definitions of the key policy terms. Appendix 7 provides definitions of key concepts referred to in this Plan, along with a list of acronyms used and a glossary of other terms.

Table 1: Definition of key policy terms used in this Plan*

Term	Definition
Activity/activities	Any activity/activities that require authorisation from a public authority, e.g. 'licensable marine activities' identified under the Marine (Scotland) Act 2010 and activities licensed under the Water Environment (Controlled Activities) (Scotland) Regulations 2011, as amended.
Authorisation or enforcement decision	The determination of any application (whenever made) for authorisation of the doing of any act which affects or might affect the whole or any part of the Scottish marine area, as detailed and further expanded upon in the Marine (Scotland) Act 2010, section 15(4). Appendix 1 contains a summary of the relevant licensing and consent regimes, and associated processes, administered by public authorities to manage marine development and activities.



Development	Any construction, building, engineering, mining, other operation and/or works that require authorisation from a public authority. This can include new development, or alterations, extensions or changes in material use to existing development or land.
Marine and/or coastal user(s)	Legitimate users of the marine and/or coastal environment for purposes such as, but not limited to, recreation, fishing, shipping, transport, energy generation, utilities and other economic and/or community activities.
Use	Any legitimate use of the marine and/or coastal environment that is exercised under a public right and that does not require authorisation from a public authority, e.g. freedom of navigation for shipping or the exercise of public access rights for the purposes of recreation.

*see Appendix 7 for a glossary of other terms and definitions of key concepts.

Vision, guiding principles, aim and objectives

- 1.12 Orkney's coastal and marine environment needs to be carefully managed to ensure it is clean, healthy, safe and productive, now and for future generations. This Plan aims to enable sustainable marine development, activities and use in Orkney, whilst protecting, and where appropriate enhancing, the environment and associated ecosystems on which these undertakings, and local communities, depend.
- 1.13 Regional marine plans have a statutory purpose to set economic, social and marine ecosystem objectives, and objectives relating to mitigation of, and adaptation to, climate change.
- 1.14 The Plan's vision statement declares the goal that is intended to be achieved through the implementation of the Plan. This vision will be achieved by implementing the Plan's aim and objectives, and associated policies, and monitoring and evaluating their effectiveness. Appendices 4 and 7 provide further information on the key concepts outlined in Table 2.



Table 2: Vision, guiding principles, aim and objectives of the Orkney Islands Regional Marine Plan

Vision	
The Orkney Islands marine region is clean, healthy, safe and productive; Orkney's marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities.	
Guiding principles	
The Orkney Islands Regional Marine Plan has been developed in accordance with five guiding principles adopted to help steer the plan-making process, strategy and policies.	
A	Sustainable development and use Sustainable development and use are enabled whilst living within environmental limits; ensuring a strong, safe, healthy and just society; achieving a sustainable economy; promoting good governance; using sound science responsibly; and supporting the delivery of the United Nations Sustainable Development Goals. ³
B	Ecosystems-based approach An ecosystems-based approach is used to manage human activities and enable climate change mitigation, as well as adaptation to the predicted effects of climate change.
C	Coexistence Coexistence between marine development, activities, and use is supported to minimise potential conflict and maximise synergistic benefits.
D	Partnership working and stakeholder participation This Plan is developed through an inclusive process of partnership working and stakeholder participation.
E	Integrated approach to marine and land-use planning Land and marine development are planned in a joined-up way to address development and infrastructure requirements, and associated impacts, across the interface between land and sea.

³ United Nations Sustainable Development Goals <https://www.un.org/en/sustainable-development-goals>



Aim

Sustainable development, activities, and use of the marine and coastal environment of Orkney is supported.

Sustainable development, activities and use should maintain, and where appropriate enhance, biodiversity and ecosystem services; protect natural capital for future generations; and provide social and economic benefits for local communities.

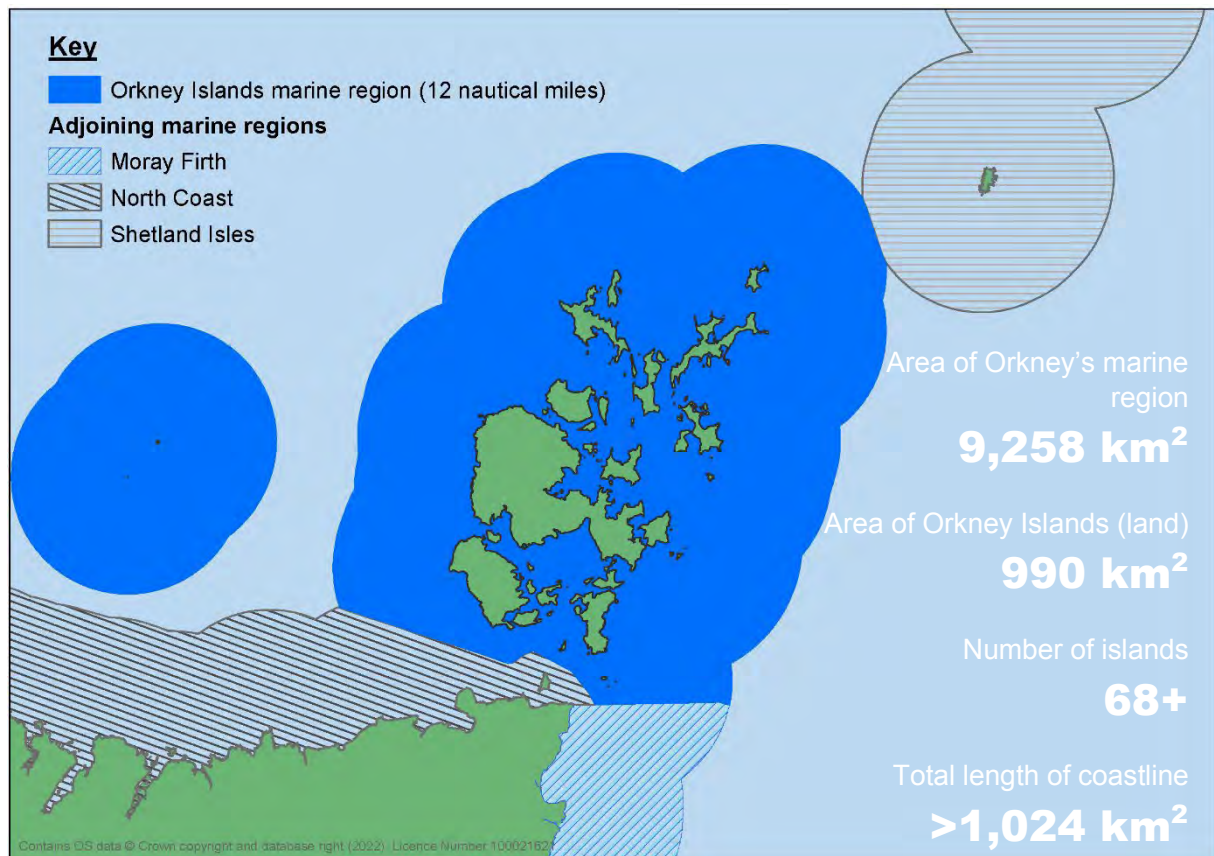
Objectives

Number	Objective
1	A clear strategic direction is provided for development, activities and use in the Orkney Islands marine region and there is greater certainty for prospective developers, investors and local communities.
2	Development, activities and use are managed within an ecosystem approach, to protect and, where appropriate, enhance the biological, chemical and physical functioning of the marine and coastal environment, including the management of cumulative impacts.
3	A rapid and just transition to a low-carbon economy is supported to achieve net-zero commitments.
4	Mitigation of, and adaptation to, climate change is prioritised.
5	Socio-economic benefits and prosperity are delivered for local communities and the wider economy.
6	The well-being of local communities and the amenity of marine and coastal places are protected and enhanced.
7	Reliable information is provided on existing and proposed coastal and marine development, activities, use and assets.
8	Spatial planning and data are provided, enabling sustainable coexistence and synergies between existing and new marine development, activities and use, and the environment.
9	Plan users are assisted in navigating the relevant legislative and policy frameworks more easily and effectively.



Plan area

- 1.15 The Plan area is the Orkney Islands marine region (Map 1). This region extends from Mean High Water Springs (MHWS) out to the twelve nautical mile limit, which is an area of approximately 9258 km²; this is nearly ten times the Orkney land area. This Orkney Islands marine region includes Sule Skerry and Sule Stack with their separate 12 nautical mile boundary. The Orkney Islands marine region was established by the Scottish Marine Regions Order 2015.⁴



Map 1: Orkney Islands marine region area

Orkney Islands Marine Region: State of the Environment Assessment

- 1.16 To inform the preparation of this Plan, a baseline assessment was carried out, with key findings published in the Orkney Islands Marine Region: State of the Environment Assessment.⁵ The assessment provides a snap-shot of the physical, environmental, social and economic condition of the Orkney Islands marine region, including a summary of significant pressures and impacts from

⁴ The Scottish Marine Regions Order 2015 <https://www.legislation.gov.uk/ssi/2015/193/contents/made>

⁵ Orkney Islands Marine Region: State of the Environment Assessment <https://www.orkney.gov.uk/Service-Directory/D/orkney-islands-marine-region-state-of-the-environment-assessment.htm>



human activities. In addition, Scotland's Marine Assessment⁶ provides an assessment of both the state of Scotland's seas and the main activities and pressures in the various Scottish marine regions.

Spatial information and use of data

- 1.17 The Plan policies are supported by maps containing spatial information, which are presented alongside the relevant policy, where appropriate. In addition, the Plan's maps and other spatial information can be accessed on Marine Scotland's National Marine Plan interactive (NMPi).⁷
- 1.18 The spatial information and relevant reference information presented within the Plan are intended to guide decision makers and applicants seeking permission or consent. This information represents the best available data at the point of publication.
- 1.19 Knowledge and understanding of the Orkney Islands marine region will develop over time. Therefore, when using the Plan, it is important that NMPi is consulted for the most up-to-date spatial information; information on how to use NMPi is provided in Appendix 3.
- 1.20 As many of the issues and economic sectors addressed in this Plan are changing and evolving, new data, strategies and legislation will become available during the lifetime of the Plan. Whilst the most up-to-date information has been used to inform the plan-making process, data gaps and data redundancy are unavoidable. Users of this Plan should access the most up-to-date versions of any supporting data or documents referred to. The Plan will be reviewed every five years in accordance with statutory requirements (see Section 4), and new relevant information will be made available on the Orkney Islands Council website.

⁶ Scotland's Marine Assessment 2020 <https://marine.gov.scot/sma/>

⁷ National Marine Plan interactive. Marine Scotland. <https://marinescotland.atkinsgeospatial.com/nmpi/>





Section 2: General Policies

Introduction

- 2.1 The suite of general policies provides a framework for decision making to help deliver the Plan's environmental, social, economic and community well-being objectives. These types of policies are often referred to as cross-cutting policies as they can be applied to many different types of decision, for example decisions on renewable energy, aquaculture or harbour developments.
- 2.2 The general policies assist public authorities, including regulators, decision makers and planners, to make decisions on sustainable development and activities that take place within, or that affect, the Orkney Islands marine region. The general policies should be applied proportionately by public authority decision makers. Decision makers need to consider whether the type, location and/or scale of a development or activity, and its associated impacts or effects, justify the application of a specific general policy or a provision within such a policy.
- 2.3 The policies in the Plan are not presented in any order of priority. All of the general and sector policies are to be afforded equal weight in decision making.
- 2.4 In all cases, safety considerations are of paramount importance in decision making.
- 2.5 Proposals for development and activities must comply with relevant legal requirements.
- 2.6 Sector policies are contained in Section 3.

Policy structure

- 2.7 Each policy has an introductory section detailing the purpose and context for the policy, and key information about the topic that is particularly relevant to Orkney. The policy is then presented in a clearly defined policy box. The associated text for each policy includes supporting information that should be taken into account in decision making.
- 2.8 Each policy is supported by an information box that outlines:
 - the contribution of the policy to the Plan objectives;
 - relevant information in the Orkney Islands Marine Region: State of the Environment Assessment; and
 - the policy's alignment with other key statutory marine and land-use plans.



- 2.9 Where appropriate, the Plan policies are supported by spatial information in map form or by reference to other relevant spatial information (see Section 1 for details).
- 2.10 Appendix 1 summarises the role of relevant public authority consenting and advisory bodies and identifies the key authorisation and enforcement decisions through which the Plan policies will be implemented.
- 2.11 A summary of the wider relevant legislation, policies and guidance that should be considered alongside this Plan is provided in Appendix 2.

Impacts or effects from development and activities

- 2.12 The Plan policies aim to maximise positive impacts or effects from development and activities and appropriately manage adverse impacts or effects. The impacts or effects of marine development and activities are not limited to the site boundaries of a proposal; for example, sediment plumes arising from dredging activity can be transported long distances before being deposited. Impacts or effects can be temporary, permanent, direct, indirect, short term, medium term, long term and/or cumulative.
- 2.13 It is important to consider the cumulative impact of development and activities on the marine environment. Development and activities proposals should consider cumulative impacts associated with all existing and proposed development, not just development of the same type or sector. Where required, cumulative impacts or effects must be assessed in accordance with the requirements of the appropriate EIA regulations (see Appendix 1).
- 2.14 The determination of what is a significant impact or effect should be made by the appropriate public authority decision maker. This judgement should be informed by relevant information and data, assessment, and the views of statutory consultees and wider stakeholders.
- 2.15 Impact or effect significance can be appraised by considering factors including the nature, size and location of the proposal, potential for cumulative impacts or effects, the potential pathways to impact, the significance and sensitivity of affected receptors (e.g. an environmental feature or infrastructure asset), and the magnitude of the impact or effect.
- 2.16 An overarching aim of the Plan's general and sector policies is to, in order of preference, avoid, minimise and/or appropriately mitigate any significant adverse impacts or effects that could be caused by proposed development and/or activities. This should be achieved by implementing the mitigation hierarchy (see Appendix 7a). The most effective mitigation measures are those which avoid or prevent the creation of adverse impacts or effects at source, and such measures should be identified during the project design stage. The aim of this approach is to prevent or avoid the adverse impacts or effects, if possible, and only then consider other mitigation measures. Where



specific mitigation measures are required, these should be explicitly secured as part of the relevant consent and/or permission.

- 2.17 In addition to supporting appropriate mitigation measures, the Plan policies aim to support the delivery of environmental, social and economic benefits, and positive effects for biodiversity.



General Policy 1: Sustainable development, activities and use

- 2.18 Sustainable development, activities and use in the marine environment is the fundamental aim of this Plan, in support of the UN Sustainable Development Goals and in accordance with the National Marine Plan (NMP)⁸ and other relevant Scottish Government policy and guidance⁹. Living within our environmental limits is one of the central principles of sustainable development.
- 2.19 The Orkney Islands marine region is biologically diverse, productive and contributes significantly to the local and national economy. Orkney's marine and coastal environment needs to be protected and, where appropriate, enhanced to support the continued delivery of environmental, social and economic benefits for future generations. This Plan adopts an integrated approach to land-use and marine planning. It supports the balanced consideration of environmental, social and economic factors in decision making, and the implementation of the precautionary principle.

⁸ Scotland's National Marine Plan 2015 <https://www.gov.scot/publications/scotlands-national-marine-plan/>

⁹ Scotland and the Sustainable Development Goals [Scotland and the sustainable development goals: a national review to drive action - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/scotland-and-the-sustainable-development-goals-a-national-review-to-drive-action-2015/pages/12/)



General Policy 1: Sustainable development, activities and use

General Policy 1a: Supporting sustainable development

There is a presumption in favour of sustainable development, activities and use when consistent with the policies and objectives of this Plan.

General Policy 1b: Sustainable development principles

Proposals for development and/or activities must demonstrate:

- i. that opportunities have been taken to maximise sustainable environmental, social and economic benefits;
- ii. that they will not have significant adverse direct or indirect environmental, social, economic and/or historic environment effects;
- iii. that they will not have significant adverse cumulative environmental, social, economic and/or historic environment impacts or effects;
- iv. that opportunities to maximise the efficient utilisation of marine space and/or coexistence with existing development and/or activities have been given due consideration;
- v. that they will not create an unacceptable burden on existing infrastructure and/or services that cannot be resolved as part of the consenting process;
- vi. that any significant adverse environmental, social, economic and/or operational effects on existing development and/or activities have been avoided, minimised and/or appropriately mitigated;
- vii. that sound science and/or evidence has been used responsibly in the design and assessment of such proposals.

General Policy 1c: The precautionary principle

Public authorities should apply the precautionary principle when the impacts of a proposed development and/or activities on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence indicating that significant irreversible damage could occur.

The precautionary principle should not be used to impede development and/or activities without justification. If there is any likelihood that significant irreversible damage could occur, modifications to the proposed development and/or activities to eliminate the risk of such damage should be considered and implemented. If there is uncertainty, research, surveys or assessment to remove or minimise uncertainty should be undertaken.



Table 3: General Policy 1 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives	1, 2
Indirect contribution to objectives	5
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Whole plan
Alignment with other marine and land-use plans	
National Marine Plan (NMP)	Gen 1, Gen 4
National Planning Framework 4 (NPF4)	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities
Orkney Local Development Plan (OLDP)	Policy 1



General Policy 2: Safety

- 2.20 Safety is the paramount consideration in all aspects of marine traffic, development and activities. As competition for marine space increases due to development, potential impacts on shipping and maritime safety will need to be reconciled. It is recognised that all vessels have the right of innocent passage and freedom of navigation. The safeguarding of routes used by shipping is essential for the viability of island communities.
- 2.21 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 (MCA).
- 2.22 Orkney Islands Council, as the statutory harbour authority (Orkney Harbour Authority), has responsibility for safety of navigation within harbour areas, and the MCA has responsibility for facilitating the safety of shipping and seafarers, saving lives, and protecting the maritime environment. Those proposing development and/or activities that could affect navigational safety or harbour operations should therefore liaise with the relevant authority in the early stages of planning.
- 2.23 Orkney Harbour Authority is responsible for the safe and efficient operation of 29 piers and harbours located throughout the Orkney Islands, and operates under the principles set out in the Port Marine Safety Code¹⁰ ('the Code'). The Code sets out a national standard for every aspect of port marine safety. Whilst not mandatory, it is endorsed by the UK Government and the devolved administrations; these bodies have a strong expectation that all harbour authorities will comply. The Code is applicable both to statutory harbour authorities and to other marine facilities which may not have statutory powers and duties.
- 2.24 The Orkney Harbour Authority Marine Safety Management System accords with the Code and includes safety management systems maintained by other operators (e.g. towage and ferries) and commercial marine operations within the Orkney harbour areas (e.g. Flotta Oil Terminal). Details can be found in the Orkney Harbour Authority Marine Safety Management System Manual.¹¹
- 2.25 Orkney Islands Council has a duty under the Control of Major Accident Hazards Regulations 1999 (COMAH) to prepare an off-site emergency plan for the Flotta Oil Terminal, which is owned and operated by Repsol Sinopec

¹⁰ Port Marine Safety Code. 2016.

<https://www.gov.uk/government/publications/port-marine-safety-code-compliant-ports>

¹¹ Marine Safety Management System Manual. Orkney Islands Harbour Authority. 2018.

<https://www.orkneyharbours.com/documents/safety-management-system-manual>



Resources UK Limited. The aim of the off-site emergency plan is to limit the consequences of any major accident or incident for people working and/or residing on the island of Flotta.

- 2.26 Under a memorandum of understanding between the Health and Safety Executive (HSE) and the MCA, there are consultation zones around licensed piers in Orkney, to help ensure that appropriate safety measures are in place relating to the transportation of hazardous goods. These HSE consultation zones are licensed under the Dangerous Goods in Harbour Areas Regulations 2016. Planning authorities consult HSE directly for advice on developments located within consultation zones and developments in the vicinity of major accident hazard sites.¹²

General Policy 2: Safety

- i. Safety should be the paramount consideration in decision making and the assessment of risk from development and/or activities to marine traffic and navigation.
- ii. Navigational safety in relevant areas used by shipping now and in the future will be protected, adhering to the rights of innocent passage and freedom of navigation contained in the United Nations Convention on the Law of the Sea.
- iii. The Orkney Harbour Authority must be consulted on proposals for development and/or activities that would have implications for any aspect of safety in harbour areas.
- iv. Proposals for development and/or activities must comply with the requirements of the Health and Safety Executive where an infrastructure asset (e.g. pier or harbour) is covered by a Health and Safety Executive consultation zone.
- v. Proposals for development and/or activities in the vicinity of major accident hazard sites should take into account the potential impacts on the proposal and the major accident hazard site due to their being located in proximity to one another. Applications involving the presence of hazardous substances should take account of the potential impacts on surrounding populations and the environment. Decisions should be informed by, amongst other things, the Health and Safety Executive's planning application advice (including on hazardous substances consent), and, in relevant cases, that of the Office of Nuclear Regulation. Similar considerations apply in respect of development proposals either for or near licensed explosive sites (including military explosive storage sites).

¹² Control of Major Accident Hazards. Health and Safety Executive. <https://www.hse.gov.uk/comah/>



Table 4: General Policy 2 links to Plan objectives, state of the environment assessment and other plans

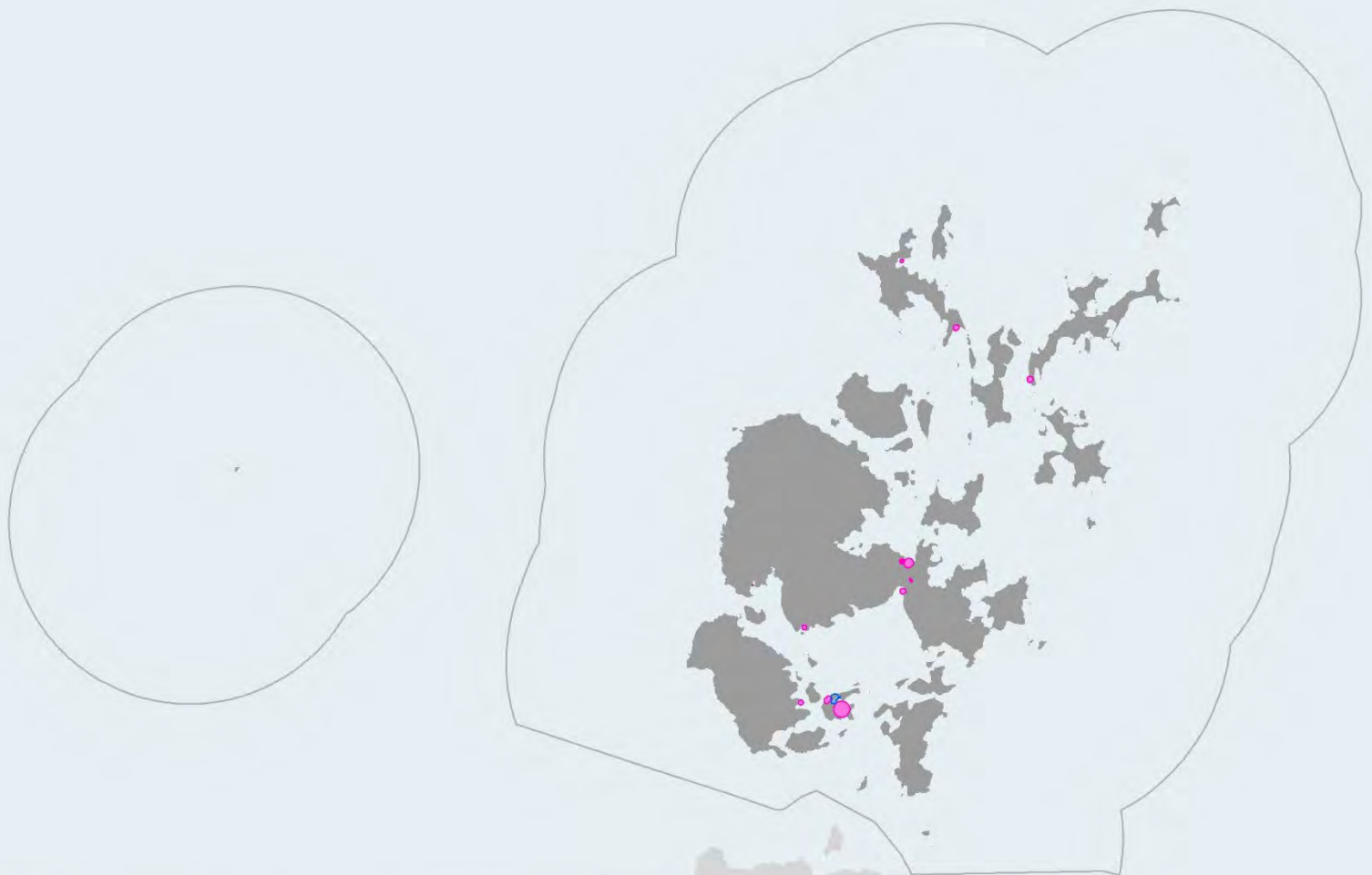
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	6, 7
Indirect contribution to objectives:	2
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Sections 6.4 and 6.6.3
Alignment with other marine and land-use plans	
National Marine Plan	Section 9, Policy Oil & Gas 6
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	N/A
Orkney Local Development Plan	Policy 1 vi



Map 2: Health and Safety Executive consultation zones and COMAH site

Key

-  Health and Safety Executive (HSE) consultation zone
-  Control of Major Accident Hazards (COMAH) site
-  12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.



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General Policy 3: Climate change

- 2.27 Climate change is the most critical factor affecting Scotland's marine environment, maritime businesses and coastal communities. Its effects are many and far-reaching, including changing weather patterns, sea level rise causing increased flooding and coastal erosion, and changes to the sea's temperature and acidification levels. All these factors affect the environment, economy, communities and species' ecology in numerous ways.
- 2.28 The world's oceans play a significant role in climate regulation, absorbing 93% of the heat that accumulates in the earth's atmosphere and around a quarter of the carbon dioxide released from fossil fuels. Ocean temperatures are predicted to rise between 1.5 °C and 4 °C,¹³ with sea levels rising by between 1.01m and 1.07m around Orkney by 2100 under the high emissions scenario.¹⁴
- 2.29 This Plan supports carbon reduction measures, a rapid transition to zero carbon energy generation and fuels, climate change adaptation, sustainable economic development, activities and use, and, alignment with public authorities' climate change duties.¹⁵ The Plan integrates with wider strategic policy to support the transformational change required to address the Global Climate Emergency¹⁶: the Climate Change Plan update, National Marine Plan (NMP), the National Planning Framework 4 (NPF4) and the Orkney Local Development Plan (OLDP) (see Appendix 2).
- 2.30 Climate change mitigation measures are those actions taken to reduce greenhouse gas emissions or re-capture previous emissions, while adaptation measures aim to reduce the vulnerability of people, infrastructure and/or nature to the effects of climate change. Mitigation, therefore, attends to the causes of climate change, while adaptation addresses its impacts.¹⁷ Some climate change effects can be reduced by various mitigation measures, while adaptation measures can help limit the impact of climate change consequences that are already 'locked-in' due to past emissions. For example, blue carbon, which is the carbon stored in coastal and marine ecosystems, can play a role in mitigating climate change. Inorganic carbon stores in sediment, for example sub-surface compacted maerl beds, form the largest store in the Orkney Islands marine region, whilst biological blue carbon

¹³ Climate Change 2014: Synthesis Report. IPCC. <https://www.ipcc.ch/report/ar5>

¹⁴ Dynamic Coast. <https://www.arcgis.com/apps/dashboards/defe901982154099b6ceb19db8aa41a4>

¹⁵ The Climate Change (Duties of Public Bodies: Reporting Requirements) (Scotland) Order. 2015. <https://www.legislation.gov.uk/ssi/2015/347/contents/made>

¹⁶ The Global Climate Emergency - Scotland's Response: Climate Change Secretary Roseanna Cunningham's statement. 2019. <https://www.gov.scot/publications/global-climate-emergency-scotlands-response-climate-change-secretary-roseanna-cunninghams-statement/>

¹⁷ Sustainability For All. Acciona. <https://www.activesustainability.com/climate-change/mitigation-adaptation-climate-change/>



habitats such as tidal marshes, seagrass meadows and kelp can also sequester and store carbon.¹⁸

2.31 Mitigation measures include:

- practising energy efficiency;
- displacing fossil-fuel use through greater and more diverse use of renewable energy, for example to electrify industrial processes or to support use of alternative energy for transport, such as hybrid or hydrogen ferries; and
- capture and storage of excess atmospheric carbon, particularly in natural and semi-natural habitats that provide numerous other benefits.

2.32 Adaptation measures include:

- adapting existing and future coastal development, activities and infrastructure to be more resilient against climate change impacts, e.g. sea level rise;
- relocating facilities and infrastructure to secure locations, e.g. away from areas affected by coastal flooding and erosion;
- research and development on possible climate change scenarios, e.g. modelling the effects of sea level rise in coastal areas or temperature impacts on the behaviour and distribution of commercially viable species;
- preventive and precautionary measures, e.g. emergency planning and flood warning systems;
- building capacity for more diverse marine and coastal business activities, enabling communities to adapt to climate-related stresses, both within sectors (e.g. fishers targeting a wider range of species) and between sectors (e.g. ability to shift to alternative activity); and
- safeguarding and, where appropriate, restoring blue carbon habitats as part of development and activities or habitat-enhancement projects.¹⁹

2.33 Enhancing local resilience to the effects of climate change is a key priority. Resilience is the capacity of social, economic and environmental systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.²⁰ A key part of the vision for this Plan is that Orkney's marine and coastal environment is managed sustainably to support thriving and resilient local communities.

¹⁸ Blue carbon audit of Orkney waters. Marine Scotland Data Publications. 2020.

<https://data.marine.gov.scot/dataset/blue-carbon-audit-orkney-waters>

¹⁹ United Nations Decade on Restoration. <https://www.decadeonrestoration.org/>

²⁰ Definitions adapted from IPCC, 2014: *Climate Change 2014: Impacts, Adaptation, and Vulnerability, Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. <http://www.ipcc.ch/report/ar5/wg2/>



- 2.34 The ecosystem services provided by a healthy functioning coastal and marine environment (e.g. coastal protection and carbon sequestration and storage) are under threat from the effects of climate change and other pressures. For example, disturbance of blue carbon habitats by development, activities and use can release further emissions and reduce the capacity of these habitats to store and sequester carbon. On the other hand, habitat restoration measures have the potential to mitigate adverse effects of climate change. This is an example of climate change resilience; that is, the ability to prepare for, recover from, and adapt to the impacts of climate change. Appendix 4 provides further information on ecosystem services from coastal and marine habitats and species.
- 2.35 The Orkney Islands Marine Region: State of the Environment Assessment²¹ provides information on the main climate change issues and pressures in Orkney's coastal and marine areas. These include sea level rise and coastal change, sea temperature increases, changes in salinity and acidification, flooding, and impacts on habitats that are potential blue carbon stores.²²
- 2.36 A Flood Risk Management Plan is produced by the Scottish Environment Protection Agency (SEPA) to identify areas of flood risk within each Local Plan District, including Orkney. This plan is then consulted upon with partners (known as Responsible Authorities) to identify actions to address the identified risks. The latest Flood Risk Management Plan for the Orkney Local Plan District (LPD3) was produced in 2021.²³ In relation to flooding issues, SEPA can provide guidance on climate change adaptation requirements for development.

²¹ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

²² Blue carbon audit of Orkney waters. Marine Scotland Data Publications. 2020.
<https://data.marine.gov.scot/dataset/blue-carbon-audit-orkney-waters>

²³ Flood risk management plans. 2021. SEPA.
<https://www2.sepa.org.uk/frmplans/documents/lpd3-orkney-frmp-2021.pdf>



General Policy 3: Climate change

General Policy 3a: Climate change mitigation

- i. When considering all proposals for development and/or activities, significant weight in decision making should be given to the Global Climate Emergency.
- ii. Proposals for development and/or activities are required to demonstrate that measures have been taken to minimise greenhouse gas emissions over the proposal's life cycle, in line with the decarbonisation pathways set out nationally.
- iii. Proposals for development and/or activities that will generate significant greenhouse gas emissions should not be supported unless the applicant provides evidence that this level of emissions is the minimum that can be achieved for the development and/or activity to be viable, and it is also demonstrated that the proposed development and/or activity is in the long-term public interest.

General Policy 3b: Climate change mitigation for national, major and Environmental Impact Assessment (EIA) development

- i. Proposals for national, major or EIA development should be accompanied by a whole-life assessment of greenhouse gas emissions from the development and/or activity.
- ii. In decision making, the scale of the contribution of the proposed development and/or activities to emissions reduction targets should be taken into account.
- iii. Where significant emissions are likely (even as minimised) in relation to national decarbonisation pathways, but the decision maker is minded to grant consent for other relevant and/or material reasons, emissions off-setting measures may be considered, including nature-based solutions. Where practical and appropriate, such measures should take place on-site as an integral part of the overall development and/or activity, or off-site, where on-site provision is not possible or is insufficient.

General Policy 3c: Climate change adaptation and resilience

- i. Proposals for development and/or activities are required to demonstrate that adequate climate change adaptation and resilience measures, including appropriate nature-based solutions, have been built into the project over its lifetime.
- ii. Where appropriate, proposals for development and/or activities should include nature-based measures to enhance the resilience of infrastructure, coastal communities and/or the environment to the effects of climate change.



Table 5: General Policy 3 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives	3, 4
Indirect contribution to objectives	1, 2, 5, 6, 7, 8
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 3
Alignment with other marine and land-use plans	
National Marine Plan	GEN 5
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Climate Emergency
Orkney Local Development Plan	Policies 12, 13



General Policy 4: Supporting sustainable social and economic benefits

- 2.37 Marine planning and decision making have an important role in enabling economic opportunities to be realised, supporting the achievement of national and local economic aspirations for sustainable economic growth. A significant challenge for marine planning and decision making is balancing the requirements of existing coastal and marine users, and the needs of growing, or potentially novel, economic sectors, to deliver sustainable environmental, social and economic benefits.
- 2.38 It is important that every community in Orkney should benefit from sustainable economic development opportunities. The growth of the marine economy should create jobs and economic activity in the North and South Isles, as well as the Mainland and barriers-linked island communities. Job creation and increased economic activity can have a transformative impact on the viability and sustainability of island communities.
- 2.39 General Policy 4 aims to support the delivery of the core principles of Community Wealth Building²⁴. This approach prioritises local economic benefits and retaining wealth within local communities.

²⁴ Community wealth building policy action. Scottish Government. <https://www.gov.scot/policies/cities-regions/community-wealth-building/>



General Policy 4: Supporting sustainable social and economic benefits

General Policy 4a: Supporting sustainable social and economic benefits

Proposals for development and/or activities should demonstrate that:

- i. opportunities have been taken to maximise sustainable employment benefits and create skilled employment in local communities;
- ii. opportunities have been taken to support local businesses, supply chains and research and development;
- iii. opportunities have been taken to support synergistic benefits with the existing activities of other marine and coastal users; and
- iv. net social and economic benefits outweigh any significant adverse impacts on existing social and/or economic activities.

General Policy 4b: Impacts on local infrastructure, services and other marine and coastal users

Developers should undertake early engagement with the local authority, any other relevant bodies, service providers and/or stakeholders if significant impacts on local infrastructure, services and/or the activities of other marine users are likely to result from proposed development and/or activities.



Table 6: General Policy 4 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	1, 5, 8
Indirect contribution to objectives:	7, 9
Assessment of the condition of the Orkney Islands marine area	
State of the Environment Assessment baseline information:	Sections 6, 7
Alignment with other marine and land-use plans	
National Marine Plan	GEN 1, 2, 3, 4
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Thriving Economy
Orkney Local Development Plan	Policies 1, 9, 12



General Policy 5: Safeguarding natural capital and ecosystem services

- 2.40 Orkney's marine environment is affected by multiple pressures from human activities. These pressures need to be effectively managed to prevent a decline in the health and functioning of natural capital assets and the many benefits local communities derive from these assets. This Plan aims to protect and enhance natural capital, biodiversity and ecosystem services for future generations.
- 2.41 The Orkney Islands Marine Region: State of the Environment Assessment²⁵ presents a summary of the environmental pressures and impacts of human activities affecting the Orkney Islands marine region. Many of the features that contribute to the health of the marine environment in Orkney are in relatively good condition. However, there are a number of concerns relating to climate change, impacts on biodiversity from a variety of anthropogenic sources, and an increasing demand for development and use of marine space.

Natural capital is the stock of renewable and non-renewable natural resources (e.g. animals, air, water, soils, minerals) that combine to yield a flow of benefits to people that are often referred to as ecosystem services.

- 2.42 As well as having its own intrinsic value, Orkney's coastal and marine environment provides a wide range of services and natural resources that support local communities, health and well-being, and underpin the economy. These are referred to as ecosystem services. For example, kelp beds in Orkney provide a habitat to support nursery grounds for fish, crustaceans and invertebrates and a diverse marine community, as well as protecting gene pools; provide a regulatory service through carbon cycling; and a cultural service through kelp's importance to the Orkney community for its heritage value.²⁶ In addition to considering impacts on individual receptors (e.g. a Priority Marine Feature), a more holistic approach should be taken to decision making on development and activities by considering potential impacts at an ecosystem scale, for example, impacts on prey species affecting the availability for predators to feed.

Ecosystem services are processes by which the environment produces resources that are utilised by humans, such as clean air, water, food, energy and materials. A well-functioning marine ecosystem supports these vital ecosystem services.

²⁵ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

²⁶ Oceans of Value. Scottish Wildlife Trust.
<https://scottishwildlifetrust.org.uk/our-work/our-projects/living-seas/oceans-of-value/>



- 2.43 Marine biodiversity enhancement activities should pay due regard to the appropriate guidance provided by NatureScot.²⁷
- 2.44 Appendix 4 identifies ecosystems services provided by the marine environment.

General Policy 5: Safeguarding natural capital and ecosystem services

Proposals for development and/or activities should:

- a. include measures to maintain and, where appropriate, enhance natural capital and ecosystem services; and
- b. demonstrate how any significant disturbance and/or degradation of coastal and marine natural capital and ecosystem services have been avoided, minimised and/or appropriately mitigated.

²⁷ Marine and coastal enhancement framework. 2022. NatureScot.
<https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/marine-enhancement>



Table 7: General Policy 5 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	2
Indirect contribution to objectives:	4
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Sections 2, 4, 5
Alignment with other marine and land-use plans	
National Marine Plan	Para 4.39, Annex A.
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 9C



General Policy 6: Water environment

- 2.45 High quality marine waters and benthic habitats are essential for a healthy environment, a successful economy and recreational activities. It is vital to maintain and, where possible, enhance this quality, as it underpins the current and future growth of the marine economy and the well-being of local communities. A high-quality water environment supports rich biodiversity and a variety of essential ecosystem services. Under the Water Environment and Water Services (Scotland) Act 2003, public bodies in Scotland have a duty to have regard to the protection of the water environment.
- 2.46 The Scotland River Basin District (Standards) Directions 2014²⁸ provide guidance regarding the application of environmental standards for the water environment, which includes guidance on ecological status, in accordance with the Implementing the Water Environment and Water Services (Scotland) Act 2003: Assessing Scotland's water environment – use of environmental standards, condition limits and classification schemes – Policy Statement.²⁹
- 2.47 The River Basin Management Plans (RBMP)^{30,31}, coordinated by the Scottish Environment Protection Agency (SEPA), promote sustainable water use, whilst protecting and improving the water environment. These plans cover inland waters, ground waters, lagoons and coastal waters out to three nautical miles. Therefore, there is a spatial overlap and a requirement for alignment and integration with regional marine plans. The local RBMP covers both Orkney and Shetland, and the current state of coastal waters are classed as good or high quality for Orkney (see Maps 3–5).
- 2.48 The classification of coastal waterbodies includes assessment of ecological, chemical and physical parameters, using available data, for factors including water quality and physical condition (i.e. the assessment of coastal engineering), as well as biological parameters, the presence of invasive non-native species, and benthic monitoring results. The benthic habitat is characterised by animal and plant communities with no, or slow, mobility that rely on the seabed to feed, hide, rest and reproduce, as well as by areas of high exposure with strong tidal influences. Developments that place structures on the seabed, or activities such as deposition from aquaculture, dredging and trawling, have the potential to cause removal of habitat, smothering and

²⁸ The Scotland River Basin District (Standards) Directions 2014.

<https://www.gov.scot/publications/scotland-river-basin-district-standards-directions-2014/>

²⁹ Implementing the Water Environment and Water Services (Scotland) Act 2003: Assessing Scotland's water environment - use of environmental standards, condition limits and classification schemes - Policy Statement. <https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2014/08/implementing-water-environment-water-services-scotland-act-2003-assessing-scotlands/documents/00459630-pdf/00459630-pdf/govscot%3Adocument/00459630.pdf>

³⁰ [211222-final-rbmp3-scotland.pdf \(sepa.org.uk\)](https://www.sepa.org.uk/media/594088/211222-final-rbmp3-scotland.pdf)

³¹ The River Basin Management Plan for Scotland 2021 – 2027. SEPA. <https://www.sepa.org.uk/media/594088/211222-final-rbmp3-scotland.pdf>



abrasion. If not managed appropriately, these developments and activities can have significant impacts on benthic habitats and species, including Priority Marine Features (see Appendix 5), and on some qualifying features of designated nature conservation sites.

General Policy 6: Water environment

Proposals for development and/or activities should:

- i. be accompanied by sufficient information to enable an assessment of the likely effects, including cumulative effects, on water quality and the benthic environment;
- ii. take existing activities in the proposed location into account and demonstrate early engagement with relevant stakeholders to ensure that suitable mitigation is provided for potentially incompatible activities, and where that is not possible, that they are not co-located;
- iii. not cause any waterbody to deteriorate in status nor prevent the achievement of objectives in the River Basin Management Plan for the Scotland river-basin district; and
- iv. contribute, where possible, towards objectives to improve the ecological status of coastal waterbodies and the environmental standard of marine waters*.

* For ecological status see: <https://www.eea.europa.eu/ims/ecological-status-of-surface-waters> For environmental standard see: <https://msfd.eu/site/good-environmental-status/>



Table 8: General Policy 6 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	2, 8
Indirect contribution to objectives:	7
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 2.3
Alignment with other marine and land-use plans	
National Marine Plan	GEN 12
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 9D



Map 3: Waterbody classification: water quality status

Key

Overall water quality status



— 12 nm boundary



Map is indicative. For information on the water quality of specific water bodies visit:
<https://www.sepa.org.uk/data-visualisation/water-classification-hub/>



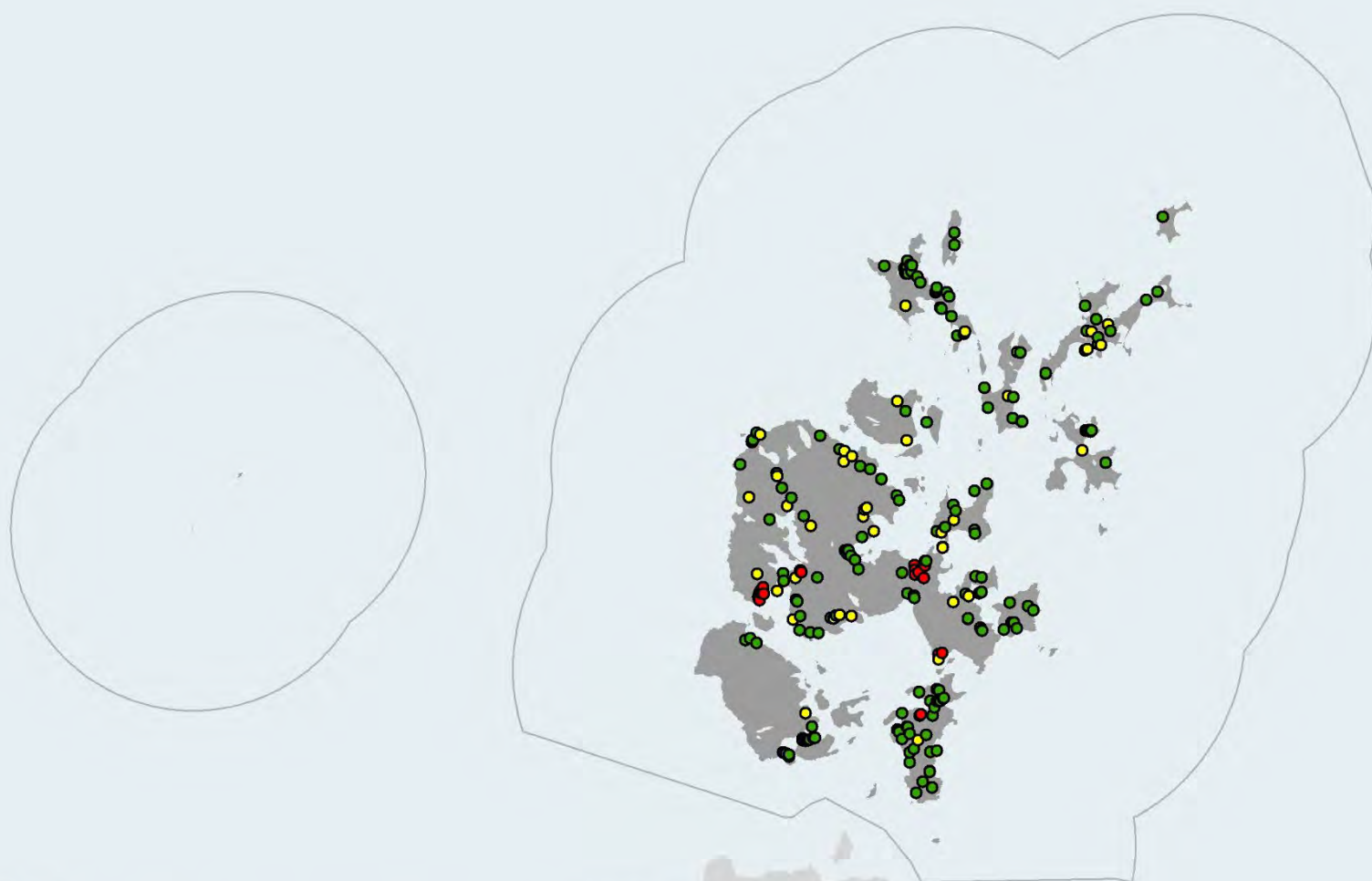
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Map 4: Wastewater treatment works

Key

Wastewater treatment

- Overflow
- Private
- Public



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.

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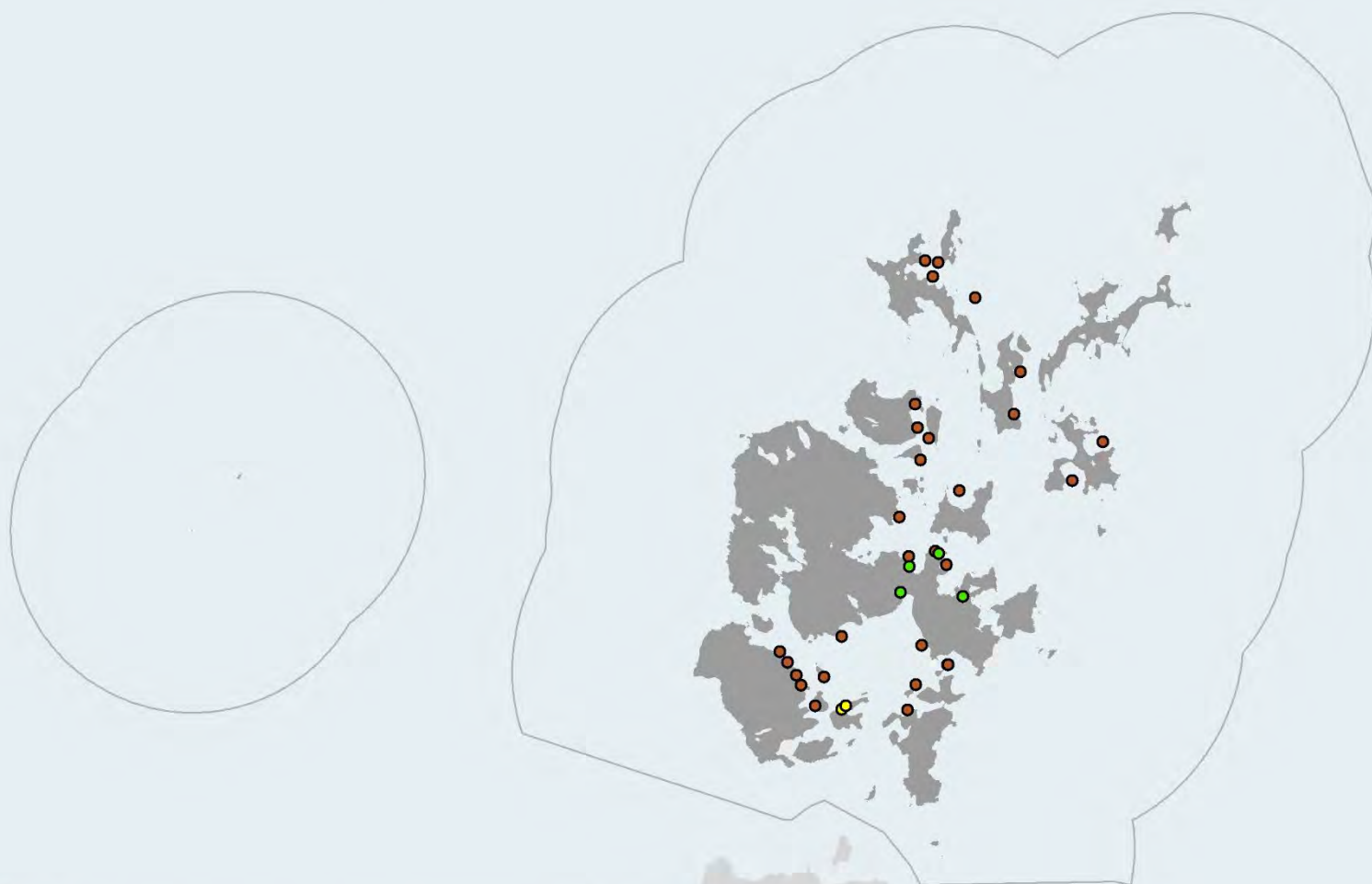
Map 5: Scottish Pollutant Release Inventory (SPRI) locations

Key

Sector

- Intensive livestock production and aquaculture
- Waste and wastewater management
- Energy sector

— 12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



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General Policy 7: Coastal development and coastal change

- 2.49 The water masses of the North Sea and the Atlantic Ocean meet in Orkney waters producing diverse hydrodynamic conditions. The Sounds between the islands create extraordinarily strong tidal flows, and the exposed coasts experience powerful wave action. These forces create the geographical and physical diversity of Orkney's coast and associated habitats, species and marine resources.
- 2.50 Orkney's western seaboard is characterised by dramatic sea cliffs and associated arches, stacks, geos and ghoups. The lower-lying coastal areas are dominated by tilted flags, dune systems and sandy bays. There are numerous indented bays that expose these lower-lying areas to coastal flooding and erosion. The main source of flooding in Orkney is from coastal flooding, which accounts for approximately 94% of the annual average damage by flood.³²
- 2.51 Orkney Islands Council produces the Orkney Local Flood Risk Management Plan.³³ It outlines the various responsibilities and actions required of agencies such as SEPA, Scottish Water and the local authority to meet the objectives of the strategy. The primary responsibility to protect land from flooding, including coastal land, lies with the landowner.
- 2.52 Coast protection authorities, Orkney Islands Council in the case of Orkney, are permitted to undertake maintenance and emergency work under the terms of the Coast Protection Act 1949, and certain public bodies are expected to take a proactive role in managing and, where achievable, lowering overall flood risk. Local authorities have discretionary powers to carry out coast protection work that they consider to be necessary or expedient for the protection of any land in their area against erosion and encroachment by the sea.
- 2.53 Dynamic Coast³⁴ is a Scottish Government project that monitors Scotland's erodible shore. It has investigated coastal erosion and flood risk, under the Intergovernmental Panel on Climate Change high emissions, medium emissions and low emissions future scenarios. The data identifies coastal areas and assets at risk from coastal erosion and flooding. Since the 1970s, the average rate of coastal erosion has increased significantly in Orkney, particularly in areas of soft substrate, such as sand, soils and clays. In Orkney, 61% of the coast is categorised as hard, 36% is categorised as soft and 3% as artificial. Given that many of Orkney's settlements and infrastructure are in low-lying soft coast areas, there is a need to plan ahead

³² The River Basin Management Plan for Scotland 2021 – 2027. SEPA.
<https://www.sepa.org.uk/media/594088/211222-final-rbmp3-scotland.pdf>

³³ Local Flood Risk Management Plan for Orkney. Orkney Islands Council.
<https://www.orkney.gov.uk/Service-Directory/F/local-flood-risk-management-plan.htm#:~:text=The%20Local%20Flood%20Risk%20Management,these%20are%20to%20be%20funded>

³⁴ Dynamic Coast. <https://www.dynamiccoast.com/>



for predicted sea level rise, and the increased risk of coastal erosion and flooding.

- 2.54 The Dynamic Coast project encourages Local Development Plan policy changes to ensure that any development avoids the disturbance or degradation of coastal landforms³⁵ and encourages society to become 'sea level wise'.³⁶ This work recognises the crucial role that habitats such as beaches, dune systems, saltmarshes and kelp beds play as natural defences against coastal erosion and flooding. Key sites such as the Bay of Skail are particularly vulnerable, as Mean Low Water Springs in the southern third of the Bay has moved landward, with suggested associated increase in flood risk.³⁷

³⁵ Looking ahead: planning for coastal change. 2019. NatureScot.

<https://www.nature.scot/sites/default/files/2019-05/Planning%20ahead%20for%20coastal%20change%20guidance.pdf>

³⁶ Dynamic Coast: The National Review. 2021. CREW.

https://www.crew.ac.uk/sites/www.crew.ac.uk/files/publication/CREW_DC2_SYNOPSIS_FINAL.pdf

³⁷ Dynamic Coast: Erosion Enhanced Flooding. 2021. CREW

https://www.dynamiccoast.com/files/dc2/_DC2_WS1a_Flooding_FINAL.pdf



General Policy 7: Coastal development and coastal change

General Policy 7a: Coastal Development

Proposals for development and/or activities located on, or directly adjacent to, the coast should pay due regard to:

- a. National Planning Framework;
- b. Orkney Local Development Plan;
- c. Orkney Local Flood Risk Management Plan;
- d. Coastal Change Adaptation Plan (if available); and
- e. Dynamic Coast data and maps.

General Policy 7b: Coastal processes

Proposals for development and/or activities that would significantly affect coastal processes should demonstrate that:

- i. significant adverse effects on coastal and marine habitats, species and geomorphological features, including, but not limited to, those that are caused by erosion, sediment transport, accretion, scouring, deposition and/or coastal flooding, have been avoided, minimised and/or appropriately mitigated.
- ii. significant adverse effects on coastal and marine infrastructure and other assets, due to coastal erosion, flooding and/or wider coastal change, have been avoided, minimised and/or appropriately mitigated.

General Policy 7c: Coastal protection

Development and/or activities proposals for coastal protection/defence measures should:

- i. be consistent with the policies and objectives of this Plan, the National Planning Framework, the National Marine Plan, Orkney Local Development Plan, Orkney Local Flood Risk Management Plan and any relevant Coastal Change Adaptation Plan;
- ii. pay due regard to the Dynamic Coast data and maps;
- iii. utilise nature-based solutions and permit managed future coastal change wherever practical;
- iv. demonstrate that any in-perpetuity hard defence measures are necessary to protect essential assets;
- v. not result in the need for further coastal protection measures or increase risks from coastal erosion, flooding and/or wider coastal change;
- vi. avoid, minimise and/or appropriately mitigate significant adverse effects on habitats and coastal geomorphological features that provide significant coastal protection services for infrastructure and other assets, and should where appropriate, enhance the functioning of these habitats and features.



Table 9: General Policy 7 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	2, 4
Indirect contribution to objectives:	9
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 2.2
Alignment with other marine and land-use plans	
National Marine Plan	GEN 8
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Climate Emergency
Orkney Local Development Plan	Policy 13



General Policy 8: Historic environment

- 2.55 The historic environment includes any physical evidence of human activity through time. Orkney is world renowned for the quality and quantity of its historic environment assets, both terrestrial and marine. This policy addresses impacts from development and/or activities on the historic environment. The impacts of physical processes on the historic environment, such as erosion and storm damage, which are likely to be exacerbated by climate change, are further addressed in General Policies 3 and 7.
- 2.56 Archaeological records in Orkney date back as early as c.7000 BC, and include Neolithic settlements and tombs, Iron Age tower houses of the broch villages, and a rich Viking heritage of international significance. More recently, Orkney played a pivotal role in both World Wars, leaving poignant reminders of these turbulent periods etched on our seascape and coastal areas in the shape of wrecks, barriers, gun emplacements and concrete bunkers. The wrecks of the German High Sea Fleet in Scapa Flow are afforded protection as scheduled monuments; and there is a proposed Scapa Flow Historic Marine Protected Area in recognition of its nationally important marine historic assets. Planning and licensing authorities must take account of designated Historic Marine Protected Areas when exercising their functions.
- 2.57 Examples of important historic environment assets around Orkney include the Heart of Neolithic Orkney World Heritage Site; scheduled monuments; listed buildings; gardens and designed landscapes; and controlled sites and protected places, including designated military maritime graves. The seabed is also of palaeo-environmental interest, particularly areas that were once dry land during ice age conditions and where there is potential for a wide range of buried deposits of archaeological interest. Drowned palaeolandscapes are rare in Scotland and are a distinctive feature of Orkney's marine heritage.
- 2.58 Historic environment assets (both designated and undesignated) are of historical, cultural, economic and recreational interest to Orkney communities and to the thousands who come to visit the islands. It is therefore vital for Orkney to protect its historic environment wherever possible.
- 2.59 Many historic assets are afforded legal protection through various national and international designations. The Historic Environment Policy for Scotland is also a key policy consideration for decision making in the whole of the historic environment³⁸.
- 2.60 Planning and licensing authorities are advised by Historic Environment Scotland on matters affecting historic environment assets, and the licensing

³⁸ Historic Environment Policy for Scotland (HEPS). HES.
<https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/historic-environment-policy-for-scotland-heps/>



requirements for controlled sites and protected places are administered by the Ministry of Defence (see Map 6 and Appendix 1).

- 2.61 The National Register of Historic Vessels provides an overview of the UK's surviving historic vessels.³⁹

General Policy 8: Historic environment

General Policy 8a: All Development and/or activities

- i. Proposals for development and/or activities should include adequate measures to protect and, where appropriate, enhance the archaeological, architectural, artistic, commemorative or historic significance of historic environment assets, including their settings.
- ii. Development and/or activities which would have an adverse impact on the significance of cultural heritage and/or historic environment assets will only be permitted where it can be demonstrated that:
 - a. appropriate measures have been or will be taken to mitigate any loss of this significance; and
 - b. any loss of significance which cannot be mitigated is outweighed by social, economic, environmental and/or safety benefits.

General Policy 8b: Assessment and recording

- i. Where historic environment assets are known to exist, or where there are reasonable grounds to believe historic environment assets may exist, within or adjacent to planned developments and/or activities, developers may be required to undertake a 'Cultural Heritage Impact Assessment'* to ensure that there will be no unacceptable effects on any known or potential historic environment assets.
- ii. Where developments and/or activities are permitted in areas known to contain, or where there are reasonable grounds to believe they contain archaeological deposits, conditions may be attached to a licence or consent to ensure the effective assessment, analysis, archiving and publication of any archaeological remains to an agreed timeframe.
- iii. Where a historic environment asset, or a significant element thereof, will be lost as a result of a development and/or activity, it may be necessary to record the site to an agreed level prior to the commencement of development and/or demolition.

*See:

https://www.archaeologists.net/sites/default/files/j30361_iema_principlesofchia_v8.pdf

³⁹ The National Register of Historic Vessels
<https://www.nationalhistoricalships.org.uk/the-registers/find-a-vessel>



General Policy 8c: Heart of Neolithic Orkney World Heritage Site

- i. Development and/or activities within the Inner Sensitive Zones will only be permitted where it is demonstrated that the development and/or activity would not have a significant negative impact on the Outstanding Universal Value* of the World Heritage Site or its setting.
- ii. Development and/or activities sited in any location where there is the potential to impact upon the World Heritage Site will not be permitted, unless it is demonstrated that the development would not have a significant negative impact on either the Outstanding Universal Value or the setting of the World Heritage Site.

General Policy 8d: Historic Marine Protected Area (Historic MPA)

Development and/or activities capable of affecting a Historic MPA will only be permitted where:

- i. there is no significant risk of hindering the achievement of the preservation objectives of the Historic MPA; or
- ii. there is no alternative that would have substantially lower risk of hindering the achievement of the preservation objectives of the Historic MPA; and
- iii. the public benefit outweighs the risk of damage to the marine historic asset.

General Policy 8e: Controlled sites and protected places

The protection of controlled sites and protected places will be managed in accordance with the requirements of the Protection of Military Remains Act (1986).

General Policy 8f: Scheduled monuments

Where there is potential for proposed development and/or activities to have an adverse effect on a scheduled monument or on the integrity of its setting, they will only be supported where there are exceptional circumstances.

General Policy 8g: Listed buildings

- i. Change to a listed building must be managed to protect its special interest while enabling it to remain in active use. Special regard must be given to the importance of preserving and enhancing the building, its setting and any features of special architectural or historic interest.
- ii. Developments and/or activities should be designed and sited carefully to preserve or enhance the character and setting of listed buildings. A listed building should be protected from demolition or other work that would adversely affect it or its setting.

General Policy 8h: Inventory gardens and designed landscapes

Development and/or activities should preserve or enhance the character and features of inventory gardens and designed landscapes and their setting. Development and/or activities should not have a significant adverse impact upon the character of these areas.

*See <https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=b4607c27-5909-4a9d-96c0-a5c900a66d88#:~:text=The%20Statement%20of%20Outstanding%20Universal,OUV%20for%20the%20long%20term>

Table 10: General Policy 8 links to Plan objectives, state of the environment assessment and other plans

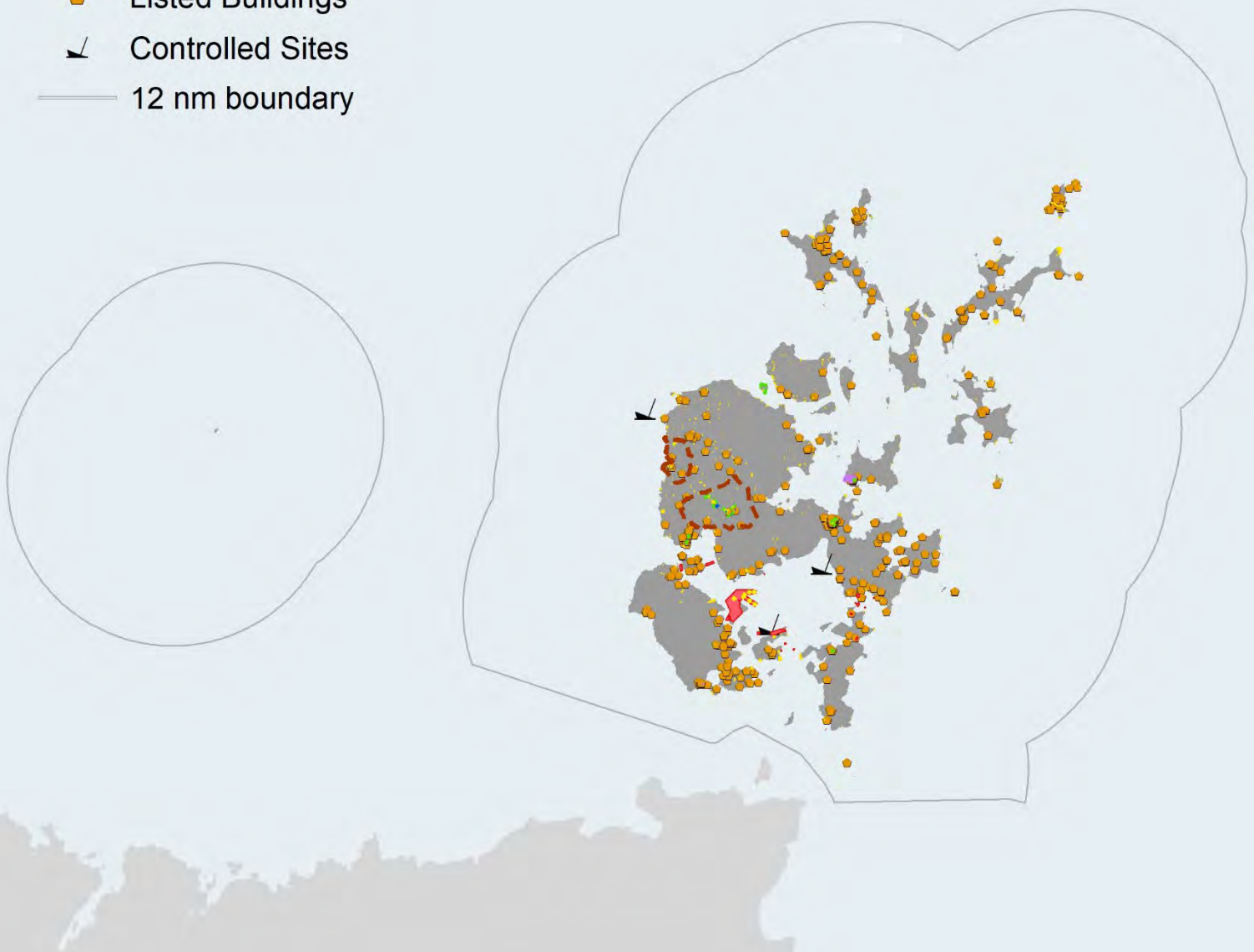
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	5, 6, 7
Indirect contribution to objectives:	9
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 5
Alignment with other marine and land-use plans	
National Marine Plan	Gen 6
National Planning Framework 4	Policy 28
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 8



Map 6: Protected coastal and marine historic environment assets

Key

-  Proposed Historic Marine Protected Areas
-  Historic Gardens & Designed Landscapes
-  World Heritage Site Inner Sensitive Zone
-  World Heritage Site
-  Scheduled Monuments
-  Conservation Area
-  Listed Buildings
-  Controlled Sites
-  12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPI. Updated data sets may be added to NMPI when available.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



General Policy 9: Nature conservation

- 2.62 The Orkney Islands marine region is home to a range of internationally, nationally and locally important marine and coastal natural heritage features and designated sites. As well as its conservation importance, a healthy, biodiverse marine environment is essential for providing ecosystem services, enhancing well-being and supporting a sustainable marine economy. Further information on the importance and condition of the natural heritage in the region can be found within the Orkney Islands Marine Region: State of the Environment Assessment.⁴⁰
- 2.63 The Global Assessment Report on Biodiversity and Ecosystem Services⁴¹ has highlighted significant pressures on global biodiversity. Some of the drivers of biodiversity loss include changing use of land and sea, direct exploitation of organisms, and climate change.
- 2.64 The Environment Strategy for Scotland⁴² sets an ambitious vision for 2045: 'By restoring nature and ending Scotland's contribution to climate change, our country is transformed for the better, helping to secure the well-being of our people and planet for generations to come.' Steps to deliver this vision are set out in the Scottish Biodiversity Strategy Post-2020: A Statement of Intent⁴³. While public bodies have a specific duty to further the conservation of biodiversity, there is scope for marine planning policy to reflect the 2045 target set out above, in the way that it guides development, activities and use of the marine and coastal environment.
- 2.65 Under the Nature Conservation (Scotland) Act 2004, public bodies in Scotland have a duty to further the conservation of biodiversity, in so far as is consistent with the proper exercise of their functions.

Protected sites

- 2.66 In order to protect key assets, marine and coastal sites can be designated to provide varying degrees of protection for biological and/or geological natural features and may be of international, national or regional/local importance (see Table 11 and Maps 7–8). Appendix 2 of the

⁴⁰ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

⁴¹ Global Assessment Report on Biodiversity and Ecosystem Services. 2019. IPBES.
<https://ipbes.net/global-assessment>;

⁴² The Environment Strategy for Scotland: vision and outcomes. 2020. Scottish Government.
<https://www.gov.scot/publications/environment-strategy-scotland-vision-outcomes/documents/>

⁴³ Scottish biodiversity strategy post-2020: statement of intent. Scottish Government.
<https://www.gov.scot/publications/scottish-biodiversity-strategy-post-2020-statement-intent/documents/>



Orkney Islands Marine Region: State of the Environment Assessment⁴⁴ contains a list of all Orkney's designated sites and their site condition, along with information on the qualifying features.

Table 11: Hierarchy of designated sites in Orkney

International sites: Special Areas of Conservation and Special Protection Areas	Special Protection Areas (SPAs), designated for birds, and Special Areas of Conservation (SACs) taken together are commonly known as European sites. They are designated and protected in Scottish law through the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland). These Regulations are referred to as the 'Habitats Regulations' and cover the requirements for protected European sites as well as those for 'European Protected Species'.
Ramsar	Internationally important wetland areas are protected under the Ramsar Convention on Wetlands of International Importance. For Ramsar sites, the Scottish Government has chosen as a matter of policy to apply the same considerations to their protection as if they were SPAs and SACs. Refer to Map 7 for site locations.
National sites: Nature Conservation Marine Protected Areas	Nature Conservation Marine Protected Areas (Nature Conservation MPAs) are regions of the sea and coast where nationally important species, habitats and geomorphology are protected. Nature Conservation MPAs are designated under the Scottish and UK Marine Acts and complement marine components of sites designated under other legislation to form a network of MPAs. ⁴⁵
Sites of Special Scientific Interest	Sites of Special Scientific Interest (SSSIs) are notified for biological features, including coastal and marine birds, as well as geological or geomorphological features and extend from land to Mean Low Water Springs. Refer to Map 7 for site locations.

⁴⁴ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

⁴⁵ Different types of MPAs in Scotland. NatureScot.
<https://www.nature.scot/sites/default/files/2018-10/Marine%20Protected%20Area%20-%20Different%20types%20of%20MPAs%20in%20Scotland.pdf>



Seal haul-out sites	Seal haul-out sites are designated under section 117 of Marine (Scotland) Act 2010. They are locations on land where seals come ashore to rest, moult or breed and which have been designated by Scottish Ministers to provide additional protection for seals from intentional or reckless harassment. Seal haul-out sites were designated through the Seals (Designation of Haul-Out Sites) (Scotland) Order 2014. Refer to Map 8 for site locations.
Seal conservation areas	Orkney is a Seal Conservation Area designated by Scottish Ministers under the Marine (Scotland) Act 2010.
Regional/local sites: Geological Conservation Review	Geological Conservation Review (GCR) sites contain geological and geomorphological features of national and international importance. There are sixteen GCR sites in Orkney, eleven of which have statutory protection through designation as SSSIs. However, five GCR sites have no protective SSSI designation status and are known as unnotified GCR sites.
Local Nature Conservation Sites	Local Nature Conservation Sites (LNCS) are non-statutory sites identified by local authorities for their locally important natural heritage interest. Some of Orkney's LNCS have a coastal and/or intertidal component. Refer to Orkney Local Development Plan and supporting guidance for site locations and associated planning policy.

2.67 Plan users should refer to the Conservation and Management Advice documents for relevant designated sites within the MPA network, which include the site conservation objectives, advice to support management, and best practice advice.⁴⁶

⁴⁶ Scotland's register of European sites. SiteLink, NatureScot: <https://sitelink.nature.scot/home>



General Policy 9: Nature conservation

General Policy 9a: Biodiversity enhancement and positive effects for biodiversity

- i. Proposals for development and/or activities should contribute to the enhancement of coastal and/or marine biodiversity, where appropriate.
- ii. Proposals for development and/or activities should pay due regard to the biodiversity enhancement and positive effects for biodiversity policy provisions in the National Planning Framework.

General Policy 9b: Designated sites

Internationally designated sites

- i. Development and/or activities that may have a likely significant effect on a European site* must comply with the legal requirements for these protected areas. Consideration must be given to sites with mobile qualifying features, which may travel considerable distances from the site boundary, but may still have connectivity to that site.
- ii. Any plan or project likely to have a significant effect on European sites, either alone or in-combination, which is not directly connected with or necessary for their conservation management, must be subject to an 'appropriate assessment' of their implications for the site in view of its conservation objectives. Such plans or proposals may only be approved if the competent authority has ascertained that there will be no adverse effect on the integrity of the site.
- iii. A derogation is available for competent authorities to approve plans or projects which could affect the integrity of a European site if:
 - a. there are no alternative solutions;
 - b. there are reasons of overriding public interest, including those of a social or economic nature; and
 - c. compensatory measures are provided to ensure that the overall coherence of the European network is protected.

*It is important to note that European sites with mobile qualifying features such as birds, fish and marine mammals may travel considerable distances from the site boundary but may still have connectivity to that site and thus require consideration.



Nationally designated sites

Development and/or activities capable of affecting a SSSI will be permitted where:

- iv. the objectives of the designation and the overall integrity of the area will not be compromised; or
- v. any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance.

Development and/or activities capable of affecting a Nature Conservation MPA (NC MPA) will only be permitted where:

- vi. there is no significant risk of hindering the achievement of the conservation objectives of the NC MPA; or
- vii. there is no alternative that would have substantially lower risk of hindering the achievement of the conservation objectives of the NC MPA; and
- viii. the public benefit outweighs the risk of damage to the environment.

Seal haul-out sites

- ix. Development and/or activities capable of affecting designated seal haul-out sites will only be permitted if they do not result in harassment of seals.

Due regard should be given to the Marine Scotland Guidance on the Offence of Harassment at Seal Haul-out Sites*.

Local Nature Conservation Sites

- x. Proposals for development and/or activities that will affect a Local Nature Conservation Site should pay due regard to the Orkney Local Development Plan.

*See: Guidance on Haul-outs, Scottish Government:

<https://www.webarchive.org.uk/wayback/archive/20141130022556/http://www.scotland.gov.uk/Topics/marine/marine-environment/species/19887/20814/haulouts/guidance>



Protected Species

- 2.68 Wildlife in Scotland is protected by a range of national and international legislation designed to protect rare and vulnerable species as well as their breeding and resting places. The Habitats Regulations 1994 afford protection to certain species listed in Annex IV of the Habitats Directive and are called 'European Protected Species' (EPS). Marine EPS whose natural range incorporates the Orkney Islands marine region include European otter and cetaceans (whales, porpoises and dolphins).
- 2.69 The Wildlife and Countryside Act 1981 (as amended) is the primary legislation which protects animals, plants and certain habitats in Scotland. The 1981 Act (as amended) makes it an offence to either intentionally or recklessly damage, destroy, obstruct or disturb any such place the animals in Schedule 5 use for shelter and protection. It also protects the animals listed in Schedule 5 from being taken, killed or injured, either intentionally or recklessly. Schedule 5 species present in Orkney waters include basking shark and fan mussel.

General Policy 9c: European Protected Species and Schedule 5 species

- i. Development and/or activities that could affect a European Protected Species (EPS) or Schedule 5 species will not be supported unless the relevant competent authority is satisfied that:
 - a. the development and/or activity is not likely to result in an offence being committed under regulation 39 of The Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations) or Section 9 of the Wildlife and Countryside Act 1981 (as amended); or
 - b. if an offence might result, it is determined that a EPS licence* will be, or has been, issued by the appropriate authority.
- ii. Where the impacts of development and/or activities on an internationally or nationally protected species are uncertain, but there is good scientific grounds that significant irreversible damage could occur, the precautionary principle will apply.
- iii. Development 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 the legislative requirements to proceed can be met.

*An EPS licence can only be issued if it passes three strict legal tests (see Appendix 1).



Wider biodiversity

- 2.70 The Orkney Islands Marine Region: State of the Environment Assessment⁴⁷ notes that the broadscale seabed habitats are dominated by coarse sediment (52%), sublittoral sand (24%) and circalittoral rock (13%); these habitats will support a variety of biodiversity, including Priority Marine Features (PMFs).
- 2.71 PMFs are species and habitats which have been identified as being of conservation importance to Scotland. PMFs range from flame shell beds in coastal waters to the cold-water coral reefs in deeper seas and mobile species such as minke whale and basking shark. Appendix 5 identifies the PMFs recorded within the Orkney Islands marine region.
- 2.72 In addition, there are numerous coastal and marine Biodiversity Action Plan (BAP) species in Orkney waters; these are detailed in the Orkney Local Biodiversity Action Plan.⁴⁸ For example, the marine part of the sea trout life cycle is a BAP priority species, along with many other species of fish.

⁴⁷ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen-v2.pdf>

⁴⁸ The Orkney Local Biodiversity Action Plan, Orkney Islands Council
<https://www.orkney.gov.uk/Service-Directory/L/Local-Biodiversity-Plan.htm>



General Policy 9d: Wider biodiversity

Priority Marine Features

- i. Development and/or activities should avoid causing significant adverse impacts on the national status of a Priority Marine Feature(s)*.
- ii. Where significant adverse impacts on a Priority Marine Feature cannot be avoided through due consideration of factors including location, scale, siting, duration, design and/or operations, measures to minimise and/or appropriately mitigate significant adverse impacts on the national status must be demonstrated.
- iii. When appropriate measures to avoid, minimise and/or appropriately mitigate significant adverse impacts have been assessed, and there are residual significant adverse impacts on a Priority Marine Feature(s), it must be demonstrated that there is no reasonable alternative to the proposed development and/or activity.
- iv. If it can be demonstrated that there is no reasonable alternative, any significant adverse impacts on a Priority Marine Feature(s) must be clearly outweighed by a development and/or activity's socio-economic benefits of national importance.

*See <https://www.nature.scot/doc/priority-marine-features-guidance>

Orkney Local Biodiversity Action Plan habitats and/or species

- v. Where development and/or activities are likely to have an adverse impact on priority habitats and/or species identified in the Orkney Local Biodiversity Action Plan**, proposals should demonstrate that:
 - a. any significant impact will be avoided, minimised and/or appropriately mitigated;
 - b. if there are any significant residual adverse impacts, there is no reasonable alternative; and
 - c. if there is no reasonable alternative, any significant adverse impacts are clearly outweighed by a development and/or activity's socio-economic benefits.

**See Appendix 5b



Table 12: General Policy 9 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	2, 7, 9
Indirect contribution to objectives:	6, 8
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 5
Alignment with other marine and land-use plans	
National Marine Plan	Gen 9
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 9 A–C



Map 7: International and national nature conservation sites

Key

 SAC

 SSSI

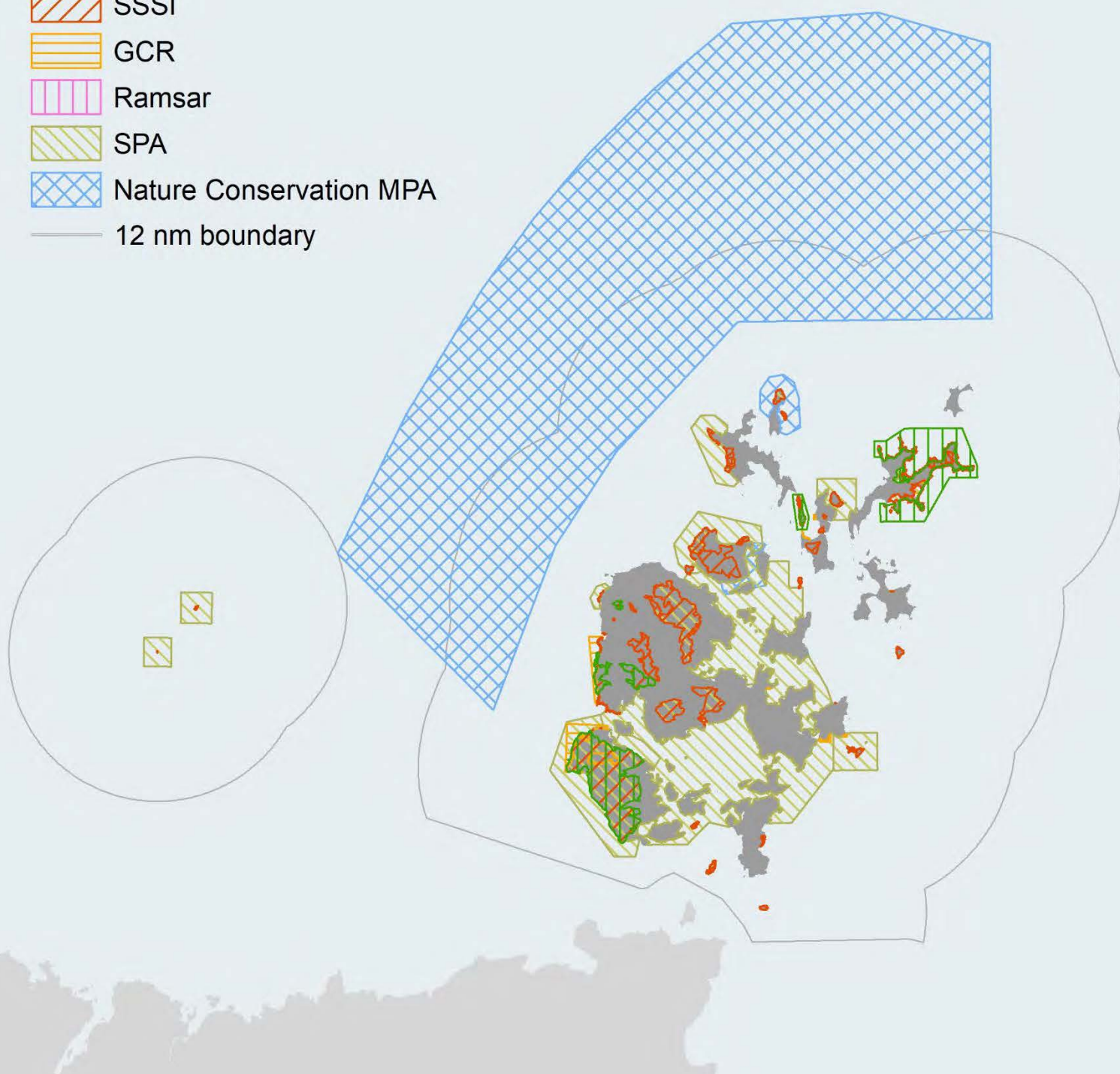
 GCR

 Ramsar

 SPA

 Nature Conservation MPA

 12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.

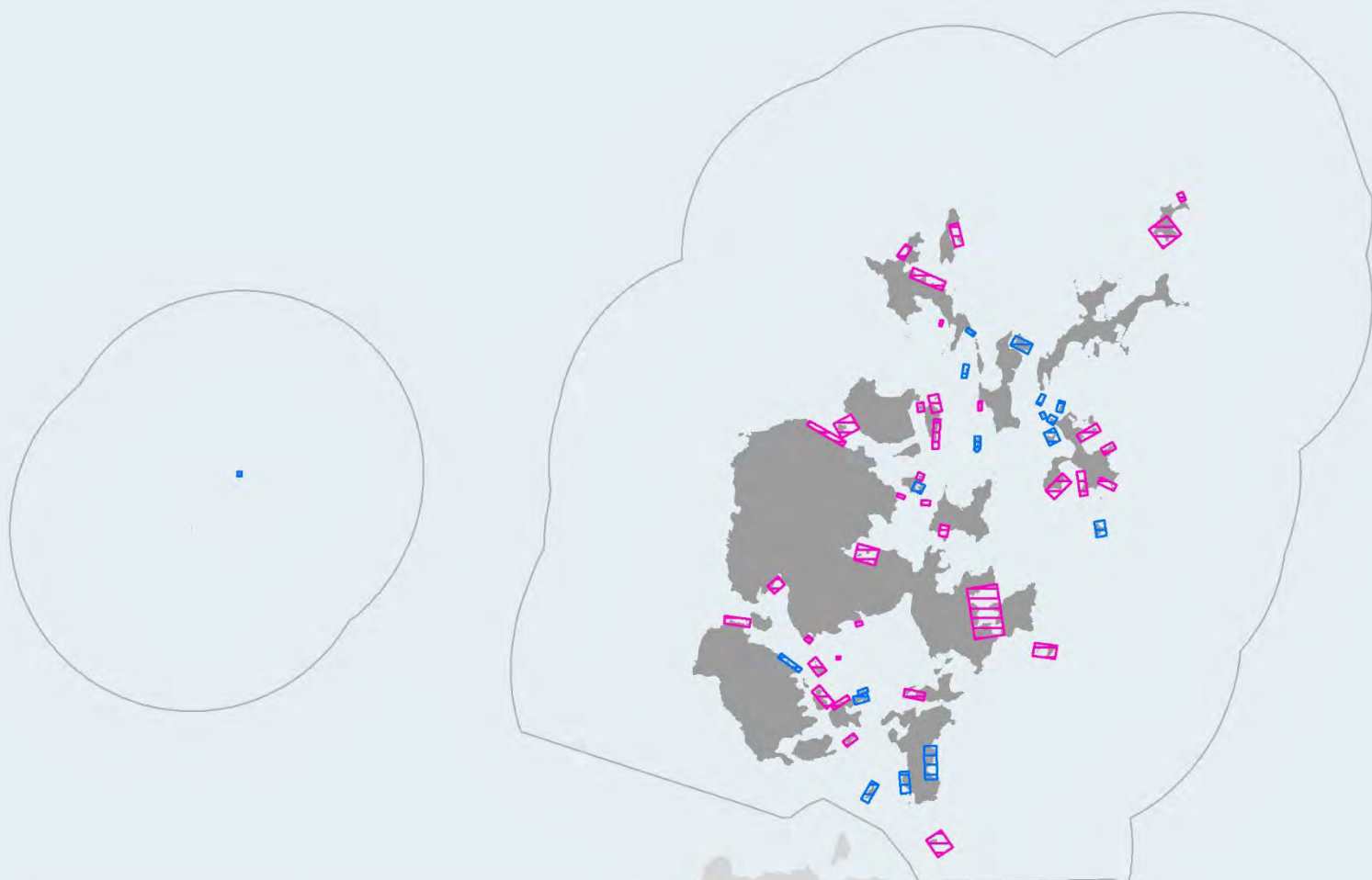
0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



Map 8: Designated seal haul-out sites

Key

-  Breeding colony seal haul-out
-  Seal haul-out
-  12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



General Policy 10: Seascape and landscape

- 2.74 Orkney's coastline contains world-class seascape and landscape, ranging from shallow sandy bays to dramatic high cliffs, to partially enclosed sounds, reflecting a strong physical and visual interplay between land and sea (see Map 9). This is well represented among the many Special Qualities of the Hoy and West Mainland National Scenic Area (see Map 10), in particular its 'spectacular coastal scenery' and the fact that 'land and water [are experienced] in constantly changing combinations under the open sky'.⁴⁹
- 2.75 Each island in Orkney has its own seascape and landscape character, which creates variety and contributes to both an individual and a collective sense of identity, as outlined in the Coastal Character Assessment – Orkney and North Caithness.⁵⁰
- 2.76 The distinctiveness of Orkney's islands and waters creates a corresponding variety of seascapes and landscapes worthy of protection. Not only are they part of the spectacular scenery, they also contribute significantly to a sense of place, well-being and quality of life, as well as being a major economic asset for Orkney.

⁴⁹ The special qualities of the National Scenic Areas. SNH Commissioned Report No.374. 2010.

<https://www.nature.scot/doc/naturescot-commissioned-report-374-special-qualities-national-scenic-areas>

⁵⁰ Coastal Character Assessment - Orkney and North Caithness. 2016. NatureScot.

<https://www.nature.scot/doc/coastal-character-assessment-orkney-and-north-caithness>



General Policy 10: Seascape and landscape

General Policy 10a: All development and/or activities

Development and/or activities must be located, sited and designed to avoid, minimise and/or appropriately mitigate significant adverse impacts on the landscape, townscape and seascape characteristics and sensitivities identified in the Orkney and North Caithness Landscape Character Assessment*, and should be sympathetic to the natural and/or historic features that contribute to the quality of seascape and landscape.

*See [Coastal Character Assessment - Orkney and North Caithness | NatureScot](#)

General Policy 10b: National Scenic Area

- i. Development and/or activities that would affect the Hoy and West Mainland National Scenic Area will only be permitted where it is demonstrated that:
 - a. the proposal will not have a significant effect on the overall integrity of the area or the Special Qualities for which the National Scenic Area has been designated; or
 - b. any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.
- ii. Development proposals for wind farms in the National Scenic Area should not be supported.

General Policy 10c: Wild Land Area

Development and/or activities affecting the Hoy Wild Land Area will only be permitted where it has been demonstrated that any significant effects on the qualities of this Area can be substantially overcome by siting, design or other mitigation.



Table 13: General Policy 10 links to Plan objectives, state of the environment assessment and other plans

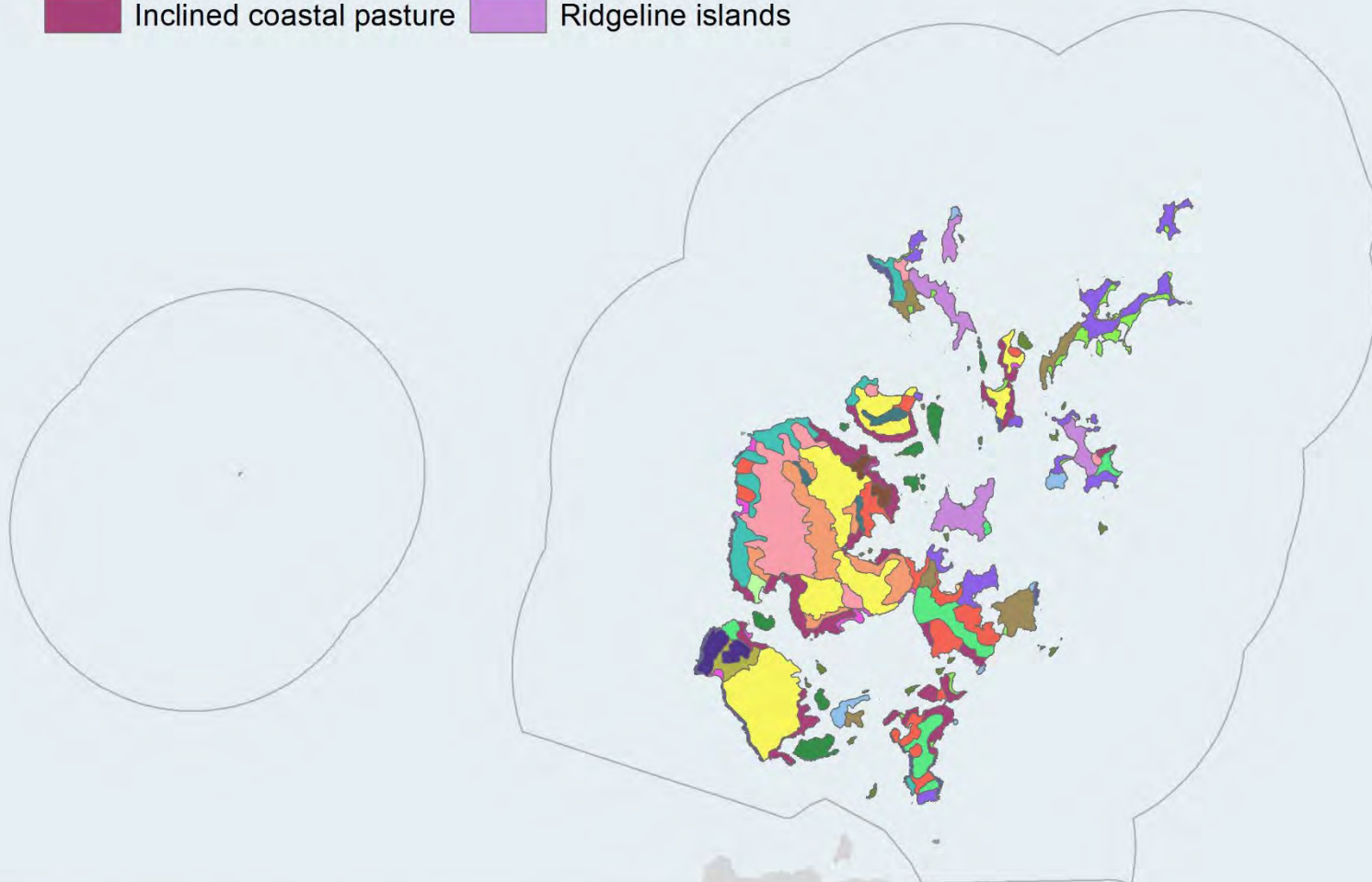
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	2, 6
Indirect contribution to objectives:	5, 8
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 2.8
Alignment with other marine and land-use plans	
National Marine Plan	GEN 7
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 9G



Map 9: Landscape character types

Key

 Cliffs	 Isolated coastal knolls	 Rocky coastal pasture
 Coast with sand	 Loch basin - Orkney	 Rolling hill fringe
 Coastal basin	 Low island pastures	 Rugged hills
 Coastal hills and heath	 Low moorland	 U-shaped valley
 Coastal plain	 Moorland hills	 Undulating island pasture
 Enclosed bays	 Peatland basin	 Whaleback islands
 Holms	 Plateau heath and pasture	 12 nm boundary
 Inclined coastal pasture	 Ridgeline islands	



Map is indicative. For further information please view the latest 'Landscape Character Assessment', published by NatureScot.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



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Map 10: National Scenic Area and Wild Land Area

Key

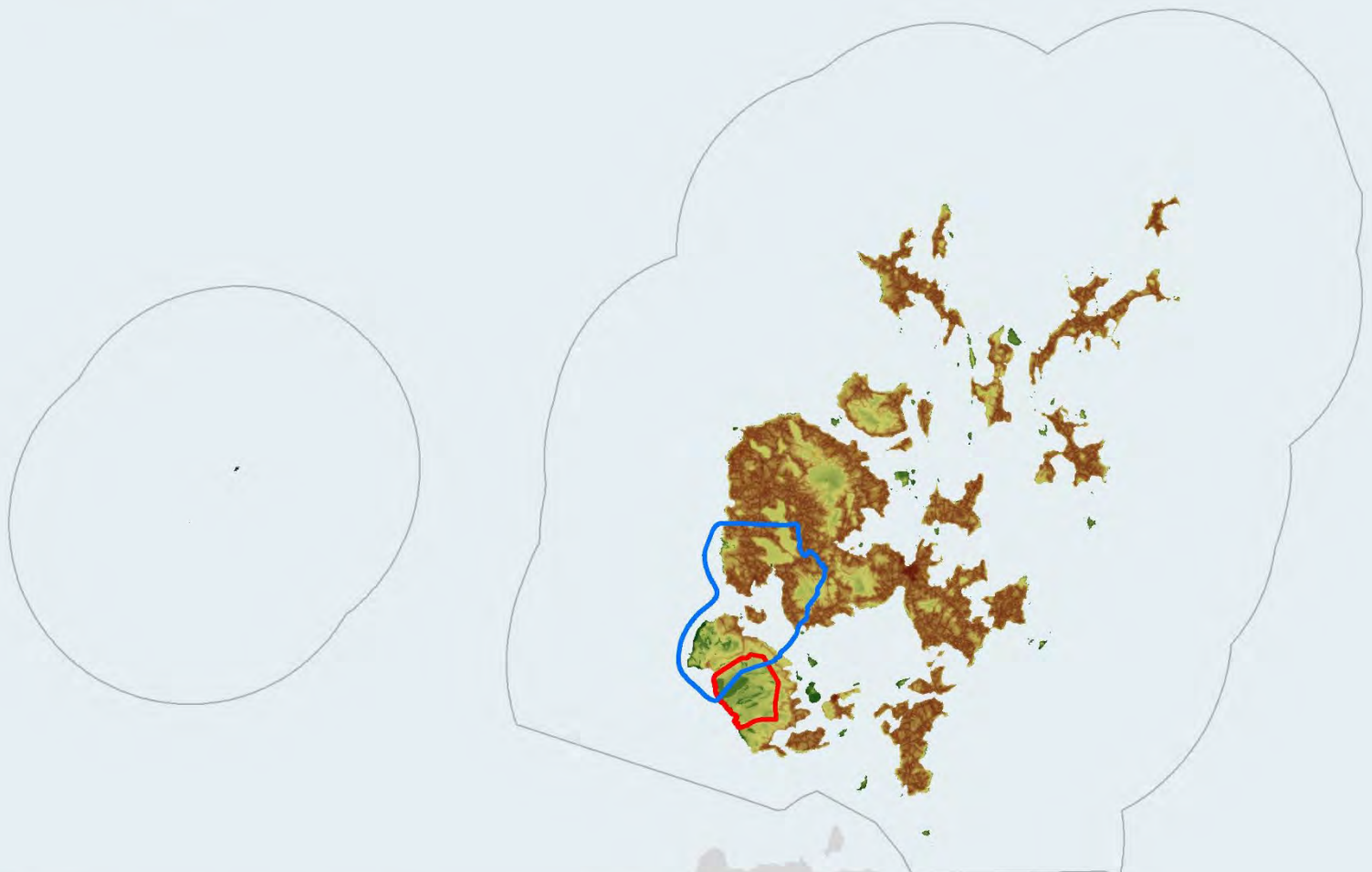
 National Scenic Area

 Wild Land Area

 12 nm boundary

SNH Relative Wildness

 High
Low



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available. Relative Wildness data is available from NatureScot.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres

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General Policy 11: Surface and underwater noise, and vibration

- 2.76 Coastal and marine development and activities can have associated noise, vibration and pressure wave impacts. As the number and variety of marine developments, activities and uses increases, addressing the cumulative impacts of anthropogenic noise and vibration will be a significant issue for marine planning and decision making.

Local communities

- 2.77 Construction and operational noise and/or vibration, both surface and underwater, caused by development, activities or use, can impact on local communities. For example, surface fish farm electricity generators or harbour piling activity can affect the enjoyment of an area by residents or people wishing to walk, swim or dive.

Noise sensitive species

- 2.78 Surface and underwater noise and vibration is a growing pressure for many marine species worldwide. Shipping, military exercises, renewable energy development, piling, and acoustic deterrent devices used in aquaculture can disturb a variety of marine and coastal species.
- 2.79 European Protected Species, such as porpoise and orca, and Priority Marine Features, such as mackerel and flapper skate, are sensitive to underwater noise, as are seals. In addition, fish and invertebrates of biodiversity and commercial importance can also be affected by underwater noise.⁵¹ Impacts vary with different frequencies and depending on the nature and duration of the activity.⁵²
- 2.80 Around Orkney's marine waters, there has been little comprehensive study of the quantity and levels of underwater noise; this was identified as a data gap in the Orkney Islands Marine Region: State of the Environment Assessment. Subsequently, however, some underwater noise modelling was undertaken for the Scapa Flow and Kirkwall areas, as part of the assessment undertaken for the Orkney Harbours Masterplan – Phase 1. These data outline injury thresholds for different species from both impulsive and continuous sound. As new research and information becomes available, General Policy 11 will be updated to reflect this.
- 2.81 Due to Orkney's extensive military past, old munitions are still occasionally found; these tend to be dealt with by way of controlled explosion on safety grounds. There is a joint UK Protocol for In-Situ Underwater Measurement of

⁵¹ Impacts of noise on the behavior and physiology of marine invertebrates: A meta-analysis. Murchy, K.A et al 2019. <https://asa.scitation.org/doi/pdf/10.1121/2.0001217>

⁵² Good Practice Guide for Underwater Noise Measurement. National Measurement Office, Marine Scotland, The Crown Estate, Robinson, S.P., Lepper, P. A. and Hazelwood, NPL Good Practice Guide No. 133. 2014 <https://www.npl.co.uk/special-pages/guides/gpg133underwater>



Explosive Ordnance Disposal for UXO.⁵³ UXO stands for Unexploded Ordnance.

General Policy 11: Surface and underwater noise, and vibration

General Policy 11a: Local communities

- i. Proposals for development and/or activities will be required to include sufficient measures to avoid, minimise and/or appropriately mitigate significant adverse noise and/or vibration impacts.
- ii. A noise impact assessment* will be required where significant exposure to noise is likely to arise from proposed development and/or activities.
- iii. Paying due regard to the policy provisions detailed in General Policy 14b(i), development and/or activities should not have significant adverse noise and/or vibration impacts on the amenity of local communities.

*See 'Assessment of noise: technical advice note', Scottish Government:

<https://www.gov.scot/publications/technical-advice-note-assessment-noise/>

General Policy 11b: Noise sensitive species

- i. Proposals for development and/or activities that could cause noise, vibration and/or pressure wave impacts must include an assessment of the likely noise, vibration and/or pressure wave effects at an early stage of a proposal, to determine whether a noise, vibration and/or pressure wave management plan is required.
- ii. Development and/or activities that could potentially cause injury or disturbance to a European Protected Species that cannot be avoided through appropriate mitigation will be required to obtain a European Protected Species licence in accordance with the relevant legislation.
- iii. Development and/or activities should avoid, minimise and/or appropriately mitigate significant adverse noise, vibration and/or pressure wave impacts on Priority Marine Features.

⁵³ Protocol for In-Situ Underwater Measurement of Explosive Ordnance Disposal for UXO. Department for Business, Energy & Industrial Strategy. 2020.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/955204/NPL_2020_-_Protocol_for_In-Situ_Underwater_Measurement_of_Explosive_Ordnance_Disposal_for_UXO.pdf



Table 14: General Policy 11 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	2, 6
Indirect contribution to objectives:	N/A
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 2.12
Alignment with other marine and land-use plans	
National Marine Plan	GEN 13
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	N/A



General Policy 12: Marine litter and waste

- 2.82 Public understanding of the impacts of marine litter has grown exponentially over recent years. The problem is mainly caused by a range of persistent, slowly degrading materials such as plastics, microplastics, metals and glass, which can circulate across great distances. In the Orkney Islands marine region and around the world, by far the most commonly found litter at sea and washed ashore is plastic,^{54, 55} which forms around 75% of all marine debris globally⁵⁶ (see Map 11).
- 2.83 Litter poses a threat to a wide range of wildlife in the form of ingestion, entanglement and smothering, which already results in the deaths of hundreds of thousands of seabirds and marine mammals globally each year,⁵⁷ including species in Orkney.⁵⁸ Marine debris can also pose a navigational hazard, is unsightly, and is an economic burden on affected communities. Most plastic debris found in the ocean enters via land-based sources, with tributaries and burns transporting litter from further inland to the marine environment.⁵⁹ However, in Orkney, there is no clear evidence on the sources of litter.
- 2.84 Marine Scotland published an updated Marine Litter Strategy in 2022⁶⁰ as part of its overall approach to marine planning and management. In support of the Scottish Government's commitment to reduce marine litter, General Policy 12 aims to put in place measures to avoid and minimise the risk of development and activities contributing to marine litter in the Orkney Islands marine region. Implementing waste management measures and the waste reduction hierarchy⁶¹ will help to generate less waste and ensure that litter is disposed of in ways that do not harm the marine environment. Public authorities are also encouraged to proactively engage in local litter reduction and monitoring

⁵⁴ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

⁵⁵ Marine litter policy agreement. Scottish Government.
<https://www2.gov.scot/Topics/marine/marine-environment/litter>

⁵⁶ Marine Debris: Understanding, Preventing and Mitigating the Significant Adverse Impacts on Marine and Coastal Biodiversity. Technical Series No.83. Secretariat of the Convention on Biological Diversity
<https://www.cbd.int/doc/publications/cbd-ts-83-en.pdf>

⁵⁷ Factsheet: Marine pollution. United Nations Ocean Conference. 2017.
https://sustainabledevelopment.un.org/content/documents/Ocean_Factsheet_Pollution.pdf

⁵⁸ Plastic particles in fulmar stomachs in the North Sea. OSPAR Intermediate Assessment. 2017.
<https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/pressures-human-activities/marine-litter/plastic-particles-fulmar-stomachs-north-sea/>

⁵⁹ "Where does the plastic in our oceans come from?" Our World in Data. 2021
<https://ourworldindata.org/ocean-plastics>

⁶⁰ A Marine Litter Strategy for Scotland [Marine Scotland: A Marine Litter Strategy for Scotland \(www.gov.scot\)](https://www.gov.scot/publications/marine-litter-strategy-for-scotland/pages/3/) Marine Scotland

⁶¹ Applying the waste hierarchy: guidance. Scottish Government. 2017.
<https://www.gov.scot/publications/guidance-applying-waste-hierarchy/pages/3/>



schemes, including appropriate involvement in community organised events such as Orkney's 'Bag the Bruck'.

- 2.85 Marine waste refers to waste streams generated from marine development and activities, which require licensed disposal.
- 2.86 Many wider initiatives to address marine litter and waste in Orkney are being addressed through other measures, strategies and management plans, and users of this Plan should consider these accordingly. These include but are not limited to:
- The International Convention for the Prevention of Pollution from Ships (MARPOL),⁶² which strictly prohibits the discharge of all litter into the sea.
 - The Port Waste Management Plan operated by Orkney Islands Council Marine Services,⁶³ which ensures that all ship-generated waste and cargo residue is controlled at all of the authority's piers and harbours.

General Policy 12: Marine litter and waste

- i. Proposals for development and/or activities that are likely to create a significant risk of contributing to marine litter should include measures to avoid, minimise and/or appropriately mitigate these risks.
- ii. Where appropriate, proposals for development and/or activities should include a waste minimisation and management plan that sets out appropriate waste management measures for construction, operation and decommissioning phases, in accordance with the principles of the waste reduction hierarchy.
- iii. The disposal of any waste must only be through licensed facilities.
- iv. When exercising functions capable of affecting the Orkney Islands marine region, public authorities should take reasonable and proportionate measures to avoid, minimise and/or appropriately mitigate the risk of contributing to coastal and marine litter and, where appropriate, implement the waste reduction hierarchy.

⁶² In July 2011, IMO adopted amendments to Annex V (Prevention of Pollution by Garbage from Ships) which prohibits the discharge of all garbage into the sea, except as provided otherwise, under specific circumstances. 'Garbage' means all kinds of victual, domestic and operational waste, excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically, except sewage originating from ships.

⁶³ Port Waste Management Plan. Orkney Island Council Marine Services. 2020.
<https://www.orkneyharbours.com/documents/port-waste-management-plan>



Table 15: General Policy 12 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	6
Indirect contribution to objectives:	2
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 2.11
Alignment with other marine and land-use plans	
National Marine Plan	GEN 11
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 1 viii



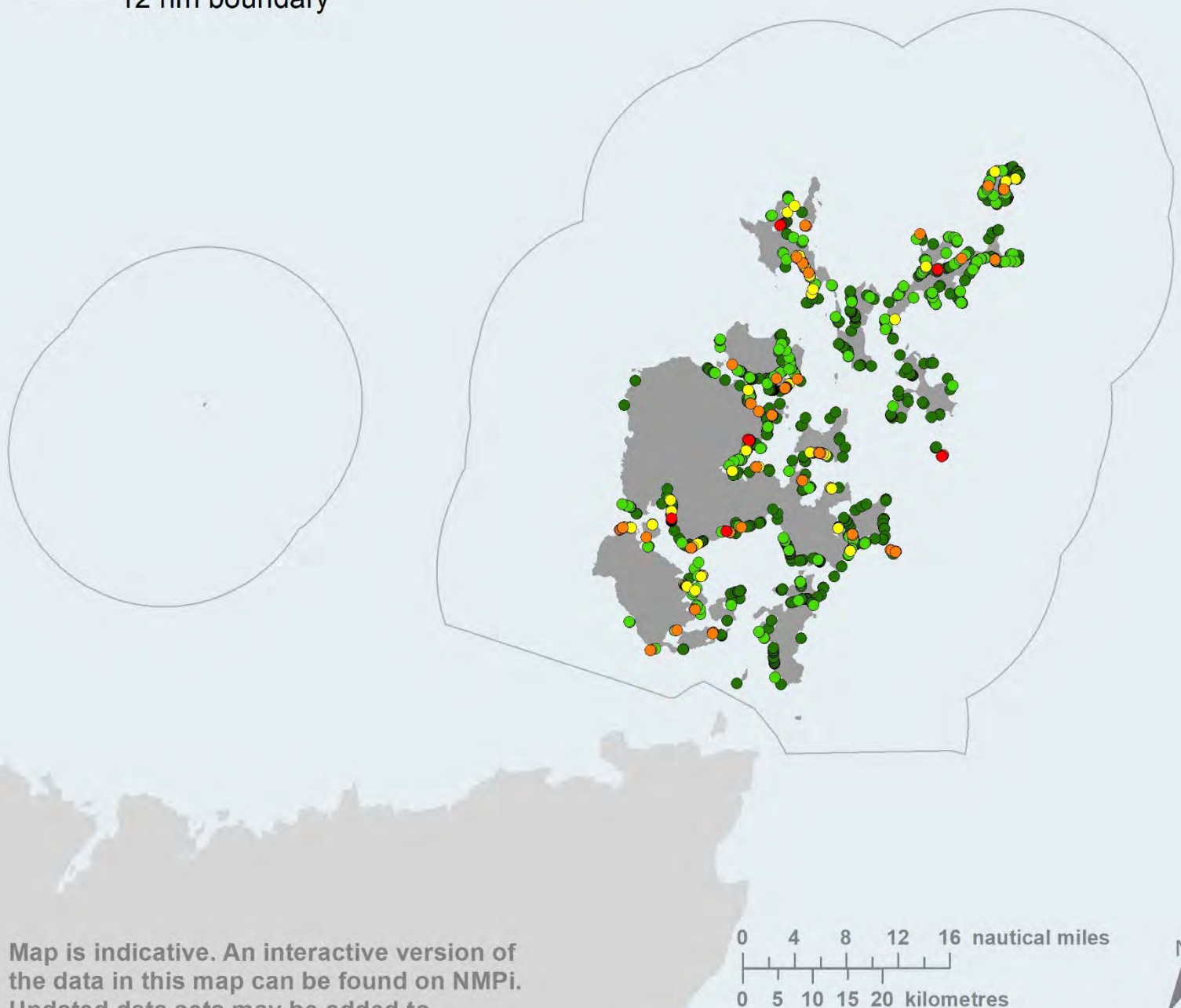
Map 11: SCRAPbook coastal litter survey

Key

Litter Presence

- Low densities; single items or minor accumulations
- Medium densities; significant accumulations in localised areas
- Appearing widespread with significant accumulations
- Major accumulations in localised areas
- Major and widespread accumulation

— 12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.

General Policy 13: Non-native and invasive non-native species

- 2.87 Non-native species (NNS) are those that have been intentionally or unintentionally introduced outside their native range as a consequence of human activity. Once established, if these species then threaten biodiversity and/or cause economic damage, they are referred to as 'invasive' non-native species (INNS). Impacts of INNS include competition with native species over resources, changes to habitat and/or water quality, and transmission of disease. All these factors can be exacerbated by climate change.
- 2.88 The Great Britain Invasive Non-native Species Strategy⁶⁴ provides an overarching framework to minimise the risk posed by INNS in Great Britain and reduce their negative impacts. The first principle in tackling this issue is prevention. The Scottish Government's Non-native Species: Code of Practice,⁶⁵ and the references contained therein, provides guidance on the various control orders and agreements that may be required, including information on pathways for the potential spread of INNS.
- 2.89 Locally, the Ballast Water Management Policy for Scapa Flow (2017)⁶⁶ sets out a management strategy to address the introduction and spread of INNS, which will be instrumental in mitigating the impact of, and adapting to, any non-native species discovery in local marine waters around the key harbour areas.
- 2.90 Pathways for the introduction and spread of INNS include renewable energy and aquaculture development, shipping and marine litter. Good biosecurity practice should consider the risk of planned development and activities establishing new pathways for the spread of INNS.⁶⁷ The Clean Check Dry campaign is broadly applicable for a range of water users as an additional biosecurity measure.⁶⁸
- 2.91 Invasive non-native stoats pose a significant threat to Orkney's native coastal wildlife communities, many of which are already under threat. As stoats are excellent swimmers and can cross open sea to a distance of 3km, they put

⁶⁴ The Great Britain Invasive Non-native Species Strategy. DEFRA, The Scottish Government, Llywodraeth Cymru. 2015.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/455526/gb-non-native-species-strategy-pb14324.pdf

⁶⁵ Non-native Species: Code of Practice. Scottish Government. 2012
[Non-native species: code of practice - gov.scot \(www.gov.scot\)](https://www.gov.scot/non-native-species-code-of-practice)

⁶⁶ Ballast Water Management. Orkney Islands Council Harbour Authority.
<https://www.orkneyharbours.com/services/ballast-water-management>

⁶⁷ Scotland's National Marine Plan. Scottish Government. 2015.
<https://www.gov.scot/publications/scotlands-national-marine-plan/>

⁶⁸ 'Check Clean Dry' campaign. GN Non-Native Species Secretariat.
<https://www.nonnativespecies.org/what-can-i-do/check-clean-dry/>



seabird populations of national importance, such as puffin, Arctic tern and red-throated diver, at risk on currently stoat-free islands. The Orkney Native Wildlife Project is working to safeguard native wildlife through the eradication of stoats from the islands and will prepare a biosecurity plan to safeguard Orkney's native wildlife into the future.

General Policy 13: Non-native and invasive non-native species

- i. Proposals for development and/or activities should demonstrate that the potential risks of introducing or spreading non-native species (NNS)/invasive non-native species (INNS) have been adequately considered, paying due regard to the Scottish Government Non-native Species: Code of Practice*. A site-specific biosecurity plan may be required.
- ii. Appropriate prevention measures should be put in place when:
 - a. moving, maintaining and cleaning equipment or boats;
 - b. moving and/or introducing fish and shellfish and other farmed species such as seaweed;
 - c. introducing structures suitable for settlement of aquatic NNS/INNS or which facilitate the movement of terrestrial NNS/INNS, including to islands;
 - d. undertaking habitat enhancement or restoration activities.
- iii. Proposals for development and/or activities in areas where NNS/INNS are known to exist must include necessary measures or a biosecurity plan approved by the consenting authority or regulator that seeks to minimise the risk of spreading the NNS/INNS or identifies ways to eradicate the organisms and prevent their reintroduction. Where appropriate, measures within a biosecurity plan should include surveying and ongoing monitoring in areas where NNS/INNS are known to exist, and any subsequent spread of NNS/INNS should be notified to Marine Scotland.

*See 'Non-native species: code of practice', Scottish Government, 2012.

<https://www.gov.scot/publications/non-native-species-code-practice/documents/>



Table 16: General Policy 13 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	2
Indirect contribution to objectives:	4
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 5.8
Alignment with other marine and land-use plans	
National Marine Plan	GEN 10
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life Strategic Priority: Thriving Economy
Orkney Local Development Plan	Section 13.5



General Policy 14: Amenity, well-being and quality of life of local communities

- 2.92 Orkney is valued by local communities as a unique and special place to live and work. There are many factors that contribute to the quality and enjoyment of a place and the resulting sense of community well-being. Studies of marine spatial planning processes⁶⁹ have shown that capturing wider values, including cultural values linked to, for example family and village history, together with the biodiversity qualities of a region, is of vital importance to coastal communities. General Policy 14 aims to ensure that due consideration is given to safeguarding the amenity, well-being and quality of life of local communities.
- 2.93 Building a Wellbeing Economy is now a national policy priority in Scotland⁷⁰ and is core to the National Strategy for Economic Transformation⁷¹. There is a growing realisation that we must give much greater priority to the well-being and quality of life of people living in an area and to the health and well-being of the environment upon which we rely.
- 2.94 Amenity, in planning terms, refers to the positive elements that contribute to the overall character and/or enjoyment of an area by residents, visitors and other users. Capturing the importance of a local 'sense of place' is essential, but challenging, to address in marine planning policy, particularly doing so in a way that can integrate place-based perspectives linked to local knowledge.⁷² It is therefore important to engage effectively with local communities when preparing proposals for development and activities that will have significant effects on their amenity, well-being and quality of life.
- 2.95 Marine and coastal recreation can contribute not only to human health and well-being, but also significantly to the economy.⁷³ Thus, the quality of the marine environment and its natural capital links directly to the socio-economic benefits provided to society.⁷⁴

⁶⁹ Bente Sundsvold and Claire W. Armstrong 'Found in translation: identifying ecosystem services through public consultation statements in a marine spatial planning process' (2019) 15:1 *Ecosystems and People* 102.

<https://www.tandfonline.com/doi/full/10.1080/26395916.2019.1596982>

⁷⁰ Wellbeing Economy Governments (WEGo). Scottish Government.

<https://www.gov.scot/groups/wellbeing-economy-governments-wego/>

⁷¹ Scotland's National Strategy for Economic Transformation. Scottish Government. 2022.

<https://www.gov.scot/news/scotlands-national-strategy-for-economic-transformation/>

⁷² Ibid.

⁷³ Emily Stebbings, Eleni Papathanasopoulou, Tara Hooper, Melanie C. Austen, Xiaoyu Yan, 'The marine economy of the United Kingdom' (2020) 116 *Marine Policy* 103905.

<https://www.sciencedirect.com/science/article/pii/S0308597X19307390>

⁷⁴ Ibid



General Policy 14: Amenity, well-being and quality of life of local communities

General Policy 14a: Benefits for local communities

Proposals for development and/or activities should maximize opportunities to deliver amenity, well-being and quality of life benefits for local communities. Significant consideration should be given to the assessment of impacts on the amenity, well-being and quality of life of local communities.

General Policy 14b: Engagement with local communities

Proposals for development and/or activities should demonstrate that local stakeholders have been engaged and listened to at an early stage in the development process when assessing any potential impacts on the amenity, well-being and quality of life of local communities and, where appropriate, opportunities for enhancement.

General Policy 14c: Amenity

Proposals for development and/or activities should:

- i. avoid, minimise and/or appropriately mitigate, significant adverse effects on amenity due to factors including, but not limited to, waste, noise, air quality, light and odour;
- ii. include sufficient mitigation plans to address significant effects on amenity;
- iii. be designed to a high standard and quality, so that the nature and scale of the development and/or activities contribute positively to the character and sense of place of the area in which they are to be located;
- iv. demonstrate that due regard has been given to the Six Qualities of Successful Places*, where appropriate.

General Policy 14d: Well-being and quality of life

Proposals for development and/or activities should:

- i. include measures to safeguard, and where appropriate enhance, the well-being and quality of life of local communities;
- ii. demonstrate that significant adverse effects on the well-being and quality of life of local communities have been avoided, minimised and/or appropriately mitigated.

*see (draft) NPF4



Table 17: General Policy 14 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	5, 6
Indirect contribution to objectives:	2
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 6
Alignment with other marine and land-use plans	
National Marine Plan	Policy Rec & Tourism 5
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 12A





Section 3: Sector Policies

Introduction

- 3.1 Sector policies are relevant to the determination of authorisation or enforcement decisions for a particular type of development or activity, for example fish farming or renewable energy generation. The sector policies provide a statutory policy framework to assist public authorities, including regulators, decision makers and planners, to make decisions on sustainable development and activities that take place within, or that affect, the Orkney Islands marine region. Having a suite of sector policies helps ensure that the Plan contributes to government priorities and local sustainable development objectives.
- 3.2 As stated in General Policy 1, there is a presumption in favour of sustainable development, activities and use of the marine environment, when it is consistent with the policies and objectives of this Plan. This approach aligns with Scotland's National Marine Plan. It should also help to attain sustainable economic growth by providing greater certainty to businesses and investors utilising marine resources in the Orkney Islands marine region.
- 3.3 The sector policies identify, by economic sector, the relevant environmental, social and economic factors that need to be considered by decision makers and applicants. Development and/or activity proposals should give due consideration to their potential impacts on existing marine users, developments and activities. Where relevant, the sector policies identify how such potential impacts should be addressed e.g. Sector Policy 1: Commercial Fisheries identifies the requirements for assessing impacts from other development and/or activity types on commercial fishing opportunities. Some development types, for example an offshore windfarm, will have to consider several sector policies: the renewable energy, cables, harbours and commercial fisheries policies, for example. Therefore, proposals for development and/or activities must pay due regard to all the relevant sector policies.
- 3.4 The sector policies should be applied proportionately by public authority decision makers. Decision makers need to consider whether the type, location, scale and potential impacts of a development or activity justify the application of a specific sector policy or provision within a policy.
- 3.5 The policies in the Plan are not presented in any order of priority. All policies are afforded equal weight in decision making.
- 3.6 In all cases, safety considerations are of paramount importance in decision making.
- 3.7 Proposals for development and activities must comply with relevant legal requirements.



3.8 General policies are contained in Section 2 of the Plan.

Policy structure

3.9 Each policy has an introductory section detailing the purpose and context for the policy, together with key information about the economic sector that is particularly relevant to Orkney. The policy is then presented in a clearly defined policy box. The associated text for each policy includes supporting information that should be taken into account in decision making.

3.10 Each policy is supported by an information box that outlines:

- the contribution of the policy to the Plan objectives;
- relevant information in the Orkney Islands Marine Region: State of the Environment Assessment; and
- the policy's alignment with other key statutory marine and land-use plans.

3.11 Where appropriate, the Plan policies are supported by spatial information in map form or reference to other relevant spatial information (see Section 1 for details).

3.12 Appendix 1 summarises the role of relevant public authority consenting and advisory bodies and identifies the key authorisation and enforcement decisions that will implement the Plan policies.

3.13 A summary of the wider relevant legislation, policies and guidance that should be considered alongside this Plan is provided in Appendix 2.

Impacts or effects from development and activities

3.14 The Plan policies aim to maximise positive impacts or effects from development and activities and appropriately manage adverse impacts or effects. The impacts or effects of marine development and activities are not limited to the site boundaries of a proposal; for example, sediment plumes arising from dredging activity can be transported long distances before being deposited. Impacts or effects can be temporary, permanent, direct, indirect, short term, medium term, long term and/or cumulative.

3.15 It is important to consider the cumulative impact of development and activities on the marine environment. Development and activities proposals should consider cumulative impacts associated with all existing and proposed development, not just development of the same type or sector. Where required, cumulative impacts or effects must be assessed in accordance with the requirements of the appropriate EIA regulations (see Appendix 1).

3.16 The determination of what is a significant impact or effect should be made by the appropriate public authority decision maker. This judgement should be



informed by relevant information and data, assessment, and the views of statutory consultees and wider stakeholders.

- 3.17 Impact or effect significance can be appraised by considering factors including the nature, size and location of the proposal, potential for cumulative impacts or effects, the potential pathways to impact, the significance and sensitivity of affected receptors (e.g. an environmental feature or infrastructure asset), and the magnitude of the impact or effect.
- 3.18 An overarching aim of the Plan's general and sector policies is to, in order of preference, avoid, minimise and/or appropriately mitigate any significant adverse impacts or effects that could be caused by proposed development and/or activities. This should be achieved by implementing the mitigation hierarchy (see Appendix 7a). The most effective mitigation measures are those which avoid or prevent the creation of adverse impacts or effects at source, and such measures should be identified during the project design stage. The aim of this approach is to prevent or avoid the adverse impacts or effects, if possible, and only then consider other mitigation measures. Where specific mitigation measures are required, these should be explicitly secured as part of the relevant consent and/or permission.
- 3.19 In addition to supporting appropriate mitigation measures, the Plan policies aim to support the delivery of environmental, social and economic benefits, and positive effects for biodiversity.



Sector Policy 1: Commercial fishing

- 3.20 Commercial fisheries make a significant contribution to the economy of Orkney and are an important source of income, particularly in the more remote and fragile island communities.⁷⁵ In the Orkney Islands marine region, commercial fishing is predominately undertaken by inshore creel boats under 10 metres, fishing mainly brown crab. Dive boats, dredgers and jiggers also form part of the inshore fishing fleet.⁷⁶ Lobster, velvet and green crab, scallop, whelk and periwinkle are also important commercial shellfish species.
- 3.21 The seas around Orkney support significant populations of commercially important species of finfish, with fishing targeting both demersal and pelagic stocks in the waters adjacent to Orkney. These fisheries rely on a healthy marine environment for productive nursery and spawning grounds. There are vessel monitoring system fishing intensity spatial data on National Marine Plan interactive, which show the key areas used by vessels over 12 metres.
- 3.22 Regional Inshore Fisheries Groups (RIFGs) aim to improve the management of inshore fisheries in the 0–6 nautical mile zone and to give commercial inshore fishermen a strong voice in wider marine management. Orkney Sustainable Fisheries Ltd (OSF) is recognised as the RIFG for Orkney. The Scottish Government, through its Marine Scotland Directorate, is responsible for fisheries management within the Orkney Islands marine region. The Orkney Inshore Fisheries Management Plan⁷⁷ sets out the objectives and measures for inshore fisheries management in Orkney. The National Marine Plan states that RIFGs should work with all local stakeholders, including Marine Planning Partnerships, to agree joint fisheries management measures.
- 3.23 RIFGs have no powers to implement statutory fisheries management measures, though they can implement voluntary measures that stem from their management plans. For example, current management measures in Orkney include minimum landing sizes and returning berried (egg bearing) velvet crabs. However, some measures require implementation by the Scottish Government through legislation. Scottish Ministers consider RIFG legislative proposals for statutory implementation. These proposals are required to align with national high-level objectives.

⁷⁵ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

⁷⁶ Ibid.

⁷⁷ Inshore Fisheries Management Plan. Orkney Sustainable Fisheries Ltd. 2017.
<https://rifg.scot/storage/region/Orkney-Sustainable-Fisheries-Ltd.-Management-Plan-2017-2.pdf>



- 3.24 The Orkney Fisheries Association (OFA) represents local members from inshore fishing vessels in the whitefish, nephrops, scallop and creel sectors, as well as processors and wholesalers.
- 3.25 Fishing has widespread impacts on the marine environment, affecting marine productivity and biodiversity. However, the degree of impact depends on the amount of fishing taking place, the efficiency and selectivity of gear, the approach taken to targeting species, and the nature and sensitivity of species and habitats affected. The degree of impact is also related to natural ecosystem dynamics. Commercial fisheries exert pressures on target and non-target fish populations, both directly through fishery removals, and indirectly by removing predators, prey, competitors and essential habitats.⁷⁸
- 3.26 Inshore commercial fishing in Orkney is predominately carried out from small locally owned vessels providing direct income for remote and economically fragile island communities. When assessing proposals for development and/or activities, due regard should be given to the potential socio-economic impacts on the livelihoods of fishermen and associated fragile island communities (e.g. potential adverse effects on local services and exacerbating risks of depopulation).
- 3.27 Given its widespread nature, commercial fishing has the potential to interact significantly with a number of other economic sectors. Fishing activity in Orkney is year-round but follows seasonal trends, and given the dynamic and mobile nature of many fisheries, it is often very difficult to accurately predict precisely where activity will take place from year to year. Fishers will let grounds rest and rely on unfished nursery areas for a healthy fishery.
- 3.28 Proposers of any marine development or activity should consult at an early stage with OSF, OFA and affected fishers in the site-selection, design and planning process for their proposals. This early engagement can help to avoid, minimise and/or mitigate significant adverse impacts on commercial fishing opportunities, and impacts on nursery, spawning and feeding areas for commercially fished species.

⁷⁸ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>



Sector Policy 1: Commercial fishing

- i. Proposals for development and/or activities should avoid, minimise and/or appropriately mitigate, significant adverse impacts:
 - a. on commercial fishing opportunities, taking into account seasonality and the year-round operation of the affected fishery;
 - b. on nursery, spawning and feeding areas for commercially fished species, and associated habitats and species;
 - c. due to displacement, including related impacts on the wider marine environment, on fish stocks and the use of fuel by fishing vessels;
 - d. on safe access to marine space for fishing vessels, including the seabed, water column and sea surface, and navigational access to and from landfall areas, e.g. ports, harbours or slipways;
 - e. on the economic, and where appropriate, cultural importance of fishing, in particular to fragile island communities.
- ii. Orkney Sustainable Fisheries, Orkney Fisheries Association and fishers that use an area that could be affected by a proposed development and/or activity should be consulted at an early stage in the site-selection, design and planning process.
- iii. When existing fishing opportunities or activity cannot be safeguarded, a Fisheries Management and Mitigation Strategy should be prepared by the proposer of the development and/or activity, 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.



Table 18: Sector Policy 1 links to Plan objectives, state of the environment assessment and other plans

Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	9
Indirect contribution to objectives:	5
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 6.2
Alignment with other marine and land-use plans	
National Marine Plan	Chapter 6
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Thriving Economy Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	N/A



Sector Policy 2: Aquaculture

Finfish and shellfish farming

- 3.29 Salmon farming has been established in Orkney for many years, providing significant employment and wider socio-economic benefits to island communities. Fish farming jobs and the economic value added to local supply chains support the sustainability of island communities, particularly in more remote and economically fragile locations.
- 3.30 Finfish farming development and/or activities can have significant impacts on the marine environment; associated environmental pressures are identified in the Orkney Marine Region: State of the Environment Assessment.⁷⁹ It is therefore important that these potential impacts and risks be carefully managed to safeguard the marine environment in Orkney.
- 3.31 Shellfish farming is not a well-established economic sector in Orkney. Shellfish farming sites for Pacific oyster (*Crassostrea gigas*) cultivation have been consented, though at the time of writing this Plan there is no active production. The Orkney Shellfish Hatchery is an on-land facility cultivating European native oysters and European clawed lobster to supply ecological restoration projects, wild stock replenishment and shellfish farming.
- 3.32 Marine fish farming, out to 12 nautical miles, requires planning permission under the Town and Country Planning (Scotland) Act 1997 (as amended). Fish farming is defined in the 1997 Act as ‘the breeding, rearing or keeping of fish or shellfish’ (which includes any kind of crustacean or mollusc). This Act was amended by the Town and Country Planning (Marine Fish Farming) (Scotland) Regulations 2013 to include any kind of sea urchin (see Appendix 1 for fish farming permission and consent requirements). Marine fish farms also require a seabed lease from Crown Estate Scotland (CES).
- 3.33 There has been significant expansion of salmon farming development and activities in Orkney over recent decades, including new fish farms and increases in equipment size and production, and/or biomass, at existing fish farm sites (see Maps 12–13). This has increased the cumulative impacts on the marine environment and other marine users from these developments and activities. It is therefore important that the location, scale, siting and design of fish farm development and activities be appropriately managed to safeguard

⁷⁹ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>



the marine environment and the interests of other marine users, with due consideration to cumulative impacts.

- 3.34 Orkney Islands Marine Region: Finfish Farming Spatial Guidance should inform decision making on proposals for finfish farming development and activities in Orkney. The guidance identifies the significance of environmental, historic, social, economic and infrastructure features, and the sensitivity of these features to finfish farming development and activities. (Note: The Orkney Islands Marine Region: Finfish Farming Spatial Guidance Consultation Draft will be deposited for public consultation alongside this Consultation Draft Plan in Summer 2023.)
- 3.35 During the lifetime of this Plan, Orkney Islands Marine Region: Shellfish Farming Spatial Guidance may be adopted to help guide the sustainable development of the sector in Orkney.
- 3.36 Scapa Flow Aquaculture Water Quality Impact Modelling Assessment – Development Management Guidance (2018)⁸⁰ provides a predictive far-field modelling assessment of current and proposed fish farms in Scapa Flow. The assessment approach provides a better understanding of the water quality impacts of nutrient dispersion arising from existing and planned fish farms, including cumulative impacts.
- 3.37 The salmon farming industry is moving towards larger cages, higher biomass sites, and the siting of fish farms in higher energy locations to benefit from improved waste dispersal and to reduce adverse interactions with other marine users. It is anticipated that current technical innovation in the sector will enable finfish farm development in locations further offshore. These innovations have the potential to reduce future development pressure in more sensitive near-shore locations. There is also potential for the development of multitrophic, semi-closed and closed-containment aquaculture.

Seaweed cultivation

- 3.38 Seaweed cultivation is not part of the marine fish farming consenting process under the land-use planning system; the construction of a seaweed farm is a licensable activity requiring a licence from Marine Scotland Licensing Operations Team (MS-LOT) and a seabed lease from CES. Proposals for a seaweed farm should align with the Marine Scotland Seaweed Cultivation

⁸⁰ Scapa Flow Aquaculture Water Quality Impact Modelling Assessment - Development Management Guidance. Intertek and Orkney Islands Council. 2018.
<https://www.orkney.gov.uk/Service-Directory/D/aquaculture-water-quality-impact-modelling-assessment.htm>



Policy Statement 2017.⁸¹ More detail on the various regulatory requirements and legislation are outlined in information available from the Seaweed Review Steering Group.⁸² As identified in the Scottish Government Statement on the Seaweed Review, the future of Scotland's seaweed cultivation sector will be considered as part of the development of a Scottish Government-led Aquaculture Vision for Scotland.⁸³

- 3.39 Integrated sites (e.g. shellfish and seaweed) are supported by the Seaweed Cultivation Policy Statement 2017 and will require both planning permission and a marine licence to be obtained independently for each development or activity.
- 3.40 During the lifetime of this Plan, Orkney Islands Marine Region: Seaweed Cultivation Spatial Guidance may be adopted to help guide the sustainable development of the sector in Orkney.

⁸¹ Seaweed cultivation policy statement. Scottish Government. 2017.
<https://www.gov.scot/publications/seaweed-cultivation-policy-statement-2017/>

⁸² Seaweed Review Steering Group. Scottish Government.
<https://www.gov.scot/groups/seaweed-review-steering-group/>

⁸³ Statement on the Seaweed Review. Scottish Government.
<https://www.gov.scot/publications/statement-seaweed-review/documents/>



Sector Policy 2: Aquaculture

Sector Policy 2a: Finfish and shellfish farming

- i. Proposals for finfish and shellfish farming development and/or activities should pay due regard to:
 - a. Orkney Local Development Plan;
 - b. National Marine Plan;
 - c. National Planning Framework; and
 - d. any Marine Scotland or SEPA licensing requirements and guidance.
- ii. Proposals for finfish and shellfish farming development and/or activities should avoid, minimise and/or appropriately mitigate significant adverse impacts on:
 - a. landscape and/or seascape character and visual amenity;
 - b. nature conservation designations, protected species, and the wider biodiversity, including Priority Marine Features;
 - c. seal haul-out sites;
 - d. wild salmonid fish populations;
 - e. water quality, biological carrying capacity and the benthic environment;
 - f. historic environment assets;
 - g. other coastal and marine users including, but not limited to, commercial fishing, shipping and navigation, port and harbour infrastructure/operations, existing aquaculture sites, marine cable routes and pipelines, tourism, recreation, and sport and leisure activities; and
 - h. amenity, including consideration of road traffic, noise, vibration, odour and litter impacts.
- iii. New finfish farms should not bridge Disease Management Areas, although boundaries may be revised by Marine Scotland to take account of any changes in fish farm location, subject to the continued management of risk.
- iv. Appropriate conditions and, where necessary, a financial bond or a letter of credit will be concluded to ensure that decommissioning and site restoration arrangements will be implemented following ceasing of the operation.
- v. Proposals for finfish farming development and/or activities should have regard to the Orkney Islands Marine Region: Finfish Farming Spatial Guidance.
- vi. vi. Proposals for shellfish farming development and/or activities should have regard to the Orkney Islands Marine Region: Shellfish Farming Spatial Guidance, where available.



Sector Policy 2b: Seaweed cultivation

- i. Proposals for seaweed cultivation development and/or activities should demonstrate that:
 - a. due regard has been given to the most up-to-date Marine Scotland Seaweed Policy Statement;
 - b. only seaweed species native to Orkney will be grown;
 - c. appropriate measures are included to prevent the introduction and spread of non-native species;
 - d. where seaweed is grown for human consumption, cultivators have sited farms at an appropriate distance from sewage outfalls and other potential sources of pollution; and
 - e. there will be no artificial enrichment of the marine environment to aid production.
- ii. Proposals for seaweed cultivation development and/or activities should avoid, minimise and/or appropriately mitigate significant adverse impacts on:
 - a. landscape and/or seascape character and visual amenity;
 - b. nature conservation designations, protected species, and the wider biodiversity, including Priority Marine Features;
 - c. seal haul-out sites;
 - d. water quality and the benthic environment;
 - e. historic environment assets;
 - f. other coastal and marine users including, but not limited to, commercial fishing, shipping and navigation, port and harbour infrastructure/operations, existing aquaculture sites, marine cable routes and pipelines, tourism, recreation, and sport and leisure activities; and
 - g. amenity, including consideration of road traffic, noise, vibration, odour and litter impacts.
- iii. Proposals for seaweed cultivation development and/or activities should have regard to the Orkney Islands Marine Region: Seaweed Cultivation Spatial Guidance, where available.



Table 19: Sector Policy 2 links to Plan objectives, state of the environment assessment and other plans

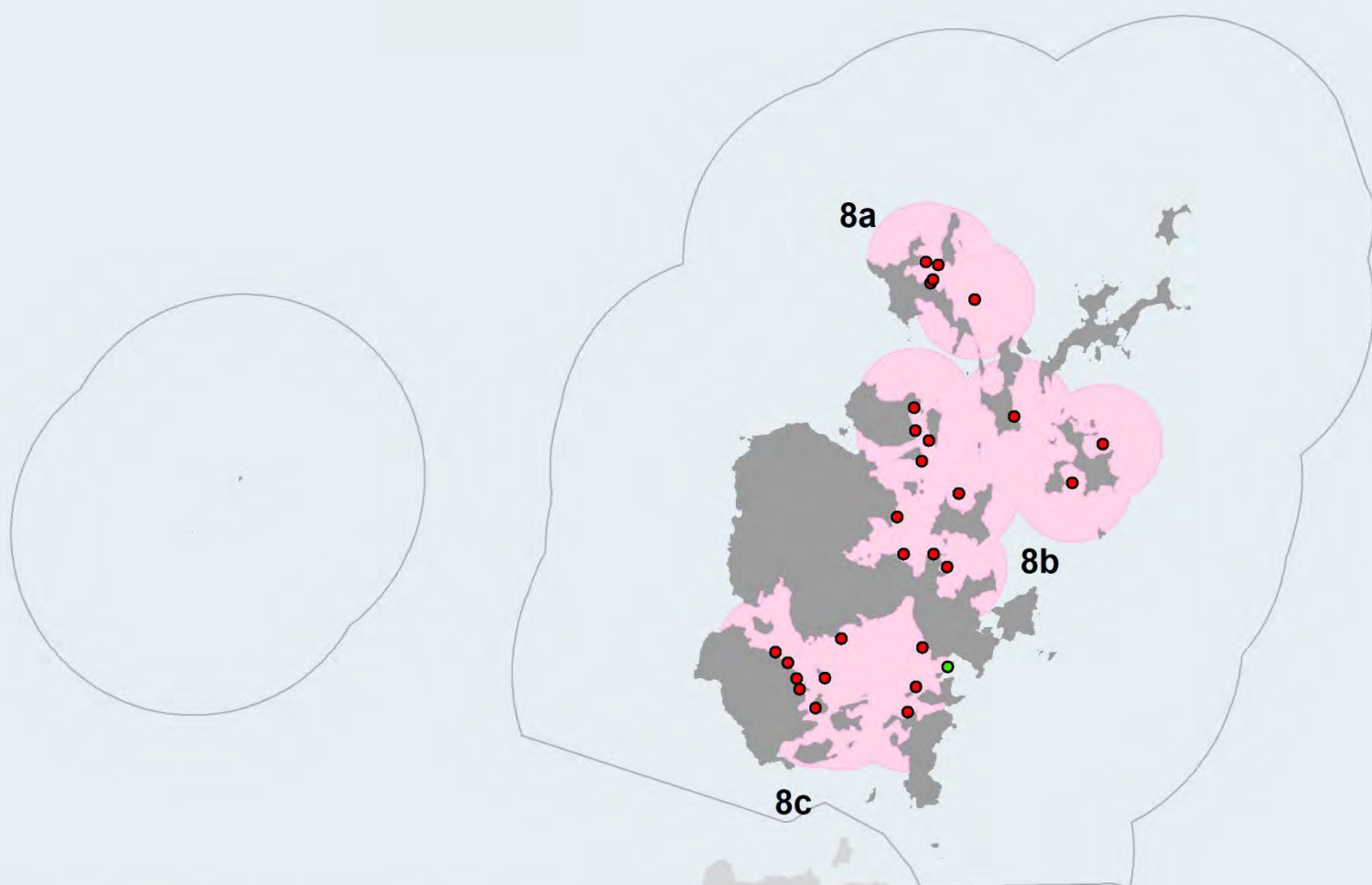
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	1, 7, 8, 9
Indirect contribution to objectives:	2
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 6.3
Alignment with other marine and land-use plans	
National Marine Plan	Section 7
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Thriving Economy Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 12D, Aquaculture Supplementary Guidance



Map 12: Active aquaculture sites and disease management areas

Key

- Finfish aquaculture site
- Shellfish aquaculture site
- Disease management areas
- 12 nm boundary



Map is indicative. For further information on aquaculture within Orkney's region, developers are advised to refer to www.aquaculture.scotland.gov.uk and NMPI. Disease Management Areas are available on NMPI.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres

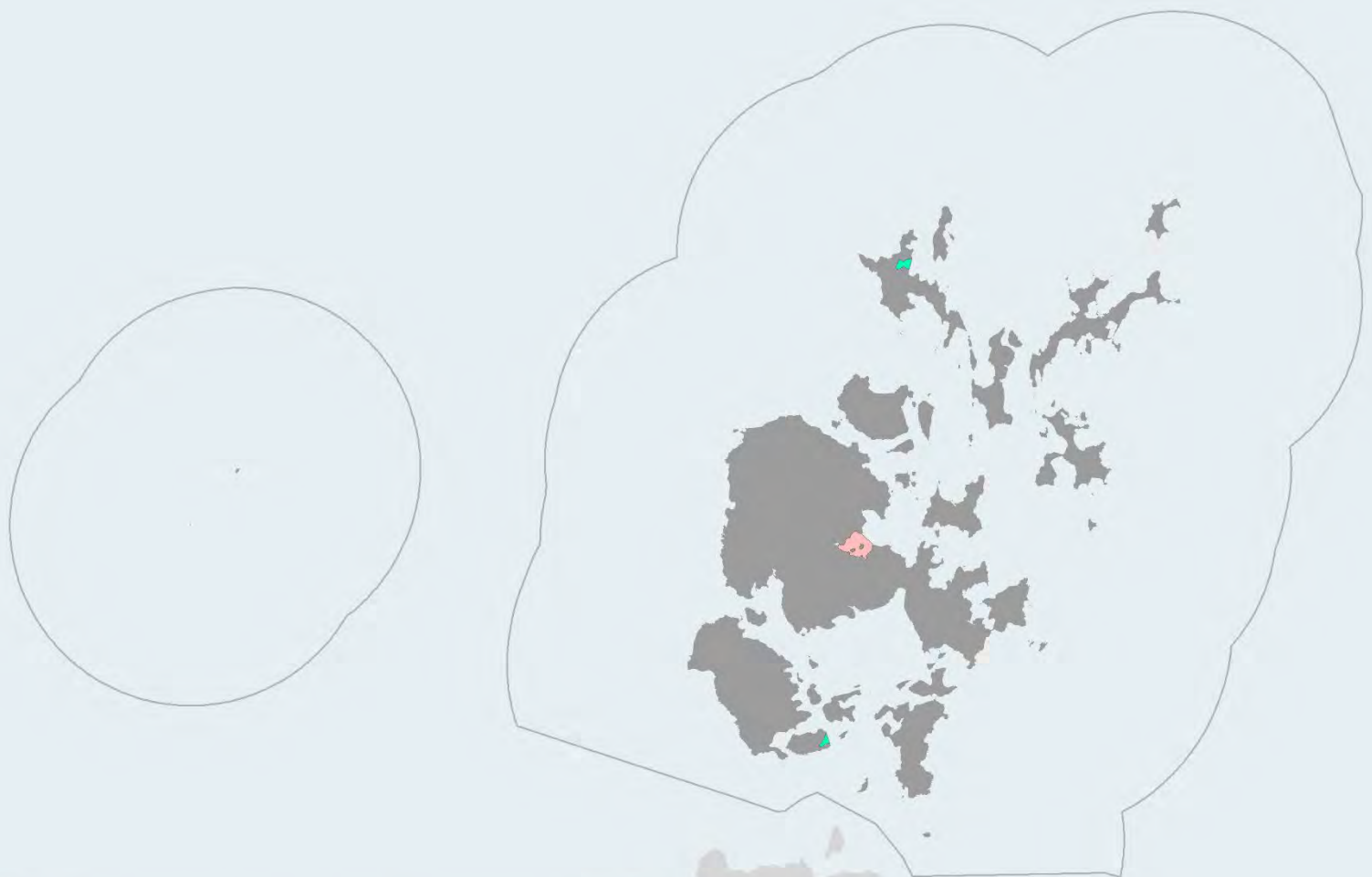


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Map 13: Aquaculture water environment designations

Key

-  Carrying capacity - Category 3 areas
-  Shellfish water protected areas
-  12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



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Sector Policy 3: Shipping, ports, harbours and ferries

- 3.41 Orkney's piers and harbours provide vital infrastructure for local communities and the economy. They support economic sectors and activities including oil and gas, ship-to-ship transfer, cruise tourism, renewable energy, ferry services, marine transportation, commercial fishing, aquaculture and marine recreation.
- 3.42 Port and harbour development and/or activities and shipping can have significant impacts on the marine environment; associated environmental pressures are identified in the Orkney Marine Region: State of the Environment Assessment.⁸⁴ It is therefore important that these potential impacts and risks be carefully managed to safeguard the marine environment in Orkney.
- 3.43 The Orkney County Council Act 1974 (as amended) enables Orkney Islands Council to exercise jurisdiction as a Statutory Harbour Authority and defines the areas in which the authority is empowered. These are Scapa Flow and its approaches, Wide Firth, and Shapinsay Sound, as well as Stromness, Flotta Oil Terminal and Kirkwall. The Orkney Islands Council Order Confirmation Act 1978 and the Orkney Islands Council Harbour Revision Order 1989 extended jurisdiction to include 12 additional piers and harbours in the North Isles.
- 3.44 There are currently 29 piers and harbours under the jurisdiction of Orkney Harbour Authority. Orkney harbours include many components that contribute to national strategic significance, including the vast 324.5 km² sheltered natural harbour of Scapa Flow (see Maps 14–17). Commercial ports, and associated harbour infrastructure, are located at the Hatston Terminal, Kirkwall Harbour, Lyness, Stromness Harbour/Copland's Dock, Scapa Pier, St Margaret's Hope and the Flotta Oil Terminal. St Margaret's Hope is a Trust Port providing harbour facilities for ferry transport, inshore fishing and aquaculture.
- 3.45 Scapa Flow is one of the principal locations in Europe for ship-to-ship (STS) operations for the transfer of crude and fuel oils. There are 15 designated anchor berths in Scapa Flow, including four STS berths.
- 3.46 Orkney's island communities rely on lifeline passenger and freight ferry services between Scrabster and Stromness, and Aberdeen, Kirkwall and Lerwick. A passenger and freight service operates from St Margaret's Hope to Gill's Bay in Caithness. Orkney Ferries operates a fleet of inter-isle ferries connecting the Outer-North, Inner-North and South Isles to Orkney's Mainland. In the summer months, tourist ferries also operate from John

⁸⁴ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>



O'Groats in Caithness to Burwick in South Ronaldsay, and from Westray to Papa Westray.

- 3.47 The Orkney Harbours Masterplan: Phase 1 (2020)⁸⁵ outlines the indicative growth aspirations for ports and harbours operated by the Orkney Harbour Authority and has been adopted by Orkney Islands Council as Planning Policy Advice.
- 3.48 The European Marine Observation and Data Network (EMODnet)⁸⁶ is a network of organisations supported by the EU's integrated maritime policy. These organisations work together to observe the sea, process the data according to international standards and make that information freely available as interoperable data layers and data products, such as up-to-date shipping density information.

⁸⁵ Orkney Harbours Masterplan Phase 1. Orkney Islands Council Harbour Authority. 2020.
<https://www.orkneyharbours.com/documents/orkney-harbours-masterplan-phase-1>

⁸⁶ The European Marine Observation and Data Network (EMODnet)
https://emodnet.ec.europa.eu/en/about_emodnet



Sector Policy 3: Shipping, ports, harbours and ferries

Sector Policy 3a: Safeguarding navigation, harbour infrastructure and operations

- i. Navigational safety in relevant areas used by shipping now and in the future will be protected, adhering to the rights of innocent passage and freedom of navigation contained in the UN Convention on the Law of the Sea.
- ii. Proposals for development and/or activities should avoid and/or appropriately mitigate significant adverse impacts on:
 - a. navigational safety;
 - b. existing, or planned (i.e. routes associated with developments currently within the statutory consenting system), shipping and/or ferry routes*;
 - c. Harbour Area operations;
 - d. maritime access to and use of pier and harbour infrastructure, including marinas;
 - e. harbours of refuge;
 - f. designated ship-to-ship anchorages;
 - g. anchor berths and other anchorages, as identified on the UK Hydrographic Office Charts, including the associated 1500m sensitive areas for safe vessel manoeuvring; and
 - h. the Flotta Terminal Safeguarded Area

*See [What is EMODnet? | European Marine Observation and Data Network \(EMODnet\) \(europa.eu\)](https://europa.eu/euromar/euromar_en)

- iii. The assessment of potential impacts on factors identified in (ii) above should take into account vessel movements and harbour-related operations in all weather and tidal conditions.
- iv. Development and/or activities that would have significant adverse effects on factors identified in (ii) above, but which cannot be avoided or appropriately mitigated, should not be permitted.
- v. Proposals for development and/or activities should avoid, or appropriately mitigate, significant adverse impacts on the efficient use of shipping and/or ferry routes, including consideration of impacts on fuel costs, emissions, journey duration and frequency.
- vi. Proposals for development and/or activities should avoid, or appropriately mitigate, significant adverse impacts due to displacement of shipping and/or ferry traffic on other marine users and/or the environment.

Sector Policy 3b: Commercial ports and national developments

Marine development and/or activities should not be permitted where they would restrict access to, or future expansion of, commercial ports or existing or proposed ports and harbours that are identified as national developments in National Planning Framework.

Sector Policy 3c: Scapa Flow north and east safeguarded area

The north and east coast of Scapa Flow, from Stromness to St Mary's, within an area 1,500m from the shore, is a strategically important area for potential future harbour development and/or activities in the longer term. The Orkney Harbour Authority should be consulted on proposed development and/or activities within this area to enable compatibility with current and future harbour development, activities and/or operations.

Sector Policy 3d: Port and harbour development and/or activities

- i. Proposals for port and harbour development and/or activities should avoid, minimise or appropriately mitigate significant adverse impacts on:
 - a. landscape and/or seascape character and visual amenity;
 - b. nature conservation designations, protected species, and the wider biodiversity, including Priority Marine Features;
 - c. seal haul-out sites;
 - d. water quality and the benthic environment;
 - e. historic environment assets;
 - f. coastal processes including those caused by erosion, flooding and wider coastal change;
 - g. other coastal and marine users including, but not limited to, commercial fishing, shipping and navigation, port and harbour infrastructure/operations, aquaculture sites, tourism, recreation, and sport and leisure activities; and
 - h. amenity, including consideration of road traffic, noise, vibration, odour and litter impacts.
- ii. Any dredged material associated with port, harbour or shipping development and/or activities should be deposited in appropriate dredge spoil deposit sites and/or, where appropriate, reused for coastal protection, landscape, recreation, and/or ecological enhancement.
- iii. Port and harbour operators should take climate change projections into account, including sea level rise, and, where appropriate, take the necessary steps to ensure their ports and harbours remain viable and resilient to a changing climate.
- iv. Climate change, including sea level rise projections, should be taken into account in the design of port and harbour development and/or activities, to ensure that they remain viable and resilient to a changing climate over their lifetime.



Table 20: Sector Policy 3 links to Plan objectives, state of the environment assessment and other plans

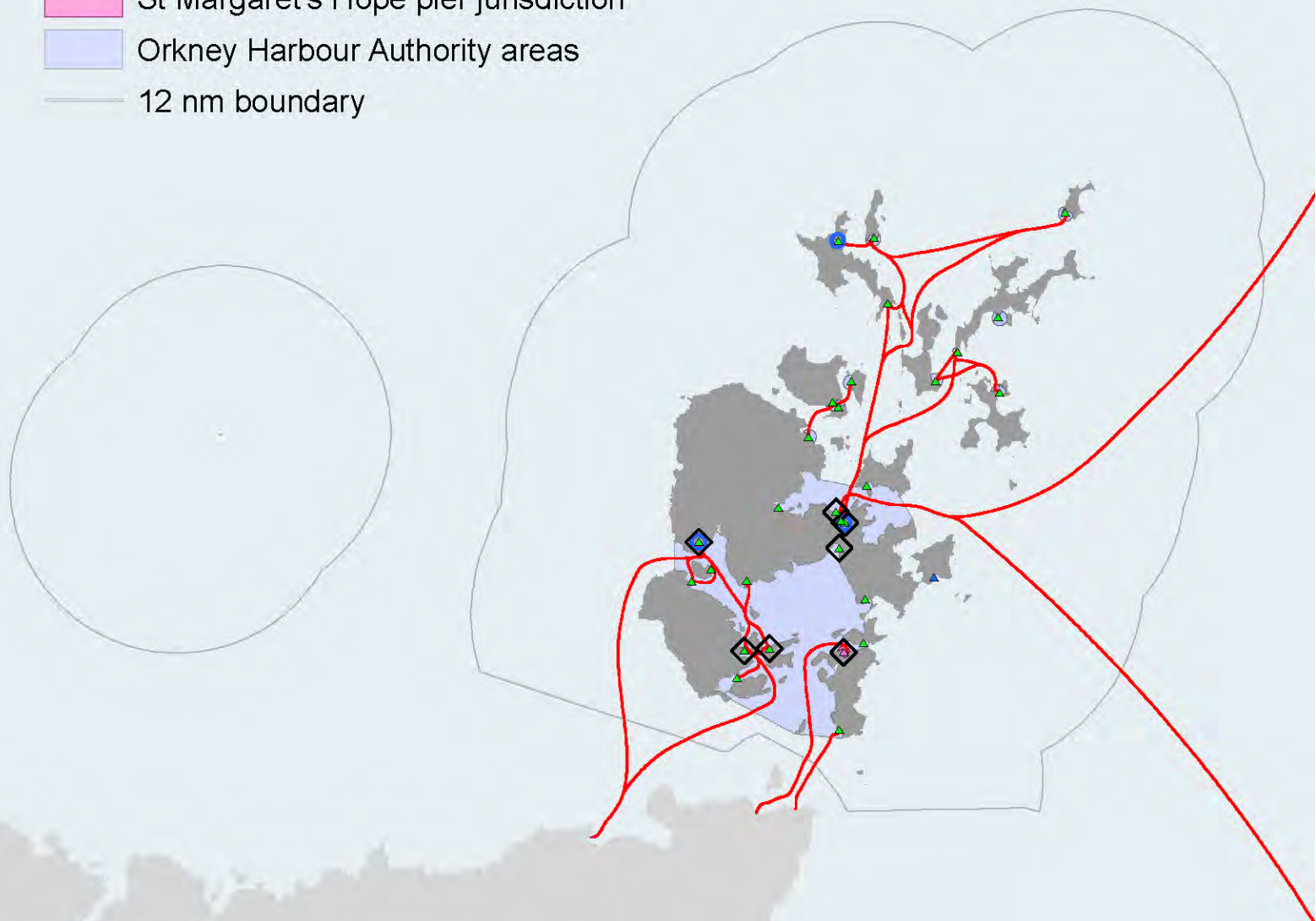
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	1, 8, 9
Indirect contribution to objectives:	6
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 6.4
Alignment with other marine and land-use plans	
National Marine Plan	Chapter 13
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Thriving Economy Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policies 7b ii & 12E



Map 14: Harbour areas, harbour infrastructure and ferry routes

Key

- ▲ Orkney Harbour Authority pier and harbour infrastructure
- ▲ St Margaret's Hope pier and harbour infrastructure
- ▲ Geo Slipway, Deerness
- ◊ Commercial ports
- Marinas
- Indicative ferry routes
- St Margaret's Hope pier jurisdiction
- Orkney Harbour Authority areas
- 12 nm boundary



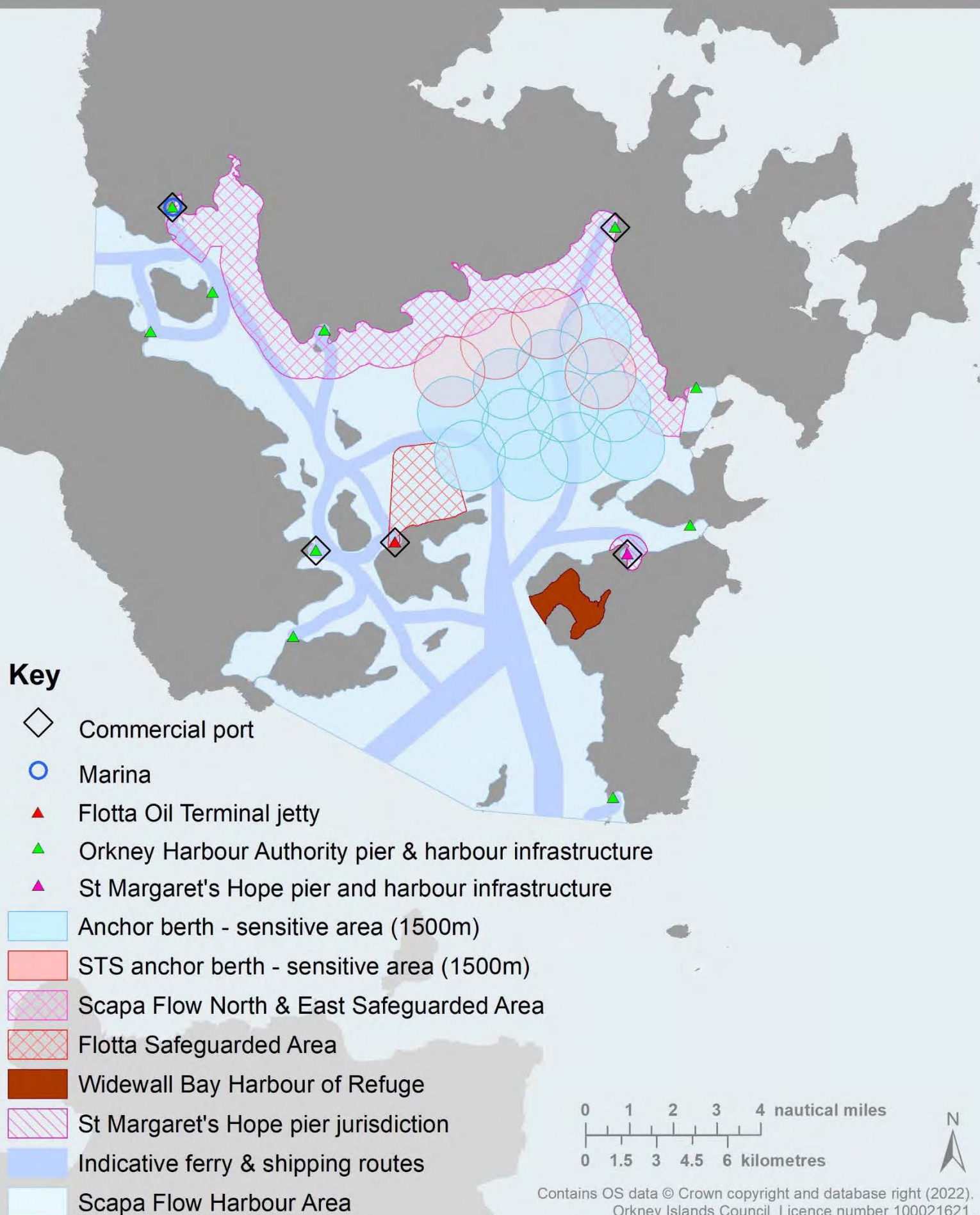
Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available. Further details of the information displayed can be found in the Ports Handbook for Orkney. National Developments are detailed in NPF4.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



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Map 15: Scapa Flow harbour infrastructure and operations

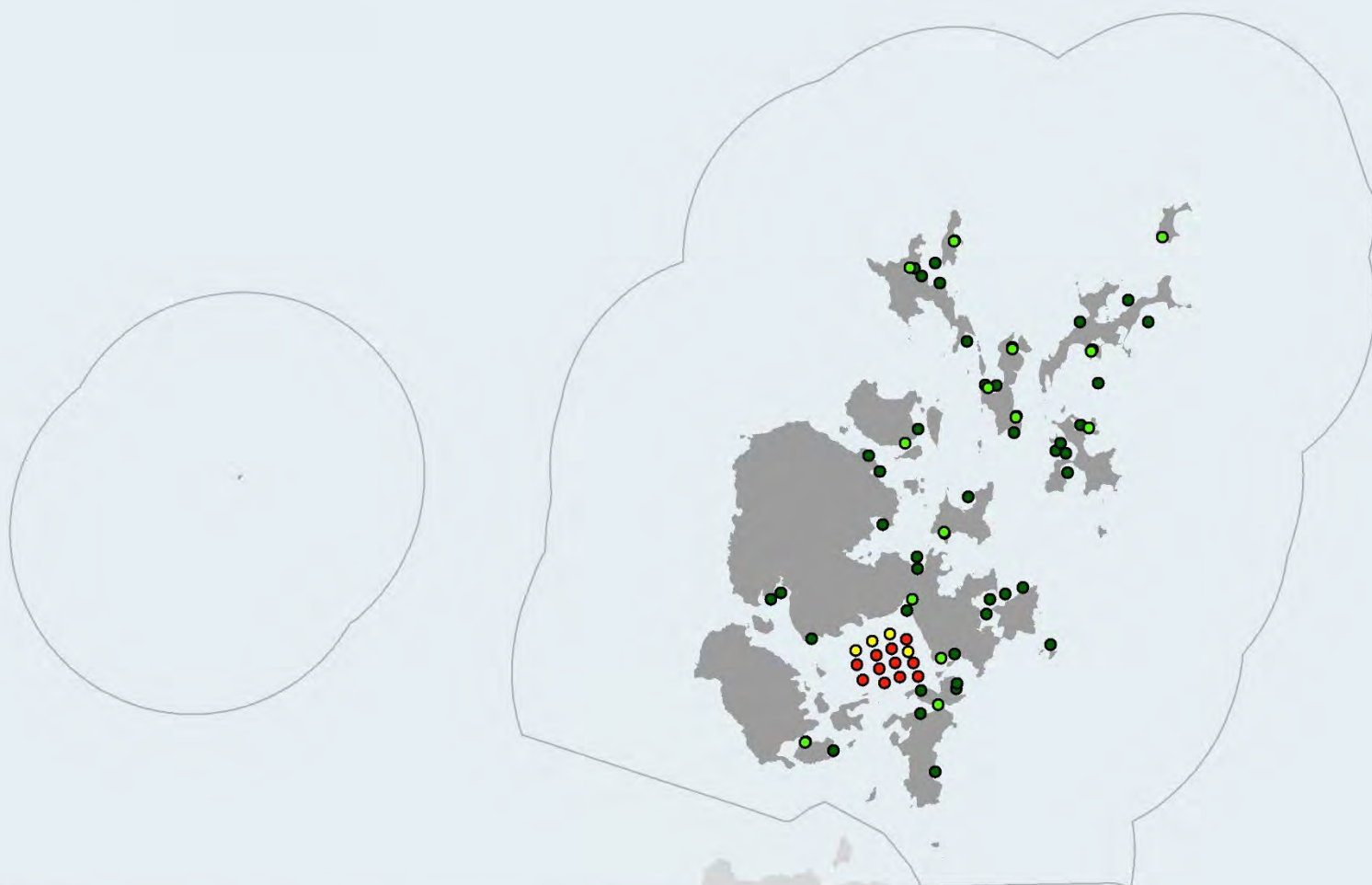


Map 16: Anchorages

Key

- Visiting Yacht Moorings*
- Designated anchor berth (Scapa Flow)
- Designated STS anchor berth (Scapa Flow)
- Other anchorages

— 12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPi. Updated data sets may be added to NMPi when available.

*Visiting Yacht Moorings are seasonal and removed during the winter months. For information on Clyde Cruising Club Anchorages please refer to Map 21.

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres

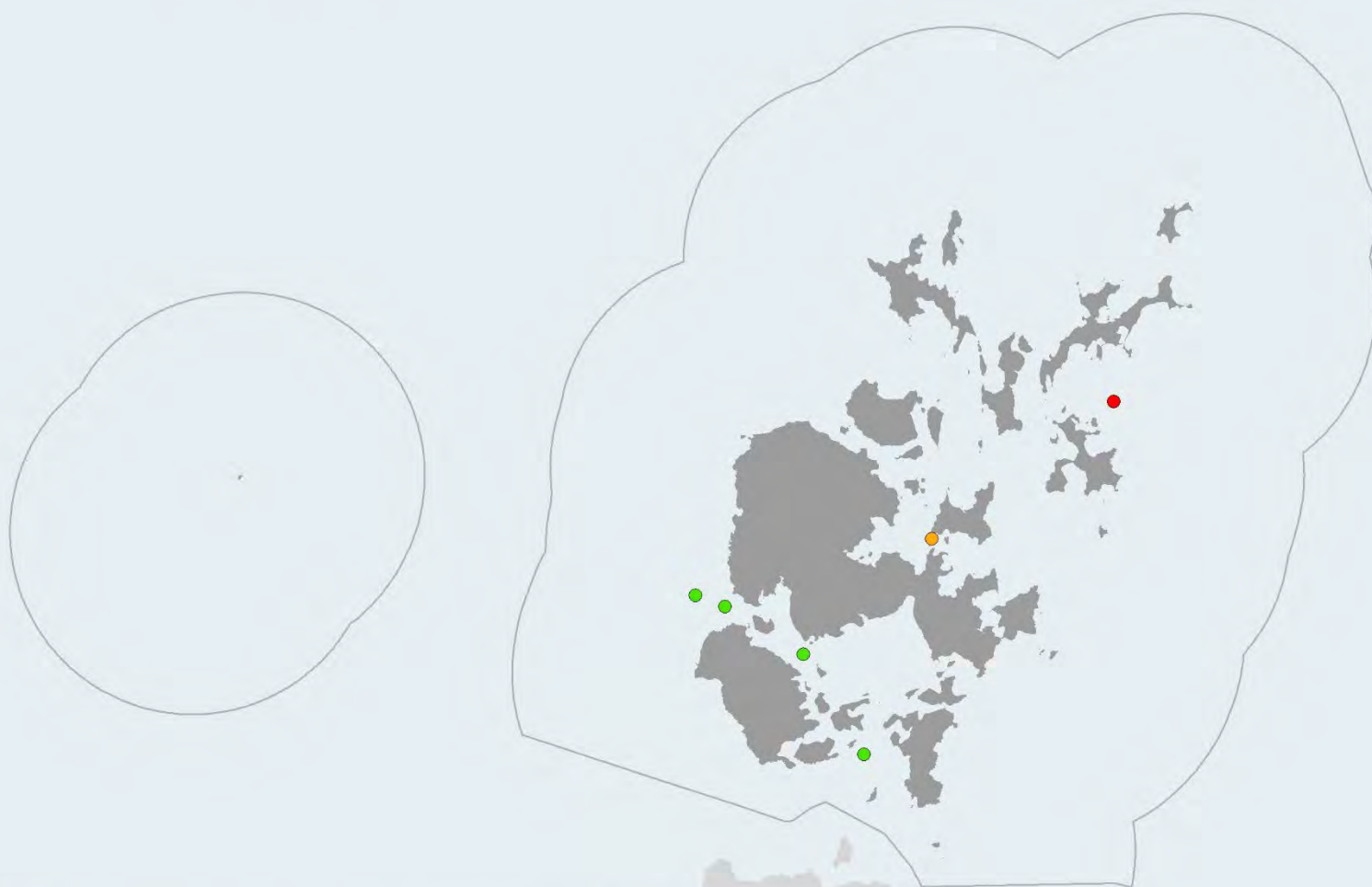


Map 17: Dredge spoil deposit sites

Key

Dredge Spoil Deposit Sites

- Closed
- Disused
- Open
- 12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPI. Updated data sets may be added to NMPI when available.

Sector Policy 4: Pipeline, electricity and telecommunications infrastructure

- 3.49 Pipelines and electricity and telecommunications cables provide critical infrastructure to support the economic and social well-being of Orkney, Scotland and the UK. Within the Orkney Islands marine region, this infrastructure is vital for electricity transmission and distribution, telecommunications, the supply of potable water and removal of wastewater, and the transportation of hydrocarbons.
- 3.50 Electricity transmission is the transportation of electricity from generating plants to where it is required at centres of demand. The electricity transmission network, or grid, transports electricity at high voltages through overhead lines, underground cables and subsea cables. The transmission network connects large-scale generation, primarily renewables, to central and southern Scotland and the rest of the UK. A 220kV electricity transmission cable between Dounreay in Caithness and Warebeth in Orkney was given consent in 2019. Onshore and offshore electricity transmission cable and converter station developments of, or exceeding, 132kv are identified as a national developments in draft NPF4.
- 3.51 The electricity distribution network is connected into the transmission network. The voltage is lowered by transformers at electricity substations, and the power is then distributed to homes and businesses through overhead lines, underground cables and subsea cables.
- 3.52 Distribution cables typically carry voltages below 33kV whereas transmission cables typically carry 132kV and above. Distribution and transmission electricity cables can have different design, installation and protection requirements, which vary with location and substrate type.
- 3.53 Cable and pipeline development and/or activities can have significant impacts on the marine environment; associated environmental pressures are identified in the Orkney Marine Region: State of the Environment Assessment.⁸⁷ It is therefore important that these potential impacts and risks be carefully managed to safeguard the marine environment in Orkney.
- 3.54 Electricity and telecommunications cables need to be safeguarded from adverse interactions with other marine users (see Map 18). The operation, maintenance and development of the electricity network in Orkney should achieve security of supply, contribution to net-zero commitments, and the highest possible quality and safety standards. Cable operations should minimise risks to all seabed users and the marine environment. Submarine cables need to be appropriately protected whilst achieving successful seabed user coexistence.

⁸⁷ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>



- 3.55 The Submarine Telegraph Act 1885 applies to cables in UK waters and was most recently updated by the Merchant Shipping Act 1995. 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 UN Convention on the Law of the Sea 1982 enhanced the international regulation to include all submarine cables.
- 3.56 As well as undertaking appropriate protection measures for their cables and for other marine users, cable owners provide information via cable awareness projects such as KIS-ORCA.⁸⁸ Cable information is given freely to fishermen and other seabed users so that they can avoid potential snagging of cables. After being laid, cable routes should be notified to the UK Hydrographic Office (UKHO), who will update charts in accordance with UKHO policy.
- 3.57 Crude oil is imported to the Flotta Oil Terminal via a 30-inch subsea pipeline from several offshore installations in the Flotta Catchment Area. This subsea pipeline is protected by a 500m safety zone established by an Offshore Installations (Safety Zones) Order under Section 22 of the Petroleum Act 1987. Offshore Energies UK and the Health and Safety Executive provide guidance on this issue.
- 3.58 There are island communities in Orkney that have potable water supplied via subsea pipeline. Wastewater treatment facilities discharge wastewater via outfall pipes into the marine environment in Orkney. These infrastructures need to be safeguarded from adverse interactions with other marine users (see Map 18).
- 3.59 The European Marine Energy Centre provides facilities in Orkney for testing wave and tidal renewable energy devices that include 11kV cables running from an onshore substation to open-sea testing berths.
- 3.60 There are significant offshore wind, wave and tidal energy resources within the Orkney Islands marine region and potential for future commercial-scale renewable energy projects. The Sectoral Marine Plan for Offshore Wind Energy identifies Plan Option areas within and adjacent to the Orkney Islands marine region for commercial-scale offshore wind development. The agreements for lease within these Plan Options areas have been issued via the Scotwind leasing round.⁸⁹ Such projects will require grid connections, electricity and communications cables linking devices to shore.
- 3.61 There is potential for commercial-scale renewable energy projects to connect to shore via privately owned subsea cables for the purposes of producing zero-carbon fuels in Orkney. Existing oil and gas infrastructure has the

⁸⁸ KIS-ORCA Offshore Renewable and Cable Awareness.

<https://kis-orca.org/>

⁸⁹ Scotwind. Crown Estate Scotland.

<https://www.crownestatescotland.com/our-projects/scotwind>



potential to be repurposed to support the zero-carbon fuel sector (see Sector Policy 6). The key consenting requirements are outlined in Appendix 1.

- 3.62 Electricity and telecommunications cables, and pipelines, in the Orkney Islands marine region are identified in Map 18.

Sector Policy 4: Pipeline, electricity and telecommunications infrastructure

Sector Policy 4a: Pipeline, electricity and telecommunications infrastructure development and/or activities

- i. Proposals for pipeline, electricity and/or telecommunications development and/or activities including the laying, replacement, maintenance and decommissioning of pipelines, electricity and/or telecommunication cables, and/or the development of associated onshore and/or marine infrastructure, should pay due regard to:
 - a. Orkney Local Development Plan;
 - b. National Marine Plan; and
 - c. National Planning Framework;

The National Marine Plan includes policies on the factors that should be taken into account by electricity and telecommunications network and cable owners, and public authority decision makers, when reaching decisions on development and/or activities including, the laying, replacement, maintenance and decommissioning of submarine cables.

- ii. Network and cable owners should engage with public authority decision makers, appropriate statutory bodies, marine users and local communities at an early stage to avoid, minimise and/or appropriately mitigate impacts on the marine historic and natural environment, existing development and/or infrastructure assets, and other marine users.
- iii. Proposals for new or replacement pipeline or cable development and/or activities should avoid, minimise or appropriately mitigate significant adverse impacts on:
 - a. landscape and/or seascape character and visual amenity;
 - b. nature conservation designations, protected species, and the wider biodiversity, including Priority Marine Features;
 - c. seal haul-out sites;
 - d. water quality and the benthic environment;
 - e. historic environment assets;
 - f. coastal processes, including those caused by erosion, flooding and wider coastal change;
 - g. other coastal and marine users including, but not limited to, commercial fishing, shipping and navigation, ports and harbour infrastructure/operations, aquaculture sites, tourism, recreation, sport and leisure activities; and
 - h. amenity, including consideration of road traffic, noise, vibration, odour and litter impacts.



Sector Policy 4b: Safeguarding existing pipeline, electricity and telecommunications cable infrastructure

- i. Proposals for development and/or activities should avoid, or appropriately mitigate, adverse impacts on pipeline, electricity and telecommunications infrastructure.
- ii. Development and/or activities that would have adverse impacts on oil and gas infrastructure should not be permitted within the 500m safety zone(s) established under the Petroleum Act 1987, including the Flotta Terminal Oil pipeline, unless appropriate agreements are in place.
- iii. Development and/or activities that could have adverse impacts on electricity and/or telecommunications cable infrastructure or water supply and/or wastewater pipeline infrastructure should not be permitted within an appropriate safety zone either side of a cable and/or pipeline location, as determined by the consenting process, unless such impacts can be appropriately mitigated and there is an appropriate proximity agreement in place with the cable and/or asset owner.

Table 21: Sector Policy 4 links to Plan objectives, state of the environment assessment and other plans

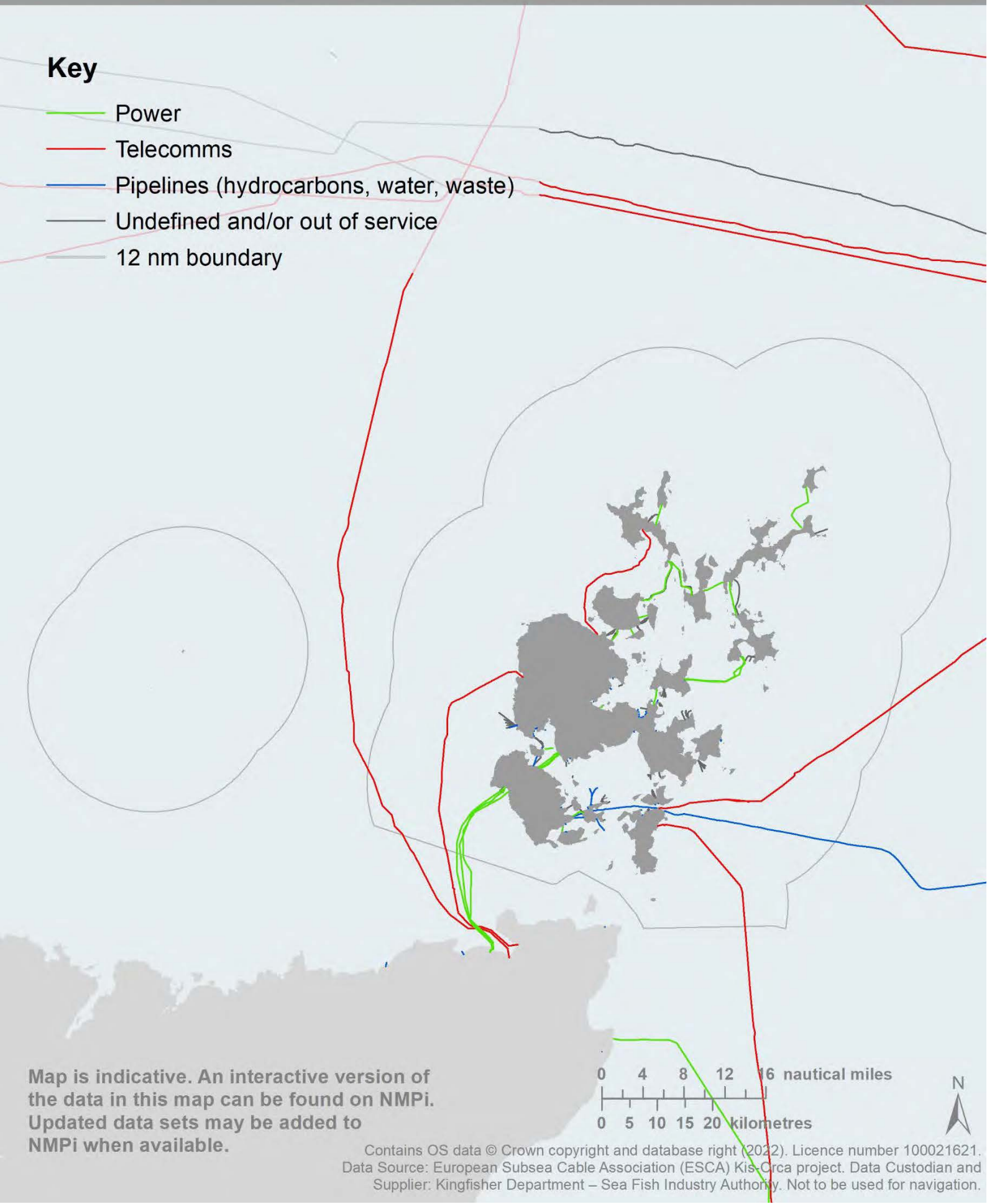
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	1, 8
Indirect contribution to objectives:	2, 3
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 6.6
Alignment with other marine and land-use plans	
National Marine Plan	Chapter 14
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Thriving Economy Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	N/A



Map 18: Cables and pipelines

Key

- Power
- Telecomms
- Pipelines (hydrocarbons, water, waste)
- Undefined and/or out of service
- 12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPI. Updated data sets may be added to NMPI when available.

Contains OS data © Crown copyright and database right (2022). Licence number 100021621. Data Source: European Subsea Cable Association (ESCA) Kis-Orca project. Data Custodian and Supplier: Kingfisher Department – Sea Fish Industry Authority. Not to be used for navigation.

Sector Policy 5: Offshore wind, wave and tidal renewable energy generation

- 3.63 Orkney waters are amongst the most energy-rich localities in Europe, with significant wind, wave and tidal renewable energy resources. Renewable energy developments can create significant economic opportunities for Orkney and Scotland, promoting inclusive growth and a just transition to net zero via the development of skills and supply chain bolstering (see Map 19).
- 3.64 This Plan aims to contribute to the achievement of Scottish and UK energy and climate change policy objectives and targets and minimise the potential adverse effects on the environment and other marine users from offshore wind, wave and tidal energy development and activities in Orkney waters.
- 3.65 Renewable energy generation development and activities can have significant impacts on the marine environment; associated environmental pressures are identified in the Orkney Marine Region: State of the Environment Assessment.⁹⁰ It is therefore important that these potential impacts and risks be carefully managed to safeguard the quality and productivity of the marine environment in Orkney.

Wind energy

- 3.66 Offshore wind energy will play a pivotal role in Scotland's energy system over the coming decades to help tackle the Climate Emergency.⁹¹ The Scottish Government has set a net-zero greenhouse gas emissions target for 2045, with interim targets of 75% by 2030 and 90% by 2040. These targets are a major driver for offshore wind and wider renewable energy development and decarbonisation.
- 3.67 The Sectoral Plan for Offshore Wind Energy⁹² sets out the strategic vision and objectives for future commercial-scale offshore wind development in Scotland. This Plan has identified two Plan Option areas, North 1 (N1) and North East 2 (NE2), within the Orkney Islands marine region, along with a wider suite of Plan Option areas across the North of Scotland. The agreements for lease

⁹⁰ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

⁹¹ The Global Climate Emergency - Scotland's Response: Climate Change Secretary Roseanna Cunningham's statement. 2019.
<https://www.gov.scot/publications/global-climate-emergency-scotlands-response-climate-change-secretary-roseanna-cunninghams-statement/>

⁹² Sectoral marine plan for offshore wind energy. Scottish Government. 2020.
<https://www.gov.scot/publications/sectoral-marine-plan-offshore-wind-energy/?msclid=66ae4153a5fe11ec919ac55a0fe68143>



within these Plan Options areas have been issued via the Scotwind leasing round.⁹³ At the time of writing, the draft Plan Option areas for wave and tidal energy development have been identified in the Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters: Consultation Draft.⁹⁴

Wave and tidal energy

- 3.68 Orkney is a global leader in wave and tidal energy research and development. The European Marine Energy Centre (EMEC) was established in 2003 and provides a unique facility for testing wave and tidal renewable energy devices in Orkney. Wave and tidal energy, or marine renewable energy, can diversify and expand renewable energy generation to make a significant contribution to meeting net-zero targets and increase the current economic benefits to Orkney communities.
- 3.69 EMEC provides test and demonstration sites for wave and tidal energy devices. There are currently five test sites in Orkney:
- Billia Croo grid-connected wave energy test site, Stromness, Mainland Orkney
 - Fall of Warness grid-connected tidal energy test site, off the island of Eday
 - Caldale Hydrogen Production Plant, on Eday
 - Scapa Flow scale wave test site, off St Mary's Bay
 - Shapinsay Sound scale tidal test site, off Head of Holland
- 3.70 At each of the EMEC grid-connected test sites, there are subsea cables which run from each test berth at sea to a substation onshore, where electricity generated on-site can then be fed into the UK National Grid.
- 3.71 The Orkney Renewable Energy Forum⁹⁵ represents the diverse supply chain businesses supporting the renewables sector in Orkney.
- 3.72 Sector Policy 6 addresses development and activities for hydrogen and other low and zero carbon fuels.

⁹³ Scotwind. Crown Estate Scotland.

<https://www.crownestatescotland.com/our-projects/scotwind>

⁹⁴ Draft Sectoral Marine Plans for Offshore Renewable Energy in Scottish Waters: Consultation Paper. Scottish Government. 2013.

<https://www.gov.scot/publications/draft-sectoral-marine-plans-offshore-renewable-energy-scottish-waters-consultation/documents/>

⁹⁵ Orkney Renewable Energy Forum. <https://www.oref.co.uk/>



Sector Policy 5: Offshore wind, wave and tidal renewable energy generation

Sector Policy 5a: Offshore wind energy

- i. Proposals for commercial-scale offshore wind energy development and/or activities (100MW+) should be sited in the Plan Option areas identified in the Sectoral Marine Plans for Offshore Wind Energy*.
- ii. Proposals for other development and/or activities, which are not part of an energy generation project proposed within areas held under a lease or an agreement for lease for offshore wind energy generation, should not be authorised, unless it is demonstrated that the proposed development or activity will not reduce the ability to construct, operate or decommission the existing or planned energy generation project.
- iii. Proposals for offshore wind development and/or activities that will help to decarbonise the oil and gas sector, as well as innovation, test and/or demonstration offshore wind energy development and/or activities, should be sited in Innovation and Targeted Oil and Gas (INTOG) areas**.
- iv. When considering proposals for commercial-scale, innovation, test and/or demonstration offshore wind energy development and/or activities, public authority decision makers must pay due regard to:
 - a. net economic impact, including local social and economic benefits such as employment, associated business and supply chain opportunities;
 - b. the scale of contribution to renewable energy targets and effect on greenhouse gas emissions reduction targets;
 - c. cumulative impacts, taking into account the cumulative impact of existing and consented development and/or activities; and
 - d. the need for conditions that require the decommissioning of developments***, including relevant objects and ancillary infrastructure, and requirements for site restoration.

*See: Draft Sectoral Marine Plans for Offshore Renewable Energy in Scottish Waters: Consultation Paper. Scottish Government. 2013.

<https://www.gov.scot/publications/draft-sectoral-marine-plans-offshore-renewable-energy-scottish-waters-consultation/documents/>

** Status to be reviewed once leasing round complete and INTOG plan finalised.

*** See: Decommissioning of offshore renewable energy installations under the Energy Act 2004: guidance notes for industry.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916912/decommissioning-offshore-renewable-energy-installations-energy-act-2004-guidance-industry_1_.pdf



- v. Proposals for offshore wind energy development and/or activities should avoid, minimise or appropriately mitigate significant adverse impacts on:
 - a. landscape and/or seascape character and visual amenity;
 - b. nature conservation designations, protected species, and the wider biodiversity, including Priority Marine Features;
 - c. seal haul-out sites;
 - d. water quality and the benthic environment;
 - e. historic environment assets;
 - f. aviation and/or defence interests;
 - g. coastal processes including those caused by erosion, flooding and wider coastal change;
 - h. other coastal and marine users including, but not limited to, commercial fishing, shipping and navigation, ports and harbour infrastructure/operations, aquaculture sites, tourism, recreation, and sport and leisure activities; and
 - i. amenity, including consideration of road traffic, noise, vibration and litter impacts.
- vi. Proposals for offshore wind energy development and/or activities should not be supported in the Hoy and West Mainland National Scenic Area.



Sector Policy 5b: Wave and tidal energy

- i. Proposals for commercial scale (30MW+) wave and tidal energy development and/or activities should be sited in the Plan Option areas for wave and tidal energy development identified in the Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters: Consultation Draft*.
- ii. Proposals for wave and tidal energy development and/or activities should pay due regard to relevant factors in Regional Locational Guidance.
- iii. Proposals for other development and/or activities, which are not part of an energy generation project proposed within areas held under a lease or an agreement for lease for wave and/or tidal energy generation, should not be authorised, unless it is demonstrated that the proposed development or activity will not reduce the ability to construct, operate or decommission the existing or planned energy generation project.
- iv. When considering proposals for wave and tidal energy development and/or activities, public authority decision makers must pay due regard to:
 - a. net economic impact, including local social and economic benefits such as employment, associated business and supply chain opportunities;
 - b. the scale of contribution to renewable energy targets and effect on greenhouse gas emissions reduction targets;
 - c. cumulative impacts, taking into account the cumulative impact of existing and consented energy development; and
 - d. the need for conditions that require the decommissioning of developments**, including relevant objects and ancillary infrastructure, and requirements for site restoration.

*See: Draft Sectoral Marine Plans for Offshore Renewable Energy in Scottish Waters: Consultation Paper. <https://www.gov.scot/publications/draft-sectoral-marine-plans-offshore-renewable-energy-scottish-waters-consultation/#:~:text=The%20Draft%20Sectoral%20Marine%20Plans%20for%20Offshore%20Wind%2C,renewable%20energy%20at%20a%20national%20and%20regional%20level.>

** See: Decommissioning of offshore renewable energy installations under the Energy Act 2004: guidance notes for industry.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916912/decommissioning-offshore-renewable-energy-installations-energy-act-2004-guidance-industry_1.pdf



- v. Proposals for wave and tidal energy development and/or activities should avoid, minimise or appropriately mitigate significant adverse impacts on:
 - a. landscape and/or seascape character and visual amenity;
 - b. nature conservation designations, protected species, and the wider biodiversity, including Priority Marine Features;
 - c. seal haul-out sites;
 - d. water quality and the benthic environment;
 - e. historic environment assets;
 - f. aviation and/or defence interests;
 - g. coastal processes including those caused by erosion, flooding and wider coastal change;
 - h. other coastal and marine users including, but not limited to, commercial fishing, shipping and navigation, ports and harbour infrastructure/operations, aquaculture sites, tourism, recreation, and sport and leisure activities; and
 - i. amenity, including consideration of road traffic, noise, vibration and litter impacts.



Table 22: Sector Policy 5 links to Plan objectives, state of the environment assessment and other plans

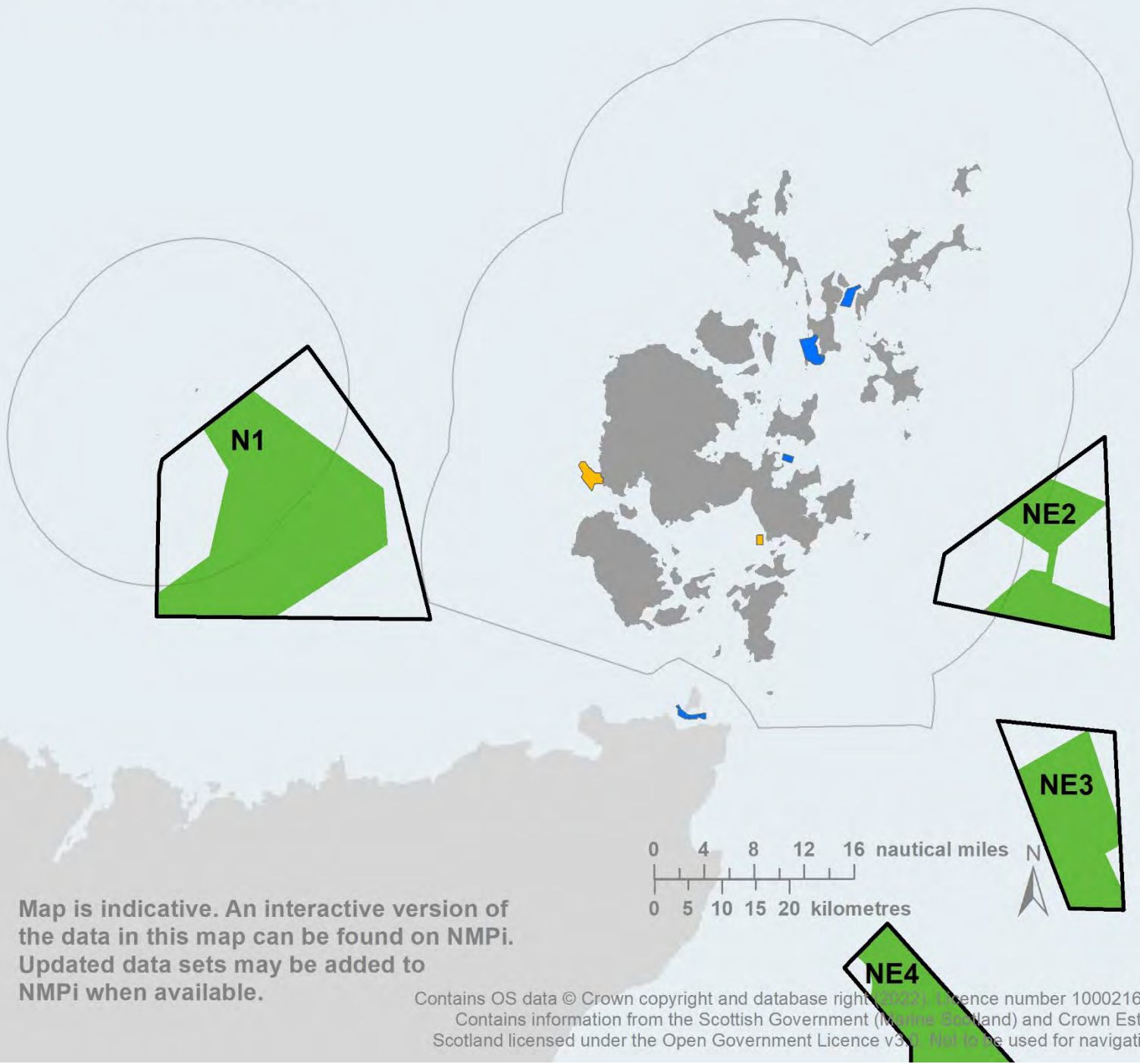
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	1, 2, 3, 4, 7, 8
Indirect contribution to objectives:	5
Assessment of the condition of the Orkney Islands marine area	
State of the Environment Assessment baseline information:	Section 6.5
Alignment with other marine and land-use plans	
National Marine Plan	Chapter 11
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Thriving Economy Strategic Priority: Climate Emergency Strategic Priority: An Outstanding Environment and Quality of Life Strategic Priority: Innovation, Research and Development
Orkney Local Development Plan	Policy 7C, Supplementary Guidance: Energy



Map 19: Offshore wind, wave and tidal energy sites

Key

-  Sectoral Marine Plan for Offshore Wind: Plan Options
-  ScotWind option agreements
-  Tidal energy lease sites
-  Wave energy lease sites
-  12 nm boundary



Map is indicative. An interactive version of the data in this map can be found on NMPI. Updated data sets may be added to NMPI when available.

Sector Policy 6: Zero carbon fuels, and oil and gas transition

- 3.73 Zero carbon fuels, including green hydrogen and ammonia, are likely to play an important role in the decarbonisation of heating, transport and industrial processes. The abundant wind, wave and tidal renewable energy resources in the North of Scotland can be used to produce zero carbon fuels to supply growing European markets.
- 3.74 The Orkney Hydrogen Strategy⁹⁶ aims to develop a sustainable hydrogen economy in Orkney to help meet net-zero targets, create local jobs, and develop a local supply chain and a more resilient local energy system. The strategy seeks to establish Orkney as the global exemplar in green hydrogen integration, supporting a robust rural net-zero economy.
- 3.75 Orkney has been a demonstration region for numerous green hydrogen demonstration projects. These projects, including Surf 'n' Turf and Building Innovative Green Hydrogen in Isolated Territories, have produced hydrogen from renewable sources, including community-owned wind energy and tidal energy installations.
- 3.76 Zero carbon fuel production can provide an energy storage solution when renewable energy generation is curtailed by limited grid capacity. These fuels can help to maximise green energy utilisation, enhance the economic viability of affected renewable energy projects and support island sustainability.
- 3.77 The higher cost of electricity transmission charges for renewable energy projects in the North of Scotland is expected to be a major driver for the production of zero carbon fuels from renewable energy developments in and around Orkney waters. It is anticipated that renewable energy generation projects will export electricity to the grid and consider the option of using generated electricity to produce zero carbon fuels. Offshore renewable energy developments may need to connect to shore via privately owned subsea and/or onshore cables for the purposes of producing zero carbon fuels in Orkney.
- 3.78 The Flotta Oil Terminal is a strategically important industrial asset that imports crude oil via a subsea pipeline from several offshore installations in the Flotta Catchment Area. The terminal operators, Repsol Sinopec Resources UK, and their partners are exploring diversification options to enable a transition to low and zero carbon fuel production and distribution activities. The Flotta Oil Terminal is a Control of Major Accident Hazards site.⁹⁷

⁹⁶ Orkney Hydrogen Strategy – The Hydrogen Islands 2019-2025. Orkney Islands Council. <https://www.orkney.gov.uk/Service-Directory/Renewable/h2-in-orkney-the-hydrogen-islands.htm>

⁹⁷ Control of Major Accident Hazards. Health and Safety Executive. <https://www.hse.gov.uk/comah/>



- 3.79 Looking ahead, Orkney has extensive harbour, oil and gas infrastructure that has potential to be repurposed to produce and distribute zero carbon fuels. The Flotta Hydrogen Hub is a proposed green hydrogen production and export project on the island of Flotta that is investigating the opportunity for offshore wind energy to power the production of green hydrogen on an industrial scale. This project aims to investigate options for hydrogen production and distribution from Flotta, utilising a repurposed area of the existing Flotta Oil Terminal.
- 3.80 Orkney Harbour Authority aims to play a key role in decarbonisation by enabling a transition from hydrocarbons to zero carbon fuels for shipping and ports. This shift to carbon free fuels will require a stepped transition from Low Sulphur Fuel Oil and Marine Gasoil to Liquid Natural Gas, leading to future hydrogen and/or ammonia carbon free fuelling for shipping. The Island Growth Deal aims to bring forward a proposed Future Fuels Hub in Scapa Flow to support this transition.
- 3.81 Scapa Flow is one of the principal locations in Europe for ship-to-ship operations for the transfer of crude and fuel oils, Liquid Natural Gas and Liquid Petroleum Gas (see Map 20).

Sector Policy 6: Zero carbon fuels, oil and gas transition

- i. Proposals for development and/or activities for the production and/or distribution of zero carbon fuels, including associated cable and/or pipeline infrastructure, and/or the development of associated onshore and/or marine infrastructure, should pay due regard to:
 - a. Orkney Local Development Plan;
 - b. National Marine Plan; and
 - c. National Planning Framework.
- ii. Proposals to repurpose existing oil and gas infrastructure for the production and/or distribution of zero carbon fuels should be supported when consistent with the objectives and policies of this Plan, Orkney Local Development Plan, National Marine Plan and National Planning Framework.
- iii. Proposals for pipeline and/or electricity cable development and/or activities for the purpose of producing and/or distributing zero carbon fuels that include the laying, replacement, maintenance and decommissioning of pipelines, electricity and/or telecommunication cables should pay due regard to Sector Policy 4.



Table 23: Sector Policy 6 links to Plan objectives, state of the environment assessment and other plans

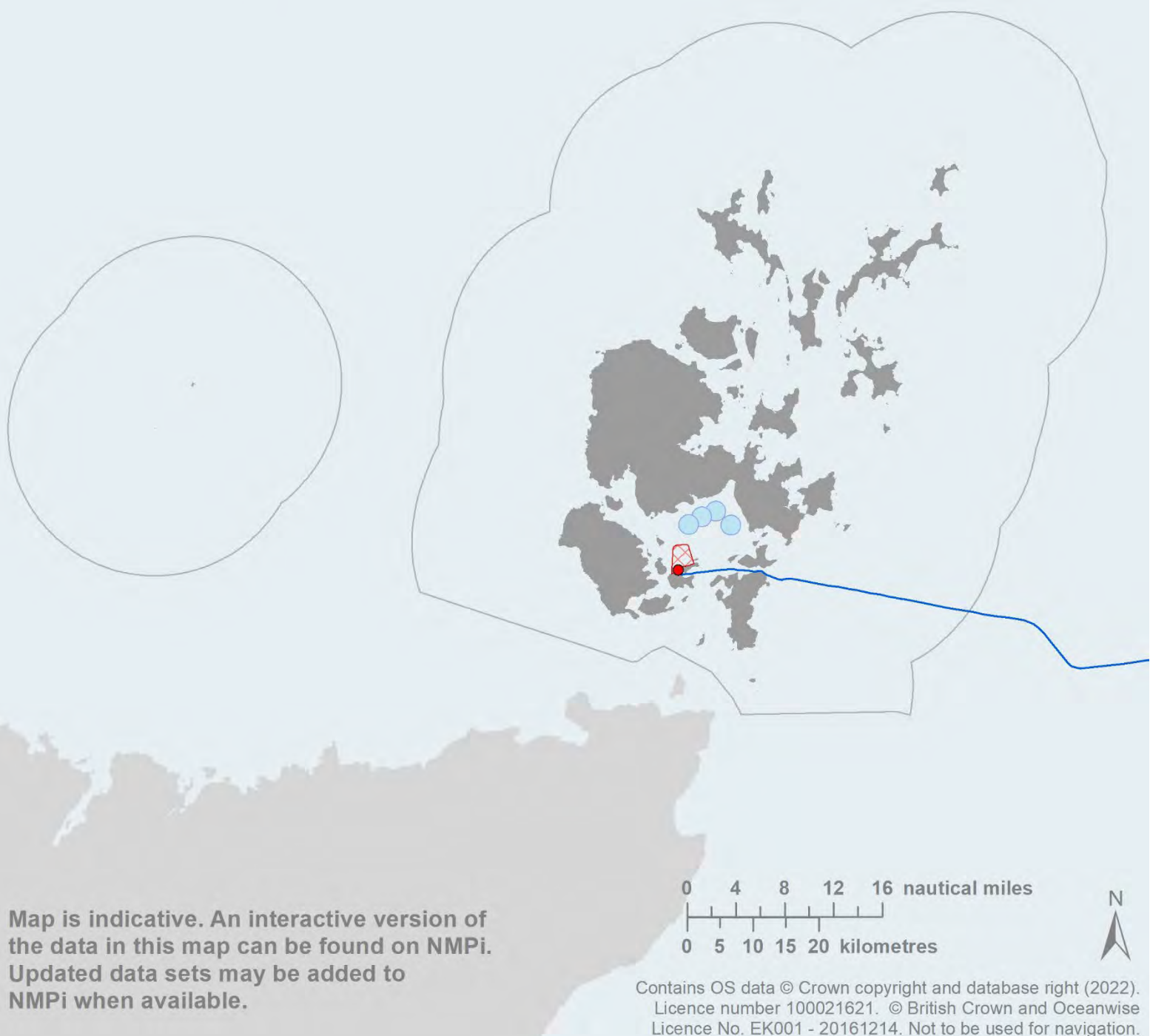
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	1, 3
Indirect contribution to objectives:	4
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 6.7
Alignment with other marine and land-use plans	
National Marine Plan	Chapter 9
National Planning Framework 4	Not yet available
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Thriving Economy Strategic Priority: Climate Emergency Strategic Priority: An Outstanding Environment and Quality of Life Strategic Priority: Innovation, Research and Development
Orkney Local Development Plan	N/A



Map 20: Oil and gas infrastructure

Key

- Flotta Oil Terminal
- Flotta Oil Terminal pipeline
- ▨ Flotta safeguarded area
- Ship-to-ship anchor berth - sensitive area (1500m)
- 12 nm boundary



Sector Policy 7: Tourism, recreation, leisure and sport

Tourism

- 3.82 The many special qualities of Orkney make it a world-class tourist and leisure destination. There are numerous islands with unique characteristics to explore, and a diverse range of opportunities for marine recreation, sport and leisure.
- 3.83 Tourism is an important economic driver in Orkney, providing a wide range of employment opportunities whilst bringing significant money into the local economy through visitor spending.⁹⁸
- 3.84 Orkney's environmental quality, natural and cultural heritage, and historic environment underpin the success of the tourism sector. It is therefore important to protect these special qualities and assets to ensure the long-term sustainability of tourism and recreation, and the associated benefits enjoyed by local communities. As identified in the Orkney Islands Marine Region: State of the Environment Assessment, tourism infrastructure, development and activities can have significant impacts on the environment.⁹⁹ It is therefore important that these impacts be carefully managed to safeguard the quality and productivity of the coastal and marine environment in Orkney.
- 3.85 Sustainable tourism requires investment in infrastructure and can provide an incentive for conservation and environmental enhancement investments that benefit the wider community.¹⁰⁰

Recreation, leisure and sport

- 3.86 Coastal and marine recreation, leisure and sport provide significant well-being benefits to local communities and visitors. Popular activities include, for example, paddle sports, recreational boating, surfing, diving, recreational fishing, swimming, coastal walking, birdwatching and competitive sport. This includes both formal and informal activities undertaken by individuals, clubs and commercial ventures.
- 3.87 Orkney's attractive coastal scenery, wildlife, historic assets and beaches are some of the many assets enjoyed by those engaging in marine and coastal

⁹⁸ Orkney Islands Visitor Survey. Orkney Islands Council and VisitScotland. 2020.
<https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-papers/orkney-islands-visitor-survey-2019.pdf>

⁹⁹ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

¹⁰⁰ Enabling conditions for an equitable and sustainable blue economy. Cisneros-Montemayor *et al.* 2021.
<https://www.nature.com/articles/s41586-021-03327-3#:~:text=%20Enabling%20conditions%20for%20an%20equitable%20and%20sustainable,global%20development%205%2C%20and%20high-level%20policies...%20More%20>



recreational, leisure and sport activities. Clean and healthy seas and coast are fundamentally important to the enjoyment of these activities. Spending time in the coastal and marine environment has also been shown to enhance mental well-being and physical health, leading to an improved quality of life.¹⁰¹

- 3.88 Orkney's coastal infrastructure and facilities, including the core path network,¹⁰² anchorages (see Map 21), and the many marine access points, including marinas, piers and slips (see Map 14), are key to enabling a diverse range of recreational uses and are important assets that need to be safeguarded and enhanced.
- 3.89 Sector Policy 7 aims to ensure that tourism, recreation, leisure and sport development, activities and/or use protect and, where appropriate, enhance the environment in which they operate. In addition to this policy, tourism recreation, leisure and sport development and/or activities will be assessed in accordance with other relevant policies in the Plan (e.g. harbour infrastructure developments for tourism will also be assessed under Sector Policy 3). Furthermore, this policy aims to avoid or reduce adverse impacts on tourism, recreation, sport and leisure uses.
- 3.90 Further information on tourism, recreation, leisure and sport in Orkney is provided in the Orkney Islands Marine Region: State of the Environment Assessment.¹⁰³ The Orkney Coastal and Marine Recreational Survey¹⁰⁴ provides spatial information on recreation, sport and leisure uses in the Orkney Islands marine region.

¹⁰¹ Evidence Statement: The well-being and human health benefits of exposure to the marine and coastal environment. DEFRA. 2019.

https://www.smmr.org.uk/wp-content/uploads/2020/07/SD1712_well-being-and-human-health-benefits.pdf

¹⁰² The Orkney Core Paths Plan. Outdoor Access - Orkney Islands Council.

<https://oic.maps.arcgis.com/apps/MapSeries/index.html?appid=462f21e42d74428984b868be3a8c57c2>

¹⁰³ The Orkney Islands Marine Region: State of the Environment Assessment. 2020

<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>

¹⁰⁴ The Orkney Coastal and Marine Recreational Survey is due to be published in 2023.



Sector Policy 7: Tourism, recreation, leisure and sport

Sector Policy 7a: Tourism, recreation, leisure and sport development and/or activities

- i. Proposals for marine tourism, recreation, leisure and sport development and/or activities should avoid, minimise or appropriately mitigate significant adverse impacts on:
 - a. landscape and/or seascape character and visual amenity;
 - b. nature conservation designations, protected species, and the wider biodiversity, including Priority Marine Features;
 - c. seal haul-out sites;
 - d. water quality and the benthic environment;
 - e. historic environment assets;
 - f. coastal processes including those caused by erosion, flooding and wider coastal change;
 - g. other coastal and marine users including, but not limited to, commercial fishing, shipping and navigation, ports and harbour infrastructure/operations, aquaculture sites, tourism, recreation, and sport and leisure activities; and
 - h. amenity, including consideration of road traffic, noise, vibration and litter impacts.
- ii. Proposals for marine tourism, recreation, leisure and sport development and/or activities should follow relevant codes of best practice and guidance, including, but not limited to, the Marine Wildlife Watching Code, the Scottish Outdoor Access Code and biosecurity practices and marine litter/waste guidance.
- iii. To maximise the benefits from existing infrastructure, proposals for marine tourism, recreation, leisure and sport development and/or activities should demonstrate that they have considered the potential to utilise appropriate existing infrastructure and/or facilities, including shared use with complementary activities and sectors.

Sector Policy 7b: Safeguarding tourism, recreation, leisure and sport uses

- i. Proposals for development and/or activities should avoid, minimise or appropriately mitigate significant adverse impacts on tourism, recreation, leisure and sport uses.
- ii. Proposals for development and/or activities should demonstrate engagement and/or consultation with relevant tourism, recreation, leisure and sport bodies and/or users to ensure that the measures proposed to avoid, minimise and/or mitigate adverse impacts on tourism, recreation, sport and leisure uses are appropriate.



Table 24: Sector Policy 7 links to Plan objectives, state of the environment assessment and other plans

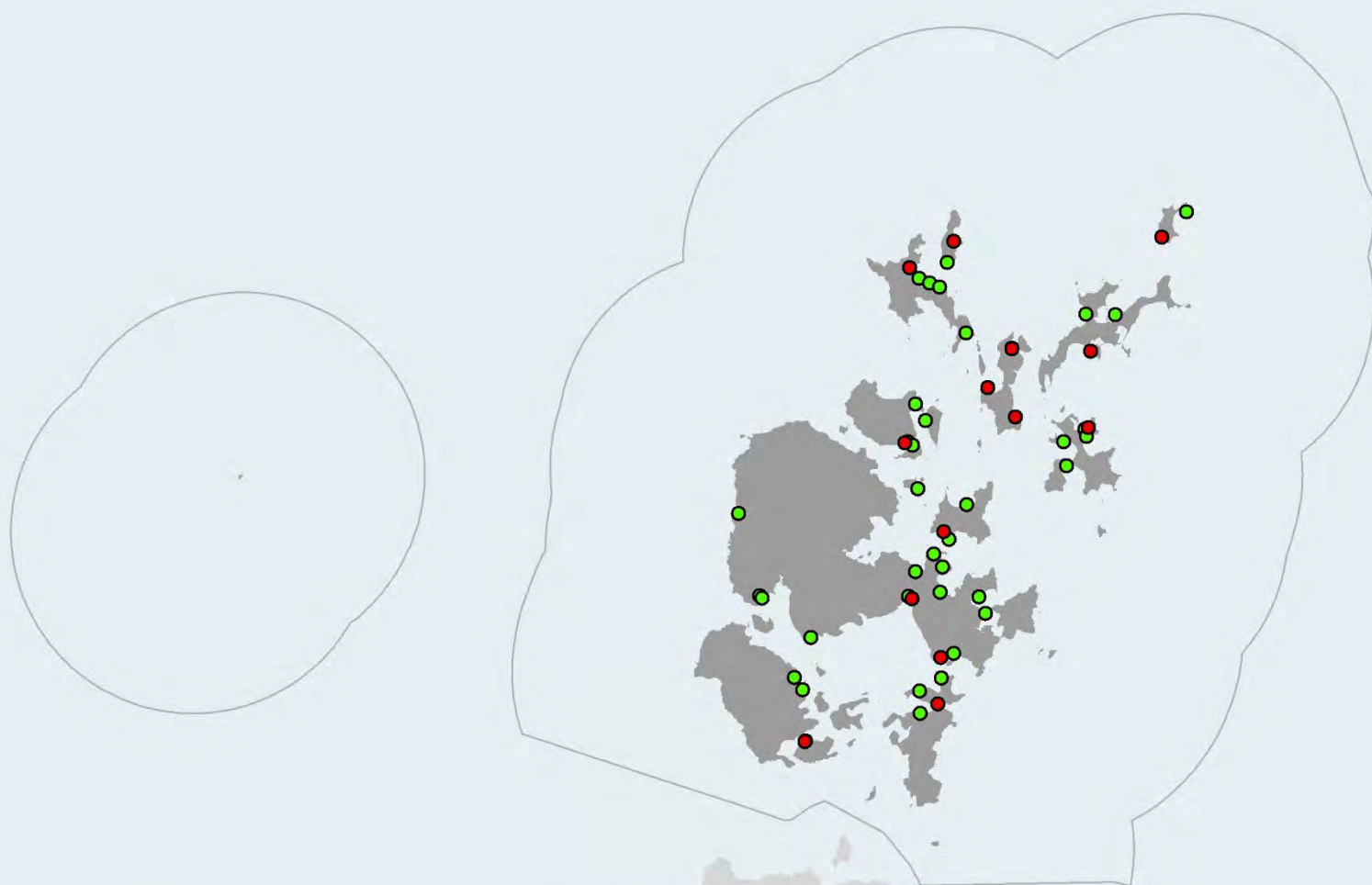
Contribution to Regional Marine Plan objectives	
Direct contribution to objectives:	1, 2, 6, 7
Indirect contribution to objectives:	5
Assessment of the condition of the Orkney Islands marine area	
Orkney Islands Marine Region: State of the Environment Assessment baseline information	Section 6.9
Alignment with other marine and land-use plans	
National Marine Plan	Chapter 12
National Planning Framework 4	Policy 17
Orkney's Regional Spatial Strategy (Indicative)	Strategic Priority: Sustainable Communities Strategic Priority: Thriving Economy Strategic Priority: An Outstanding Environment and Quality of Life
Orkney Local Development Plan	Policy 10A



Map 21: Clyde Cruising Club anchorages and Visiting Yacht Moorings

Key

- Visiting Yacht Moorings (VYM)*
- Anchorages listed in the Clyde Cruising Club (CCC) Sailing Directions and Anchorages publication
- 12 nm boundary



***Visiting Yacht Moorings are seasonal and only deployed May-October. Some VYMs may also be included in CCC anchorages. For more information on CCC anchorages please refer to the CCC 'Sailing Directions and Anchorages' publication.**

0 4 8 12 16 nautical miles
0 5 10 15 20 kilometres



Section 4: Monitoring, Evaluation and Review of the Plan

- 4.1 In accordance with the Marine (Scotland) Act 2010, the Plan will be subject to review every five years from the date of adoption and publication. The Plan will be kept under review with regards to the effects of the policies and their effectiveness in securing the Plan's objectives. This review process will be informed by monitoring and evaluation of the Plan's effectiveness using an appropriate framework and indicators.
- 4.2 This Plan includes a vision and an aim, guiding principles, objectives, and general and sector policies that support the delivery of sustainable development in the Orkney Islands marine region. It provides a policy framework to enable public authority decision makers to determine authorisation and enforcement decisions and make other decisions capable of affecting the marine environment. Decision making, compliance and enforcement are essential to the effective implementation of the Plan,¹⁰⁵ and these functions rely on the participation of regulating authorities, developers and other plan users.
- 4.3 When the Plan has been adopted, it will be important to analyse and assess the extent to which the Plan's vision, aim and objectives are being met. This process of monitoring and evaluation will require the identification of relevant indicators and the collection of associated data. There is an intention to develop a set of indicators once the Plan is published, if capacity allows. The instructions created by the Maritime Spatial Planning Programme on evaluating marine spatial plans¹⁰⁶ will provide guidance to a stepwise approach to setting indicators for monitoring and evaluation purposes. The setting of criteria and indicators will be guided by the objectives of the Plan, and its process, and informed by the baseline provided by the Orkney Islands Marine Region: State of the Environment Assessment.¹⁰⁷

¹⁰⁵ Step 8. Implementing the plan – MSP GLOBAL 2030
<https://www.mspglobal2030.org/resources/key-msp-references/step-by-step-approach/implementing-the-plan/>

¹⁰⁶ A Guide to Evaluating Marine Spatial Plans. Marine Spatial Planning Global.
<https://www.mspglobal2030.org/resources/key-msp-references/evaluating-marine-spatial-plans/>

¹⁰⁷ The Orkney Islands Marine Region: State of the Environment Assessment. 2020
<https://www.orkney.gov.uk/Files/Planning/Development-and-Marine-Planning/20210107-OIC-Report-V9-screen v2.pdf>





Appendix 1: Licensing and Consenting Decisions

- A1.1 Table A1 outlines licensing and consenting requirements, or authorisation and enforcement decisions, for marine development and activities. It is intended for guidance purposes only and does not provide an exhaustive list of all relevant licensing and consenting requirements and associated processes.
- A1.2 Public authorities are required to take any authorisation or enforcement decision in accordance with the appropriate regional marine plan, unless relevant considerations indicate otherwise.¹⁰⁸ Table A1 identifies the key authorisation and/or enforcement decisions that implement the Plan policies. The key types of assessment that may be required to inform licence or consent applications are also identified.
- A1.3 Legislation, plans, strategies and policies relevant to marine development and activities are provided in Appendix 2.

Table A1: Licensing and consenting for marine development or activities

Licence or consent type	Responsible body
Marine licence	Marine Scotland – Licensing Operations Team (MS-LOT)
The Marine (Scotland) Act 2010 and the UK Marine and Coastal Access Act 2009 provide 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 2009 Act provides executive devolution to Scottish Ministers for marine planning, licensing and conservation powers in the offshore region (12–200 nautical miles). The provisions of the Acts and executive devolution of some reserved functions mean that Marine Scotland is the appropriate authority for licensing most activities in Scotland’s marine environment on behalf of Scottish Ministers. 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, when the conditions of exemption are met.	

¹⁰⁸ Marine (Scotland) Act 2010. <https://www.gov.scot/publications/marine-scotland-act/>



It is a legal requirement under UK and Scottish law under the Marine (Scotland) Act 2010 (section 21) and the Marine and Coastal Access Act 2009 (section 66) to apply for a marine licence to carry out a number of activities including to:

- deposit any substance or object in the sea or on or under the seabed from a vehicle, vessel, aircraft or marine structure;
- construct, alter or improve works on or over the sea or on or under the seabed;
- remove substances or objects from the seabed from a vehicle, vessel, aircraft or marine structure;
- carry out dredging;
- deposit and/or use explosives; and
- incinerate substances or objects.

The above list is not exhaustive; it is therefore recommended that prior to submitting a marine licence application, the applicant should seek further information on what is licensable and how to apply for a licence from MS-LOT.¹⁰⁹

The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011 specifies activities that do not need a marine licence, or would not need a marine licence if conditions specified in the Order are satisfied.¹¹⁰ Fishing is also exempt from marine licensing as it has its own regime.

For fish farming development, planning permission from local planning authorities is required. 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.

CAR licence	Scottish Environment Protection Agency (SEPA)

In accordance with the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR), an authorisation is required for activities in the marine environment (out to three nautical miles) involving discharges of pollutants and water abstraction. Applications for new fish farm developments and discharges to the sea from, e.g. septic tanks or wellboats are examples of activities that may require a CAR authorisation.

¹⁰⁹ Information regarding PAC marine-related Major and National pre-application requirements and advice can be found in paragraphs 52–54 of the PFOW MSP and on the MS-LOT website.

¹¹⁰ The Marine Licensing (Exempted Activities) (Scottish Inshore Region) Order 2011.
<https://www.legislation.gov.uk/sdsi/2011/9780111012284/contents>



Planning permission and related consents	Planning Authority (Orkney Islands Council for the Orkney Islands local authority area)
Marine development proposals may require a land-based element (such as a land-based substation for marine renewable energy development). Land-based/coastal development located above Mean Low Water Springs, along with marine fish farm development out to 12 nautical miles, are subject to the requirements for planning permission under the Town and Country Planning (Scotland) Act 1997 (as amended).	
Works licence	Orkney Islands Council
A Works licence is required for dredging, piers, marinas, breakwaters, cables, pipelines and other similar constructions within the Orkney Harbour Areas.	
Scheduled Monument Consent	Historic Environment Scotland (HES)
Activities or works which would have a direct impact on Scheduled Monuments require Scheduled Monument Consent (SMC). HES is the regulator for SMC. Their decision making is directed by the Historic Environment Policy for Scotland and Scheduled Monument Consents Policy.	
Licence to carry out prohibited works, operations, etc. on controlled sites	Ministry of Defence (MOD)
The Protection of Military Remains Act 1986 contains statutory provisions for wrecks of both aircraft and ships, and all military aircraft are automatically protected under this legislation. These statutory provisions are administered by the Ministry of Defence (MOD): RAF for aircraft and Navy for vessels. Under the 1986 Act, vessels may be designated either as a protected place or as a controlled site. Map 6 shows the locations of controlled sites designated under the Protection of Military Remains Act 1986 (Designation of Vessels and Controlled Sites) Order 2017. Commonly called 'war graves', they are more correctly referred to as 'military maritime graves'.	



European Protected Species licence	NatureScot (Scottish Natural Heritage)/MS-LOT
When European Protected Species are present, licences to permit works that will affect them can only be granted subject to three strict tests being met: Test 1: There must be a licensable purpose for which licences can be granted. The reason for the licence must relate to one of several purposes specified in regulation 44(2) of the Conservation (Natural Habitats &c.) Regulations 1994 (as amended). Test 2: There must be no satisfactory alternative. Read the following guidance to find out how you must demonstrate this: 'European Protected Species Licensing: Test 2 – No satisfactory alternative'. Test 3: The proposed action must not be detrimental to maintaining the species at 'favourable conservation status'. In considering this test, NatureScot will take into account any possible impacts of development proposals on the favourable conservation status of the relevant species in its native range. Marine Scotland has guidance on the protection of Marine European Protected Species from injury and disturbance, for Scottish inshore waters.¹¹¹	
Seabed lease	Crown Estate Scotland (CES)
CES manages the seabed out to 12 nautical miles, and therefore is responsible for issuing seabed leases for activities such as aquaculture, seaweed harvesting, marine renewables, cables and pipelines.	
Section 36 consent	MS-LOT
Section 36 consent under the Electricity Act 1989 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. Generation stations with a capacity of 1MW or less do not require section 36 consent.	

¹¹¹ Marine European protected species: protection from injury and disturbance. Scottish Government. 2020. <https://www.gov.scot/publications/marine-european-protected-species-protection-from-injury-and-disturbance/>



Related assessments that may be required for obtaining a licence or consent for development and/or activities

Environmental Impact Assessment (EIA)	Department for Business, Energy and Industrial Strategy (DBEIS) Oil and Gas Consents

Within the Orkney Islands marine region (out to 12 nautical miles), DBEIS is responsible for EIA and habitat and species issues in relation to the Petroleum Act functions. However, DBEIS'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 (EIA)	Planning Authority/Scottish Ministers/Department for Business, Energy and Industrial Strategy (DBEIS)

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 and/or activity. These environmental effects are taken 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 DBEIS on behalf of the Secretary of State for reserved matters.

The European EIA Directive has been transposed into various regulations relating to development type and location, which are administered by relevant government bodies. These include:

- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended), which apply to applications made under sections 36 and 37 of the Electricity Act. Administered by MS-LOT (0–200 nautical miles).
- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, which apply to land-based developments and marine fish farms that require planning permission. Administered by the Local Planning Authority.
- The Marine Works (Environmental Impact Assessment) Regulations 2007. Administered by MS-LOT (12–200 nautical miles).
- The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017. Administered by MS-LOT (0–12 nautical miles).



Habitats Regulations Appraisal (HRA)	MS-LOT/Planning Authority
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 1994 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 European 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 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 overriding public interest. Compensatory measures must also be put in place by Scottish Ministers to secure the continued coherence of the Natura network.	

Disclaimer Table A1 is intended for guidance purposes only and is not a legal interpretation of the Town and Country Planning (Scotland) Act 1997 (as amended), the Marine (Scotland) Act 2010, or any other legislation referred to therein.

The onus remains with the applicant to ensure that they comply with the relevant legal requirements.

For further guidance, refer to the Orkney Islands Council planning permission guidance notes for the submission of marine-related development applications¹¹² and Marine Scotland's Guidance for Marine Licence Applicants.¹¹³

It is strongly advised that applicants consult with the appropriate licensing or consenting authorities as early as possible to determine the appropriate licence or consent requirements and to identify key stakeholders (including other marine users) and their relevant responsibilities.

¹¹² Aquaculture - planning applications information and guidance. Orkney Islands Council.
<https://www.orkney.gov.uk/Service-Directory/A/Aquaculture.htm?msclkid=45f56695b42311ec9b0a22d11ed0fe39>

¹¹³ Marine environment: licensing and consenting requirements. Scottish Government.
<https://www.gov.scot/collections/marine-licensing-and-consent/?msclkid=66a52045b42311ec98a4b568b715bc95>



Appendix 2: Relevant Legislation, Plans, Strategies and Policies

A2.1 Table A2 outlines the key legislation, plans, strategies and policies relevant to development, activities and use in the Orkney marine region. It does not provide an exhaustive list of all relevant legislation, plans, strategies and policies.

Table A2: Relevant legislation, plans, strategies and policies

Legislation	
Marine and Coastal Access Act 2009	Establishes the requirement for marine policy to be developed at the UK level.
Marine (Scotland) Act 2010	Establishes the requirement for a national marine plan and provision for regional marine plans.
Scottish Marine Regions Order 2015	Establishes the Scottish Marine Regions boundaries.
Islands (Scotland) Act 2018	Establishes, among other things, that Orkney Islands Council can be a sole delegate for the functions relating to regional marine plans.
Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 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 3 August 2009, the majority of the 2006 Act came into force.
The Conservation (Natural Habitats, &c.) Regulations 1994	European sites were originally designated under the 'Habitats Directive' and 'Birds Directive' but are now designated under this legislation.
Plan, strategy or policy	
UK Marine Policy Statement (2011)	Framework for preparing marine plans and taking decisions affecting the marine environment.
Scotland's National Marine Plan 2015	Sets out national objectives and policies to support sustainable development of Scotland's seas.
A Blue Economy Vision for Scotland	Sets out the long-term ambition for Scotland's blue economy to 2045. It demonstrates how much we value our marine environment and its significance. This is captured in six outcomes sitting across a range of environmental, social and economic ambitions.
Climate Change Plan	Sets out the Scottish Government's pathway to our new and ambitious targets set by the Climate Change Act 2019.
Scottish Marine Litter Strategy 2022	A strategy to develop measures to minimise the amount of litter entering the marine and coastal environment.



Plan, strategy or policy	
National Planning Framework	The National Planning Framework (NPF) is a long-term plan for Scotland that sets out where development and infrastructure is needed.
Scottish Planning Policy	A Scottish Government policy statement on how nationally important land-use planning matters should be addressed in Scotland.
Historic Environment Policy for Scotland (HEPS) 2019	Outlines how a duty of care for our historic environment will come into existence whenever a decision will affect the historic environment.
Sectoral Marine Plan for Offshore Wind Energy 2020	Aims to identify sustainable plan options for the future development of commercial-scale offshore wind energy in Scotland, including deep-water wind technologies, and covers both Scottish inshore and offshore waters.
Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters 2013	The Wave and Tidal elements of this plan are the current guidance for these types of development. The wind sectoral plan has been updated, as per the plan in the row above.
Orkney Local Development Plan 2017	Sets out a vision and spatial strategy for the development of land in Orkney over the next ten to twenty years. The plan contains the land-use planning policies which Orkney Islands Council will use for determining applications.
Orkney Local Biodiversity Action Plan 2018–2022	Action plan to support the conservation of biodiversity in Orkney, including marine habitats and species.
Orkney Harbours Masterplan – Phase 1 – Planning Policy Advice	Provides a structured framework for the physical development and transformation of Orkney's harbours over a 20-year period.

Disclaimer: Table A2 is intended for guidance purposes only and does not provide an exhaustive list of all relevant legislation, plans, strategies and policies, nor does it provide legal interpretation of legislation referred to therein.

The onus remains with the applicant to ensure that they comply with the relevant legal requirements.



Appendix 3: National Marine Plan interactive

National Marine Plan interactive: User guide

What is the National Marine Plan interactive?

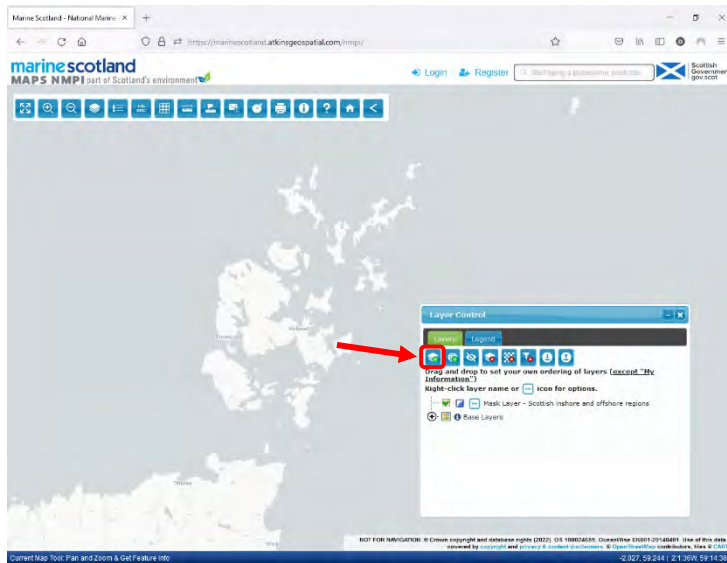
- A3.1 The National Marine Plan interactive (NMPi) is an online mapping tool developed by Marine Scotland to assist in the development and delivery of national and regional marine planning. It contains environmental, social and economic data for Scottish inshore waters (out to 12 nautical miles) and offshore waters (12–200 nautical miles).
- A3.2 NMPi is not a static system, and data sets, new statistics and other details are added when available. Users of the Orkney Islands Regional Marine Plan are encouraged to refer to NMPi for up-to-date spatial data and maps.

How do I access information on NMPi?

- A3.3 NMPi is accessed online at <https://marinescotland.atkinsgeospatial.com/nmpi/> or via an internet search for 'NMPi Scotland'. Data can be viewed via the 'View layers to add/remove' button.
- A3.4 Layers can then be selected by navigating the folders or by searching for a keyword in the search bar (e.g. 'Marine Protected Areas'). To add the selected layers to the interactive map, select the layer(s) you wish to add and click the 'Add/Remove Layers' button.
- A3.4 Tick the layers that you want to view in the 'Layer Control' window, and they will appear on the map. You can now zoom in to view the spatial information in more detail, view the origin of the data under the context menu () , or add more data layers by following the same process.
- A3.5 Further information about NMPi can be accessed via the 'Information about NMPi and FAQs' window on the NMPi landing web page.

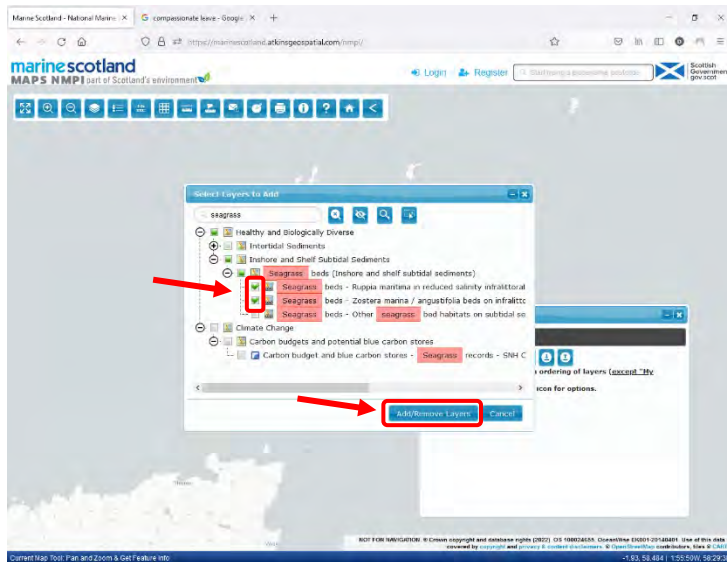


Example: Viewing seagrass locations



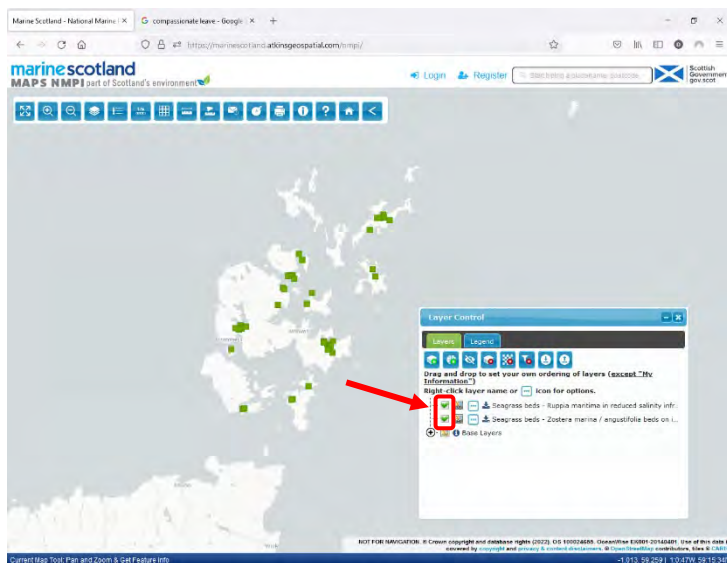
Step 1

Click 'View layers to add/remove'.



Step 2

Navigate the layer folders or search with a keyword in the search bar (e.g. 'Seagrass'). Tick the layers you would like to add and click 'Add/Remove Layers'.



Step 3

Tick the layers you would like to view and they will be added to the map.



Appendix 4: Natural Capital and Marine Ecosystem Services

Natural Capital and Ecosystem Services

- A4.1 Natural capital is the stock of renewable and non-renewable natural resources (e.g. plants, animals, air, water, soils and/or minerals) that combine to yield a flow of benefits to people that are often referred to as ecosystem services.
- A4.2 Ecosystem services are processes by which the environment produces resources that are utilised by humans, such as clean air, water, food, energy and materials. A well-functioning marine ecosystem supports these vital ecosystem services.
- A4.3 Ecosystem services deliver a variety of goods, such as food resources and services, and waste assimilation and treatment, which have value to human society above and beyond just maintaining ecosystem functioning.¹¹⁴ A summary of the benefits of marine ecosystem services is shown in Figure A1.¹¹⁵
- A4.4 Benefits are the changes in human well-being or welfare that result from the consumption or use of goods and services or from knowing something exists. These benefits can be classified as:
- *Provisioning services*: these create benefits through the provision of products from nature, such as food, water and raw materials.
 - *Regulating services*: benefits arise through the moderation of natural phenomena, for example sequestering carbon, removing pollutants from the air and regulating water flows.
 - *Cultural services*: non-material, experiential benefits provided through interaction with nature, for example recreation, tourism and aesthetic experiences.
 - *Supporting services*: cross-cutting services that underpin the production of all other ecosystem services, for example soil formation, nutrient cycling, provision of habitat and seed dispersal.

¹¹⁴ Frid *et al.* (2011) *The Ecosystem Approach to Marine Planning and Management*: Chapter 4. (Eds: Kidd, Plater & Frid). Earthscan, London.

¹¹⁵ Natural capital, ecosystem services and the Blue Economy – Scotland’s Marine Assessment. Marine Scotland. 2020.

<https://marine.gov.scot/sma/assessment-theme/natural-capital-ecosystem-services-and-blue-economy>



A4.5 The concepts of natural capital and ecosystem services have developed significantly over the past decade, gaining traction globally as a robust means of linking the underlying functioning and ecology of ecosystems to multiple benefits enjoyed by society. In 2021, the partial asset value of UK marine natural capital assets was £211 billion.¹¹⁶ In 2018, the natural economy in Scotland contributed £29.1 billion gross value added to the Scottish economy (just over a fifth of its total).

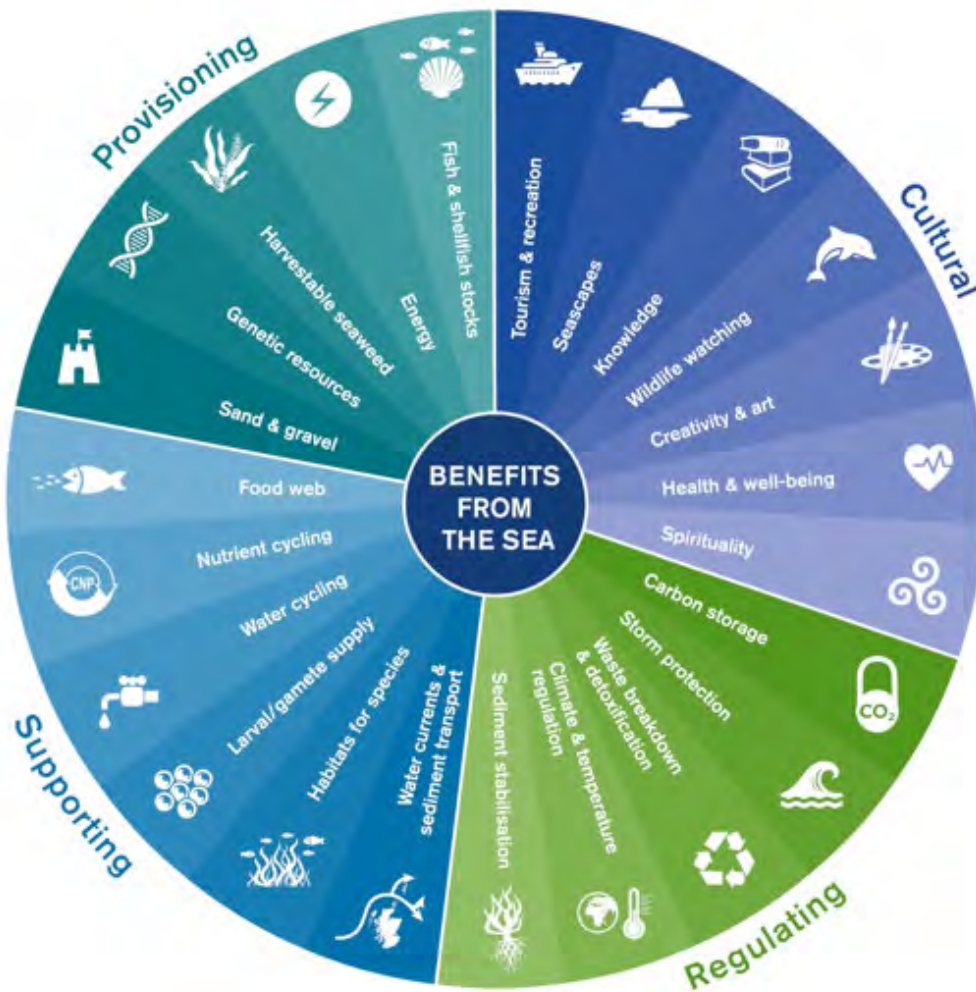


Figure A1: Examples of marine ecosystem benefits © NatureScot

Oceans of Value

A4.6 Oceans of Value is a project led by the Scottish Wildlife Trust that used a natural capital approach to assess key habitats and species within the Orkney

¹¹⁶ Marine accounts, natural capital, UK. Office for National Statistics 2021.
<https://www.beta.ons.gov.uk/economy/environmentalaccounts/bulletins/marineaccountsnaturalcapitaluk/2021>



Islands marine region.¹¹⁷ The project was developed to investigate whether natural capital assessments could be applied to the marine environment at a Scottish marine region scale. This approach was the first of its kind and focused on the value of ecosystem services provided by the marine environment in Orkney.

- A4.7 The Oceans of Value Natural Capital Assessment of the Orkney Marine Region Area¹¹⁸ provides a natural capital assessment and case study evaluations. This report provides a first-stage assessment of ecosystem services by habitat within the Orkney Islands marine region.

¹¹⁷ Oceans of Value. Scottish Wildlife Trust.
<https://scottishwildlifetrust.org.uk/our-work/our-projects/living-seas/oceans-of-value/>

¹¹⁸ Oceans of Value. Scottish Wildlife Trust.
<https://scottishwildlifetrust.org.uk/our-work/our-projects/living-seas/oceans-of-value/>



Appendix 5: Priority Marine Features and Orkney Local Biodiversity Action Plan

Marine Priority Habitats and Species

Appendix 5a: Priority Marine Features in the Orkney Islands marine region

Table A3: Priority Marine Features in the Orkney Islands marine region

Broad habitat
1 Blue mussel beds
2 Flame shell beds
3 Horse mussel beds
4 Intertidal mudflats
4 Kelp and seaweed communities on sublittoral sediment
5 Kelp beds
6 Low or variable salinity habitats
7 Maerl beds
8 Native oysters
9 Seagrass beds
10 Tide-swept algal communities
11 Tide-swept coarse sands with burrowing bivalves
Low or limited mobility species
1 Northern feather star – <i>Leptometra celtica</i>
2 Fan mussel – <i>Atrina fragilis</i>
3 Ocean quahog – <i>Arctica islandica</i>
Mobile species
1 European spiny lobster – <i>Palinurus elephas</i>
2 European eel – <i>Anguilla anguilla</i>
3 Atlantic salmon – <i>Salmo salar</i>
4 Sea lamprey – <i>Petromyzon marinus</i>
5 Sea trout – <i>Salmo trutta</i>
6 Sparling – <i>Osmerus eperlanus</i>
7 Angler fish – <i>Lophius piscatorius</i>
8 Atlantic halibut – <i>Hippoglossus hippoglossus</i>
9 Atlantic herring – <i>Clupea harengus</i>
10 Atlantic mackerel – <i>Scomber scombrus</i>
11 Cod – <i>Gadus morhua</i>
12 Greenland halibut – <i>Reinhardtius hippoglossoides</i>
13 Horse mackerel – <i>Trachurus trachurus</i>
14 Ling – <i>Molva molva</i>
15 Norway pout – <i>Trisopterus esmarkii</i>
16 Round-nose grenadier – <i>Coryphaenoides rupestris</i>
17 Saithe – <i>Pollachius virens</i>
18 Sandeels – <i>Ammodytes marinus</i> and <i>Ammodytes tobianus</i>
19 Sand goby – <i>Pomatoschistus minutus</i>



20 Whiting – <i>Merlangius merlangus</i>
21 Basking shark – <i>Cetorhinus maximus</i>
22 Common skate – <i>Dipturus batis</i> complex
23 Porbeagle shark – <i>Lamna nasus</i>
24 Spiny dogfish – <i>Squalus acanthias</i>
25 Atlantic white-sided dolphin – <i>Lagenorhynchus acutus</i>
26 Bottlenose dolphin – <i>Tursiops truncatus</i>
27 Fin whale – <i>Balaenoptera physalus</i>
28 Harbour porpoise – <i>Phocoena phocoena</i>
29 Killer whale – <i>Orcinus orca</i>
30 Long-finned pilot whale – <i>Globicephala melas</i>
31 Minke whale – <i>Balaenoptera acutorostrata</i>
32 Northern bottlenose whale – <i>Hyperoodon ampullatus</i>
33 Risso's dolphin – <i>Grampus griseus</i>
34 Short-beaked common dolphin – <i>Delphinus delphis</i>
35 Sowerby's beaked whale – <i>Mesoplodon bidens</i>
36 Sperm whale – <i>Physeter macrocephalus</i>
37 White-beaked dolphin – <i>Lagenorhynchus albirostris</i>
38 Harbour seal – <i>Phoca vitulina</i>
39 Grey seal – <i>Halichoerus grypus</i>
40 Otter – <i>Lutra lutra</i>

Appendix 5b: Orkney Local Biodiversity Action Plan - Priority Habitats and Species

A5.1 Table A4 details UK/Scottish Priority Habitats identified in the Orkney Local Biodiversity Action Plan and corresponding Priority Marine Features.

Table A4: Orkney Local Biodiversity Action Plan Priority Habitats and Species and Priority Marine Features

UK/Scottish Priority Habitats identified in the Orkney Local Biodiversity Action Plan	Corresponding Priority Marine Feature?
Intertidal mudflats	Intertidal mudflats
Sandy shores	No
Coastal saltmarsh	No
Seagrass beds	Seagrass beds 1. <i>Zostera marina/angustifolia</i> beds on lower shore or infralittoral clean or muddy sand 2. <i>Ruppia maritima</i> in reduced salinity infralittoral muddy sand
Intertidal boulder communities	No
Blue mussel beds	Blue mussel beds 1. <i>Mytilus edulis</i> on littoral sediments



UK/Scottish Priority Habitats identified in the Orkney Local Biodiversity Action Plan	Corresponding Priority Marine Feature?
Littoral caves and overhangs	No
Sublittoral wave surge gullies and caves	No
Tide-swept channels	Tide-swept algal communities 1. Fucoids in tide-swept conditions 2. <i>Halidrys siliquosa</i> and mixed kelps on tide-swept infralittoral rock with coarse sediment 3. Kelp and seaweed communities in tide-swept sheltered conditions 4. <i>Laminaria hyperborea</i> on tide-swept infralittoral mixed substrata
	Tide-swept coarse sand with burrowing bivalves
Sheltered muddy gravels	No
Saline lagoons and environs	Low or variable salinity habitats 1. Kelp in variable or reduced salinity 2. Submerged fucoids, green or red seaweeds (Low salinity infralittoral rock) 3. Bird's nest stonewort – <i>Tolypella nidifica</i> 4. Baltic stonewort – <i>Chara baltica</i> 5. Small brackish water snail – <i>Hydrobia acuta neglecta</i>
Inlets, enclosed and sheltered bays and sublittoral sand, fine sand and mud	No
Infralittoral mixed sediment	No
Sublittoral sands and gravel	No
Maerl beds	Maerl beds 1. Maerl or coarse shell gravel with burrowing sea cucumbers
Horse mussel beds	Horse mussel beds 1. <i>Modiolus modiolus</i> beds with hydroids and red seaweeds on tide-swept circalittoral mixed substrata



UK/Scottish Priority Habitats identified in the Orkney Local Biodiversity Action Plan	Corresponding Priority Marine Feature?
	2. <i>Modiolus modiolus</i> beds on open coast circalittoral mixed sediment 3. <i>Modiolus modiolus</i> beds with fine hydroids and large solitary ascidians on very sheltered circalittoral mixed substrata 4. <i>Modiolus modiolus</i> beds with <i>Chlamys varia</i>, sponges, hydroids and bryozoans on slightly tide-swept very sheltered circalittoral mixed substrata
File shell beds	Flame shell beds
Mud habitats in deep water	No





Appendix 6: Seaweed Harvesting

- A6.1 There is a growing interest in small-scale wild seaweed harvesting in Orkney. Hand harvesting of seaweed for any form of monetary or other reward from Crown foreshore or seabed in Scotland requires a licence from Crown Estate Scotland (CES). CES issues licenses for hand harvesting, as well as Foreshore Harvesting Options for larger-scale nearshore harvesting.¹¹⁹ Permission from the owner is always required whether wild seaweed is harvested from Crown or private foreshore.
- A6.2 At the time of writing this Plan, large-scale commercial seaweed harvesting does not take place in Orkney. A marine licence from Marine Scotland – Licensing Operations Team may be required to remove seaweed from the seabed using a vessel or vehicle.
- A6.3 Removals from the seabed by hand, that is where no vehicle or vessel is used do not require a marine licence. Within a Site of Special Scientific Interest (SSSI), consent may be required from NatureScot to harvest seaweed from the foreshore, depending on the Operations Requiring Consent for a given SSSI. At the time of writing, the sector is almost entirely based on harvesting of wild seaweed, predominately undertaken by small and micro-scale enterprises.¹²⁰
- A6.4 The Scottish Crown Estate Act 2019¹²¹ stipulates that the manager of a Scottish Crown Estate asset must not grant a right to remove wild kelp from the seabed in specific circumstances detailed in section 15 of the Act.

¹¹⁹ <https://www.crownestatescotland.com/what-we-do/marine/asset/aquaculture/Section/seaweed-harvesting>

¹²⁰ Potential scale of Scottish seaweed-based industries: research paper. Scottish Government. 2022. <https://www.gov.scot/publications/understanding-potential-scale-seaweed-based-industries-scotland/>

¹²¹ Wild kelp - restrictions on removal: questions and answers. Scottish Government. 2020. <https://www.gov.scot/publications/wild-kelp---restrictions-on-removal-questions-and-answers/#:~:text=Hand%20removal%20of%20seaweed%20for,not%20require%20a%20marine%20licence>



Appendix 7: Definition of Key Concepts, Acronyms and Glossary

Appendix 7a

Table A5: Definition of key concepts

Term/phrase	Definition
Biodiversity enhancement	Biodiversity enhancement is an approach to development and/or activities that aims to leave biodiversity in a measurably better state than beforehand. This means protecting, restoring, or creating environmental features that are of greater biodiversity value than any losses associated with the original development and/or activity.
Cumulative effect/impact	Additional changes caused by a proposed development in conjunction with other developments or the combined effect of a set of developments taken together.
Ecosystem-based approach	The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.
Ecosystem services	The processes by which the environment produces resources that are utilised by humans, such as clean air, water, food, energy and materials (see Figure A1).
Guiding principles	A set of values that establishes a framework for expected behaviour and decision making.
Mitigation hierarchy	The mitigation hierarchy indicates the order in which the impacts of development and/or activities should be considered and addressed. These are: i. avoid: by removing the impact at the outset; ii. minimise: by reducing the impact so that it is as low as practicable through the project design process; iii. mitigate: by taking measures to reduce and/or offset unavoidable adverse impacts.
Nature-based solutions	Use nature to help tackle environmental and social challenges, providing benefits to people and nature, and to help to mitigate and adapt to climate change.
Natural capital	Natural capital is the stock of renewable and non-renewable natural resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people,



	that are commonly referred to as ecosystem services. The UK Natural Capital Committee (2017) defines natural capital as: 'the elements of nature that directly or indirectly produce value to people, including ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and functions'.
Net zero	Scotland has set a target to become 'net zero' by 2045. This means that the amount of greenhouse gas emissions put into the atmosphere and the amount taken out will add up to zero.
Precautionary principle	Defined in the UN Rio Declaration on Environment and Development 1992 as follows: 'Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.'
Positive effects for biodiversity	The development of land should contribute to securing positive effects for biodiversity, as detailed in the National Planning Framework, and this approach to planning is designed to help halt and reverse biodiversity loss and to invest in nature-based solutions, benefiting people and nature.
Sector	A sector is an area of the economy in which businesses share the same, or a related, business activity, product or service.
Synergistic benefits	Benefits that occur when the sum of two effects together is greater than the sum of the effects separately.

Appendix 7b

Table A6: Acronyms

BAP	Biodiversity Action Plan	NPF4	National Planning Framework 4
CES	Crown Estate Scotland	OFA	Orkney Fisheries Association
EIA	Environmental Impact Assessment	OIC	Orkney Islands Council
GCR	Geological Conservation Review	OLBAP	Orkney Local Biodiversity Action Plan
HMPA	Historic Marine Protected Area	OLDP	Orkney Local Development Plan
IFG	Inshore Fisheries Group	OMPAG	Orkney Marine Planning Advisory Group
INNS	Invasive Non-Native Species	ORSS	Orkney Regional Spatial Strategy
LDP	Local Development Plan	OSF	Orkney Sustainable Fisheries
MARPOL	Marine Pollution (the International Convention for the Prevention of Pollution from Ships)	RMP	Regional Marine Plan



MPA	Marine Protected Area	SAC	Special Area of Conservation
NM	Nautical Miles	SEPA	Scottish Environment Protection Agency
NC MPA	Nature Conservation Marine Protected Area	SoEA	Orkney Islands Marine Region: State of the Environment Assessment
NMP	National Marine Plan	SPA	Special Protection Area
NMPi	National Marine Plan interactive	SSSI	Site of Special Scientific Interest
NNS	Non-Native Species		

Appendix 7c

Table A7: Glossary

Adaptation	Adaptation refers to adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects or impacts.
Amenity	Amenity refers to the positive elements that contribute to the overall character and/or enjoyment of an area by residents, visitors and other users.
Benthic	Benthic refers to anything associated with or occurring on the bottom of a body of water.
Biodiversity	The variability in living organisms and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems (UN Convention on Biological Diversity, 1992).
Carbon sequestration	The process of capturing and storing atmospheric carbon dioxide.
Cultural heritage	An expression of the ways of living developed by a community and passed on from generation to generation. It can include customs, practices, places, objects, artistic expressions and values, and have aesthetic, historic, scientific, social or spiritual aspects.
Blue carbon	Carbon stored in marine habitats, e.g. maerl beds.
Coexistence	Development and/or activities that are located in the same place at the same time.
Compliance	The conformance to the requirements of the specific management actions of marine spatial plans by relevant ocean users.
Ecosystem services	The processes by which the environment produces resources utilised by humans, such as clean air, water, food, energy and materials.
Effect(s)	An effect is the result or outcome of an action.
Enhancement	Enhancement measures are those that actually improve the condition of the development site (or an alternative site) after the development or activity is complete.



Historic environment	The physical evidence for human activity that connects people with place, linked with the associations we can see, feel and understand.
Historic asset	A physical element of the historic environment, e.g. a building, monument, site, place, area or landscape, identified as having cultural significance.
Impact(s)	An impact is the influence of an action on something or someone.
Implementation	The process of using marine plans in decision making or actions.
Mitigation	The act of reducing adverse effects or impacts.
National development	National developments are developments of national importance identified in the National Planning Framework.
Quality of life	The standard of health, comfort and happiness experienced by an individual or group.
Resilience (climate)	The capacity of environmental, social and economic systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.
Special qualities	In relation to features of designated landscapes, e.g. National Scenic Areas.
Sustainable development	Development which meets the needs of the present, without compromising the ability of future generations to meet their own needs.
Well-being	The state of being comfortable, healthy or happy.
Wild Land Area	Wildness is a quality which people experience by a perceptual response. Wild land areas are the most extensive areas where these qualities are best expressed.



Orkney Islands Regional Marine Plan

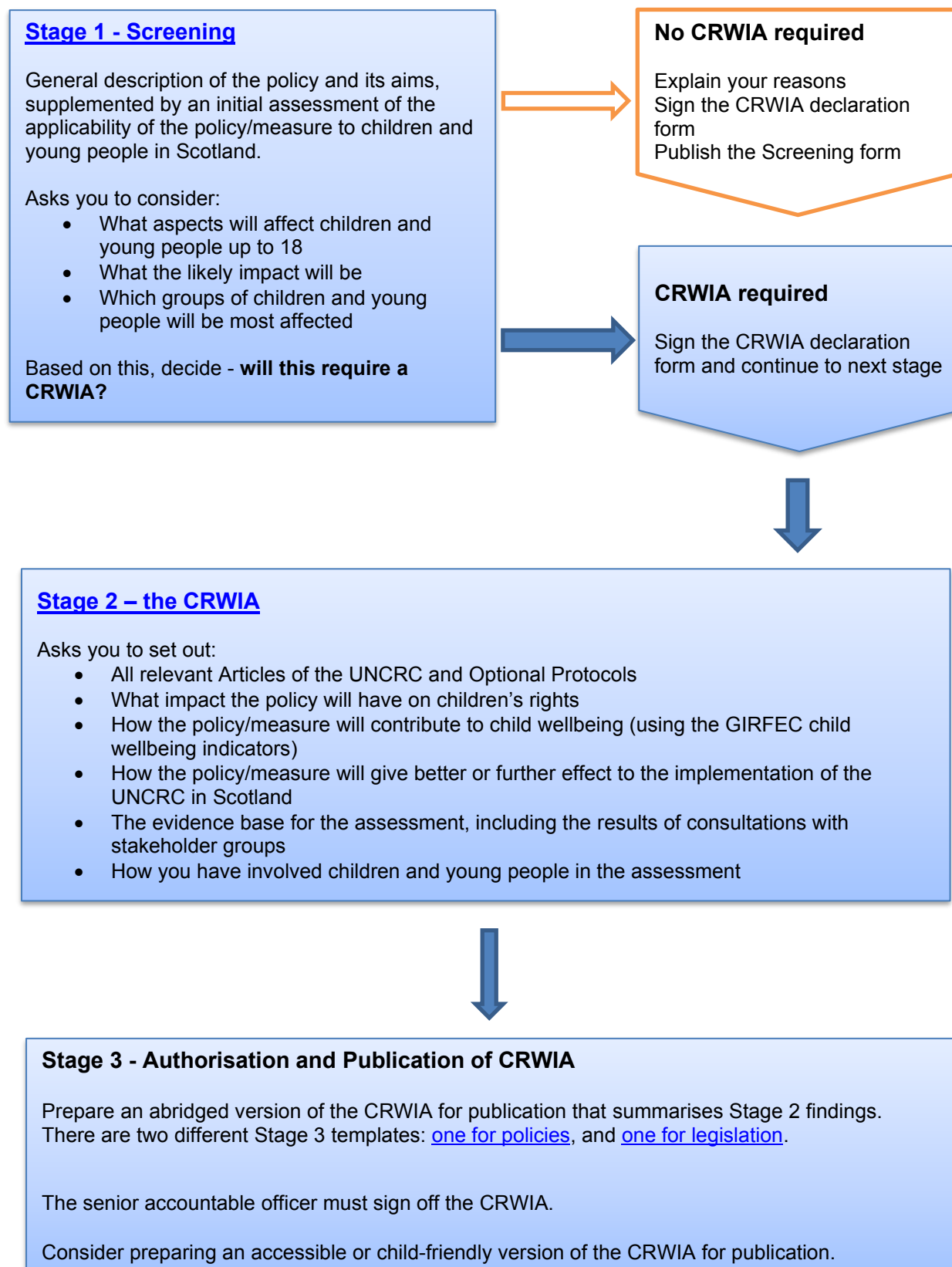
Children's Rights and Wellbeing Impact Assessment: Draft



The Children's Rights and Wellbeing Impact Assessment Flowchart

Follow links below to the three different stages of the Children's Rights and Wellbeing Impact Assessment (CRWIA) process.

There is a three stage process to CRWIA. This flowchart lays out the different steps you should take. Templates are available with key questions for each stage of the process, supported by guidance on what you need to consider at each stage.



CRWIA Stage 1
Screening - key questions

1. Name the policy, and describe its overall aims.

Orkney Islands Regional Marine Plan: Orkney's vision for the marine and coastal environment is one that is clean, healthy, safe and productive, managed to meet the long-term needs of nature and the local people. The Plan aims to balance sustainable use, whilst ensuring effective conservation, of the marine environment. Its purpose is to ensure a healthy and diverse marine ecosystem that supports current and future generations. The Plan will reflect the requirements for regional marine plans under the Marine (Scotland) Act 2010 and associated Delegation of Functions Direction 2020. The policies framework will be in line with Scotland's National Marine Plan (2015) and will be used to assess marine development applications for Marine Licences (by Marine Scotland), Works Licences and marine planning applications (by OIC), and leases by Crown Estate (CES).

2. What aspects of the policy/measure will affect children and young people up to the age of 18?

The Articles of the UNCRC and the child wellbeing indicators under the Children and Young People (Scotland) Act 2014 apply to all children and young people up to the age of 18, including non-citizen and undocumented children and young people.

No discernible affect.

3. What likely impact – direct or indirect – will the policy/measure have on children and young people?

'Direct' impact refers to policies/measures where children and young people are directly affected by the proposed changes, e.g. in early years, education, child protection or looked after children (children in care). 'Indirect' impact refers to policies/measures that are not directly aimed at children but will have an impact on them. Examples include: welfare reforms, parental leave, housing supply, or local transport schemes.

None; there are no anticipated direct impacts expected from the objectives, priorities and policies within the first Orkney Islands Regional Marine Plan.

4. Which groups of children and young people will be affected?

Under the UNCRC, 'children' can refer to: individual children, groups of children, or children in general. Some groups of children will relate to the groups with protected characteristics under the Equality Act 2010: disability, race, religion or belief, sex, sexual orientation. 'Groups' can also refer to children by age band or setting, or those who are eligible for special protection or assistance: e.g. preschool children, children in hospital, children in rural areas, looked after children, young people who offend, victims of abuse or exploitation, child migrants, or children living in poverty.

No discernible affect as no specific groups will be directly affected from the high level policies, priorities or objectives in the final Orkney Islands Regional Marine Plan.

5. Will this require a CRWIA?

Explain your reasons.

The Orkney Islands Regional Marine Plan will have no discernible effects on children's rights and wellbeing as the policies within the Plan do not relate to activities specifically aimed at children or young people directly or indirectly and any potential minor impact cannot be isolated or measured.

Section 16 (5) of the Marine (Scotland) Act 2010 requires that the first report must be published before the expiry of five years beginning with the date on which the marine plan concerned was adopted. This will include another assessment on whether a CRWIA is required.

CRWIA Declaration

Tick relevant section, and complete the form.

CRWIA required

CRWIA not required

Not required.

Authorisation

Policy lead

Name, title, division (or equivalent)

Shona Turnbull
Marine Planner
Development and Infrastructure

Date

02/03/2021

Deputy Director or equivalent

Name, title, division (or equivalent)

Date

Orkney Islands Regional Marine Plan

Equality Impact Assessment: Draft





Equality Impact Assessment

The purpose of an Equality Impact Assessment (EqIA) is to improve the work of Orkney Islands Council by making sure it promotes equality and does not discriminate. This assessment records the likely impact of any changes to a function, policy or plan by anticipating the consequences, and making sure that any negative impacts are eliminated or minimised and positive impacts are maximised.

1. Identification of Function, Policy or Plan

Name of function / policy / plan to be assessed.	Orkney Islands Regional Marine Plan: Consultation Draft
Service / service area responsible.	Neighbourhood Services & Infrastructure
Name of person carrying out the assessment and contact details.	Shona Turnbull shona.turnbull@orkney.gov.uk
Date of assessment.	05/09/2022
Is the function / policy / plan new or existing? (Please indicate also if the service is to be deleted, reduced or changed significantly).	New; no significant change to service. The production of the Plan is a statutory function of the Council in accordance with The Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020.

2. Initial Screening

What are the intended outcomes of the function / policy / plan?	- To aid statutory decision-making regarding marine licensing and consenting by Marine Scotland, the planning authority (Orkney Islands Council, OIC) and other relevant regulators. - Promote sustainable development in the

	marine environment. • Provide local marine regional data and information to allow greater certainty for developers regarding prospective proposals. • Enable greater local involvement and ownership of marine planning policy to inform decision-making about specific issues within the local area. • Provide a transparent plan-making process and promote good governance. • Ensure marine environment is protected.
Is the function / policy / plan strategically important?	Yes; it is a statutory regional marine plan guiding decision-making.
State who is, or may be affected by this function / policy / plan, and how.	Anyone with an interest in marine planning, marine development or associated activities. For example sectors/groups including: • marine activities/businesses • developers of licensed activities in the Plan area • activities in the Plan area that do not require licences or do not require licences with a spatial component • marine nature conservation, coastal defence and marine heritage activities/conservation • coastal communities • the Scottish Government (through Marine Scotland's Planning and Licensing functions) • local planning authorities • Crown Estate Scotland • Regional Marine Planning Partnerships The Plan will provide a suite of policies to guide marine development and/or activities whilst ensuring environmental protection and stakeholder engagement. The Plan will integrate as far as practicable with the Orkney Local Development Plan, the Orkney Regional Spatial Strategy and the forthcoming National Planning Framework 4, the National Marine Plan and fisheries management plans. As a statutory Plan, all decision-making functions of Marine Scotland, OIC and any other relevant public authorities will have to be made in accordance with the Plan

	unless relevant considerations indicate otherwise.
How have stakeholders been involved in the development of this function / policy / plan?	360+ stakeholder database used to send c. biannual updates. The Orkney Marine Planning Advisory Group (OMPAG) was set up to provide technical expertise and guidance. The Statement of Public Participation was produced within first six months of OIC receiving delegated functions. OIC State of the Environment Assessment (SoEA) workshops, non-connected isles presentations for SoEA, independent review panel (ICIT), one to one sectoral, environmental, academic, educational and social stakeholder meetings consulted in data gathering and reviewing report , as appropriate. Stakeholder engagement events held in Stronsay, Sanday, Hoy, Westray, Stromness, Kirkwall and St Margaret's Hope in 2022. The formal public consultation process in 2023 will enable significant stakeholder input to the plan-making process.
Is there any existing data and / or research relating to equalities issues in this policy area? Please summarise. E.g. consultations, national surveys, performance data, complaints, service user feedback, academic / consultants' reports, benchmarking (see equalities resources on OIC information portal).	The Orkney Islands Marine Region: State of the Environment Assessment (2020) provides a baseline assessment of the socio-economic and environmental issues affecting the region. The assessment did not identify any significant equalities issues e.g. regarding the local population or economic activities. Pilot Pentland Firth and Orkney Waters Marine Spatial Plan: Consultation Draft: Equality Impact Assessment Record noted that no concerns were raised and no potential impacts identified. Nor were any significant impacts identified in the National Marine Plan. Both Plan's were subject to extensive stakeholder engagement and public consultation. Shetland Islands' Regional Marine Plan EqIA: identified no positive or negative impact and the policies deemed to not directly or indirectly be discriminatory under the Equality Act 2010. Policies covered in the Orkney Islands Regional Marine Plan will cover very similar topics and issues.
Is there any existing evidence	No; it was determined that a light-touch approach

relating to socio-economic disadvantage and inequalities of outcome in this policy area? Please summarise. E.g. For people living in poverty or for people of low income. See The Fairer Scotland Duty Interim Guidance for Public Bodies for further information.	to EqIA is required, as current evidence demonstrates that the OIRMP has insignificant potential impacts and minimal relevance to equality.
Could the function / policy have a differential impact on any of the following equality areas?	(Please provide any evidence – positive impacts / benefits, negative impacts and reasons).
1. Race: this includes ethnic or national groups, colour and nationality.	No impact
2. Sex: a man or a woman.	No impact
3. Sexual Orientation: whether a person's sexual attraction is towards their own sex, the opposite sex or to both sexes.	No impact
4. Gender Reassignment: the process of transitioning from one gender to another.	No impact
5. Pregnancy and maternity.	No impact
6. Age: people of different ages.	No impact
7. Religion or beliefs or none (atheists).	No impact
8. Caring responsibilities.	No impact
9. Care experienced.	No impact
10. Marriage and Civil Partnerships.	No impact
11. Disability: people with disabilities (whether registered or not).	(Includes physical impairment, sensory impairment, cognitive impairment, mental health) No impact
12. Socio-economic disadvantage.	No impact

3. Impact Assessment

Does the analysis above identify any differential impacts which need to be addressed?	An equality impact assessment ("EqIA") aims to consider how a policy (a policy can cover: activities, functions, strategies, programmes, and services or processes) may impact, either positively or negatively, on different sectors of the population in different ways. This EqIA has been undertaken to consider the impacts on equality of the development of the Orkney Islands Regional Marine Plan ("the OIRMP"). The policies contained in the OIRMP are intended to safeguard and, where possible, improve the Scottish marine area, with the purpose of meeting the long term needs of nature and people. It is anticipated that these policies will be positive for Orkney's communities, however, the policies contained in the OIRMP are general policy statements and will have no differential or discriminatory impact(s) on those with protected characteristics. The EqIA has confirmed that the OIRMP is neither directly or indirectly discriminatory under the Equality Act 2010. No significant equality issues were raised during the policy development process to date. This will be reviewed during the public consultation on the consultation draft OIRMP and supporting draft documents/assessments. Thus, there are no differential impacts to be addressed at this draft stage. The EqIA question in the public consultation on the consultation draft OIRMP will inform any update to the Plan, should there be feedback that requires it.
How could you minimise or remove any potential negative impacts?	No negative impact identified.
Do you have enough information to make a judgement? If no, what	Yes.

information do you require?	

4. Conclusions and Planned Action

Is further work required?	Yes, a formal public consultation, adoption of the Plan, ongoing implementation of the Plan and monitoring and evaluation. This is part of the statutory planning function of the Council.
What action is to be taken?	This document is kept under review and will be amended as required to ensure that it is up to date and accords with the requirements of current relevant legislation and policy.
Who will undertake it?	OIC Development and Marine Planning
When will it be done?	2023 onwards
How will it be monitored? (e.g. through service plans).	Through the monitoring and evaluation processes of the Orkney Islands Regional Marine Plan.

Signature: S. Turnbull

Date: 17/10/2022

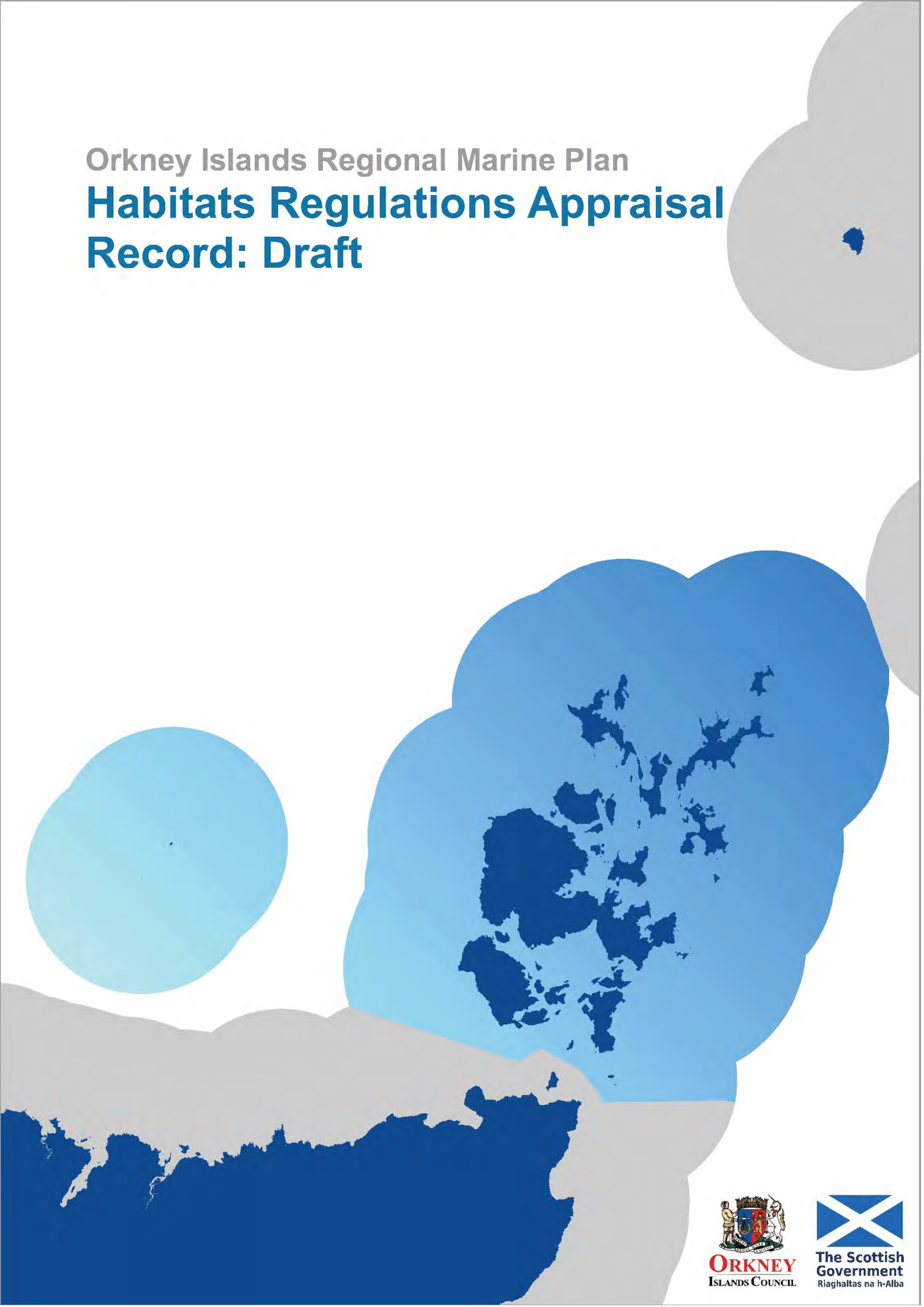
Name: SHONA TURNBULL

Please sign and date this form, keep one copy and send a copy to HR and Performance. A Word version should also be emailed to HR and Performance at hrsupport@orkney.gov.uk

Orkney Islands Regional Marine Plan

Habitats Regulations Appraisal

Record: Draft



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Glossary

HRA	Habitats Regulation Appraisal
MHWS	Mean High Water Springs
nm	nautical miles
OIRMP	Orkney Islands Regional Marine Plan
SAC	Special Area of Protection
SPA	Special Protection Area

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1. Introduction

- 1.1. The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in 1979 and came into force in 1982. The Convention established internationally a binding legal framework for the conservation and protection of flora and fauna and their natural habitats. To implement the Bern Convention in Europe, the European Community adopted Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive) in 1979, as well as Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive) in 1992. Following Brexit, these conventions are now carried forward under current Scottish legislation via the Conservation (Natural Habitats, &c.) Regulations 1994¹.
- 1.2. The Habitats Regulations have been amended as a result of leaving the EU so that European sites are both protected, and continue to operate, as they have done since their original designation. The changes to the Regulations also mean that the requirements of the Directives continue to be relevant to the management of European sites.
- 1.3. The Habitats Directive aims to protect habitats and species which are considered to be of European interest and listed in the Directive's annexes, while the Birds Directive seeks to protect all European wild birds as well as the habitats of species that are listed in Annex I. The directives led to the establishment of Special Areas of Conservation (SAC) and Special Protected Areas (SPA) which together form the Natura 2000 network of protected sites across Europe; these are now referred to as 'European sites' in Scotland.
- 1.4. Article 6(3) of the Habitats Directive requires that any plan or project, which is not directly connected with, or necessary to, the management of a European site, but would be likely to have a significant effect on such a site, either individually or in combination with other plans or projects, shall be subject to an '*appropriate assessment*' of its implications for the European site in view of the site's conservation objectives. In the light of the conclusions of that assessment, and subject to the provisions of Article 6(4) of the Habitats Directive, the competent authority, which in the context of the Orkney Islands Regional Marine Plan, is Orkney Islands Council on behalf of Scottish Ministers under the *Delegation of Functions etc (2020)*², may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.

1 The Conservation (Natural Habitats, &c.) Regulations 1994

² Delegation of Regional Marine Planning Functions in the Orkney Islands 2020 - gov.scot (www.gov.scot)

- 1.5. Article 6(4) provides that if, in spite of a negative assessment of the implications for the site, and in the absence of alternative solutions, the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of European sites are protected.
- 1.6. *Habitats Regulations Appraisal of Plans – Guidance for plan-making bodies in Scotland* (2015)³ describes a 13 stage appraisal process (see Table 1) that meets the procedural requirements of Article 6(3) and the Regulations in most instances. The appraisal of the Orkney Islands Regional Marine Plan (OIRMP) has followed this guidance in consultation with Scottish Natural Heritage, hereafter referred to as NatureScot.

³ [Habitats Regulations Appraisal of Plans - plan-making bodies in Scotland - Jan 2015.pdf \(nature.scot\)](#)

Table 1: Habitats Regulations Appraisal 13 stage process

Stage 1:	Decide whether Plan is subject to HRA
Stage 2:	Identify European sites that should be considered in the appraisal
Stage 3:	Summarise available information about the European sites
Stage 4:	Discretionary consultation on the method and scope of the appraisal
Stage 5:	Screen Plan for likely significant effects on a European site
Stage 6:	Apply mitigation measures
Stage 7:	Re-screen Plan
Stage 8:	If significant effects still likely, undertake an appropriate assessment in view of conservation objectives
Stage 9:	If significant effects still likely, apply mitigation measures until there is no adverse effect on site integrity
Stage 10:	Prepare draft HRA record
Stage 11:	Consult NatureScot on draft HRA record
Stage 12:	Screen any amendments for likelihood of significant effect and undertake further appropriate assessment if necessary
Stage 13:	Modify HRA Record in light of representations and any amendments to the Plan and publish final/revised HRA Record

2. Undertaking the Habitats Regulations Appraisal process

In order to assess if an HRA is required for the OIRMP, the criteria outlined in Figure 1 below were used.

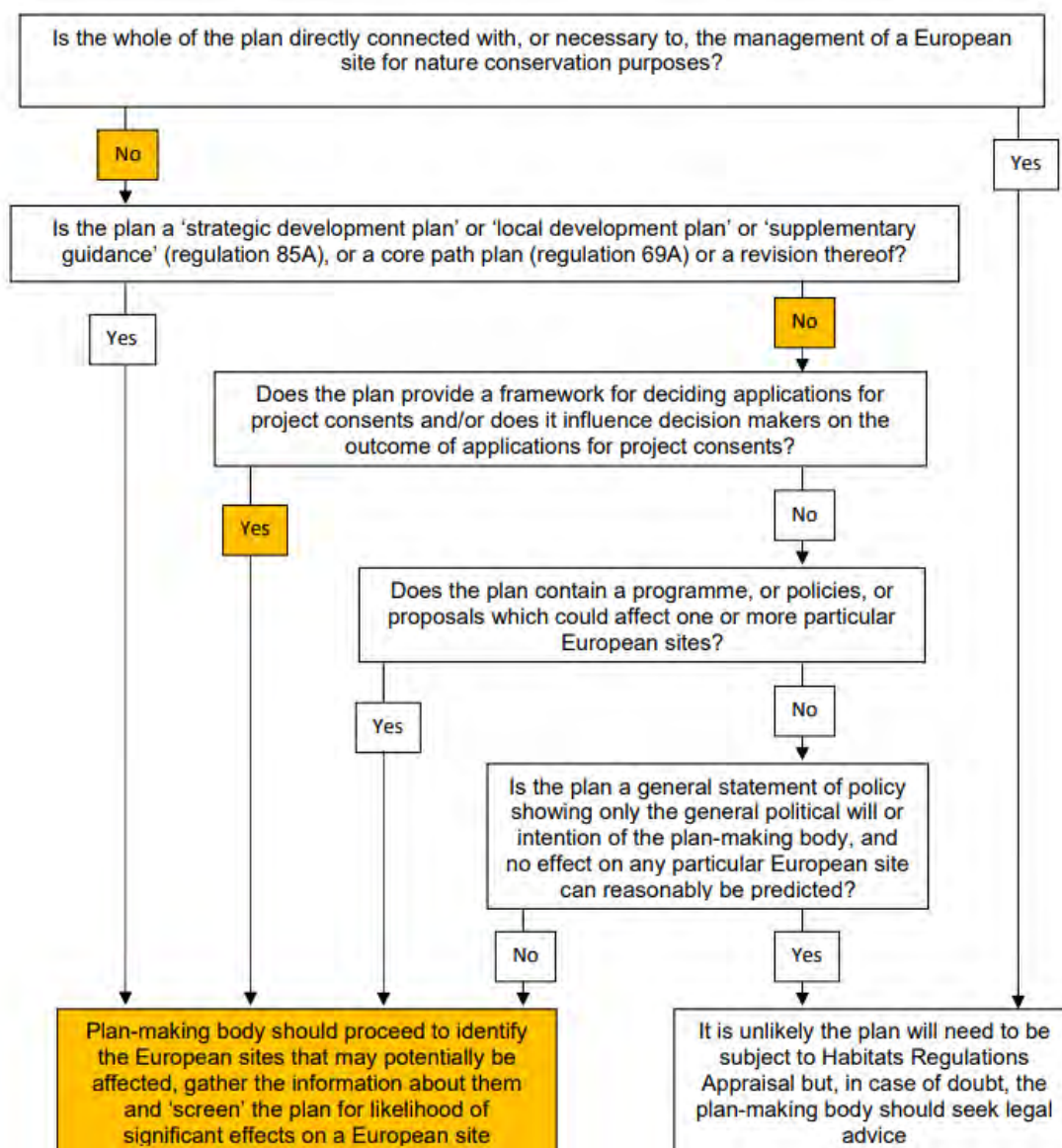


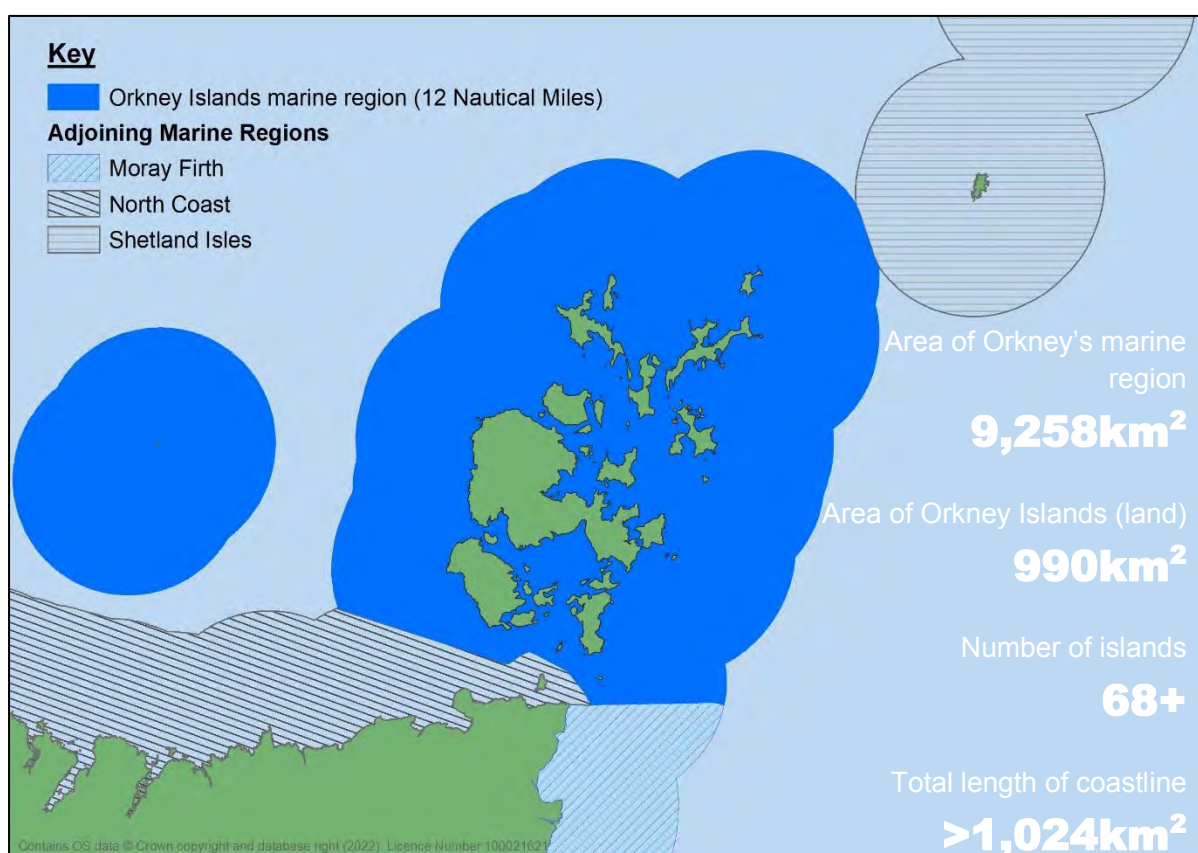
Figure 1 - Habitats Regulation Appraisal Decision Criteria

2.1. **Stage 1** of the process assessed the OIRMP against the criteria in Figure 1 to determine whether an HRA is required. It was considered that an HRA is required because:

- it is not directly connected with or necessary to the management of a European site for nature conservation purposes;
- it is not a plan identified by regulations 85A or 69A; and

- it provides a framework for deciding applications and influencing decision-makers.

The OIRMP will be a material consideration in the determination of Marine Licences (from Marine Scotland), Works Licences, marine-related planning and works licence applications (from Orkney Islands Council) and lease options (from Crown Estate Scotland). It will influence decision makers on the outcome of those licence applications, the OIRMP is therefore subject to HRA and steps 3-5 of Table 1 are required. The OIRMP area is the Orkney Islands marine region which extends from Mean High Water Springs (MHWS) to the 12 nautical mile boundary around the Orkney Islands (see Map 1).



Map 1: Orkney Islands Marine Region area

2.2. **Stage 2** requires the European sites that will be included in the Appraisal to be identified. The OIRMP covers the administrative area of the Orkney Islands marine region and includes the isolated islets of Sule Skerry and Sule Stack in these regional marine waters, which are located 60km to the west of the Orkney mainland. Within this area, Orkney's Natura sites consist of eighteen SPAs and six SACs; all have marine and/or coastal elements; there is also one Ramsar site. The qualifying interests of certain sites include mobile species which can forage over considerable areas; therefore all nineteen European sites (see Map 2 and Appendix 1) have been scoped into the Appraisal.

2.3. **Stage 3** requires a summary to be prepared of the available information about the European sites. This is provided in Appendix 1: *Summary of European sites in Orkney's marine and coastal waters* which lists the sites, along with information on their qualifying interests, any existing pressures and their vulnerabilities to change and/or the potential effects of the Plan. Policy areas where there is potential for adverse effects include aquaculture and wind energy development. The risk of nutrient enrichment in Loch of Stenness SAC is also highlighted, as a reed bed system in the adjacent Stenness Village requires remedial work in order to improve water quality. In addition, a number of marine renewable energy projects are currently being progressed and, should these be developed during the lifetime of the Plan, there is potential for the associated onshore/coastal infrastructure to impact on the interests of certain sites.

2.4. Conservation objectives for SACs are generally structured as follows.

For SAC habitat features:

- To avoid deterioration of the qualifying habitat thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and
- To ensure for the qualifying habitat that the following are maintained in the long term:
 - Extent of the habitat on site
 - Distribution of the habitat within site
 - Structure and function of the habitat
 - Processes supporting the habitat
 - Distribution of typical species of the habitat
 - Viability of typical species as components of the habitat
 - No significant disturbance of typical species of the habitat

For SAC species:

- To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and To ensure for the qualifying species that the following are maintained in the long term:
 - Population of the species as a viable component of the site
 - Distribution of the species within site
 - Distribution and extent of habitats supporting the species
 - Structure, function and supporting processes of habitats supporting the species
 - No significant disturbance of the species

Conservation objectives for SPAs are generally structured as follows:

- To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and
- To ensure for the qualifying species that the following are maintained in the long term:
 - Population of the species as a viable component of the site
 - Distribution of the species within site
 - Distribution and extent of habitats supporting the species
 - Structure, function and supporting processes of habitats supporting the species
- No significant disturbance of the species

Information on the marine related SACs and SPAs was obtained from the NatureScot Sitelink⁴.



Map 2: European sites map

⁴ [SiteLink \(nature.scot\)](https://www.nature.scot/sitelink)

2.5. At **Stage 4** Orkney Islands Council consulted NatureScot to agree the method and scope of the appraisal. The benefit of early engagement enables NatureScot to advise the plan-making team on options, draft policies or proposals that may have a likely significant effect (LSE) or minor residual effects (MRE) on European sites and on possible mitigation measures. This is envisaged to save time and effort later in the HRA process.

2.6. At **Stage 5** the Plan was screened for its likely significant effects on Orkney's European sites. The screening process considered:

- the Plan's Vision, aims and objectives;
- the General policies and the
- Sector policies;

for likely effects of future development within Orkney's marine and coastal waters.

Screening is a term used to describe the initial stages of the HRA, however it is not a term used explicitly in the Habitats Directives or Regulations (DTA, 2015)⁵. The main purpose of the screening stages is to:

- a) Identify all aspects of the plan which would have no effect on a European site, so that they can be eliminated from further consideration in respect of this and other plans;
- b) Identify all aspects of the plan which would not be likely to have a significant effect on a European site (i.e. would have some effect, but minor residual), either alone or in-combination with other aspects of the same plan or other plans and projects; and which therefore do not require 'appropriate assessment' but will need to be screened for the likelihood of significant effects in-combination with other identified minor residual effects; and
- c) Identify those aspects of the plan where it is not possible to rule out the risk of significant effects on a European site, either alone or in-combination with other plans or projects. This means that the conclusion is that there is an LSE, and this provides a clear scope for the parts of the plan that will require appropriate assessment.

For the purposes of screening, it is important to provide an interpretation of what is considered to be a 'likely significant effect'. In the 'Waddenzee Ruling' the European Court of Justice said in re-iteration: *'...any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives*

⁵ [Habitats Regulations Appraisal of Plans - plan-making bodies in Scotland - Jan 2015.pdf \(nature.scot\)](#)

if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in-combination with other plans or projects.' Therefore it may be interpreted that 'a precautionary approach *'is employed where a LSE cannot be ruled out, either alone or in-combination with other plans or projects.'* The screening process includes a series of systematic steps to eliminate or 'screen out' elements of the OIRMP not likely to have a significant effect on a European site. This will then ensure that other elements of the OIRMP are 'screened in' to the appropriate assessment and therefore subject to further appraisal.

The findings are presented in the following tables:

- **Table 2** Screening the effects of the Vision, guiding principles, aims and objectives;
- **Table 3** Screening the effects of the General policies on European sites;
- **Table 4** Screening the effects of the Sector policies on European sites.

2.7. A three-step 'screening' process is outlined by the guidance⁶ and this has been followed to screen the OIRMP:

Step 1: screening out general policy statements;

Step 2: screening out projects referred to in, but not proposed by the plan;

Step 3: screening out aspects of the plan that could have no likely significant effect on a Natura site.

At Step 3 policies and proposals were screened out for the following reasons:

3a: Aspects which protect the natural environment;

3b: Aspects that will not lead to development or other change;

3c: Aspects which make provision for change but could have no conceivable effect on a European site, because there is no link or pathway between them and the qualifying interests, or any effect would be a positive effect or would not otherwise undermine the conservation objectives for the site;

3d: Aspects which make provision for change but which could have no significant effect on a European site (minor residual effects), because any potential effects would be so restricted that they would not undermine the conservation objectives of the site;

⁶ [Habitats Regulations Appraisal of Plans - plan-making bodies in Scotland - Jan 2015.pdf \(nature.scot\)](#)

3e: Aspects which are too general so that it is not known where, when or how the aspect of the plan may be implemented, or where any potential effects may occur, or which European sites, if any, may be affected.

Step 1: Screening out general and strategic policy statements

The aim of this step is to identify and screen out general policy statements, including 'general criteria based policies', and to record that they will not be likely to have a significant effect on a European site. The OIRMP incorporates a number of general and strategic policy statements. The OIRMP has been based on a vision that 'the Orkney Islands marine region is clean, healthy, safe and productive; Orkney's marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities'.

This vision is supported by a number of strategic objectives which are, by their nature, general and holistic. These objectives are sustained by topic-related policies, which are either General or Sector policies. Proposed development and/or activities must comply with all General policies included in the OIRMP and are considered in relation to the applicable sector-based policies. The aim of this approach is to ensure that Orkney's marine waters are clean, safe, healthy and productive.

The OIRMP screening results for strategic and general policy statements are summarised in Table 2 and General and Sector policy screening results are summarised in Table 3. This assessment has been carried out in accordance with the guidance⁷ Stage 5: Screening Step 1.

The following have been screened out:

- Vision, guiding principles, aims, objectives (see Appendix 2);
- General Policies
- Overarching policies within the Sector Policies

Sectoral Policies

The OIRMP screening results for sectoral policies are summarised in Table 4. This assessment has been carried out in accordance with Guidance⁸ Reference Stage 5: Screening Step 1. All sectoral policies have been screened out as they are either general in nature or not connected to European sites, or contain specific policy caveats.

⁷ [Habitats Regulations Appraisal of Plans - plan-making bodies in Scotland - Jan 2015.pdf \(nature.scot\)](#)

⁸ *ibid*

Table 2: Strategic and general policy statements included within the Orkney Islands Regional Marine Plan

Title	Statement	Comment
Vision	The OIRMP has been based on a vision that ‘the Orkney Islands marine region is clean, healthy, safe and productive; Orkney’s marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities’.	This may be regarded as a General Policy Statement as it is aspirational, strategic and very general. Screened out of the appraisal under screening Step 1.
Guiding Principles	The OIRMP has been developed in accordance with five Guiding Principles adopted to help steer the plan making process, strategy and policies: Sustainable development and use; ecosystems-based approach; coexistence; partnership working and stakeholder participation and an integrated approach to marine and land-use planning.	This is regarded as a general policy statement as it is aspirational, strategic and very general. Some have a strategic approach intended to protect the natural environment including European sites from inappropriate development or adverse impacts. Screened out of the appraisal under screening Step 1.
Aim	Sustainable development, activities, and use of the marine and coastal environment of Orkney is supported. Sustainable development, activities and use should maintain, and where appropriate enhance, biodiversity and ecosystem services; protect natural capital for future generations; and provide social and economic benefits for local communities.	This is regarded as a general policy statement as it is aspirational, strategic and very general. Screened out of the appraisal under screening Step 1.

Objectives	Nine high level objectives (see Appendix 2) provide a framework for the General and Sector policies.	These are regarded as a general policy statements as they are aspirational, strategic and very general; some have a strategic objective intended to protect the natural environment including European sites from inappropriate development or adverse impacts. Screened out of the appraisal under screening Step 1.

Table 3: General policies included within the Orkney Islands Regional Marine Plan.

Policy Type	Relevant part of the plan	Comment
General	The General polices in Section two of the OIRMP: GP1 Sustainable development, activities and use GP2 Safety GP3 Climate change GP4 Supporting sustainable social and economic benefits GP5 Safeguarding natural capital and ecosystem services GP6 Water environment GP7 Coastal development and coastal change GP8 Historic environment GP9 Nature conservation GP10 Seascape and landscape GP11 Surface and underwater noise, and vibration	All of the General Policies set strategic aspirations and are general in nature. None of them direct activities to a particular location nor are they linked to a European site. In consequence, none of the policies will result in effects on European sites. Policies listed here have therefore been screened out of the appraisal under screening step 1.

	GP12 Marine litter and waste GP13 Non-native and invasive non-native species GP14 Amenity, well-being and quality of life of local communities	

Table 4: Sector policies included in the Orkney Islands Regional Marine Plan

Sector Policy Type	Relevant part of the plan	Comment
Fishing	SP1: Commercial fishing	No likely significant effect on a European site as this policy is intended to protect important fishing grounds from inappropriate development and/or activities. The policy aims to minimise damage to fish habitats and fish stocks. The policy itself does not lead to any development and is related to qualitative criteria. The policy has therefore been screened out of the appraisal under screening Step 1.
Aquaculture	SP2a: Finfish and shellfish farming SP2b: Seaweed cultivation	Policies SP2a and SP2b have been screened in to the appraisal. Although the policies are general in nature and do not direct developments to any particular site, they could support development and/or activities that affect a European site, hence there is a likely significant effect (LSE) and they need to be

		subject to appropriate assessment.
Shipping, ports, harbours and ferries	SP3a: Safeguarding navigation, harbour infrastructure and operations; SP3b: Commercial ports and national developments; SP3c: Scapa Flow north and east safeguarded area; SP3d: Port and harbour development and/or activities	Policies SP3a (ii) – (vi), SP3b – SP3 3d) have been screened in to the appraisal. Although the policies are general in nature and do not direct developments to any particular site, they could support development and/or activities that affect a European site, hence there is a likely significant effect (LSE) and they need to be subject to appropriate assessment. Policy SP3a: (i) is regarded as a general policy statement as it is aspirational, strategic and very general. It has been screened out of the appraisal under screening Step 1.
Pipelines, electricity and telecommunications infrastructure	SP4a: Pipeline, electricity and telecommunication infrastructure development and/or activities; SP4b: Safeguarding existing pipeline, electricity and telecommunication cable infrastructure	Policy SP4 has been screened in to the appraisal. Although the policies are general in nature and do not direct developments to any particular site, they could support development and/or activities that affect a European site, hence there is a likely significant effect (LSE) and they need to be subject to appropriate assessment.
Offshore wind, wave and tidal renewable energy generation	SP5a: Offshore wind energy; SP5b: Wave and tidal energy	All the policies listed here have been screened in to the appraisal. Although the policies are general in nature, they could support

		development and/or activities that affect a European site, hence there is a likely significant effect (LSE) and it needs to be subject to appropriate assessment.
Zero carbon fuels, oil and gas transition	SP6: Zero carbon fuels, oil and gas transition	Policy SP6 has been screened in to the appraisal. Although the policies are general in nature and do not direct developments to any particular site, they could support development and/or activities that affect a European site, hence there is a likely significant effect (LSE) and they need to be subject to appropriate assessment.
Tourism, recreation, leisure and sport	SP7a: Tourism, recreation, leisure and sport development and/or activities; 7b: Safeguarding tourism, recreation, leisure and sport uses	The policy listed here has been screened in to the appraisal. Although the policy is general in nature and does not direct developments to any particular site it could support development and/or activities that affect a European site, hence there is a likely significant effect (LSE) and it needs to be subject to appropriate assessment.

Step 2: Projects referred to in, but not proposed by, the OIRMP

The Guidance⁹ specifies that this step involves:

1. The screening out of any references to specific proposals for projects referred to in, but not proposed by, the plan; and

⁹ [Habitats Regulations Appraisal of Plans - plan-making bodies in Scotland - Jan 2015.pdf \(nature.scot\)](#)

2. If it is necessary to consider the effects of the plan being appraised in-combination with the effects of other plans or projects, the minor residual effects of these other projects may be relevant and should be checked for in-combination effects.

The supporting text in Sector Policy 5: Offshore wind, wave and tidal renewable energy generation, makes reference to the two Plan Option areas North 1 (N1) and North East 2 (NE2), within the Orkney Islands marine region. In addition, at the time of writing, the draft Plan Option areas for wave and tidal energy development have been identified in the Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy in Scottish Waters Consultation Draft¹⁰. Sector Policy 5 states that innovation, test and/or demonstration offshore wind energy development and/or activities should be sited in Innovation and Targeted Oil and Gas (INTOG) areas. However, these areas have been identified in other plans, and are referred to in, but not proposed by, the OIRMP, they have been screened out of the appraisal under Step 2¹¹.

In-combination assessment

The requirement for in-combination assessment has been reviewed in two steps: the potential effects on European sites of the plan on its own, and the potential effects on European sites of the plan in combination with other plans or projects.

OIRMP on its own

All of the General Policies have been screened out of further assessment, as they are either general policy statements, or are not policies and/or proposals generated by this plan. Sectoral policies have been screened in. In consequence, it is felt that in-combination effects cannot be ruled and should be re-assessed after mitigation has been applied to sectoral policies.

OIRMP in combination with other plans/proposals

The OIRMP sits under the National Marine Plan and alongside other planning, legislative and regulatory regimes (Figure 2). Given that the focus of the OIRMP is on policies rather than proposals, this part of the HRA focuses on the potential for cumulative effects of the OIRMP, the National Marine Plan (NMP) and the Orkney Local Development Plan (OLDP).

The OIRMP, NMP and OLDP set out a framework of social, economic and environmental policies which identify the issues to be taken when making decisions about projects and/or activities in the coastal and marine environment.

The OIRMP, NMP and the OLDP include a presumption for sustainable development, activities and use. While alone, policies encouraging economic growth have the potential to result in effects on the qualifying interest of European sites, in

¹⁰ [Supporting documents - Draft Sectoral Marine Plans for Offshore Renewable Energy in Scottish Waters: Consultation Paper - gov.scot \(www.gov.scot\)](#)

¹¹ Once NFP4 is published, the status of any additional national developments will be reviewed.

these plans, this is balanced by the requirement for development and use to be sustainable; this is further elaborated by policies which protect Natura interests.

The cumulative effect of this policy framework is that economic growth is supported, focusing on the right type of development in the right place. The policy frameworks work to avoid the potential adverse effects of development and/or activities on European sites, in both coastal and marine environments.

Notwithstanding subsequent mitigation measures which may be applied to the sectoral policies within the OIRMP, the policies within the OLDP and NMP are general in nature, none of them direct activities to a particular location without providing policy caveats which consider European sites. This, in combination with the policies to protect Natura interests, means that there will be no in-combination effects of the frameworks on European sites.



Figure 2 - OIRMP Policy Context (terrestrial and other planning/regulatory regimes)

Record of outcome

The majority of the OIRMP policies have been screened out for having no LSE on a European site and are included in Table 2 and Table 3. However, all 'sectoral policies' in Table 4, with exception of policy SP1, have been screened in. This is because they identify provision for change in certain locations, some of which could have a LSE on a European Site, or could support a development and/or activity which may have LSE.

2.8. At **Stage 6** mitigation measures were applied to policies where the likelihood of significant effects could not be ruled out and these elements of the Plan were rescreened at **Stage 7**.

- 2.9. After re-screening the policies it was determined that it was not possible to determine during Stages 1-7 whether the sectoral policies would not have a LSE on a Natura site. Therefore all sectoral policies should be subject to an Appropriate Assessment (AA).
- 2.10. The appropriate assessment at Stage 7 demonstrates the plan policies are deemed to not have any risk of adverse effect on site integrity, thus removing the requirement to undertake further appropriate assessment and apply any further mitigation (**Stages 8 and 9**).

3. Appropriate Assessment

- 3.1 As per the guidance¹² and in consultation with NatureScot, mitigation measures already included case-specific policy restrictions and policy caveats which were deemed to be suitable for the policies. An assessment of the policy mitigations is outlined in Table 5.

¹² [Habitats Regulations Appraisal of Plans - plan-making bodies in Scotland - Jan 2015.pdf \(nature.scot\)](#)

Table 5: Appropriate assessment of sector policies

Policy	Policy issue	Mitigation measure	Outcome
SP2A: Finfish and shellfish farming SP2B: Seaweed cultivation	Policies SP2a and SP 2b have been screened in to the appraisal. Although the policies are general in nature and do not direct developments to any particular site, they could support development and/or activities that affect a European site, hence there is a likely significant effect (LSE).	All development and/or activities must comply with all of the General Policies, including GP9b, which specifically protects against LSE on internationally designated sites. In addition, SP2a and SP2b include a requirement to avoid, minimise and/or appropriately mitigate significant adverse impacts on, but not limited to, nature conservation designations.	No further action needed.
SP3a: Safeguarding navigation, harbour infrastructure and operations; SP3b: Commercial ports and national developments; SP3c: Scapa Flow north and east safeguarded area;	Policies SP3a (ii) – (vi), SP3b – SP3 3d have been screened in to the appraisal. Although the policies are general in nature and do not direct developments to any particular site, they could support development and/or	All development and/or activities must comply with all of the General Policies, including GP9b, which specifically protects against LSE on internationally designated sites. In addition, SP3d includes a requirement to avoid, minimise and/or appropriately mitigate significant adverse impacts on, but not limited to, nature conservation designations.	No further action needed.

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SP3d: Port and harbour development and/or activities	activities that affect a European site, hence there is a LSE.		
SP4a: Pipeline, electricity and telecommunication infrastructure development and/or activities; SP4b: Safeguarding existing pipeline, electricity and telecommunication cable infrastructure	Policy SP4 has been screened in to the appraisal. Although the policies are general in nature and do not direct developments to any particular site, they could support development and/or activities that affect a European site, hence there is a LSE.	All development and/or activities must comply with all of the General Policies, including GP9b, which specifically protects against LSE on internationally designated sites. In addition, SP4a includes a requirement to avoid, minimise and/or appropriately mitigate significant adverse impacts on, but not limited to, nature conservation designations.	No further action needed.
SP5a: Offshore wind energy; SP5b: Wave and tidal energy	All the policies listed here have been screened in to the appraisal. Although the policies are general in nature, they could support development and/or activities that affect a European site, hence there is a LSE.	All development and/or activities must comply with all of the General Policies, including GP9b, which specifically protects against LSE on internationally designated sites. In addition, SP5a and SP5b include a requirement to avoid, minimise and/or appropriately mitigate significant adverse impacts on, but not limited to, nature conservation designations.	No further action needed.
SP6: Zero carbon fuels, oil and gas transition	Policy SP6 has been screened in to the appraisal. Although	All development and/or activities must comply with all of the General Policies, including	No further action needed.

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	the policies are general in nature and do not direct developments to any particular site, they could support development and/or activities that affect a European site, hence there is a LSE.	GP9b, which specifically protects against LSE on internationally designated sites.	
SP7a: Tourism, recreation, leisure and sport development and/or activities; 7b: Safeguarding tourism, recreation, leisure and sport uses	The policy listed here has been screened in to the appraisal. Although the policy is general in nature and does not direct developments to any particular site it could support development and/or activities that Affect a European site, hence there is a LSE.	All development and/or activities must comply with all of the General Policies, including GP9b, which specifically protects against LSE on internationally designated sites. In addition, SP7a includes a requirement to avoid, minimise and/or appropriately mitigate significant adverse impacts on, but not limited to, nature conservation designations.	No further action needed.

4. In Combination Effects

- 4.1 The Habitats Directive recognises that policies and proposals may also have likely significant effects in combination, including with other plans and projects.
- 4.2 Following mitigation all the policies and proposals of the OIRMP have been screened out of the assessment, either because they are general policy statements (Step 1); are projects referred to in, but not proposed by, the OIRMP (Step 2); or have no likely significant effects on any European site (Step 3). The policies and proposals therefore do not need to be assessed in combination.
- 4.3 At this stage there are no other plans or projects which could have likely significant effects in combination with the ORIMP, therefore no further consideration of in combination effects is required.

5. Conclusion

- 5.1 Orkney Islands Council, on behalf of Scottish Ministers, concludes that it has been ascertained through this Habitats Regulations Appraisal that the adoption of the Orkney Islands Regional Marine Plan, alone or in combination, would have no adverse effect on the integrity of any European sites site.
- 5.2 This draft Habitats Regulations Appraisal Record will be sent to NatureScot (**Stage 10**) alongside the draft Plan, and made available on the Council's website and formal consultation responses requested (**Stage 11**). This consultation period will run from xxx - yyy.

Appendix 1 - Summary of European sites and Site Condition in Orkney's marine and coastal waters

Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
Auskerry SPA	Breeding storm petrel, breeding Arctic tern.	Arctic tern unfavourable declining (2018). Storm petrel favourable declining (2018).
Calf of Eday SPA	Breeding cormorant; breeding fulmar; breeding great black-backed gull; breeding kittiwake breeding guillemot; breeding seabird assemblage.	Cormorant breeding favourable recovered (2016). Fulmar breeding favourable maintained (2016). Great black backed gull unfavourable declining (2016). Guillemot breeding unfavourable declining (2016). Kittiwake breeding unfavourable declining (2016). Seabird assemblage breeding unfavourable declining (2016).
Copinsay SPA	Breeding seabird assemblage; breeding fulmar; breeding great black-backed gull; breeding guillemot; breeding kittiwake.	Fulmar breeding favourable maintained (2015). Great black backed gull unfavourable declining (2015). Guillemot unfavourable no change (2015). Kittiwake unfavourable declining (2015). Seabird assemblage, breeding unfavourable no change (2015).

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Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
East Sanday coast SPA/Ramsar site	SPA - Non-breeding bar-tailed godwit; non-breeding turnstone; non-breeding purple sandpiper. Ramsar – Non-breeding purple sandpiper; non-breeding turnstone.	SPA Bar-tailed godwit non-breeding favourable maintained (2015). Purple sandpiper non-breeding favourable maintained (2015). Turnstone non-breeding favourable maintained (2015). Ramsar Purple sandpiper non-breeding favourable maintained (2015). Turnstone non-breeding favourable recovered (2015).
Faray and Holm of Faray SAC	Grey seal.	Grey seal favourable maintained (2014).
Papa Westray (North Hill and Holm) SPA)	Papa Westray SPA Breeding Arctic skua; breeding Arctic tern.	Papa Westray SPA Arctic skua breeding unfavourable declining (2015). Arctic tern breeding unfavourable no change (2017).
Hoy SPA/SAC	SPA - Breeding seabird assemblage; breeding Arctic skua; breeding great skua; breeding great black-backed gull; breeding guillemot; breeding	SPA Arctic skua breeding unfavourable declining (2019).

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Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
	kittiwake; breeding peregrine; breeding red-throated diver; breeding fulmar; breeding puffin. SAC – Blanket bog; dry heaths; wet heathland with cross-leaved heath; base-rich fens; hard-water springs depositing lime; plants in crevices in base-rich rocks; Alpine and subalpine heaths; acid peat-stained lakes and ponds; vegetated sea cliffs.	Fulmar breeding unfavourable no change (2017). Great black-backed gull breeding unfavourable declining (2019). Great skua breeding unfavourable declining (2019). Guillemot breeding unfavourable no change (2017). Kittiwake breeding unfavourable declining (2017). Peregrine breeding favourable maintained (2013). Puffin breeding unfavourable declining (2004). Red-throated diver breeding favourable maintained (2007). Seabird assemblage breeding unfavourable declining (2019). SAC Acid peat-stained lakes and ponds favourable maintained (2014). Alpine and subalpine heaths favourable maintained (2014). Base rich fens favourable maintained (2014).

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Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Blanket bog favourable maintained (2014). Dry heaths favourable maintained (2014). Hard-water springs depositing lime favourable maintained (2006). Plants in crevices on base-rich rocks favourable recovered (2015). Vegetated sea cliffs favourable maintained (2010). Wet heathland with cross-leaved heath favourable maintained (2004).
Orkney Mainland Moors SPA	Orkney Mainland Moors SPA Breeding hen harrier, breeding short-eared owl and breeding red-throated diver; non-breeding hen harrier.	Orkney Mainland Moors SPA Hen harrier breeding favourable maintained (2013). Hen harrier non-breeding favourable maintained (2013). Red-throated diver breeding favourable maintained (2007). Short-eared owl breeding favourable maintained (2004).
Loch of Isbister SAC	Loch of Isbister SAC Very wet mires often identified by an unstable 'quaking' surface; Otter; Naturally nutrient-rich	Naturally nutrient-rich lochs often dominated by pondweed unfavourable declining (2014). Otter favourable maintained (2011).

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Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
	lakes or lochs which are often dominated by pondweed.	Very wet mires often identified by an unstable quaking surface favourable maintained (2012).
Stenness SAC	Loch of Stenness SAC Lagoons.	Lagoons favourable maintained (2013).
Marwick Head SPA	Breeding seabird assemblage; breeding guillemot; breeding kittiwake.	Guillemot breeding unfavourable declining (2017). Kittiwake breeding unfavourable declining (2015). Seabird assemblage breeding unfavourable declining (2015).
Papa Westray SPA	Papa Westray SPA Breeding Arctic skua; breeding Arctic tern.	Arctic skua breeding unfavourable declining (2015). Arctic tern breeding unfavourable no change (2017).
North Orkney SPA	Great northern diver (<i>Gavia immer</i>), non-breeding; Red-throated diver (<i>Gavia stellata</i>), breeding	Condition not assessed for either species
Orkney Mainland Moors SPA	Orkney Mainland Moors SPA Breeding hen harrier, breeding short-eared owl and breeding red-throated diver; non-breeding hen harrier.	Orkney Mainland Moors SPA Hen harrier breeding favourable maintained (2013). Hen harrier non-breeding favourable maintained (2013).

Regional Marine Plan for the Orkney Islands: Draft Habitats Regulations Appraisal Record

Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Red-throated diver breeding favourable maintained (2007). Short-eared owl breeding favourable maintained (2004).
Pentland Firth Islands SPA	Breeding Arctic tern.	Arctic tern breeding unfavourable no change (2018).
Rousay SPA	Breeding seabird assemblage; breeding guillemot; breeding Arctic skua; breeding Arctic tern; breeding fulmar; breeding kittiwake.	Arctic skua breeding unfavourable no change (2015). Arctic tern breeding unfavourable declining (2007). Fulmar breeding favourable maintained (2016). Guillemot breeding unfavourable declining (2016). Kittiwake breeding unfavourable declining (2016). Seabird assemblage unfavourable declining (2016).
Sanday SAC	Reefs; subtidal sandbanks; intertidal mudflats and sandflats; Harbour seal.	Harbour seal unfavourable declining (2013). Intertidal mudflats and sandflats favourable maintained (2008). Reefs favourable maintained (2008). Subtidal sandbanks favourable maintained (2008).

Regional Marine Plan for the Orkney Islands: Draft Habitats Regulations Appraisal Record

Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
Scapa Flow SPA	Black-throated diver (<i>Gavia arctica</i>), non-breeding; Eider (<i>Somateria mollissima</i>), non-breeding	Condition not assessed for either species
Stromness heaths and Coast SAC	Dry heaths; base-rich fens; vegetated sea cliffs.	Base rich fens favourable maintained (2014). Dry heaths favourable maintained (2008). Vegetated sea cliffs favourable maintained (2012).
Sule Skerry and Sule Stack SPA	Sule Skerry and Sule Stack SPA Breeding gannet; breeding storm petrel; breeding seabird assemblage; breeding guillemot; breeding Leach's petrel; breeding puffin; breeding shag.	Sule Skerry and Sule Stack SPA Gannet breeding favourable maintained (2013). Guillemot breeding favourable maintained (2015). Leach's petrel breeding unfavourable declining (2018). Puffin breeding favourable declining (2015). Seabird assemblage breeding favourable maintained (1998). Shag breeding unfavourable declining (2015). Storm petrel breeding favourable declining (2018).
Switha SPA	Non-breeding Greenland barnacle goose.	Greenland barnacle goose non-breeding favourable maintained (2013).
Orkney Mainland Moors SPA	Orkney Mainland Moors SPA	Orkney Mainland Moors SPA

Regional Marine Plan for the Orkney Islands: Draft Habitats Regulations Appraisal Record

Site	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
	Breeding hen harrier, breeding short-eared owl and breeding red-throated diver; non-breeding hen harrier.	Hen harrier breeding favourable maintained (2013). Hen harrier non-breeding favourable maintained (2013). Red-throated diver breeding favourable maintained (2007). Short-eared owl breeding favourable maintained (2004).
West Westray SPA	Breeding guillemot; breeding seabird assemblage; breeding Arctic skua; breeding Arctic tern; breeding fulmar; breeding kittiwake; breeding razorbill;	Arctic skua breeding unfavourable declining (2017). Arctic tern breeding unfavourable no change (2017). Fulmar breeding favourable recovered (2017). Guillemot breeding unfavourable declining (2017). Kittiwake breeding unfavourable declining (2017). Razorbill breeding favourable recovered (2017). Seabird assemblage breeding unfavourable declining (2017).

Appendix 2: Vision, Guiding Principles, Aim and Objectives for the Orkney Islands Regional Marine Plan

Vision	
The Orkney Islands marine region is clean, healthy, safe and productive; Orkney's marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities.	
Guiding principles	
The Orkney Islands Regional Marine Plan has been developed in accordance with five guiding principles adopted to help steer the plan-making process, strategy and policies.	
A	Sustainable development and use Sustainable development and use are enabled whilst living within environmental limits; ensuring a strong, safe, healthy and just society; achieving a sustainable economy; promoting good governance; using sound science responsibly; and supporting the delivery of the United Nations Sustainable Development Goals. ¹³
B	Ecosystems-based approach An ecosystems-based approach is used to manage human activities and enable climate change mitigation, as well as adaptation to the predicted effects of climate change.
C	Coexistence Coexistence between marine development, activities, and use is supported to minimise potential conflict and maximise synergistic benefits.
D	Partnership working and stakeholder participation This Plan is developed through an inclusive process of partnership working and stakeholder participation.
E	Integrated approach to marine and land-use planning Land and marine development are planned in a joined-up way to address development and infrastructure requirements, and associated impacts, across the interface between land and sea.

¹³ United Nations Sustainable Development Goals <https://www.un.org/en/sustainable-development-goals>

Aim Sustainable development, activities, and use of the marine and coastal environment of Orkney is supported. Sustainable development, activities and use should maintain, and where appropriate enhance, biodiversity and ecosystem services; protect natural capital for future generations; and provide social and economic benefits for local communities.	
Objectives	
Number	Objective
1	A clear strategic direction is provided for development, activities and use in the Orkney Islands marine region and there is greater certainty for prospective developers, investors and local communities.
2	Development, activities and use are managed within an ecosystem approach, to protect and, where appropriate, enhance the biological, chemical and physical functioning of the marine and coastal environment, including the management of cumulative impacts.
3	A rapid and just transition to a low-carbon economy is supported to achieve net-zero commitments.
4	Mitigation of, and adaptation to, climate change is prioritised.
5	Socio-economic benefits and prosperity are delivered for local communities and the wider economy.
6	The well-being of local communities and the amenity of marine and coastal places are protected and enhanced.
7	Reliable information is provided on existing and proposed coastal and marine development, activities, use and assets.
8	Spatial planning and data are provided, enabling sustainable coexistence and synergies between existing and new marine development, activities and use, and the environment.
9	Plan users are assisted in navigating the relevant legislative and policy frameworks more easily and effectively.

Orkney Islands Regional Marine Plan: Consultation Draft

PRELIMINARY CONSIDERATIONS	Responses
Please provide a brief description or summary of the policy, strategy or service under review for the purposes of this assessment.	Determine if an Island Communities Impact Assessment (ICIA) is required for the Orkney Islands Regional Marine Plan (OIRMP). The OIRMP will guide sustainable development, activities and use in the Orkney Islands marine region, whilst ensuring environmental protection. The statutory policies and spatial information will guide decision making on marine licensing and consenting. See attached report for further detail
STEP 1 - Develop a clear understanding of your objectives	Responses
What are the objectives of the policy, strategy or service?	To support sustainable development of the Orkney Islands Marine Region's waters. See attached report for further detail
Do you need to consult?	Yes
How are islands identified for the purpose of the policy, strategy or service?	The plan applies to all islands within Orkney.
What are the intended impacts/outcomes and how do these potentially differ in the islands?	See attached report
Is the policy, strategy or service new?	Yes
STEP 2 - Gather your data and identify your stakeholders	Responses
What data is available about the current situation in the islands?	See attached report
Do you need to consult?	Yes
How does any existing data differ between islands?	See attached report
Are there any existing design features or mitigations in place?	See attached report
STEP 3 - Consultation	Responses
Who do you need to consult with?	See attached report

Orkney Islands Regional Marine Plan: Consultation Draft

How will you carry out your consultation and in what timescales?	See attached report
What questions will you ask when considering how to address island realities?	See attached report

Island Communities Impact Assessment

Insert Policy, Strategy or Service Title

What information has already been gathered through consultations and what concerns have been raised previously by island communities?	See attached report
Is your consultation robust and meaningful and sufficient to comply with the Section 7 duty?	Yes, see attached report
STEP 4 - Assessment	Responses
Does your assessment identify any unique impacts on island communities?	No: see attached report
Does your assessment identify any potential barriers or wider impacts?	No: see attached report
How will you address these?	See attached report

You must now determine whether in your opinion your policy, strategy or service is likely to have an effect on an island community, which is significantly different from its effect on other communities (including other island communities).

If your answer is **NO** to the above question, a full ICIA will NOT be required and **you can proceed to Step**

SIX. If the answer is **YES**, an ICIA must be prepared and **you should proceed to Step FIVE**.

To form your opinion, the following questions should be considered:

- Does the evidence show different circumstances or different expectations or needs, or different experiences or outcomes (such as different levels of satisfaction, or different rates of participation)?
- Are these different effects likely?
- Are these effects significantly different?
- Could the effect amount to a disadvantage for an island community compared to the Scottish mainland or between island groups?

Island Communities Impact Assessment

Insert Policy, Strategy or Service Title

STEP 5 – Preparing your ICIA	Responses
In Step Five, you should describe the likely significantly different effect of the policy, strategy or service:	
Assess the extent to which you consider that the policy, strategy or service can be developed or delivered in such a manner as to improve or mitigate, for island communities, the outcomes resulting from it.	
Consider alternative delivery mechanisms and whether further consultation is required.	
Describe how these alternative delivery mechanisms will improve or mitigate outcomes for island communities.	
Identify resources required to improve or mitigate outcomes for island communities.	
STEP 6 - Making adjustments to your work	Responses
Should delivery mechanisms/mitigations vary in different communities?	No: see attached report
Do you need to consult with island communities in respect of mechanisms or mitigations?	Yes: see attached report
Have island circumstances been factored into the evaluation process?	Yes: See attached report
Have any island-specific indicators/targets been identified that require monitoring?	Yes: See attached report
How will outcomes be measured on the islands?	See attached report
How has the policy, strategy or service affected island communities?	See attached report
How will lessons learned in this ICIA inform future policy making and service delivery?	See attached report

Island Communities Impact Assessment

Insert Policy, Strategy or Service Title

STEP 7 - Publishing your ICIA	Responses
Have you presented your ICIA in an Easy Read format?	Yes: see attached report
Does it need to be presented in Gaelic or any other language?	No
Where will you publish your ICIA and will relevant stakeholders be able to easily access it?	OIC website
Who will sign-off your final ICIA and why?	Scottish Ministers, as they have the relevant authority to do so.

ICIA completed by:	Shona Turnbull
Position:	Marine Planner
Signature:	S. Turnbull
Date complete:	17/10/2022

ICIA approved by:	Scottish Ministers
Position:	
Signature:	
Date approved:	

Orkney Islands Regional Marine Plan
**Island Communities Impact
Assessment: Draft**



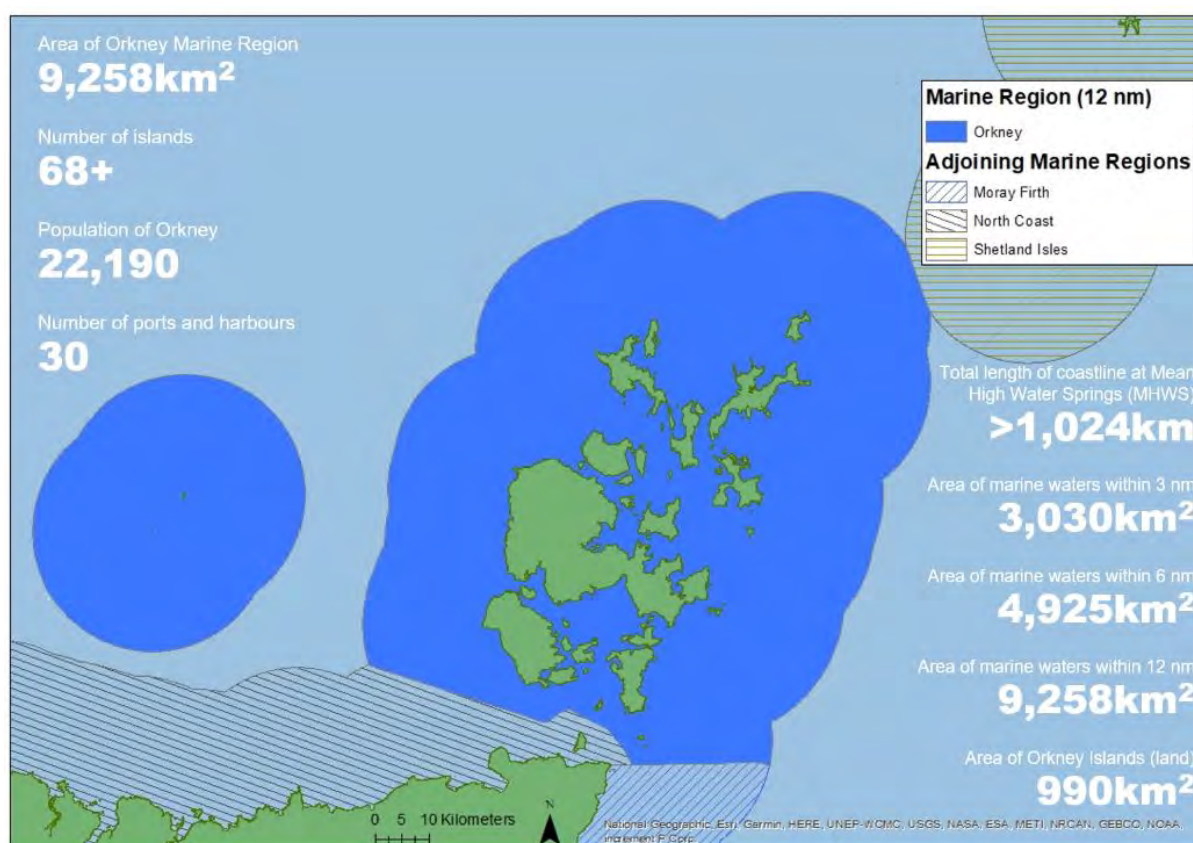


Figure 1: Overview of Orkney Islands Marine Region

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Acronyms

ICIA	Island Communities Impact Assessment
NPF4	National Planning Framework 4
OIC	Orkney Islands Council
OIRMP	Orkney Islands Regional Marine Plan
OLDP	Orkney Local Development Plan
SoEA	State of the Environment Assessment
SSSI	Site of Special Scientific Interest

Draft Island Communities Impact Assessment: Orkney Marine Region

Background

This report is to determine if an Island Communities Impact Assessment (ICIA) is required for the Orkney Islands Regional Marine Plan (OIRMP). The OIRMP will guide sustainable development, activities and use in the Orkney Islands marine region, whilst ensuring environmental protection. The statutory policies and spatial information will guide decision making on marine licensing and consenting.

The production of the Plan is a statutory function of the Council in accordance with The Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020¹. The Orkney Islands marine region includes the marine waters around Sule Stack and Sule Skerry, as shown in Figure 1 above. It covers 9,258 km² from Mean High Water Springs to 12 nautical miles (nm).

The Island Communities Impact Assessments (Publication and Review of Decisions) (Scotland) Regulations 2020 were laid on 3 November and came into force on 23 December 2020. This means that the duty to carry out an Island Communities Impact Assessment (ICIA) became a legal requirement for relevant authorities (listed in the Act) from 23 December 2020 and requires Scottish Government and relevant authorities to take island issues into account when developing or reviewing policies, strategies or services². This report has been prepared with regard to the steps outlined in the *'Island Communities Impact Assessments: Guidance and Toolkit'*³ and is in accordance with Sections 7 and 12 of the Islands (Scotland) Act 2018⁴.

As the OIRMP only applies to the Orkney Island marine region, any differences in relation to mainland Scotland are not applicable, as per the guidance provided in the *'Island Communities Impact Assessments: Guidance and Toolkit'* document⁵. However, this report examines if there are likely to be any significant differences in application of the OIRMP policies between the different Orkney Island communities.

¹ [Delegation of Regional Marine Planning Functions in the Orkney Islands 2020 - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/delegation-of-regional-marine-planning-functions-in-the-orkney-islands-2020/pages/1-introduction.aspx)

² [National Islands Plan Annual Report 2020 \(www.gov.scot\)](https://www.gov.scot/publications/national-islands-plan-annual-report-2020/pages/1-introduction.aspx)

³ [Island Communities Impact Assessments: guidance and toolkit - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/island-communities-impact-assessments-guidance-and-toolkit/pages/1-introduction.aspx)

⁴ [Islands \(Scotland\) Act 2018 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2018/12/section/7)

⁵ [Island Communities Impact Assessments: guidance and toolkit - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/island-communities-impact-assessments-guidance-and-toolkit/pages/1-introduction.aspx)

Step 1: Define the Issue

The OIRMP will enable sustainable development and activities in the Orkney marine region by providing a strategic planned approach that supports:

- sustainable licensing, consenting and management decisions in relation to development and activities in the Orkney Islands waters;
- 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
- provision of identifiable socio-economic benefits for local communities and wider stakeholders.

The draft Vision of Plan is:

‘The Orkney Islands marine region is clean, healthy, safe and productive; Orkney’s marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities’.

The draft objectives of Plan are in Table 1 below; they relate to environmental, economic and climate change factors.

The intended outcomes of the Plan are to:

- Aid statutory decision-making regarding marine licensing and consenting by Marine Scotland, Local Authorities and other regulators;
- Promote sustainable development of the marine environment;
- Provide local marine regional data and information to allow greater certainty for developers regarding prospective proposals;
- Allow more local involvement, ownership and decision-making about specific issues within the local area; and
- Provide a transparent plan-making process and promote good governance
- Ensure marine environment is protected.

The Plan will therefore also contribute to a number of the strategic objectives of the National Islands Plan⁶ e.g. Strategic Objective 2: *Sustainable Economic Development*; Strategic Objective 8: *Environmental Wellbeing and Biosecurity*; Strategic Objective 9: *Climate Change and Energy*; Strategic Objective 10: *Empowered Island Communities and Strong Local Partnership*; Strategic Objective 13: *Implementation*.

The adopted NPF4 (once produced; currently in draft form as at Aug 2022) will guide the development and use of land to 2045. It will form part of the development plan and therefore influence the day-to-day decisions on local planning matters. It will focus on:

- Sustainable places
- Liveable places

⁶ [The National Plan for Scotland's Islands - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/national-islands-plan/pages/1-introduction-and-contents.aspx)

- Productive places
- Distinctive places

In terms of policy, NPF4 is linked to the outcomes of the National Performance Framework. It will look to rebalance the planning system so that climate change and nature recovery are the primary guiding principles for all our plans and all our decisions.

The Government's aim is to also help stimulate the green economy by facilitating innovation, greener design and place-based solutions.

NPF4 will look to deliver on six high level outcomes which include:

- meeting the housing needs of people living in Scotland including, in particular;
- the housing needs for older people and disabled people;
- increasing the population of rural areas of Scotland;
- improving the health and wellbeing of people living in Scotland; and
- improving equality and eliminating discrimination.

It will also include land use planning policies supporting key issues for island communities such as engagement, transport, local living, housing, spaces and places, rural and coastal policies, aquaculture, health and wellbeing and connectivity.

The OIRMP, its policies, along with all the supporting assessments, are applicable to all of the islands' regional marine waters in Orkney equally. The Plan, including all aims, objectives and policies, along with all the supporting assessments, will be revised in light of public and stakeholder consultation and will pay due regard to the National Marine Plan and NFP4.

Table 1: Objectives of the Orkney Islands Regional Marine Plan

Number	Objective
1	A clear strategic direction is provided for development, activities and use in the Orkney Islands marine region and there is greater certainty for prospective developers, investors and local communities.
2	Development, activities and use are managed within an ecosystem approach, to protect and, where appropriate, enhance the biological, chemical and physical functioning of the marine and coastal environment, including the management of cumulative impacts.
3	A rapid and just transition to a low-carbon economy is supported to achieve net-zero commitments.
4	Mitigation of, and adaptation to, climate change is prioritised.
5	Socio-economic benefits and prosperity are delivered for local communities and the wider economy.
6	The well-being of local communities and the amenity of marine and coastal places are protected and enhanced.
7	Reliable information is provided on existing and proposed coastal and marine development, activities, use and assets.
8	Spatial planning and data are provided, enabling sustainable coexistence and synergies between existing and new marine development, activities and use, and the environment.
9	Plan users are assisted in navigating the relevant legislative and policy frameworks more easily and effectively.

Step 2: Understand the situation

Introduction

The Orkney archipelago consists of 68+ islands over an area of 990km². Sixteen of the islands are populated according to census data, some uninhabited islands are still used for farming, whilst others are relatively small rocky outcrops (see Figure 2). In addition, although the 2011 census does not show any population for Papa Stronsay, there are currently nine monks living on the island (per comm).

No one lives further than five miles from the coast⁷; the vast majority live much closer. Thus, all Orkney communities are classed as 'coastal'. The capital is Kirkwall; it, along with Stromness, are the two towns in Orkney, whilst the rest of the

⁷ [Orkney Islands Marine Region: State of the Environment Assessment](#)

population live in villages, rural settlements and scattered housing across the islands.

Orkney Mainland is connected to Lamb Holm and Glimps Holm, both unpopulated, and to Burray and St Margaret's Hope, via the Churchill Barriers. The rest of the populated islands are ferry and air connected; the Orkney Local Development Plan (OLDP)⁸ outlines the 'Isles Approach' which applies to this latter category:

- Eday
- Egilsay
- Flotta
- Graemsay
- Hoy
- North Ronaldsay
- Papa Westray
- Rousay
- Sanday
- Shapinsay
- Stronsay
- Westray
- Wyre

The Isles Approach is stated in the OLDP as *“Development within the islands, which support permanent resident populations and are served by public transport services, will be supported where it accords with relevant Plan policies and where it shall not place any unacceptable burden on existing infrastructure and services.”*

⁸ [Orkney Local Development Plan](#)



Figure 2: Map highlighting permanent populated isles of Orkney based on census data (excluding Papa Stronsay, which is not included in census data).

Orkney's Island Communities

Fragile areas

Highlands and Islands Enterprise (HIE) identified fragile areas across Scotland. Fragile areas are characterised by declining population; under-representation of young people within the population; lack of economic opportunities; below average income levels; problems with transport, and other issues reflecting their geographic location⁹. Although somewhat dated, these HIE data are reflected in the population information below.

In Orkney, there were 5 data zones (2001 data zones) classed as fragile:

- S01004968: Rousay, Egilsay, Shapinsay and Wyre
- S01004969: North Ronaldsay, Sanday and Stronsay
- S01004970: Eday, Westray and Papay
- S01004971: Hoy, Flotta, South Walls and South Ronaldsay
- S01004972: Burray and St. Margaret Hope

These five data zones cover 14 of the 17 populated islands; South Walls is attached to Hoy by a causeway and Burray and South Ronaldsay are connected by the Churchill Barriers. The main area not classed as fragile is Mainland. Graemsay was classified as fragile but was included in the Stromness data zone (pers comm), therefore not covered in the list above.

Population

The Orkney population from the 2011 census is 21,349 and is estimated to be 22,2070 for 2019, across 16 islands (see Tables 2 and 3). A small number of other islands e.g. Aukerry, Copinsay and Hunda have seasonal populations (see below).

Table 2: Population of Orkney Islands (Source OIC extractions from 2011 census)

Island	2011 census	Comment*
Burray	409	Burray lies between Mainland and South Ronaldsay, connected by the Churchill Barriers.
Eday	160	Situated centrally among the North Isles of Orkney, 14 miles north-east of Kirkwall, Eday, the isthmus isle, eight miles long and pinched at the waist, offers a unique blend of heather-clad hilly moorland with panoramic views over sea and islands, sheer cliffs, sweeping beaches and sand dunes and rich in archaeology. Most of the crofts and farms are located on the fertile coastal strip. The numerous derelict houses are clear indicators that Eday's population was once much greater.
Egilsay	26	Three miles long by a mile and half wide, off the east coast of Rousay, Egilsay is a haven for birds, especially the rare Corncrake.

⁹ [Highlands and Islands Enterprise | HIE](#)

Island	2011 census	Comment*
Flotta	80	Flotta has one of the most spectacular 360 degree panoramas in the UK: the sweep of the Hills of Hoy, the great expanse of Scapa Flow and the hills of Mainland Orkney beyond, to the east Burray and South Ronaldsay, completing the circle by looking out across the Pentland Firth to the Scottish mainland. Flotta was a strategic military base in both World Wars therefore contains much military history. Since the mid 1970s, Flotta has been the location for an oil terminal that makes a significant contribution to Orkney's economy.
Graemsay	28	Graemsay is located in the Western approaches to Scapa Flow lying between Stromness on Orkney mainland and North Hoy, separated from the Mainland by Clestrain Sound. The island is 409 ha (1.58 sq mi) in area and is around two miles by a mile and half. Large parts of the island have been left largely undeveloped and are a haven for many wild plants. It is mainly crofted and has a predominantly ageing population.
Hoy	419	Hoy is the second largest island in Orkney, at 57 square miles. From the summit of Ward Hill, the highest point in the county at 1570 feet, every island in Orkney can be seen with the exception of Rysa Little, which is the nearest. Hoy has significant military history. During World War II, thousands of navy personnel were based at Lyness and the now deserted naval base has been converted to a visitor centre with many exhibits from both world wars and the scuttled German fleet. This, along with the Old Man of Hoy stack and the spectacular hills and wildlife, are key tourist attractions. Lyness is a key port facility.
North Ronaldsay	72	This most northerly of the Orkney Islands is three miles long and two miles wide, the island is famous for its rare breed of seaweed-eating sheep, which are contained on the seaward side of the island by a drystone dyke that encompasses the shoreline.
Papa Westray	90	Known locally as 'Papay' it is four miles long and a mile across at its widest point. With a history stretching back thousands of years, Papay's more recent past has seen plenty of positive projects bring a sense of vibrancy to the island. There's an annual arts festival, a fantastic community shop, one of Orkney's best hostels and a refurbished craft and heritage space, housed on the shore in the island's former kelp store.
Rousay	216	Known as the 'Egypt of the north' thanks to its collection of more than 150 ancient sites. A mile-long stretch on the south west coastline showcases some incredible locations, including the Iron Age Midhowe Broch, the 5000-year-old Midhowe Chambered Cairn, housed in an imposing hangar, and the excavations at Swandro.

Island	2011 census	Comment*
Sanday	494	The largest of Orkney's north isles, Sanday has a land and seascape more akin to the Outer Hebrides, with beautiful beaches, sand dunes and machair, all set at the fringes of some of Orkney's most fertile farmland.
Shapinsay	307	A green, fertile, low-lying island, full of wildlife and boasting a vibrant community 25 minutes away by ferry from Kirkwall. The village of Balfour, an early example of a planned village, was built in the late 1700s. It still retains much of its original character, with the single street overlooked by stone cottages that originally housed workers on the sprawling Balfour estate, home of the grand Balfour Castle.
South Ronaldsay	909	Orkney's fourth largest island and home to St Margaret's Hope, known locally as 'the Hope'; possibly the most picturesque village in the archipelago.
Stronsay	353	Covering an area of 12½ square miles, it is the seventh largest island, known as the 'island of bays', due to the three large bays separated by two isthmuses: St Catherine's Bay to the west, the Bay of Holland to the south and Mill Bay to the east. The main village is Whitehall, home to a heritage centre.
Westray	588	At 18.2 square miles, it is the sixth largest island. The main village is Pierowall, with a heritage centre, the 15th-century Lady Kirk church and pedestrian ferry service to nearby Papa Westray island. Westray has a number of archaeological sites dating from 3500 BC, and remains of several Norse-Viking settlements. The spectacular sea cliffs around Noup Head are home to thousands of seabirds.
Wyre	29	Although only two miles long and a mile wide, it has a history stretching back thousands of years. The island's main attraction is the substantial Cubbie Roo's Castle, the remains of an imposing structure built for 12th century Norse chieftain, Kolbein Hrugá.
Mainland	17169	Mainland Island covers an area of approximately 202 square miles; key areas are East and West Mainland respectively. It accounts for three-quarters of the population of Orkney and links the northern isles to the southern isles via air, ferry and Churchill Barriers. The main settlements are Kirkwall, Stromness, Dounby, Finstown and St Margaret's Hope. East Mainland contains fertile farmland, craggy coastlines and beautiful beaches, whilst West Mainland contains world-class archaeology and incredible coastlines.
Total	21349	

* Data sources include www.orkney.com ; www.graemsay.org.uk and [Sandside, Graemsay Website & blog](#) ; [The Orkney Islands of Scotland - WorldAtlas](#)

Table 3: 2019 population estimates (Source: OIC, based on NHS 2019 figures for islands and NRS 2019 for total; rounded to nearest whole number).

	2019 estimates	% aged 0-59	% aged 60 – 75+
Eday	121	52	48
Hoy & Flotta	504	53	47
North Ronaldsay	50	50	50
Papa Westray	94	65	35
Rousay, Egilsay & Wyre	237	56	44
Sanday	469	62	38
Shapinsay	337	67	33
Stronsay	332	65	35
Westray	599	60	40
Mainland & barrier linked south isles*	19,527	70	30
Total	22,270	69	31

*Burray and South Ronaldsay

National Records of Scotland data shows that the population growth for Orkney is below the Scottish average (see Figure 3). Figure 4 shows that the population has increased in 62% of the data zones, but this equates to 18, most of which are likely to be on the Mainland, as 23 of the 29 data zones are on Mainland Orkney¹⁰.

¹⁰ [Time Series Data | National Records of Scotland \(nrsotland.gov.uk\)](https://nrs.scot.nhs.uk/time-series-data/)

Population change varies across Scotland's council areas

Over the last year, three quarters of Scotland's council areas (24 out of 32 areas) increased in population with the remaining 8 areas experiencing depopulation. Areas facing depopulation are mainly island and rural areas, as well as areas in the west of the country.

Percentage population change from mid-2018 to mid-2019

- Population decline
- Population growth below the Scottish average
- Population growth above the Scottish average



It is important to remember that within every council area, there are pockets of both growth and depopulation, NRS' small area population estimates for mid-2019 will be published in August 2020 – these can be used to help understand how the population of local areas are changing.

www.nrscotland.gov.uk
Source: Mid-Year Population Estimates Scotland, Mid-2019



National
Records of
Scotland

Figure 3: Population change across Scotland (Source: [Infographic Summary \(nrscotland.gov.uk\)](#) (accessed 8/3/2021))

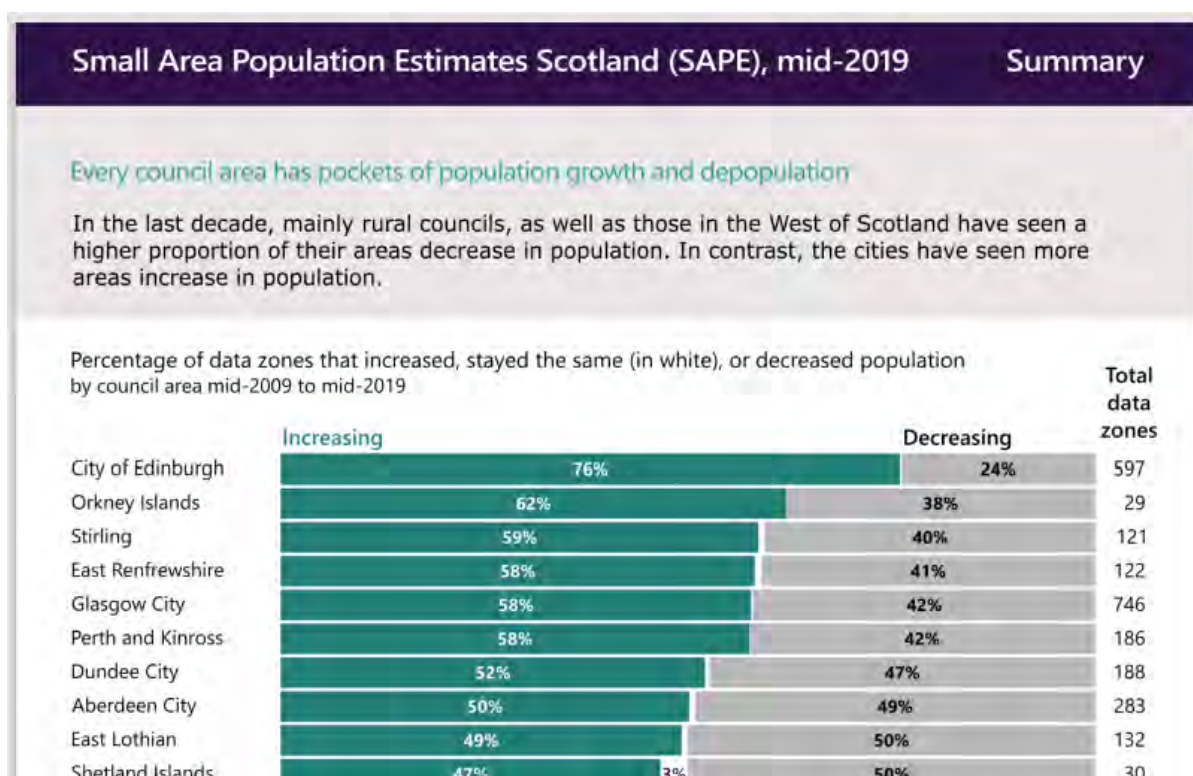


Figure 4 Small area population estimates. (Source: [Mid-2019 Small Area Population Estimates for 2011 Data Zones | National Records of Scotland \(nrsotland.gov.uk\)](https://nrs.scot.nhs.uk/nrs/scotland/population/2011/) (accessed 8/3/2021))

Now unpopulated islands

A number of islands around Orkney used to be inhabited in the relatively recent past (see Figure 5). Census data between 1961 – 2011 shows the islands that were formally populated during this time, as outlined in Table 4. Populations ranged from one person on Auskerry and Sule Skerry respectively, up to ten people on Papa Stronsay in 2010. Although the 2011 census does not show any population for Papa Stronsay, there are currently nine monks living on the island (per comm).

Some of the islands may be occupied or are habitable on a temporary basis, but are not included in the population figures in Tables 2 and 3 above.

Smaller islands

The rest of the islands are relatively small low-lying islands, skerries or rock stacks. Some are used for farming e.g. sheep grazing or are being considered for potential wind energy generation. Several are designed nature conservation sites for a range of qualifying features such as seals and seabirds.

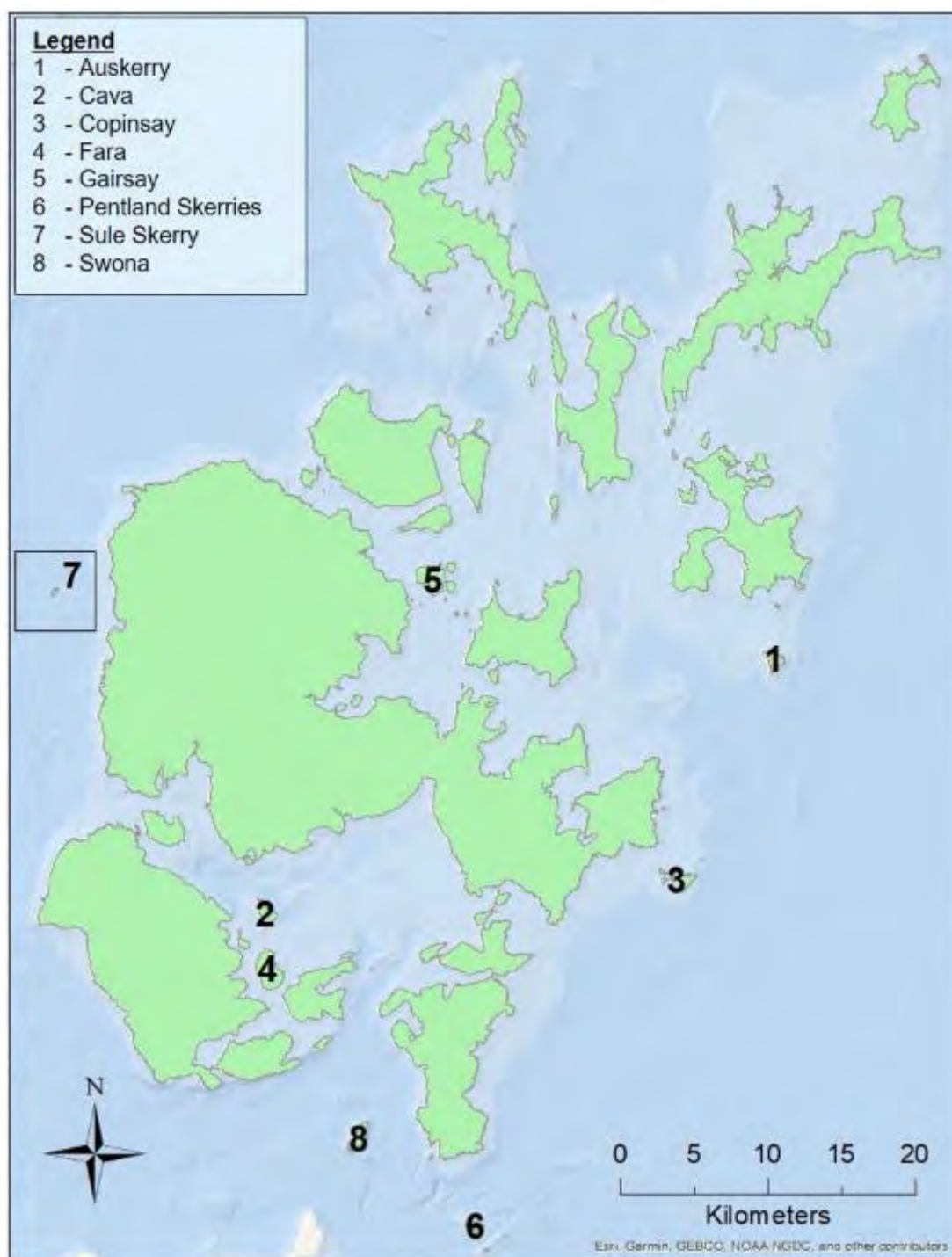


Figure 5: Map highlighting recent previously populated isles according to census data from 1961 – 2011 (see text for details).

Table 4: Recent previously inhabited islands in Orkney (see text for details).

Island	Comment
Auskerry	Two people live on Auskerry for at least part of the year.
Copinsay	The lighthouse is automated, but a planning application was approved in 2010 for construction of a small wind turbine on Copinsay.
Papa Stronsay	Whilst no separate census data are available for this island, it is home to nine Transalpine monks as of April 2021.
Gairsay	One family lives on and farms part of Gairsay.
Cava	About one third of the island area is semi-improved grassland, all formerly cultivated. Now home to national important habitats and species such as blanket bog, Arctic tern and Curlew.
Fara	Most of the island is peat-covered. Now home to nationally important habitats and species such as maritime cliff and slope, Red-throated diver and Otter.
Sule Skerry	A low-lying island located 60 kilometres west of Brough Head, off the north-west of the Orkney Mainland. A SSSI for breeding seabirds colonies, including Puffin, Shag and Storm petrel.
Swona	The island is home to wild cows from a herd left behind in the 1970s.
Pentland Skerries	Unpopulated since the lighthouse became automated.

The marine environment

The Orkney Islands marine region, which is the subject area for the Orkney Islands Regional Marine Plan (OIRMP) being assessed in this ICIA, covers 9,258 km² from Mean High Water Springs (MHWS) to 12 nautical miles (nm). It is bound by 1,024 km² of coastline around the 68+ islands; the latter covers 990 km². Thus, the marine regional area is virtually ten times the land area.

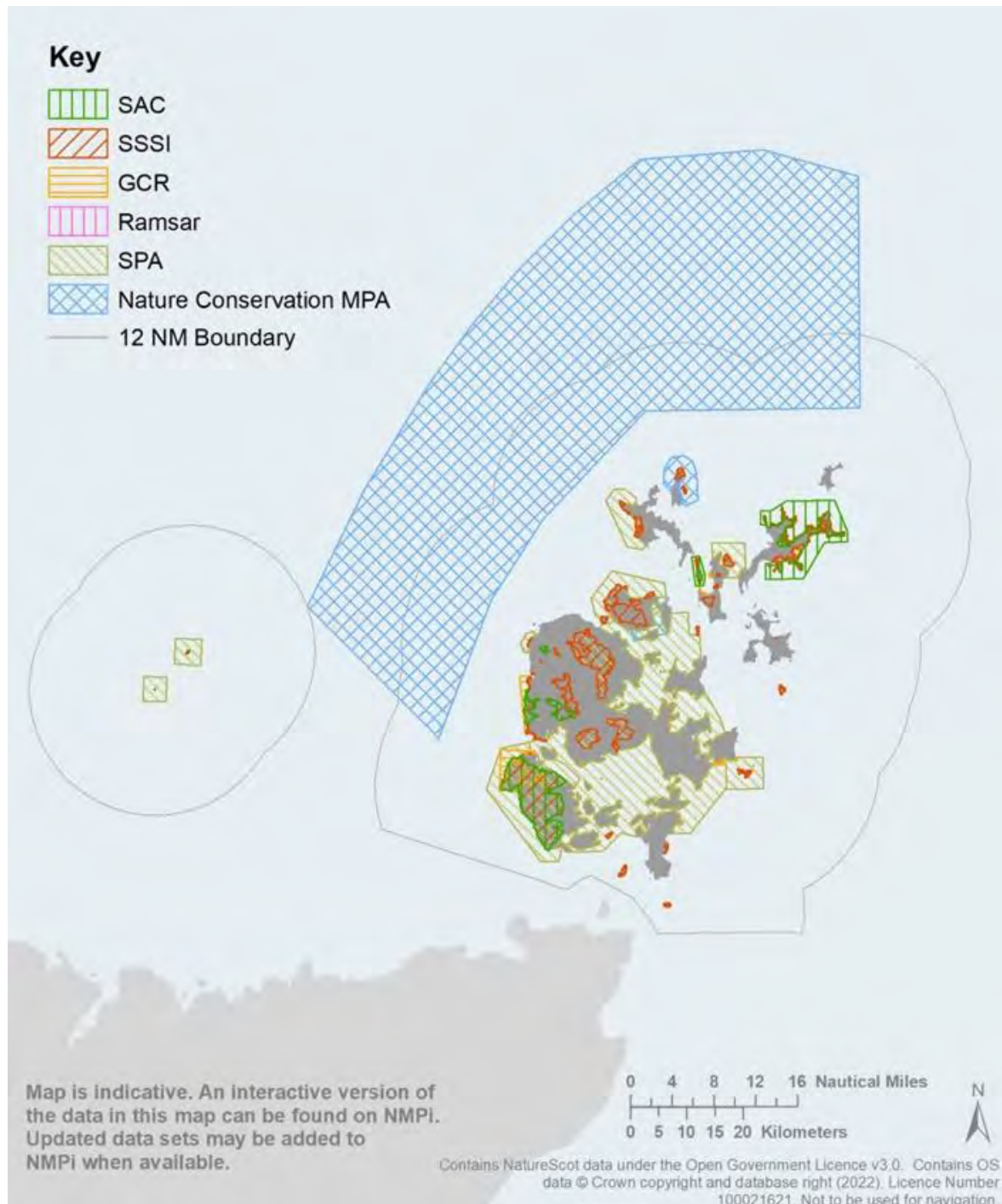
The Orkney Islands Marine Region: State of the Environment Assessment 2020 (SoEA)¹¹ provides a baseline assessment of the environment of Orkney. It presents a summary of the environmental pressures and impacts of human activities affecting the Orkney Islands marine region. It includes geographical, ecological, social and economic factors and associated trends, where known. It provides a snapshot in time of the current issues facing Orkney's marine environment, as of November 2020, and the current status of the key economic sectors. This assessment therefore highlights the importance of e.g. lifeline ferries, fishing, aquaculture, energy and tourism for the island communities. Appendix 4 outlines the summary of the sectors and the status of the pressures and trends, along with the data confidence measures. Appendix 4 also provides a summary of the climate change pressures and interactions with the various ecological and commercial sectors.

¹¹ [Orkney Islands Marine Region: State of the Environment Assessment](#)

Designated nature conservation sites

Most of the designated sites around Orkney have coastal and marine elements (see Figure 6). A full list of sites and background information can be found in Appendix 2 of the SoEA¹².

Figure 6: Map of nature conservation designated sites within the Orkney marine region.



¹² [Orkney Islands Marine Region: State of the Environment Assessment](#)

Step 3: Consultation

During the early stages of preparation of this ICIA report, input and guidance was sought from OIC officers across several departments, the Orkney Marine Planning Advisory Group (OMPAG), see Appendix 1, Scottish Government and local stakeholders. Further details of the stakeholders contacted directly can be found in Appendix 2. OMPAG work closely with OIC, (the latter as sole delegate), to ensure expertise on a range of topics is considered throughout the plan-making phase. In addition, the Statement of Public Participation¹³ sets out the indicative timescales and methodology for engaging and consulting a wide range of stakeholders on the consultation draft OIRMP and associated documents.

Appendix 4 contains some feedback received during early engagement visits from the OIC Marine Planning team outlining the purpose and scope of the regional marine plan to local communities and school pupils, and seeking early feedback. This extra stage of engagement, not outlined in the SPP, was seen to be important as otherwise local communities would likely not fully understand what they were being consulted on if presented with the draft Plan, due Summer 2023, without this earlier level of engagement to explain both what the plan was, and equally important, what it was not i.e. not a strategy/action plan type document. Visits were made to Sanday, Hoy, Stronsay, and Westray, as well as St. Margaret's Hope, Stromness and Kirkwall in Spring/Summer 2022 and included schools sessions with a range of different class groups.

Step 4: Assessment: Is a full ICIA required?

All the policies within the OIRMP will be applied equally to all islands within the Orkney Islands marine region area. In addition, as the adjacent island communities of Shetland have a draft regional marine plan and also have to abide by the National Marine Plan and related guidance, it will not have a significantly different effect on either the local Orkney or the Shetland island communities.

As outlined in Step 1, the intended outcomes of the Plan are to:

- Aid statutory decision-making regarding marine licensing and consenting by Marine Scotland, Local Authorities and other regulators;
- Promote sustainable development in the marine environment;
- Provide local marine regional data and information to allow greater certainty for developers regarding prospective proposals;
- Allow more local involvement, ownership and decision-making about specific issues within the local area;
- Provide a transparent plan-making process and promote good governance;
- Ensure marine environment is protected.

Thus, as the demonstrated intended outcomes of the Plan are to provide a clear framework for sustainable marine development whilst safeguarding the marine environment and this framework will apply equally to all of the marine waters within the plan's jurisdiction, and in accordance with the National Marine Plan, with due regard to NPF4 (once published) the policy, strategy or service (i.e. the OIRMP) is not likely to

¹³ [Marine Planning \(orkney.gov.uk\)](https://www.orkney.gov.uk/marine-planning)

have an effect on an island community which is significantly different from its effect on other communities (including other island communities).

Following public consultation on the draft OIRMP and its associated assessments, this ICIA will be reviewed to address any serious concerns raised, but the above information is sufficient to demonstrate that a full ICIA is not required for the draft Plan.

Step 5: Preparing the ICIA

As a full ICIA is not required, Step 5 of the process in accordance with '*Island Communities Impact Assessments: Guidance and Toolkit*' is not applicable.

Step 6: Making adjustments

As the plan-making process evolves, the need for an ICIA will be reviewed, as outlined in Step 4. In addition, once the Plan is published, it will be subject to ongoing monitoring, evaluation and review, which will include an assessment of ICIA status.

Appendix 1: Orkney Marine Planning Advisory Group members

Organisation	Category
NatureScot	Environment
Scottish Environment Protection Agency	Environment
International Centre for Island Technology	Academic
Orkney Sustainable Fisheries	Commercial
Historic Environment Scotland	Environment
Orkney Harbour Authority	Commercial
Visit Scotland	Commercial
Crown Estate Scotland	Commercial
Scottish Salmon Producers Organisation	Commercial
Repsol Sinopec	Commercial
Royal Society for the Protection of Birds Scotland	Environment
Orkney Renewable Energy Forum	Commercial
Orkney Marinas	Recreational
Scottish and Southern Electricity Networks	Commercial
Orkney Marine Services Association	Commercial
Orkney Sub-aqua Club	Recreational

Appendix 2: Orkney Islands Council officers and organisations contacted during early plan-making process*

Organisation
OIC solicitor (former seconded Scottish Government Islands team member)
OIC Biodiversity officer, Development & Marine Planning (D&MP)
OIC Climate Change Officer, D&MP
OIC Biodiversity Technician, D&MP
OIC North Isles Landscape Partnership Scheme officers
OIC Team Leader (Policy & Planning), Education, Leisure and Housing Services
OMPAG – see Appendix 1
Sandy Development Trust
Stronsay Development Trust
Hoy and North Walls Community Association
Westray Community Association
Sanday School
Stronsay School
Westray School
Oceans of Value Project, Scottish Wildlife Trust
Marine Scotland
Orkney marine planning stakeholders**

*Note: a full public consultation on the draft OIRMP will provide additional input therefore the Plan and supporting assessments will be updated accordingly.

** These c. 360 stakeholders receive updates on the plan-making process via a newsletter circulated c.2-3 times per annum (see [Marine Planning \(orkney.gov.uk\)](https://www.orkney.gov.uk/marine-planning) 'Related Downloads' section).

Appendix 3: Summary of the sectors and the status of the pressures and trends, along with the data confidence measures for the Orkney Islands marine region and climate change summary (source: SoEA (2020)).

3a) State of the Environment Assessment (SoEA) Summary

Category	Topic	Pressure	Assessment	Trend	Data confidence
Physical	Geological and coastal	Erosion; Disturbance.	Some concerns	Deteriorating	High
	Landscape and Seascape	Erosion of special qualities of landscape and seascape; Coastal erosion, sea level rise, flooding and change to vegetation types due to climate change.	Some concerns	Deteriorating	Medium
	Coastal Water Quality	Pollution	Some concerns	Static	High
	Air Quality	Pollution	Few concerns	Unknown	Low
	Marine litter	Entanglement; Ingestion; Amenity	Some concerns	Unknown	Medium
	Underwater noise	Disturbance; Injury;	Some concerns	Deteriorating	Low
Historic Coastal and Marine Environment	Historic Coastal and Marine Environment	Climate change; Erosion; Corrosion; Removal of artifacts.	Many concerns	Deteriorating	High
Climate Change	Climate change	Multiple pressures: see table below	Many concerns	Deteriorating	Medium

Table 3a) cont

Category	Topic	Pressure	Assessment	Trend	Data confidence
Biodiversity	Designated Nature Conservation Sites	Climate change; Barrier to species movement; Collision; Disturbance; Overfishing; Pollution.	As there are many designated sites with varying site condition status, an overview assessment of the sites would be of limited value. Refer to Appendix 2 for individual site condition assessments.		
	Birds	Climate change; Collision; Disturbance; Marine litter	Many concerns	Deteriorating	Medium
	Grey Seals	Climate change; Disturbance; Pollution	Few concerns	Static	Medium
	Harbour Seals	Climate change; Competition; Disturbance; Pollution	Many concerns	Deteriorating	Medium
	Cetaceans	Climate change; Barrier to species movement; Collision; Disturbance: visual and displacement; Entanglement; Marine litter; Noise; Pollution	Some concerns	Unknown	Low
	Commercial Fish and Shellfish	Climate change; Disturbance; Removal of target species.	Unknown	Unknown	Not applicable
	Wider Fish Community	Climate change; Disturbance; Removal of non-target species.	Unknown	Unknown	Not applicable
	Invasive Non-native Species	Alter food webs; Outcompete native species.	Some concerns	Static	High

3b) SoEA Productive sector assessment summary

Category	Topic	Economic contribution	Employment	Production	Data confidence
Productive coasts and seas	Commercial Fisheries	Increasing	Stable	Decreasing	High
	Aquaculture	Increasing	Increasing	Increasing	High
	Harbours, Port, Shipping and Marine Transport	Increasing	Stable	Stable	High
	Offshore Wind Energy	Unknown	Unknown	Not applicable	Not applicable
	Wave and Tidal Energy	Stable	Stable	Stable	Medium
	Oil and Gas	Stable	Stable	Decreasing	High
	Marine Supply Chain, Research and Services	Unknown	Unknown	Unknown	Not applicable
	Tourism, Recreation, Sport and Leisure	Increasing	Increasing	Increasing	High

3c) Climate Change pressures: adapted from SoEA¹⁴

Topic	Climate Change pressures and interactions
Physical	Sea level rise and erosion, along with changes in temperature, salinity and weather patterns, will alter the physical characteristics and dynamics of marine and coastal areas and have landscape impacts. Coastal flooding can arise from a combination of factors including high tides, wind and wave exposure and storm surge. Such events are predicted to be further exasperated by increases in sea level and storm conditions attributed to climate change. Physical features containing marine inorganic carbon can be disturbed by processes of erosion and impacts from development and activities.
Historic coastal and marine environment	Sea level rise, along with the potential for changing weather patterns and coastal processes due to climate change, pose a significant risk to coastal and marine historic assets in Orkney. Storms, and the combine erosive effects of wave and tidal action, particularly in recent years, have caused substantial damage to historic coastal sites and monuments. Climate-change causing rising sea-levels has been identified as the single greatest threat to Orkney's coastal built heritage.
Biodiversity	Multiple species may be affected by changes in temperature, salinity and changing weather patterns as food webs are disrupted or altered. The pressures on seabirds, around Orkney and beyond, include the effects of climate change on their food supply, due in part to risks from increased storminess, which can impact bird colonies by both physical disturbance and ability to catch prey. Increasing sea temperatures have been seen to affect the timing of reproduction in different ways from species to species, leading to trophic mismatch between predators and the availability of their prey species (e.g. key prey species may bloom before predators have produced young that would normally feed on the prey). Changing acidity of sea water can have an effect on biogeochemical and ecosystem processes including planktonic calcification, carbon and nutrient assimilation, primary production and physiology. Changes due to climate change may impact a variety of ecological processes e.g. specialist species are at risk from increased salinity. Climate related pressures can affect species distribution and invasive non-native species could become established. Coastal lagoons, such as the internationally significant habitats within the Loch of Stenness Special Area of Conservation (SAC), are particularly sensitive to relative sea level rise changes related to climate change.

¹⁴ [Orkney Islands Marine Region: State of the Environment Assessment](#)

Topic	Climate Change pressures and interactions
	Overall, the impacts on marine ecosystems, particularly changes in acidity and on ecosystem services provision are poorly understood for Orkney waters.
Productive coasts and seas	Climate change impacts can affect the distribution of commercial fish species. Increased potential for harmful effects from invasive non-native species (INNS). Increased potential of algal blooms affecting fisheries and aquaculture. Increased risk of storm damage to fishing gear and finfish aquaculture sites. Increased adverse operational impacts on ports, harbours ferries and shipping, along with marine renewable energy activity due to sea level rise and potential increases in storminess.
Social	The climate change related pressures on Orkney's physical environment, historic assets and biodiversity will significantly affect Orkney communities. Climate change pressures including sea level rise, coastal erosion and potential increases in storminess are likely to increase impacts on coastal infrastructure, property and services.

Appendix 4: Feedback from early engagement island visits (Spring 2022)

The following comments have been paraphrased from notes of face-to-face discussions at community engagement events to outline the purpose and scope of the regional marine plan:

When discussing commercial fishing representation: *“I’m pleased to hear that the Orkney Fisheries Association and Orkney Sustainable Fisheries are being included in the plan making process, as fishermen from smaller islands are increasingly getting squeezed out [from development plans]”* Westray

“I’m concerned about the level of litter washing up that doesn’t originate from here. It washes up from elsewhere and we are stuck with it”. Sanday

“Development plans often overlook the people who live in the remote areas. Plans can sometimes see remote islands as areas for commercial development and nature conservation. There should be emphasis on the people that live here and their wellbeing” Hoy

“The biggest worry for people living here [Stronsay] is the ferries” Stronsay

“I’m concerned about big decisions being made elsewhere, such as the Scottish Government and Marine Scotland, as they don’t understand what life is like for fishermen on small islands” Westray

Orkney Islands Regional Marine Plan

Partial Business and Regulatory Impact Assessment



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Title of Proposal:

Orkney Islands Regional Marine Plan:
Consultation Draft

Purpose and intended effect**Background**

Marine planning in Scotland's inshore waters is governed by the Marine (Scotland) Act 2010 and in offshore waters by the Marine and Coastal Access Act (2009). Following the creation of the National Marine Plan (NMP) in 2015, 11 Scottish Marine Regions were created in Scotland each extending to 12 nautical miles. Within these regions, regional marine plans may be developed by delegates, often referred to as 'Marine Planning Partnerships', to take account of local circumstances and smaller ecosystem units.

The Orkney Islands Regional Marine Plan (OIRMP) is being developed by Orkney Islands Council, as the organisation with the delegated functions for regional marine planning. It is supported by a technical advisory group, the Orkney Marine Planning Advisory Group (OMPAG), which comprises a range of stakeholders representing environmental, community, recreation and commercial interests. Collectively, OIC and the Orkney Marine Planning Advisory Group form the Orkney Marine Planning Partnership. For clarity, the legal functions remain with OIC as the delegate, on behalf of Scottish Ministers.

The Plan conforms with both the National Marine Plan (NMP) and the Marine Policy Statement. It adds value to the existing policy frameworks outlined in the NMP by taking into account local circumstance and reflecting local priorities and opportunities. It seeks to achieve a balance between national and local interests, helping to address local challenges. The OIRMP sits alongside and integrates with existing land use planning policy, in particular the Orkney Regional Spatial Strategy and the Orkney Local Development Plan (OLDP). The OIRMP area overlaps with land use planning boundaries to help ensure that the marine and terrestrial environment are managed holistically.

The National Planning Framework (NPF) is a long-term plan for Scotland that sets out where development and infrastructure is needed. Scotland's fourth National Planning Framework (NPF4) looks forward to 2045 to guide spatial development, set out national planning policies, designate national developments and highlight regional spatial priorities. NPF4 forms part of the development plan, and so influences planning decisions across Scotland.

Local authorities, either individually or collectively, have a duty to prepare regional spatial strategies to coordinate development and infrastructure at a regional scale. Regional spatial strategies identify:

- The need for strategic development;
- The outcomes to which strategic development will contribute;

- Priorities for the delivery of strategic development; and
- Proposed locations for strategic development.

Regional spatial strategies do not form part of the development plan; however, the National Planning Framework and local development plans need to have regard to adopted regional spatial strategies. The Orkney Regional Spatial Strategy provides a common planning policy framework across Orkney's land and sea areas to help ensure that land use and marine planning contributes towards common priorities and the delivery of sustainable development.

OIRMP Objectives

The OIRMP has been developed to help ensure that development and activities in the Orkney Islands marine region are sustainable. Orkney's vision for the marine and coastal environment is:

Orkney Islands' regional marine waters are clean, healthy, safe and productive; the marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities.

The environmental, social and economic objectives of the OIRMP are:

- 1 A clear strategic direction is provided for development, activities and use in the Orkney Islands marine region and there is greater certainty for prospective developers, investors and local communities.
- 2 Development, activities and use are managed within an ecosystem approach, to protect and, where appropriate, enhance the biological, chemical and physical functioning of the marine and coastal environment, including the management of cumulative impacts.
- 3 A rapid and just transition to a low-carbon economy is supported to achieve net-zero commitments.
- 4 Mitigation of, and adaptation to, climate change is prioritised.
- 5 Socio-economic benefits and prosperity are delivered for local communities and the wider economy.
- 6 The well-being of local communities and the amenity of marine and coastal places are protected and enhanced.
- 7 Reliable information is provided on existing and proposed coastal and marine development, activities, use and assets.
- 8 Spatial planning and data are provided, enabling sustainable coexistence and synergies between existing and new marine development, activities and use, and the environment.
- 9 Plan users are assisted in navigating the relevant legislative and policy frameworks more easily and effectively.

The Plan objectives align with the shared vision of the UK and Scottish Governments as set out in the UK Marine Policy Statement and National Marine Plan respectively, for the marine environment: clean, healthy, safe, productive and biologically diverse oceans and seas, managed to meet the long-term needs of nature and people.

The main purpose of the OIRMP is to provide policies and supporting guidance to assist current and future planning, regulation and management of marine and coastal development and activities.

Rationale for Government intervention

The marine environment around Scotland contains a wide variety of important and rare natural features and species, which support a range of valuable goods and services. The National Marine Plan provides a high-level strategic direction to marine decision-makers in Scottish Waters. The 11 Scottish Marine Regions and their subsequent plans aim to provide similar strategic direction to marine decision makers within their regions, of which Orkney is one. The OIRMP aims to provide a strategic framework for the management of development and activities in the Orkney Islands marine region and associated decision-making. By providing this framework, a high level of detail will be available to decisions makers and developers to assist in the planning process, thus improving clarity, reducing costs and providing more certainty to the consent application processes. It will ensure that decisions within the Orkney Islands marine region will not be made in isolation and will consider both the complex nature and the different uses and users of the marine environment.

The OIRMP vision is that the marine and coastal environment is one that is clean, healthy, safe and productive; the marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities. The Plan will therefore contribute to National Outcomes in the National Performance Framework including for the environment, economy and communities.

Stakeholder Engagement and Consultation

Advisory Group

Regular advisory group meetings with the Orkney Marine Planning Advisory Group (OMPAG) have been held to guide the development of the Plan. In addition, general and sectoral specific policy sub-group meetings have been held with environmental, community and industry interests to inform the preparation of all the Plan policies, the results of which were reported back to the main advisory group and subject to further discussion and refinement.

The Orkney Marine Planning Advisory Group comprises:

Organisation

Category

NatureScot

Environment

Scottish Environment Protection Agency

Environment

International Centre for Island Technology	Academic
Orkney Sustainable Fisheries	Commercial
Historic Environment Scotland	Environment
Orkney Harbour Authority	Commercial
Visit Scotland	Commercial
Crown Estate Scotland	Commercial
Scottish Salmon Producers Organisation	Commercial
Repsol Sinopec	Commercial
Royal Society for the Protection of Birds Scotland	Environment
Orkney Renewable Energy Forum	Commercial
Orkney Marinas	Recreational
Scottish and Southern Electricity Networks	Commercial
Orkney Marine Services Association	Commercial
Orkney Sub-aqua Club	Recreational

Within Government

Consultation with officials within Marine Scotland and the wider Scottish Government has been conducted from the outset of the plan-making process. In addition, the following statutory bodies have been consulted throughout the plan-making process and have representation on the Orkney Islands Marine Advisory Group:

- NatureScot
- Scottish Environment Protection Agency (SEPA)
- Historic Environment Scotland (HES)

Six-monthly reports are provided to Marine Scotland, outlining the progress made in the plan-making process.

Stakeholder / Community Engagement

Early stakeholder engagement has been undertaken in the form of stakeholder workshops to inform the preparation of the Orkney Islands Marine Region: State of the Environment Assessment (SoEA). This included meetings with island development trusts e.g. Westray and public presentations on North Ronaldsay. These were held in 2019, prior to coronavirus restrictions. As part of these engagement events, participants were able to raise issues and were introduced to the principles of marine planning and the proposed outline for the Orkney marine plan-making process.

During April – June 2022, following the lifting of most covid restrictions, and in accordance with the guidance at the time, further public engagement events were

held in Stronsay, Hoy, Sanday and Westray to engage with island communities on the development of the marine plan. OIC Development and Marine Planning delivered a range of activities in the Stronsay, Sanday and Westray schools to support learning on marine planning, the environment and the purpose of OIRMP. Community engagement workshops were held for mainland communities in Kirkwall, Stromness and St Margaret's Hope.

Through these early engagement methods opinions and comments were sought on a variety of issues including opportunities and challenges for business growth and locations where economic growth is considered less suitable.

Formal public consultation

A public consultation on the Orkney Islands Regional Marine Plan: Consultation Draft will be held in Summer 2023, subject to approval of the Consultation Draft by Scottish Ministers. This consultation will include a Strategic Environmental Assessment (SEA), Habitats Regulations Appraisal (HRA), partial Business and Regulatory Impact Assessment (pBRIA), Equalities Impact Assessment (EqIA), Child Rights and Wellbeing Impact Assessment (CWRIA) and Island Communities Impact Assessment (ICIA). Stakeholder workshops, public drop-in sessions and individual meetings with stakeholders have and will continue take place to discuss the Plan and supporting assessments.

Business

Representatives from relevant sectors have frequently been involved in the development of the plans aims, objectives and policies throughout the development of the Plan. Representatives from many business sectors are represented on the Advisory Group, as outlined above e.g. aquaculture, oil and gas, harbours, commercial fishing, tourism and recreation and the local marine supply chain.

In February 2022, sector policy sub groups were set up to support the preparation of all the Plan's sector policies i.e. for fishing, aquaculture, harbours and shipping, cables, renewable energy, zero carbon fuels/oil and gas and tourism and recreation.

In addition, several informal meetings have been conducted with businesses and industry organisations. These include the Orkney Shellfish Hatchery, European Marine Energy Centre, Scottish and Southern Energy Networks, Orkney Sustainable Fisheries, Salmon Scotland, Orkney Islands Council Marine Services, Orkney Marinas and Visit Orkney.

Initial discussions with the businesses and industry organisations indicate that the predominant concerns are:

- the need to strike an appropriate balance between sustainable economic growth and the conservation of the natural and historic environment e.g. the impact of European sites, and associated regulation, on their ability to develop business opportunities. European sites (Special Protection Areas and Special Areas of Conservation) are afforded protection by Scottish Law under Conservation (Natural habitats, & c.) Regulations 1994.

- the need for infrastructure to support sustainable economic growth e.g. piers and harbours.
- the ability for businesses to coexist in an increasingly busy marine space.
- the need for greater clarity and certainty when seeking consent for marine development and activities.
- the need to access new markets.

As part of the initial Orkney Islands Marine Region: State of the Environment Assessment, business-specific questionnaires were publicised and circulated to gather baseline information on business and economic activities.

As part of the formal consultation on the Orkney Islands Regional Marine Plan: Consultation Draft it is intended that meetings will be held with 6-12 businesses from across Orkney's marine economy. Businesses involved in these discussions will include those potentially affected by the OIRMP from a broad range of sectors:

- Fishing
- Harbours
- Aquaculture
- Ferry Operators
- Tourism
- Renewable energy
- Oil and Gas

We will further engage with fishing, aquaculture, ports and harbours, and recreation businesses by utilising industry organisation networks via the OMPAG and regular stakeholder updates to c. 350+ stakeholders to disseminate information about the OIRMP and collect and collate any responses. The results of the informal and formal consultation with business, including any results obtained during the public consultation, will form the main part of the Scottish Firms Impact Assessment.

Options

The options to be considered are:

Option 1. Do nothing: continue under the current approach to marine planning and management including using the Pentland Firth and Orkney Waters Marine and Spatial Plan (PFOW MSP) as non-statutory planning guidance, the National Marine Plan and National Planning Framework.

Option 2. Use the policies within the PFOW MSP to form a regional marine plan without updates or additions.

Option 3. Adoption of the OIRMP after stakeholder engagement on the preparation of the policies guided by the public consultation and further engagement with key stakeholders.

Option 1 Do nothing Appraisal: Continue under the current approach to marine planning and management including using the Pentland Firth and Orkney Waters Marine Spatial Plan (PFOW MSP) as non-statutory planning guidance, National Marine Plan and National Planning Framework.

Under this option a regional marine plan would not be developed/adopted and there would be no change to current arrangements. As the PFOW MSP is non-statutory it does not carry the same weight in decision making as a statutory regional marine plan and would therefore provide less certainty in decision making.

The PFOW MSP has been adopted by the Scottish Government, Highland Council and Orkney Islands Council as non-statutory planning guidance. The Plan has not been adopted by other decision makers. This option therefore potentially creates inconsistency and uncertainty in decision making.

Option 1 does not bring marine planning in line with:

- the provision for Regional Marine Planning set out in the Marine (Scotland) Act 2010,

Option 1 is not perceived as a viable option

Option 2: Use the policies within the PFOW MSP to form a regional marine plan without updates or additions.

Under this option the PFOW MSP would be put forward unamended, to be adopted as a regional marine plan. This option would place the existing local marine planning framework on a statutory footing. However, this would not allow for the review and refinement of the objectives, policies and supporting data in light of changing legislation, priorities, opportunities, challenges and new data. This option would not meet current national policy or deliver local community objectives and priorities.

Option 2 does not bring marine planning in line with;

- the provision for Regional Marine Planning set out in the Marine (Scotland) Act 2010,

Option 2 is not perceived as a viable option

Option 3: Adoption of the Orkney Islands Regional Marine Plan after stakeholder engagement on the preparation of the policies guided by the public consultation and further engagement with key stakeholders.

Under this option an OIRMP will be prepared giving all stakeholders the opportunity to contribute towards setting objectives and policies to achieve sustainable development in the Orkney Islands marine region. This option will ensure that regional marine planning policy in Orkney contributes towards national priorities and outcomes e.g. climate change mitigation and adaption, reversing biodiversity loss and sustainable economic growth. It would also ensure that the impacts of the Plan would be fully assessed via SEA, HRA, ICIA, BRIA, CRWIA and EqIA.

Option 3 is a viable option

Sectors and groups affected

A range of sectors will be affected by the adoption of the OIRMP:

- Developers including renewable energy, ports & harbours, oil & gas, aquaculture and all other development and activities requiring authorisation from a public authority. These developments and activities could be Scottish-owned, rest of UK-owned or foreign-owned;
- Marine users exercising use under a public right or use that does not require authorisation from a public authority e.g. shipping/navigation or recreational activities and;
- Local communities.

Benefits

Option 1:

No additional benefits are expected to arise from this option.

Option 2:

No (minimal) additional benefits are expected to arise from this option.

Option 3:

Adopting and implementing the OIRMP will provide an up-to-date statutory policy framework for decision making and help to deliver the following benefits:

- A reduction in authorisation uncertainty and the associated risk to investment in development and activities.
- The provision of spatial and non-spatial data to inform site selection process for development and activities.
- Efficient use of Orkney's marine space and resources.
- Reduced conflict between existing marine users and future/existing development and activities.
- Increased stakeholder engagement and involvement of local communities in setting objectives and policy.
- Greater clarity and consistent implementation of protection of internationally, nationally and locally important nature conservation and biodiversity sites and interests.
- Incorporation of environmental, economic and community objectives into the planning process and decision making.

Costs

Option 1: Do nothing

This option would not create direct additional costs to the sectors and groups identified in this BRIA as none of the existing policies or associated costs would change.

However, developers could experience a lack clarity and uncertainty with licence applications/decisions, due to differences in local and national policy, which could result in inefficiencies in project development and assessment, and higher costs.

Option 2: Use the policies within the PFOW MSP to form a regional marine plan without updates or additions.

Under this option the PFOW MSP would be put forward unamended, to be adopted as a regional marine plan. This would not allow for the review and refinement of the objectives, policies and supporting data in light of changing legislation, priorities, opportunities, challenges and new data. There is potential for this option to mislead developers on the legislative requirements and create unforeseen costs and delays in the licensing and consenting processes.

Option 3: Adoption of the OIRMP after stakeholder engagement on the preparation of the policies guided by the public consultation and further engagement with key stakeholders.

The OIRMP updates many existing policies in the PFOW MSP and creates new policies where appropriate, bringing the policies into a statutory plan. All policies have been either updated, replaced or amended to meet the OIRMP objectives, align with national/local policy and the current legal framework providing greater clarity and further guidance.

The OIRMP will be a statutory document once adopted by Scottish Ministers after a statutory public consultation. The policies within the Plan may influence:

- The preparation of consent/licence applications by developers.
- The assessment of consent/licence applications by public authorities.
- The choice of location of marine developments and activities.
- Specific requirements for the construction, operation, expansion and decommissioning of marine developments and activities.

The potential impact and costs specifically generated by the creation of the OIRMP has been assessed and recorded, based on each policy, as shown in Table 1 below.

Following any relevant responses received during the formal consultation process, the policies will be re-assessed and updated, as appropriate.

Table 1: Potential impacts, on business, of policies contained within the Orkney Islands Regional Marine Plan: Consultation Draft

Policy	Costs
General Policy 1: Sustainable Development, Activities and Use	Limited/No Additional Costs to Business The requirement to deliver sustainable development has been embedded within Scottish and UK planning policy since the early 1990s. General Policy 1 provides clarity on how social, economic and environmental factors will be considered within public authority decision making. Additional costs are not anticipated for businesses as a result of implementing this policy. General Policy 1c supports the implementation of the precautionary principle as set out in the draft NPF4 and Scottish Planning Policy. The policy states that: <i>1c The precautionary principle</i> <i>Public authorities should apply the precautionary principle where the impacts of a proposed development and/or activities on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence indicating that significant irreversible damage could occur. The precautionary principle should not be used to impede development and/or activities without justification. If there is any likelihood that significant irreversible damage could occur, modifications to the proposed development and/or activities to eliminate the risk of such damage should be considered and implemented. If there is uncertainty, research, surveys or assessment to remove or minimise uncertainty should be undertaken.</i> The application of this approach could result in costs to developers by implementing modifications to development and/or research, surveys or assessment to remove or minimise any uncertainty regarding impacts. As the application of the precautionary principle is embedded within existing national policy, no additional costs are anticipated as a result of adopting General Policy 1c in the OIRMP.
General Policy 2: Safety	Limited/No Additional Costs to Business The requirement to consider safety in the authorisation of coastal and marine development and activities is established in the existing statutory provisions outline in General Policy 2 and supporting text.

Policy	Costs
	No additional costs are anticipated as a result of adopting General Policy 2 as the requirements to adhere to the stated safety provisions are existing statutory requirements.
General Policy 3: Climate Change	Limited/No Additional Costs to Business General Policy 3 includes a requirement for decision makers to give significant weight to the Global Climate Emergency. Proposals for development and/or activities are required to demonstrate measures to mitigate the effects of climate change, including measures to minimize greenhouse gas emissions over the proposal's lifecycle. Proposals for national, major or EIA development should be accompanied by a whole-life assessment of greenhouse gas emissions from the development and/or activities. Design changes may be required to comply with this policy that incur additional development costs. Whole life assessments and offsetting measures may also incur additional costs for developers proposing national, major and EIA developments. These requirements are set out in NPF4 so no additional costs are anticipated as a result of adopting General Policy 3. The climate change adaption requirements are likely to incur costs for developers though these are existing policy requirements in NMP and the PFOW MSP, so no additional costs are anticipated as a result of adopting this policy. The risk of incurring significant additional costs would be high, if adequate climate change adaption measures were not adopted in the design of development and activities.
General Policy 4: Supporting Sustainable Social and Economic Benefits	Limited/No Additional Costs to Business General Policy 4 seeks to secure employment benefits and support local economic impact. This policy will require no significant costs in addition to costs associated with existing policy set out in National Planning Framework, PFOW MSP and the OIC Aquaculture Supplementary Guidance. The policy will require developers to demonstrate that net social and economic benefits outweigh any significant adverse impacts on existing social and/or economic activities. EIA developments, and where appropriate other types of development, are already required to carry out socio-economic assessment of this kind. Therefore limited/no additional costs to business are anticipated. The policy provides greater clarity on the scope of socio-economic impact assessments.

Policy	Costs
	The implementation of the policy could result in cost savings for businesses by supporting opportunities for synergistic benefits between new development and existing activities e.g. sharing infrastructure.
General Policy 5: Safeguarding the Marine Ecosystem	Limited/No Additional Costs to Business General Policy 5 aims to safeguarding the marine ecosystem and maintain, and where appropriate, enhance ecosystem services. NMP requires that reducing human pressure and safeguarding ecosystem services such as natural coastal protection and natural carbon sinks (e.g. seagrass beds, kelp and saltmarsh) should be considered. NPF4 also includes policies to safeguard and enhance biodiversity and ecosystems. General Policy 5 does not introduce a new policy requirement. The policy adds clarity to how national policies should be implemented at the local level.
General Policy 6: Water Environment	Limited/No Additional Costs to Business The requirements in General Policy 6 are already contained within the PFOW MSP and in the requirements of the Water Environment and Water Services (Scotland) Act 2003.
General Policy 7: Coastal Development and Coastal Change	Limited/No Additional Costs to Business The requirements in General Policy 7 will require no significant costs in addition to costs associated with existing policy set out in Scottish Planning Policy, National Planning Framework and the Orkney Local Development Plan.
General Policy 8: Historic Environment	Limited/No Additional Costs to Business The requirements in General Policy 8 will require no significant costs in addition to costs associated with existing policy set out in Scottish Planning Policy, National Planning Framework, National Marine Plan, the Orkney Local Development Plan and the PFOW MSP.
General Policy 9: Nature Conservation	Limited/No Additional Costs to Business The requirements in General Policy 9a will require no significant costs in addition to costs associated with existing policy set out in National Marine Plan General Policy 9 and National Planning Framework. The requirements in General Policy 9b are required by existing statutory provisions for European and nationally designated sites, the Marine (Scotland) Act 2010 in relation to Marine Protected Areas and seal haul-out sites and the

Policy	Costs
	Orkney Local Development Plan for Local Nature Conservation Sites. The requirements in General Policy 9c are required by existing statutory provisions for European Protected Species and Schedule 5 Species. General Policy 9d: <i>Wider biodiversity</i> will require no significant costs in addition to costs associated with existing policy set out in the Orkney Local Development Plan, and the National Marine Plan in relation to Priority Marine Features. These policy provisions provide greater clarity on assessment requirements.
General Policy 10: Seascape and Landscape	Limited/No Additional Costs to Business The requirements in General Policy 10 will require no significant costs in addition to costs associated with existing landscape/seascape policy set out in Scottish Planning Policy, National Planning Framework, National Marine Plan, the Orkney Local Development Plan and the PFOW MSP.
General Policy 11: Surface and Underwater Noise, and Vibration	Limited/No Additional Costs to Business The requirements in General Policy 11 will require no significant costs in addition to costs associated with existing noise and amenity policy set out in Scottish Planning Policy, National Planning Framework, National Marine Plan, the Orkney Local Development Plan and the PFOW MSP.
General Policy 12: Marine Litter and Waste	Limited/No Additional Costs to Business The requirements in General Policy 12 will require no significant costs in addition to costs associated with existing marine litter policy set out in National Marine Plan and the PFOW MSP.
General Policy 13: Invasive Non-Native Species & Non-Native Species	Limited/No Additional Costs to Business The requirements in General Policy 13 will require no significant costs in addition to costs associated with existing invasive non-native species and non-native species policy set out in National Marine Plan and the PFOW MSP.
General Policy 14: Amenity, Well-being and Quality of Life of Local Communities	Limited/No Additional Costs to Business The requirements in General Policy 14 will require no significant costs in addition to costs associated with existing amenity and well-being policy set out in the National Planning Framework, Orkney Local Development Plan and the PFOW MSP.
Sector Policy 1: Commercial Fishing	Limited/No Additional Costs to Business

Policy	Costs
	The requirements in Sector Policy 1 will require no significant costs in addition to costs associated with existing Commercial Fisheries policy set out in the National Marine Plan, OIC Aquaculture Supplementary Guidance and the PFOW MSP.
Sector Policy 2: Aquaculture	Limited/No Additional Costs to Business The requirements in Sector Policy 2 will require no significant costs in addition to costs associated with existing aquaculture policy set out in the National Marine Plan, OIC Aquaculture Supplementary Guidance and the PFOW MSP.
Sector Policy 3: Shipping, Ports, Harbours and Ferries	Limited/No Additional Costs to Business The requirements in Sector Policy 3 will require no significant costs in addition to costs associated with existing shipping, ports, harbours, ferries, dredging and climate change policy set out in National Planning Framework, National Marine Plan, Orkney Harbours Masterplan (Phase 1) – Planning Policy Advice, OIC Aquaculture Supplementary Guidance and the PFOW MSP.
Sector Policy 4: Pipelines, electricity and telecommunications infrastructure	Limited/No Additional Costs to Business The requirements in Sector Policy 4 will require no significant costs in addition to costs associated with existing pipelines, electricity and telecommunications infrastructure policy set out in National Planning Framework, National Marine Plan, OIC Aquaculture Supplementary Guidance and the PFOW MSP.
Sectoral Policy 5: Offshore wind and marine renewable energy	Limited/No Additional Costs to Business The requirements in Sector Policy 5 will require no significant costs in addition to costs associated with existing renewable energy policy set out in National Planning Framework, National Marine Plan and the PFOW MSP.
Sectoral Policy 6: Zero Carbon Fuels, Oil and Gas Transition	Limited/No Additional Costs to Business The requirements in Sector Policy 6 will require no significant costs in addition to costs associated with existing renewable energy, oil and gas and zero carbon fuels policy set out in National Planning Framework, National Marine Plan and the PFOW MSP.
Sectoral Policy 7: Tourism, recreation, sport and leisure	Limited/No Additional Costs to Business The requirements in Sector Policy 7 will require no significant costs in addition to costs associated with existing tourism, recreation, sport and leisure policy set out in National Planning Framework, National Marine Plan, Orkney Local Development Plan, OIC Aquaculture Supplementary Guidance and the PFOW MSP.

Scottish Firms Impact Test

This section will be informed by the evidence gathered during the formal consultation phase to be held in Summer 2023 and completed in the final BRIA. The consultation process will involve written consultation and meetings with 6 businesses affected by the proposal across a range of sectors, within covid guidelines.

Sectors affected by the Plan will include small/micro businesses. The full and formal consultation will further inform the final BRIA and the impact of Plan policies on small/micro businesses.

Competition Assessment

Policies within the OIRMP may affect a variety of marine developments and activities, specifically those which require consent and/or a licence to carry out new activities or for amended operations such as renewable energy developments, aquaculture sites, ports and harbours.

Will the measure directly or indirectly limit the number or range of suppliers?

No/Limited. It is not likely that the number or range of suppliers will be directly limited by the adoption of the OIRMP. All policies will apply to new and existing developers in equal measure.

Will the measure limit the ability of suppliers to compete?

No/Limited. The policies within the OIRMP will not directly limit the suppliers' ability to compete. The policies will not affect businesses' route to market or the geographical markets they can sell to.

We do not believe that the OIRMP will distort or restrict competition between firms or suppliers selling the same or similar products or services as it does not:

- directly limit the number or range of suppliers;
- indirectly limit the number or range of suppliers;
- limit the ability of suppliers to compete; or
- reduce suppliers' incentives to compete vigorously.

Test run of business forms

No new forms will be introduced.

Legal Aid Impact Test

It is not envisaged that the OIRMP will have any impact on the current levels of justice through availability of legal aid or on the possible expenditure from the legal aid fund.

Enforcement, sanctions and monitoring

Monitoring the effectiveness of the OIRMP will be undertaken as part of the 5-year review process.

Enforcement advice from the Delegate will be provided through responses to marine licence and planning consultations from the relevant regulatory authorities.

Implementation and delivery plan

The Plan will be kept under review to consider the effectiveness of the policies in securing that the Plan objectives, and other relevant matters, in accordance with the Marine (Scotland) Act 2010.

Summary and recommendation

Option 3: **Adoption of the OIRMP** following public consultation and in accordance with statutory requirements. The final Plan will be informed by the public consultation and further engagement with key stakeholders.

Adopting and implementing the OIRMP will build on the work of the PFOW MSP and help deliver the benefits of a marine planning system as set out in the Final Regulatory Impact Assessment for the Marine (Scotland) Act 2010.

Under this option, the OIRMP would be reviewed in accordance with the Marine (Scotland) Act 2010 requirements, providing the opportunity to consider whether the Plan is fit for purpose. This option will create consistency between national and local policy and decision making, and the impacts of the Plan would be fully assessed via SEA, HRA, ICIA, BRIA, CRWIA and EqIA.

Further analysis will be completed as part of the final BRIA once the formal consultation has been undertaken and all responses analysed.

Declaration and publication

I have read the Business and Regulatory Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options. I am satisfied that business impact has been assessed with the support of businesses in Scotland.

Signed:

Date:

Minister's name

Minister's title

Contact point:

Appendix 1: Acronyms			
BRIA	Business and Regulatory Impact Assessment	OIC	Orkney Islands Council
CRWIA	Child Rights and Wellbeing Impact Assessment	OIRMP	Orkney Islands Regional Marine Plan
EqIA	Equalities Impact Assessment	pBRIA	Partial Business and Regulatory Impact Assessment
HRA	Habitat Regulations Appraisal	PFOW MSP	Pentland Firth and Orkney Waters Marine Spatial Plan
ICIA	Island Communities Impact Assessment	SEA	Strategic Environmental Assessment
NMP	National Marine Plan	SoEA	State of the Environment Assessment
NPF4	National Planning Framework 4	SPP	Statement of Public Participation

Orkney Islands Regional Marine Plan

Draft Strategic Environmental Assessment: Environmental Report



SEA Environmental Report – Cover Note

Part 1

To: SEA.gateway@scotland.gsi.gov.uk

or

SEA Gateway
Scottish Executive
Area 1 H (Bridge)
Victoria Quay
Edinburgh
EH6 6QQ.

Part 2

An Environmental Report is attached for (name of PPS):

Orkney Islands Regional Marine Plan: Consultation Draft

The Responsible Authority is:

Orkney Islands Council

Part 3

Contact Name.	Shona Turnbull
Job Title.	Marine Planner
Contact Address.	OIC, School Place, Kirkwall
Contact Tel No.	01856 873535
Contact E-mail.	Shona.turnbull@orkney.gov.uk

Part 4

Signature (electronic signature is acceptable).	S. Turnbull
Date.	xxxx

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Non-technical Summary

Consultation Period

This draft Strategic Environmental Assessment (SEA) Environmental Report will be deposited for a 12 week period of public consultation from xxxxx, 2023, alongside the Orkney Islands Regional Marine Plan (OIRMP): Consultation Draft and other supporting documents. Comments on any of the documents can be made online at: marine.planning@orkney.gov.uk or in writing to:

Marine Planning, Development & Marine Planning, Orkney Islands Council, School Place, Kirkwall. KW15 1NY.

Comments received after the deadline may not be considered.

1. Outline of contents and main objectives

The main purpose and scope of the OIRMP is to support the delivery of a vision for Orkney's coastal and marine environment, economy and communities. This vision will be delivered through agreed objectives, implemented through decision-making made in accordance with the Plan policies. The Plan aligns, where appropriate, with the National Marine Plan, any neighbouring regional marine plans, the Orkney Local Development Plan and evolving national land use policy e.g. National Planning Framework 4.

Regional marine plans have a specific statutory purpose set out in the Marine (Scotland) Act 2010. In summary, this is:

- Regional marine plans need to set economic, social and marine ecosystem objectives, and objectives relating to the mitigation of, and adaptation to, climate change.
- Regional marine plans state policies for and in connection with the sustainable development of the area to which the plan applies and policies on the contribution of Nature Conservation Marine Protected Areas, and other relevant nature conservation sites, to the protection and enhancement of the area.
- Public authorities must take any authorisation or enforcement decision in accordance with the appropriate regional marine plan, unless relevant considerations indicate otherwise.
- Public authorities must have regard to the appropriate regional marine plan in making any decision which relates to the exercise by them of any function capable of affecting the whole or any part of the Scottish marine area, but which is not an authorisation or enforcement decision.

Thus, in order to deliver this statutory purpose, the Plan contains General Policies to ensure the environmental, social and economic factors upon which sustainable development depends are appropriately protected and Sector Policies to support sustainable economic development.

2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan.

The current state of the environment was assessed, using the Orkney Marine Region: State of the Environment Assessment 2020 (SoEA)¹, the SEA Scoping Report and the documents in Appendix A as baseline information.

An assessment of options demonstrated that from three alternatives, shown below, Option 3 was the most appropriate:

Option 1. Do nothing: continue under the current approach to marine planning and management including using the Pentland Firth and Orkney Waters Marine and Spatial Plan (PFOW MSP) as non-statutory planning guidance, National Marine Plan and National Planning Framework.

Option 2. Use the policies within the PFOW MSP to form a regional marine plan without updates or additions.

Option 3. Adoption of the OIRMP after stakeholder engagement on the preparation of the policies guided by the public consultation and further engagement with key stakeholders.

3. Environmental characteristics of areas likely to be significantly affected

From the assessments outlined above, a set of SEA objectives was refined, using an iterative process (see Sections 2c, 2g and Table 7). Assessments of the Vision (Appendix C1), policies of the Plan for compatibility (Appendix C2) and environmental effects of implementation of the Plan's policies (Appendix C3) against the SEA receptors were undertaken. The nine SEA receptors (i.e. environmental characteristics) are: Climate factors; biodiversity, water, coastal processes/ benthic sediments/ soils, geology, landscape, cultural heritage, population and human health, and material assets.

4. Existing environmental problems which are relevant to the plan

Climate change and biodiversity loss are and will continue to be global issues. Impacts on water, coastal processes/ benthic sediments/ soils, geology, landscape, cultural heritage, population and human health, and material assets vary at the regional level depending on the nature and scale of development and/or activities that impact upon them.

5. Environmental protection objectives

Appendix A outlines the key plans, policies and strategies (PPS) against which the implications for, and/or relationship with, the Plan have been taken into account. These are shown in relationship to the nine SEA receptors outlined above.

6. Likely significant effects

Table 8 summarises the likely environmental effects of the Plan in relation to the SEA receptors. Further detail is provided below.

¹ [Orkney Islands Marine Region: State of the Environment Assessment](#)

7. The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the Plan.

The high level summary of the plan-level effects on the SEA receptors are summarised in Table 8, including an assessment of cumulative, synergistic and secondary effects. This information is based on the assessments of each policy in relation to the SEA receptors as outlined in Appendix C3, which in turn is informed by the information found in Appendices B and B1 – B6, the Islands Communities Impact Assessment and the partial Business and Regulatory Impact Assessment.

8. Outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken

Option 3: Adoption of the OIRMP after stakeholder engagement on the preparation of the policies guided by the public consultation and further engagement with key stakeholders.

Under this option an OIRMP will be prepared giving all stakeholders the opportunity to contribute towards setting objectives and policies to achieve sustainable development in the Orkney Islands marine region. This option will ensure that regional marine planning policy in Orkney contributes towards national priorities and outcomes e.g. climate change mitigation and adaption, reversing biodiversity loss and sustainable economic growth. It would also ensure that the impacts of the Plan would be fully assessed via SEA, Habitats Regulations Appraisal (HRA), partial Business and Regulatory Impact Assessment (pBRIA), Equalities Impact Assessment (EqIA), Child Rights and Wellbeing Impact Assessment (CWRIA) and Island Communities Impact Assessment (ICIA).

A summary of the assessment framework established during the SEA scoping process, using the framework shown in Section 3a, has been amended and augmented following stakeholder input, and is provided in Table 8 below. The detailed assessments, including an analysis of short, medium and long-term effects; permanent and temporary effects; positive and negative effects; and secondary, cumulative and synergistic effects, is provided in Appendices A - C. Further supporting information is provided in Appendices D – F.

The identification of potential adverse socio-economic and environmental effects through the iterative development of the OIRMP and this SEA will likely add further weight to their consideration by prospective developers, marine users and consenting authorities. An opportunity for the Plan to improve efficiencies, for example in streamlining of current consenting processes around which applicant-lead engagement with stakeholders is considered to be key, was also identified. As a consequence, there is the potential for overall positive effects.

9. Measures envisaged concerning monitoring

The monitoring of sectoral growth and environmental and socio-economic parameters will continue to be undertaken on an ongoing basis, alongside the filling of data gaps through targeted research and studies, as capacity allows. A Monitoring and Evaluation Framework will be prepared in due course, subject to funding/capacity.

1. Introduction

1a. Purpose of this Environmental Report and Key Facts

As part of the preparation of Orkney Islands Regional Marine Plan: Consultation Draft, Orkney Islands Council is carrying out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of certain Plans, Policies and Strategies (PPS). SEA aims to:

- Integrate environmental factors into PPS preparation and decision-making.
- Improve PPS and enhance environmental protection.
- Increase public participation in decision making.
- Facilitate openness and transparency of decision-making.

SEA is required by the Environmental Assessment (Scotland) Act 2005. The key SEA stages are:

- **Screening:** determining whether the PPS is likely to have significant environmental effects and whether an SEA is required.
- **Scoping:** deciding on the scope and level of detail of the Environmental Report, and the consultation period for the report; this is done in consultation with Scottish Natural Heritage, The Scottish Ministers (Historic Scotland) and the Scottish Environment Protection Agency.
- **Environmental Report:** publishing an Environmental Report on the PPS and its environmental effects, and consulting on that report.
- **Adoption:** providing information on the adopted PPS; how consultation comments have been taken into account; and methods for monitoring the significant environmental effects of the implementation of the PPS.
- **Monitoring:** monitoring significant environmental effects in such a manner so as to also enable the Responsible Authority to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action.

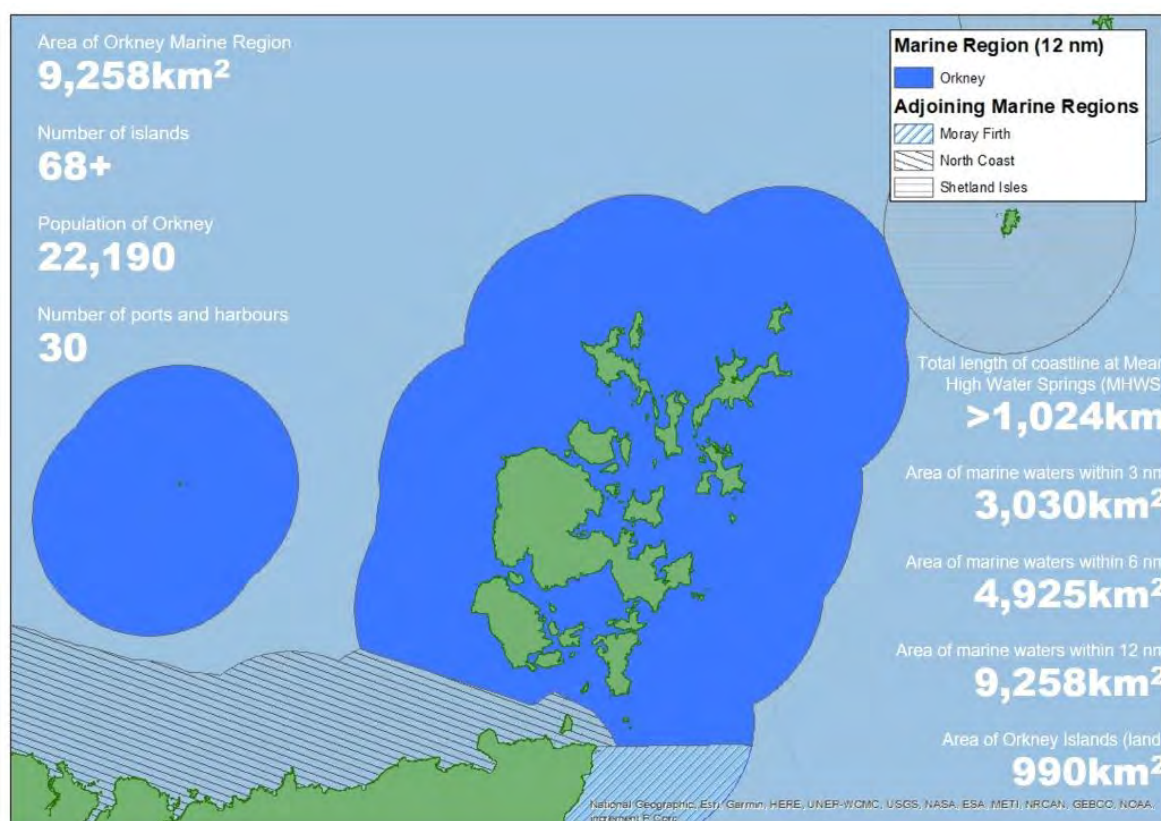
The purpose of this Environmental Report is to:

- Provide information on the Orkney Islands Regional Marine Plan: Consultation Draft (see Map 1).
- Identify, describe and evaluate the likely significant effects of the PPS and its reasonable alternatives.
- Provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this Environmental Report.

The key facts relating to the Orkney Islands Regional Marine Plan: Consultation Draft are set out in Table 1 below.

Table 1. Key facts relating to Orkney Islands Regional Marine Plan: Consultation Draft.

Name of Responsible Authority	Orkney Islands Council (OIC)
Title of PPS	Orkney Islands Regional Marine Plan (OIRMP): Consultation Draft
What prompted the PPS	Legislative: Environmental Assessment (Scotland) Act 2005; Marine (Scotland) Act 2010
Subject	Marine planning
Period covered by PPS.	20 years from date of publication
Frequency of updates	Five yearly reviews
Area covered by PPS	Mean High Water Springs of the Orkney Islands out to 12 nautical miles (see Map 1 below)
Purpose and/or objectives of PPS	To support sustainable development of the Orkney Islands marine region. See Table 3 for more detail.
Contact point	Marine.planning@orkney.gov.uk



Map 1: Boundary of Orkney Islands Marine Region

1b. SEA activities to date

Table 2 below is a summary of the key SEA activities undertaken to date. Further detail can be found Appendix E. The screening, scoping and preparation of this draft Environmental Report has been undertaken in accordance with the Environmental Assessment (Scotland) Act 2005.

Table 2 summarises the SEA activities to date in relation to the OIRMP.

Key Activity	Date	Comments
Screening to determine whether the PPS is likely to have significant environmental effects.	13/4/2021	Screening responses issued to OIC, as Responsible Authority
Scoping report to SEA Gateway	21/1/2022.	Consultation Authorities responses received via SEA Gateway 25/2/2022
Review of Responses to Scoping	March 2022	The OIC marine planning team reviewed the comments received from the CAs and these have been addressed in this draft Environmental Report.
Draft Environmental Report	May 2022 – ongoing	The OIRMP: Consultation Draft is assessed against the SEA objectives and the potential implications of development and activities on the marine environment. Mitigation, environmental enhancement and monitoring are detailed in this draft Environmental Report.

2. Context

2a Introduction

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes “an outline of the contents and main objectives of the plan or programme”. The purpose of this section is to explain the nature, contents, objectives, and timescale of the PPS.

The Orkney Islands Regional Marine Plan (OIRMP) will support the delivery of a vision for Orkney’s coastal and marine environment, economy and communities. This vision will be delivered through agreed objectives, implemented through decision-making made in accordance with the Plan policies.

Regional marine plans have a specific statutory purpose set out in the Marine (Scotland) Act 2010. In summary, this is:

- Regional marine plans need to set economic, social and marine ecosystem objectives, and objectives relating to the mitigation of, and adaptation to, climate change.
- Regional marine plans state policies for and in connection with the sustainable development of the area to which the plan applies and policies on the contribution of Nature Conservation Marine Protected Areas, and other relevant nature conservation sites, to the protection and enhancement of the area.
- Public authorities must take any authorisation or enforcement decision in accordance with the appropriate regional marine plan, unless relevant considerations indicate otherwise.
- Public authorities must have regard to the appropriate regional marine plan in making any decision which relates to the exercise by them of any function capable of affecting the whole or any part of the Scottish marine area, but which is not an authorisation or enforcement decision.

2b Outline and objectives of Orkney Islands Regional Marine Plan

The consultation draft Orkney Islands Regional Marine Plan² (‘the Plan’) has been prepared to guide decision making on sustainable development, activities and use in the Orkney Islands marine region.

The Marine (Scotland) Act 2010 requires that the purpose of a regional marine plan is to state the Scottish Ministers’ policies for and in connection with the sustainable development of the area to which the plan applies. Regional marine plans should state Scottish Ministers’ policies on the contribution of Nature Conservation Marine Protected Areas, and other relevant conservation sites, to the protection and enhancement of that area. The Plan has been prepared in accordance with this statutory purpose.

The Plan has been prepared by Orkney Islands Council (OIC), in accordance with the Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Orkney Islands) Direction 2020. The Orkney Marine Planning Advisory Group

² Link to be provided once draft approved for publication

(OMPAG) has provided expert input on environmental, social, economic and recreational matters to inform the preparation of the Plan³.

The Marine (Scotland) Act 2010 requires public authorities to take any authorisation or enforcement decision in accordance with the appropriate regional marine plan, unless relevant considerations indicate otherwise. The Act also requires public authorities to have regard to the appropriate regional marine plan in making any decision which relates to the exercise by them of any function capable of affecting the Scottish marine area.

The Plan provides a statutory policy framework to assist public authorities, including regulators, decision-makers and planners, to make decisions on sustainable development and activities that take place within, or that affect, the Orkney Islands marine region. An appendix within the Plan also contains a summary of the relevant licensing and consent regimes, and associated processes, administered by public authorities to manage marine development and activities in the Orkney marine region.

The Plan is structured into four sections:

1. Introduction,
2. General Policies,
3. Sector Policies and
4. Monitoring and review.

These sections are supported by appendices that provide further information to assist Plan users.

The Plan's policy framework consists of a suite of General Policies and Sector Policies. These policies express intent and guide decisions to achieve the Plan's aim and objectives (see Table 3). The General Policies are, in principle, applicable to decision making on all types of development and activity. The relevance of the General Policies to any given development or activity will vary depending on the particular circumstances, including type, scale, location and the associated effects or impacts. The Sector Policies are designed to support sustainable development and management of specific sectors e.g. aquaculture and renewable energy.

All policies in the Plan are afforded equal weight in decision-making and should be considered in conjunction with each other. All the policies should be considered alongside the relevant legislation, policies and plans.

³ [Orkney Marine Planning Partnership](#)

Table 3 Vision, Guiding Principles, Aim and Objectives for the Orkney Islands Regional Marine Plan

Vision	
The Orkney Islands marine region is clean, healthy, safe and productive; Orkney's marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities.	
Guiding principles	
The Orkney Islands Regional Marine Plan has been developed in accordance with five guiding principles adopted to help steer the plan-making process, strategy and policies.	
A	Sustainable development and use Sustainable development and use are enabled whilst living within environmental limits; ensuring a strong, safe, healthy and just society; achieving a sustainable economy; promoting good governance; using sound science responsibly; and supporting the delivery of the United Nations Sustainable Development Goals. ⁴
B	Ecosystems-based approach An ecosystems-based approach is used to manage human activities and enable climate change mitigation, as well as adaptation to the predicted effects of climate change.
C	Coexistence Coexistence between marine development, activities, and use is supported to minimise potential conflict and maximise synergistic benefits.
D	Partnership working and stakeholder participation This Plan is developed through an inclusive process of partnership working and stakeholder participation.
E	Integrated approach to marine and land-use planning Land and marine development are planned in a joined-up way to address development and infrastructure requirements, and associated impacts, across the interface between land and sea.

⁴ United Nations Sustainable Development Goals <https://www.un.org/en/sustainable-development-goals>

Aim	
Sustainable development, activities, and use of the marine and coastal environment of Orkney is supported.	
Sustainable development, activities and use should maintain, and where appropriate enhance, biodiversity and ecosystem services; protect natural capital for future generations; and provide social and economic benefits for local communities.	
Objectives	
Number	Objective
1	A clear strategic direction is provided for development, activities and use in the Orkney Islands marine region and there is greater certainty for prospective developers, investors and local communities.
2	Development, activities and use are managed within an ecosystem approach, to protect and, where appropriate, enhance the biological, chemical and physical functioning of the marine and coastal environment, including the management of cumulative impacts.
3	A rapid and just transition to a low-carbon economy is supported to achieve net-zero commitments.
4	Mitigation of, and adaptation to, climate change is prioritised.
5	Socio-economic benefits and prosperity are delivered for local communities and the wider economy.
6	The well-being of local communities and the amenity of marine and coastal places are protected and enhanced.
7	Reliable information is provided on existing and proposed coastal and marine development, activities, use and assets.
8	Spatial planning and data are provided, enabling sustainable coexistence and synergies between existing and new marine development, activities and use, and the environment.
9	Plan users are assisted in navigating the relevant legislative and policy frameworks more easily and effectively.

The topics, policies and supporting appendices covered by the Plan are outlined in Table 4 below. The indicative timescale for the production of the Plan⁵ and the associated documents are:

- Delegation of Functions to OIC: November 2021
- Draft Statement of Public Participation (SPP) to Scottish Ministers May 2022

⁵ See SPP in 'Related Downloads' section: [Marine Planning \(orkney.gov.uk\)](https://orkney.gov.uk/marine-planning)

- Preparation of consultation draft Plan, draft SEA and other supporting draft documents February 2021 – October 2022
- Approvals stage November 2022 – April 2023
- Consultation on draft documents Summer 2023
- Amendments August – October 2023
- Approvals stage November 2023 – April 2024
- Adoption of Plan or independent investigation post April 2024
- Review of Plan 2029 or five years post publication following independent investigation, and each subsequent five yearly review.

Further detail is provided in Appendix F.

Table 4: Topics included in the Plan. (GP = General Policy; SP = Sector Policy)

Section	Title
1	Introduction
2	General Policies
	Introduction
GP1	Sustainable Development, Activities and Use
GP2	Safety
GP3	Climate Change
GP4	Supporting Sustainable Social and Economic Benefits
GP5	Safeguarding the Marine Ecosystem
GP6	Water Environment
GP7	Coastal Development and Coastal Change
GP8	Historic Environment
GP9	Nature Conservation
GP10	Seascape and Landscape
GP11	Surface and Underwater Noise, and Vibration
GP12	Marine Litter and Waste
GP13	Marine Non-Native & Invasive Non-Native Species
GP14	Amenity, Well-being and Quality of Life of Local Communities
3	Sector Policies
	Introduction

SP1	Commercial Fishing
SP2	Aquaculture
SP3	Shipping, Ports, Harbours and Ferries
SP4	Pipelines, Electricity and Telecommunications Infrastructure
SP5	Marine Renewable Energy
SP6	Zero Carbon Fuels, Oil and Gas Transition
SP7	Tourism, Recreation, Leisure and Sport
4	Monitoring and Review
Appendix 1	Licensing and consenting decisions
Appendix 2	Relevant Legislation, Plans and Policies
Appendix 3	National Marine Plan Interactive
Appendix 4	Natural Capital and Marine Ecosystem Services
Appendix 5	Priority Marine Features and Orkney Local Biodiversity Action Plan marine priority habitats and species
Appendix 6	Seaweed harvesting
Appendix 7	Definition of Key Concepts, Acronyms and Glossary

Assessment

This SEA assesses the Vision (see Table 3) and Policies (see Table 4) of the Plan and provides a summary assessment of the likely environmental effects of implementation of the Plan's policies. These assessments are in Appendices C1 – C3).

2c. Relationship with other PPS and environmental protection objectives

It is important to ensure that regional marine plans are appropriately aligned with wider relevant plans, programmes, and strategies (PPS). One of the early stages of the SEA process was to consider the relationship of the OIRMP to other relevant PPS and their environmental objectives. This allowed key environmental objectives to be identified for consideration during the plan preparation process. It was also important to identify both the PPS that will influence the OIRMP and those that will be influenced by the OIRMP itself.

An understanding of the context and the hierarchy that the OIRMP sits within is also useful for giving insight to mitigation measures and where they may be best

implemented. Appendix A outlines the PPS taken into consideration during the SEA process.

Where specific marine management issues are currently being addressed by other bodies through existing plans, strategies, and programmes (e.g., fisheries management by the Inshore Fisheries Group), it may not be appropriate for the OIRMP to take forward detailed policy on these matters. There will however be a requirement for appropriate integration and alignment, along with signposting where appropriate.

The OIRMP will have a significant influence on, and will draw from, other plans produced by Orkney Islands Council. It aligns with the Orkney Local Development Plan (2017) and the Indicative Orkney Regional Spatial Strategy, as well as Draft National Planning Framework 4 which will form part of the Development Plan. The National Marine Plan is also a key consideration to ensure effective integration with national policy.

Appendix A to this report contains a detailed review of the list of key plans, programmes, and strategies, as well as current legislation considered to be most directly relevant to the Gateway Programme, and includes details of how their environmental objectives have been considered as part of the SEA process.

The key environmental messages and initial objectives identified from this review are to:

1. Promote responsible stewardship of the coastal and marine environment, with particular focus on the twin threats of the climate emergency and biodiversity decline.
2. Encourage a reduction in greenhouse gas emissions (mitigation) and be positioned to respond to the predicted effects of climate change (adaptation).
3. Help halt the loss of biodiversity and seek to reverse previous losses through targeted protection for species, habitats, and ecosystems.
4. Enhance habitats and ecosystems, where this is appropriate and feasible.
5. Protect and enhance the water environment, ensuring that the status of all waters is protected from deterioration.
6. Protect against developments which have potential to cause or exacerbate coastal erosion and flooding.
7. Protect and, where appropriate, enhance landscape and seascape character, local distinctiveness, and scenic value.
8. Protect and, where appropriate, enhance the historic environment.
9. Ensure that development which would have a significant adverse impact on the Outstanding Universal Value of the Heart of Neolithic Orkney World Heritage Site, or its setting, does not occur.
10. Increase awareness, understanding and enjoyment of the natural and historic environment.
11. Protect opportunities for access to, and enjoyment of, coastal and marine environments.
12. Prepare a regional marine plan which meet the needs and ambitions of local people, and which gives weight to the voices and views of local communities.
13. Maximise the use / reuse of existing infrastructure assets to meet future needs.
14. Contribute towards a reduction in marine litter.
15. Promote the sustainable development of marine renewable energy.
16. Promote sustainable development.

17. Support planning outcomes that focus on key themes emerging from the Draft National Planning Framework 4: net-zero emissions, a well-being economy, resilient economy, and better, greener places.
18. Revitalise our communities, particularly considering the COVID-19 pandemic which has changed the way we all live, work and learn.

The findings above are used, along with the baseline data in Appendix B, to further refine a set of SEA objectives (see section 2g).

2d. Relevant aspects of the current state of the environment

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of “the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”, and “the environmental characteristics of areas likely to be significantly affected”. This section aims to describe the environmental context within which the PPS operates and the constraints and targets that this context imposes on the PPS.

The ‘State of the Environment Assessment: A baseline assessment of the Orkney Islands Marine Region’ provides the relevant aspects of the current marine environment in Orkney’s marine waters⁶. To avoid excessive replication, the extensive detail will not be replicated here, but in summary, it provides a snap-shot of the following environments and associated environmental pressures:

- Physical
- Historic Coastal and marine
- Climate Change
- Biodiversity
- Productive coasts and sea
- Social and Community Value

In addition, an outline of the data gaps is provided. For each topic and sub-topic assessed, there are also data on the trend and data confidence, where known, along with an extensive reference list of data sources. A summary of these data is in Tables 5 and 6 below.

These baseline data were assessed using the JNCC’s Marine Activities and Pressures Evidence tool, which contains a Pressures-Activities Database (PAD)⁷. This is a compilation of evidence base for relationships between 112 marine-based human activities and their associated pressures (based on the OSPAR pressure list).

The PAD incorporates information on activities in Scotland based on Marine Scotland’s Feature Activity Sensitivity Tool (FEAST⁷) and a range of new activities that may occur in UK waters. In addition, information provided by expert organisations and stakeholders, such as Scottish Environment Protection Agency (SEPA), NatureScot (formerly Scottish Natural Heritage), the International Centre of Island Technology (ICIT), the Royal Society for the Protection of Birds (RSPB) and

⁶ [Orkney Islands Marine Region: State of the Environment Assessment](#)

⁷ <https://jncc.gov.uk/our-work/marine-activities-and-pressures-evidence/#jncc-pressures-activities-database>
This state of the environment assessment contains JNCC data © copyright and database right 2018

Orkney Sustainable Fisheries (OSF), has informed the assessment for the Orkney marine region and has informed the identification of additional pressures.

These identified pressures, and the supporting baseline information, are therefore helpful in informing this SEA process by providing:

- an identification of environmental problems and any data gaps;
- supports the process of assessing the environmental effects and;
- provides a baseline against which future monitoring data can be compared.

Table 5: State of the Environment Assessment Summary (source SoEA⁸)

Category	Topic	Pressure	Assessment	Trend	Data confidence
Physical	Geological and coastal	Erosion; Disturbance.	Some concerns	Deteriorating	High
	Landscape and Seascape	Erosion of special qualities of landscape and seascape; Coastal erosion, sea level rise, flooding and change to vegetation types due to climate change.	Some concerns	Deteriorating	Medium
	Coastal Water Quality	Pollution	Some concerns	Static	High
	Air Quality	Pollution	Few concerns	Unknown	Low
	Marine litter	Entanglement;	Some	Unknown	Medium

⁸ [Orkney Islands Marine Region: State of the Environment Assessment](#)

		Ingestion; Amenity	concerns		
	Underwater noise	Disturbance; Injury;	Some concerns	Deteriorating	Low
Historic Coastal and Marine Environment	Historic Coastal and Marine Environment	Climate change; Erosion; Corrosion; Removal of artifacts.	Many concerns	Deteriorating	High
Climate Change	Climate change	Multiple pressures: see Table 13	Many concerns	Deteriorating	Medium

Category	Topic	Pressure	Assessment	Trend	Data
Biodiversity	Designated Nature Conservation Sites	Climate change; Barrier to species movement; Collision; Disturbance; Overfishing; Pollution.	As there are many designated sites with varying site condition status, an overview assessment of the sites would be of limited value. Refer to Appendix 2 for individual site condition assessments.		
	Birds	Climate change; Collision; Disturbance; Marine litter	Many concerns	Deteriorating	Medium
	Grey Seals	Climate change; Disturbance; Pollution	Few concerns	Deteriorating	Medium
	Harbour Seals	Climate change; Competition; Disturbance; Pollution	Many concerns	Deteriorating	Medium
	Cetaceans	Climate change; Barrier to species movement; Collision; Disturbance: visual and displacement; Entanglement ; Marine litter; Noise; Pollution	Some concerns	Unknown	Low
	Commercial Fish and Shellfish	Climate change; Disturbance; Removal of	Unknown	Unknown	Not applicable

		target species.			
	Wider Fish Community	Climate change; Disturbance; Removal of non-target species.	Unknown	Unknown	Not applicable
	Invasive Non-native Species	Alter food webs; Outcompete native species.	Some concerns	Static	High

Table 6 summary of the Plan area (see SoEA for further detail⁹)

SEA Issue / summary	Data used	Source of Data
Climatic factors Orkney Islands marine region is subject to global climate change issues. Key considerations are Sea Level Rise, ocean acidification and temperature changes, coastal processes and change, ecological impacts to food webs etc (see SoEA ¹⁰).	CO ² emissions data	www.gov.uk/government/collections/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics
	SNIFFER Online Handbook of Climate Trends across Scotland	www.sniffer.org.uk/climate-trends-handbook-for-web-pdf
	United Kingdom Climate Change Impacts Programme (UKCIP Climate Modelling)	www.ukcip.org.uk
	SEPA flood maps	www.sepa.org.uk/environment/water/flooding/flood-maps
	Dynamic Coast: Improving the evidence base of coastal change in Scotland.	https://www.dynamiccoast.com/
	Climate Risk Assessment for the Heart of Neolithic Orkney World Heritage Site (2019)	https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=c6f3e971-bd95-457c-a91d-aa77009aec69
Biodiversity 25% of Orkney's marine waters are designated to protect biodiversity (see Map 2 below). Some qualifying features in unfavourable condition.	Statutorily designated sites • 15 SPAs • 6 SACs (3 of which are designated for marine features) • 1 RAMSAR • 3 NC MPAs • 33 SSSI (most of which have a coastal and/or marine component)	https://sitelink.nature.scot

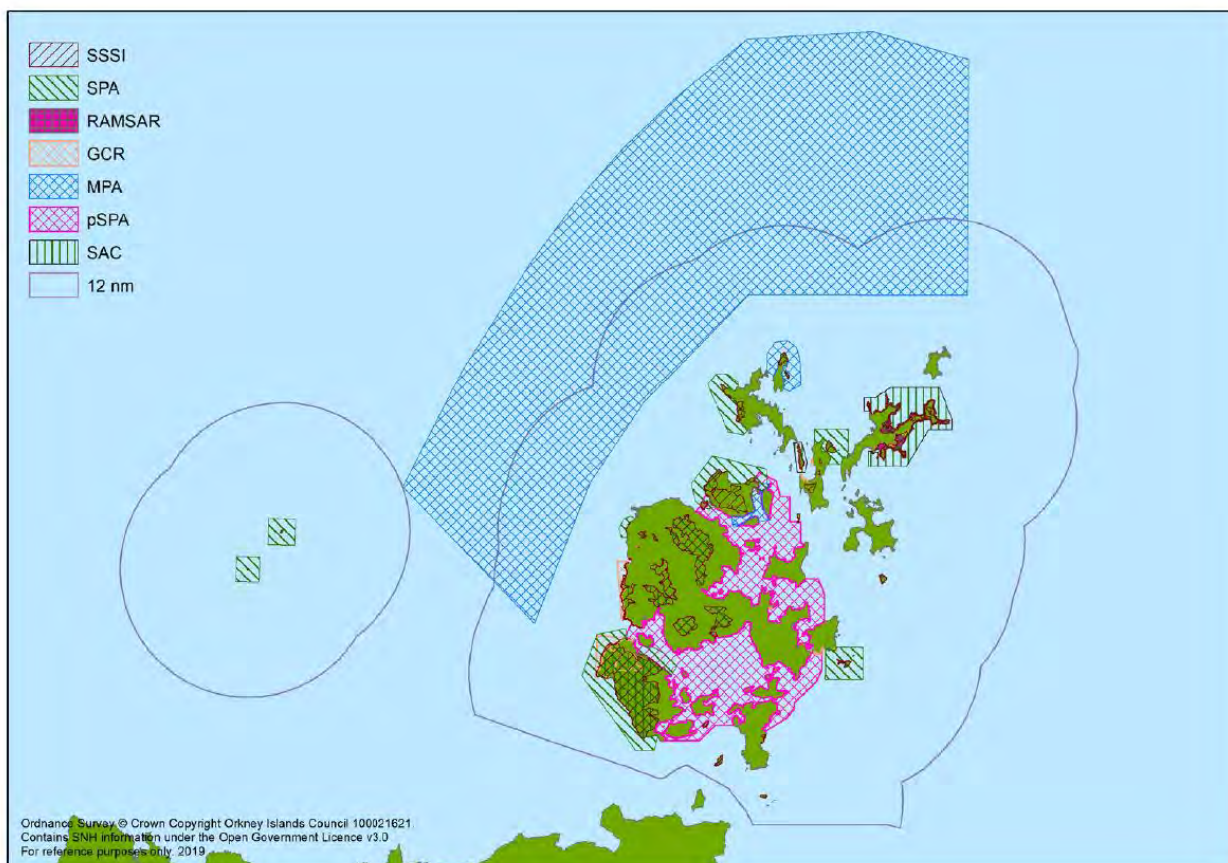
⁹ [Orkney Islands Marine Region: State of the Environment Assessment](#)

¹⁰ [Orkney Islands Marine Region: State of the Environment Assessment](#)

	European Protected Species	
	Locally designated sites	Supplementary Guidance Natural Environment www.orkney.gov.uk/Service-Directory/D/natural-environment.htm
	RSPB reserves	https://www.rspb.org.uk/
	Local Biodiversity Action Plan habitats and species	www.orkney.gov.uk/Service-Directory/L/Local-Biodiversity-Plan.htm
	Local Nature Reserves	https://www.orkney.gov.uk/Service-Directory/N/local-nature-reserves.htm
	Priority Marine Features	https://www.nature.scot/doc/naturescot-commissioned-report-406-descriptions-scottish-priority-marine-features-pmfs https://marinescotland.atkinsgeospatial.com/nmpi/default.aspx?layers=7
Water Coastal water quality is classified as good or very good; this should be maintained.	Water quality data	www.sepa.org.uk/data-visualisation/water-classification-hub
Coastal processes/ benthic sediments/ soils For marine context, includes benthic seabed and coastal processes; these should be protected.	Broad scale seabed habitat	Figure 8 of SoEA Orkney Islands Marine Region: State of the Environment Assessment
Geology Varied ancient geology and geomorphology should be protected.	Statutorily designated sites: SSSI and GCR	https://sitelink.nature.scot
	Local Nature Conservation Sites	Supplementary Guidance Natural Environment www.orkney.gov.uk/Service-Directory/D/natural-environment.htm

	Wider geodiversity interests	The Nature Conservancy Council's publication Orkney Localities of Geological and Geomorphological Importance (1978) provides information on the distribution and extent of important geological and geomorphological sites in Orkney.
Landscape / seascape 70+ islands provide rich and varied landscapes that should be protected.	Hoy and West Mainland National Scenic Area	https://sitelink.nature.scot
	Landscape Character types	Orkney Landscape Character Assessment, Land Use Consultants (1998)
	North Caithness and Orkney Coastal Character Assessment	https://www.nature.scot/sites/default/files/2018-11/Coastal%20Character%20Assessment%20-%20Orkney%20and%20North%20Caithness.pdf
	Historic land use	https://data.gov.uk/dataset/79dfb69c-d7c3-4894-adda-5227a99295a1/national-record-of-the-historic-environment-historic-land-use-assessment
Cultural heritage Ancient cultural heritage assets and traditions should be protected.	The Heart of Neolithic Orkney World Heritage Site	Heart of Neolithic Orkney World Heritage Site Management Plan (2014-2019)
	Designated Sites, Buildings, Landscapes and Battlefields Regionally / locally important archaeological sites and unscheduled archaeology	Historic Environment Scotland GIS Downloader (Includes equivalent data to the Sites and Monuments Records) Scotland's Historic Environment Audit 2016 Scotland's Environment Web
	Conservation Areas	Orkney Local Development Plan

		www.orkney.gov.uk/Service-Directory/O/Orkney-Local-Development-Plan.htm
Population and Human health Varying population trends across the islands.	Socio-economic data	Scotland's Environment Web Orkney Islands Economic Review 2020 https://fraserofallanderinstitute.wpcomstaging.com/wp-content/uploads/2020/09/Orkney-Islands-Economic-Review_.pdf
	Health and Place data	NHS Scotland Scottish Government.
Material assets improving transport infrastructure and services, reducing waste and promoting the waste hierarchy, with underpinning themes that seek to reduce emissions and shift towards a low carbon energy mix.	Core Paths	Orkney Core Paths Plan www.orkney.gov.uk/Service-Directory/C/Core-Paths.htm
	Infrastructure	Infrastructure Investment Plan for Scotland & Phase 1 report Orkney Ports Handbook. Orkney Harbours Master Plan
	Waste	Orkney Islands Council.
Cross sectoral issues	State of the Environment Assessment (2020). A baseline assessment of the Orkney Islands Marine Region	Orkney Islands Council https://www.orkney.gov.uk/Service-Directory/D/orkney-islands-marine-region-state-of-the-environment-assessment.htm



Map 2: Map of designated sites in Orkney Islands Marine Region (Note a larger scale map is in Appendix D.)

Appendix B contains the detailed environmental baseline report, which provides a description of the key environmental characteristics of Orkney. This allows any existing problems to be identified and provides the benchmark against which the forecast and monitored levels of environmental effects will be evaluated.

2e. Environmental problems

Schedule 3 paragraph 4 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of existing environmental problems, in particular those relating to any areas of particular environmental importance. The purpose of this section is to explain how existing environmental problems will affect or be affected by Orkney Islands Regional Marine Plan, and whether the PPS is likely to aggravate, reduce or otherwise affect existing environmental problems, which have already been summarised in Tables 5 and 6 above.

Climate

It is widely accepted that the increasing atmospheric levels of certain gases are causing significant changes to global climates by reducing the rate of radiative heat loss and allowing temperatures around the world to rise. This is described as the enhanced greenhouse effect. Key considerations are Sea Level Rise, ocean

acidification and temperature changes, coastal processes and change, ecological impacts to food webs etc (see SoEA¹¹).

The policies and proposals of the OIRMP should seek to help ensure appropriate mitigation and adaptation measures are considered.

Biodiversity

Appendix B.1 provides a detailed summary of the site condition of all the internationally and nationally designed sites relevant to the OIRMP area. In summary, the key qualifying features that are in an unfavourable declining condition are:

- Some species of seabirds and seabird assemblages
- Harbour seals
- Some loch SSSIs and SACs

Appendix B.2 provides a list of the Priority Marine Features in Orkney.

The policies and proposals of the OIRMP should seek to protect and where practicable, enhance, biodiversity in Orkney's coastal and marine waters.

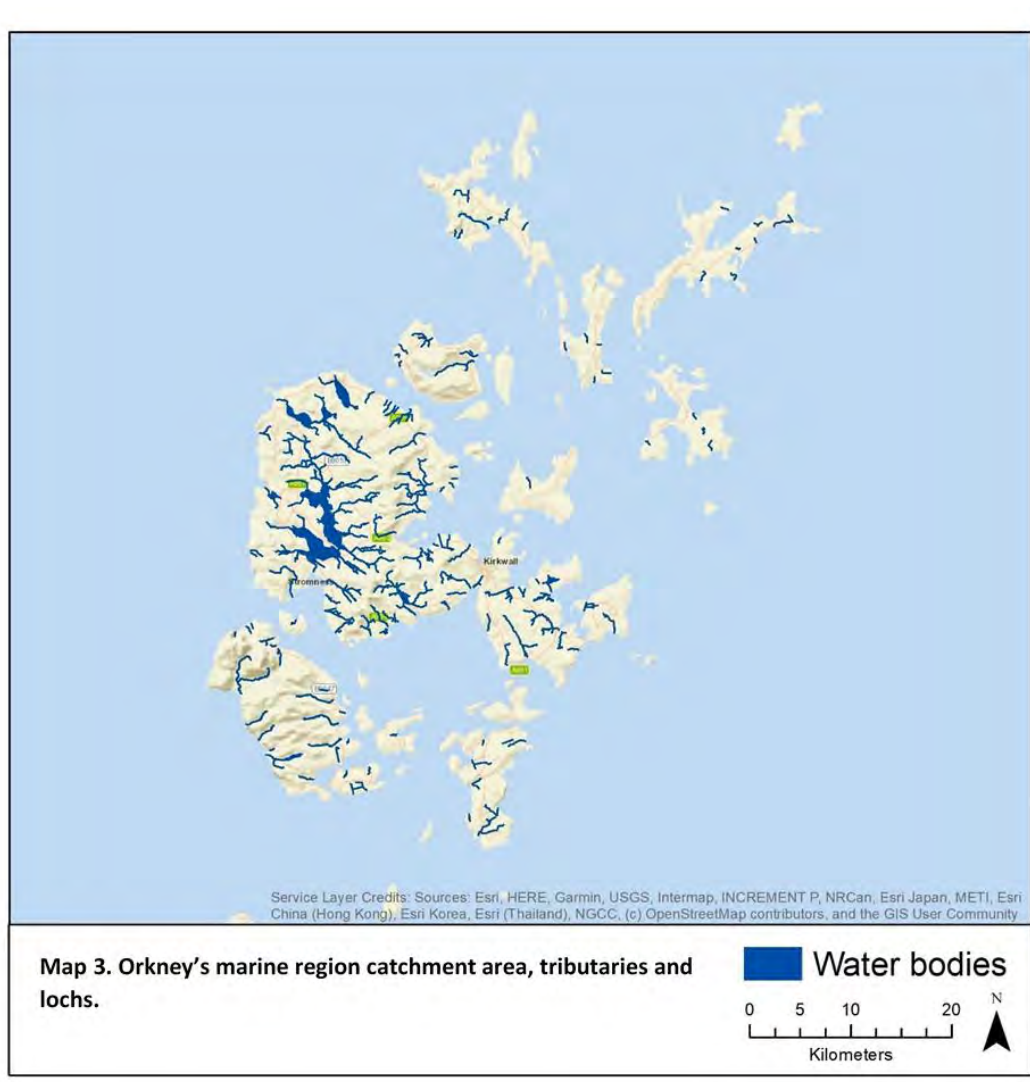
Water

As a planning authority Orkney Islands Council has a duty to protect and improve Scotland's water environment (The Water Environment and Water Services (Scotland) Act 2003). Appendix B.3 provides a detailed breakdown of the lochs, burns and coastal waters, which are shown in Map 3 below.

Water quality in Orkney is generally good but locally there are waters which are polluted by waste-water, effluents and discharges from agriculture, mineral working, and other industries. The EC Water Framework Directive seeks to achieve the continuous improvement of all water bodies through the implementation of River Basin Management Frameworks. Town and country planning has a significant role to play in ensuring an appropriate distribution of land uses and protecting the environment from pollution.

The policies and proposals of the OIRMP should seek to protect and improve the quality and overall status of the water environment in and around Orkney. Sustainable solutions to waste-water treatment, including ballast water, should be promoted.

¹¹ [Orkney Islands Marine Region: State of the Environment Assessment](#)



Coastal processes / Benthic sediments / Soils

Marine and coastal development can result in changes to coastal process which, in turn, can affect rates of erosion, accretion and deposition. Coastal sand dunes are particularly vulnerable to disturbance which can cause blow-outs and loss of integrity.

Coastal erosion, predicted sea level rise and changes to coastal processes, linked to climate change are also a key issue, as outlined in the climate change section above.

Sandy and muddy sedimentary habitats support large populations of invertebrates which in turn support species at higher trophic levels. Many of these benthic habitats also store immense quantities of carbon (known as Blue Carbon)¹².

¹² <https://data.marine.gov.scot/dataset/blue-carbon-audit-orkney-waters>

The policies and proposals of the OIRMP should seek to protect and improve the quality and overall status of the coastal processes and benthic sediments in and around Orkney.

Geology

Geological and geomorphological sites may be vulnerable to the effects of new developments and/or activities. Examples of development and/or activities which cross the interface between land and sea include new and replacement pipelines as well as energy and telecommunications cables.

The predicted effects of climate change are likely to subject coastal sites to enhanced rates of erosion, inundation, and weathering.

The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their geological or geomorphological interest, and which illustrate Orkney's geological history.

Landscape

Orkney's relatively low-lying and undulating topography and open coastal seas provide long unobstructed views, with new features being highly visible in the landscape / seascape.

The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their landscape quality and ensure the site condition of the NSA is not eroded.

Cultural heritage

Cultural heritage sites and their settings may be vulnerable to the effects of new developments and/or activities. The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their landscape quality and ensure the site condition of the NSA is not eroded.

Population and human health

Population increase due to new major development may lead to increased pressure on existing infrastructure, for example housing, roads and sewage treatment plant. In this respect, any crossover with the Local Development Plan will be highlighted in the Environmental Report.

Material assets

Litter is already a problem in the Orkney marine and coastal environment. Plastics are especially long-lasting and pose a significant hazard to wildlife, e.g. in terms of accidental ingestion or entanglement. Coastal and marine litter impacts amenity in coastal areas. Fish farm waste is also an issue and includes redundant equipment which has been pulled up on the coast and abandoned.

An increasing level of marine development is likely to put additional pressure on port and harbour infrastructure.

Summary of Environmental problems

Environmental problems were identified through discussions with the Consultation Authorities, the Orkney Marine Planning Advisory Group and local stakeholders, along with an analysis of the baseline that is presented in Appendix B of this report. Experience gained from the preparation of other SEA reports also assisted in highlighting the main environmental issues that are likely to affect Orkney during the lifetime of the OIRMP.

2f. Likely evolution of the environment without OIRMP.

Without OIRMP, it is considered that the likely future changes to the area will be an uncoordinated approach to marine development and activities. This would lead to increased adverse environmental effects, particularly due to cumulative pressures from development and activities being planned in isolation.

As the Pilot Pentland Firth and Orkney Waters Marine Spatial Plan is non-statutory, marine planning decisions are not made in accordance with it, as prescribed in the Marine (Scotland) Act 2010; rather it is a key guidance document and does not carry the same weight as a statutory regional marine plan.

2g. SEA Objectives

The SEA objectives are outlined in Table 7 below. SEA objectives may be defined as measures by which the environmental impacts of the PPS may be assessed. These have been refined using an iterative process during the scoping and development of the draft SEA phases, including the baseline report (see Section 2.c and Appendix B).

Table 7: SEA Objectives

SEA OBJECTIVES
Climate factors:
Contribute to national targets to address the cause of climate change by reducing greenhouse gas emissions.
Support the transformational change to a low carbon economy, consistent with national objectives and targets.
Address vulnerability in the County to the likely effects of climate change.
Biodiversity:
Conserve protected sites and species.
Safeguard valuable habitat from loss and fragmentation through development.
Protect biodiversity and, where possible, contribute towards achievement of LBAP actions.
Maintain healthy ecosystems and work with the natural processes which provide important services to communities.
Water:
Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater.
Protect against developments which have potential to cause or exacerbate coastal erosion and flooding.
Coastal processes / Benthic sediments / Soils:
Reduce the threat of contamination and seek to protect soils from damage such as erosion or compaction.
Recognise the environmental benefits provided by soils and protect their quality and quantity.
Geology:
Protect designated and undesignated sites which are recognised and valued for their geological or geomorphological importance.
Landscape:
Maintaining and enhancing distinctive landscape character.
Cultural Heritage:

Promote the care and protection of the designated and non-designated historic environment.
Enable positive change in the historic environment which is informed by a clear understanding of the importance of Orkney's heritage assets and ensures their future use.
Safeguard cultural heritage features and their settings through responsible design and siting of development.
Population and Human Health:
Improve community environments and quality of life.
Protect and enhance human health and promote access to health, social and recreational facilities.
Material assets:
Promote sustainable and efficient use of natural resources.

3. Assessment of environmental effects and measures envisaged for prevention, reduction and offset of any significant adverse effects

3a Alternatives to which the SEA was applied

The SEA objectives identified above have been used as assessment criteria. Each alternative will be assessed in turn, and this assessment will identify options which would have environmental effects, and therefore require further assessment. Assessment will inform the nature of the preferred options that will be taken forward for development, refinement, and further assessment.

From the scoping report, the initial alternatives were:

Alternative 1: Do nothing.

Alternative 2: Update the existing Pentland Firth and Orkney Waters Marine Spatial Plan (PFOW MSP).

Alternative 3: Develop an Orkney Islands Regional Marine Plan.

Following an iterative process to SEA, the alternatives, now called options, were refined as follows:

Option 1. Do nothing: continue under the current approach to marine planning and management including using the Pentland Firth and Orkney Waters Marine and Spatial Plan (PFOW MSP) as non-statutory planning guidance, NMP and NPF.

Option 2. Use the policies within the PFOW MSP to form a regional marine plan without updates or additions.

Option 3. Adoption of the OIRMP after stakeholder engagement on the preparation of the policies guided by the public consultation and further engagement with key stakeholders.

Option 1 Do nothing: continue under the current approach to marine planning and management including using the Pentland Firth and Orkney Waters Marine Spatial Plan (PFOW MSP) as non-statutory planning guidance, National Marine Plan and National Planning Framework.

Under this option a regional marine plan would not be developed/adopted and there would be no change to current arrangements. As the PFOW MSP is non-statutory it does not carry the same weight in decision making as a statutory regional marine plan and would therefore provide greater certainty in decision making.

The PFOW MSP has been adopted by the Scottish Government, Highland Council and Orkney Islands Council as non-statutory planning guidance. The Plan has not been adopted by other decision makers. This option therefore potentially creates inconsistency and uncertainty in decision making.

Option 1 does not bring marine planning in line with the provision for Regional Marine Planning set out in the Marine (Scotland) Act 2010,

Option 1 is not perceived as a viable option

Option 2: Use the policies within the PFOW MSP to form a regional marine plan without updates or additions.

Under this option the PFOW MSP would be put forward unamended, to be adopted as a regional marine plan. This option would place the existing local marine planning framework on a statutory footing. However, this would not allow a review and refinement of the objectives, policies and supporting data in light of changing legislation, priorities, opportunities, challenges and new data. This option would not meet current national policy or deliver local community objectives and priorities.

As noted above, the existing NMP is somewhat dated therefore the existing statutory guidance is not as robust as it could be.

Option 2 does not bring marine planning in line with the provision for Regional Marine Planning set out in the Marine (Scotland) Act 2010,

Option 2 is not perceived as a viable option

Option 3: Adoption of the OIRMP after stakeholder engagement on the preparation of the policies guided by the public consultation and further engagement with key stakeholders.

Under this option an OIRMP will be prepared giving all stakeholders the opportunity to contribute towards setting objectives and policies to achieve sustainable development in the Orkney Islands marine region. This option will ensure that regional marine planning policy in Orkney contributes towards national priorities and outcomes e.g. climate change mitigation and adaption, reversing biodiversity loss and sustainable economic growth. It would also ensure that the impacts of the Plan would be fully assessed via SEA, HRA, ICIA, BRIA, CRWIA and EQIA.

Option 3 is a viable option

In summary, as the Plan is being developed, Option 1 and 2 have been scoped out to leave Option 3: Develop the Orkney Islands Regional Marine Plan, in accordance with the Direction made¹³. Unlike the PFOW MSP, it will be a statutory plan, with more up to date information.

3b Assessment methods

The reasonable alternatives described above have been assessed against the range of environmental issues set out in Schedule 3 of the Environmental Assessment (Scotland) Act 2005. Comments from the Consultation Authorities (SNH, SEPA and The Scottish Ministers (Historic Scotland) have been taken into account regarding the methods, scope and level of detail in this draft Environmental Report. The

¹³ [Delegation of Functions \(regional marine plan for the Scottish Marine Region for the Orkney Islands\) Direction 2020 - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/delegation-of-functions-for-regional-marine-plan/pages/2-1-2020.aspx)

detailed assessments are in Appendix A - C. It will be further revised in light of any comments received during the public consultation phase.

3c Assessment of Environmental Effects of the Plan

A summary of the assessment framework established during the scoping process, using the framework shown in Section 3a, has been amended and augmented following stakeholder input, is provided in Table 8 below. The detailed assessments, including an analysis of short, medium and long-term effects; permanent and temporary effects; positive and negative effects; and secondary, cumulative and synergistic effects, is provided in Appendices A - C. Further supporting information is provided in Appendices D – F.

The identification of potential adverse socio-economic and environmental effects through the iterative development of the OIRMP and this SEA will likely add further weight to their consideration by prospective developers, marine users and consenting authorities. An opportunity for the Plan to improve efficiencies, for example in streamlining of current consenting processes around which applicant-lead engagement with stakeholders is considered to be key, was also identified. As a consequence, there is the potential for overall positive effects.

3d. Measures envisaged for the prevention, reduction and offsetting of significant adverse effects

Schedule 3 paragraph 7 of the Environmental Assessment (Scotland) Act 2005 requires an explanation of “the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.” These aspects are outlined in Table 8 and Appendix C2.

Table 8: Assessment of Environmental Effects of the Plan

The high level summary of the plan-level effects on the SEA receptors are summarised here, including an assessment of cumulative, synergistic and secondary effects. This information is based on the assessments of each policy in relation to the SEA receptors as outlined in Appendix C3, which in turn is informed by the information found in Appendices B and B1 – B6, the Islands Communities Impact Assessment and the partial Business and Regulatory Impact Assessment.

Legend:

++	Significantly positive effects.
+	Positive effects.
0	Minor or neutral effect.
?	Uncertain effects.
-	Adverse effects.
--	Significantly adverse effects.

SEA receptor / assessment	Assessment pre-mitigation	Suggested mitigation	Assessment post-mitigation	Cumulative, synergistic and secondary effects	Comment
Climatic factors (0)	Climate change is a global issue and national targets are in place to reduce emissions of greenhouse gases.	The Plan's policies will contribute toward national targets by ensuring that the requirement to reduce carbon emissions is factored into new development and/or activity proposals in a sustainable manner.	Moderate benefit is likely in terms of climatic factors, biodiversity, flora and fauna, water, landscape and population / human health. Enhanced flood risk management,	Measures to enable adaptation to the effects of climate change will be integrated into the OIRMP and this will include planning to take account of flood risk and coastal erosion.	Climate change will remain a global issue.

SEA receptor / assessment	Assessment pre-mitigation	Suggested mitigation	Assessment post-mitigation	Cumulative, synergistic and secondary effects	Comment
			biodiversity, and improve access to coastal open space.		
Biodiversity (+) (see appendix B1)	The continuing decline of biodiversity is another issue of global concern, along with the spread of non-native and potentially invasive species. Sites of international, national and local importance are designated throughout Orkney, on account of the habitats and species they support. The wider terrestrial and marine environments are also rich in biodiversity.	The Plan's policies will contribute toward protected designated sites and species in accordance with international/ national requirements.	Moderate benefit is likely in terms of biodiversity. Makes provision for new development to provide benefits for biodiversity. Ensures the continued availability of opportunities for enjoying and learning about Orkney's natural environment.	The balance of policies applied will help ensure biodiversity loss is minimized.	Biodiversity loss will remain a global issue. Positive effects for Biodiversity (Net Gain) is a relatively novel process for the Scottish marine environment. The Plan will support the development of this process and enhancement of the marine environment, where appropriate.
Water (+) (see appendix B3)	Water quality in Orkney is generally good but locally there are waters which are polluted by waste-water, effluents and discharges from	The Plan's policies will contribute toward ensuring continued water quality in accordance with international/ national requirements.	Town and country planning has a significant role to play in ensuring an appropriate distribution of land uses and protecting	Overall positive benefit for biodiversity, water and benthic sediments.	

SEA receptor / assessment	Assessment pre-mitigation	Suggested mitigation	Assessment post-mitigation	Cumulative, synergistic and secondary effects	Comment
	agriculture, mineral working, and other industries.		the environment from pollution. The marine plan will assist with this integration of land/coastal/marine water protection.		
Coastal processes / benthic sediments / soils (?)	The combined forces of wave action and tidal currents are responsible for the constant reworking of seabed sediments which surround the coasts of Orkney. The growing demand for marine development and/or activities continues to add pressure to the seabed and coast.	Significant positive benefit for the protection of biodiversity, coastal processes, geology and materials as development and/or activities will have to be in accordance with multiple protection plans and frameworks and negative impacts on coastal processes and coastal protection should be minimized. All other SEA receptors are also given positive policy support.	Integrated application of land use and marine policies should help ensure impacts are minimized.	Mixed impact due to general policies providing protection against significant impacts and sectoral policies acknowledging some negative impacts.	
Geology (+)	Orkney's geological history is most clearly visible and interpreted along its coastlines where the rock has been subject to sea level change,	The Plan's policies will contribute toward ensuring SSSIs and GCR sites are not significantly impacted by development and/or activities.	The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their geological or	Neutral or minor positive impacts from most general policies and sectoral policies.	

SEA receptor / assessment	Assessment pre-mitigation	Suggested mitigation	Assessment post-mitigation	Cumulative, synergistic and secondary effects	Comment
	deformation, erosion and localised deposition; and also, in quarries where rock extraction has exposed a sequence of rock strata.		geomorphological interest, and which illustrate Orkney's geological history.		
Landscape (0)	Orkney has one National Scenic Area: the Hoy and West Mainland National Scenic Area. The great ice-rounded eminences of the hills of North Hoy dominate the Orkney scene with a power that is scarcely in tune with their modest height (479 metres). Their bold shape, fine grouping, soaring cliffs and headlands, includes the famous stack of the Old Man of Hoy.	The Plan's policies will contribute toward ensuring continued landscape / seascape quality in accordance with national requirements.	Overall moderate benefit for the setting of cultural heritage and public enjoyment of the landscape, and major benefit in terms of protection seascape/ landscape.	Neutral or minor positive impacts from most general policies and potential for minor negative impacts sectoral policies. There is potential for the policy to promote greater consistency in the consideration of visual impacts in the development process, and in the early stages of consenting processes. As a consequence, the potential for significant benefits for the many recognised for landscape/ seascape areas in the OIRMP area	Impact of proposed major development of the offshore wind farm at Plan Option N1 not yet known.

SEA receptor / assessment	Assessment pre-mitigation	Suggested mitigation	Assessment post-mitigation	Cumulative, synergistic and secondary effects	Comment
				were identified in the SEA.	
Cultural heritage (+)	Orkney is internationally renowned for the preservation and richness of 6,000 years of its archaeology upon which its successful tourism economy is based. Erosion and sea level rise due to climate change, along with deterioration and/or removal of artifacts are key considerations for cultural heritage	The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their cultural heritage interest.	Moderate benefit is likely in terms of cultural heritage. The Plan general policies makes provision for the protection/enhancement of cultural heritage assets and ensures the continued availability of opportunities for enjoying and learning about Orkney's cultural environment.	Cumulative, synergistic and secondary effects will be considered on a case by case basis, based on the nature and scale of a development or activity proposal.	
Population and human health (+)	On 30 June 2020, the population of Orkney Islands was 22,400. This is an increase of 0.6% from 22,270 in 2019.	The Plan's policies will contribute toward ensuring continued viability and safety of the island communities.	The potential for enhanced involvement of communities in the future growth of the use of the OIRMP area was seen as a key positive effect, particularly in relation	Potential benefits for population and human health were identified with the promotion of the long-term sustainability objectives of the group of policies, and through supporting social and economic benefits and	

SEA receptor / assessment	Assessment pre-mitigation	Suggested mitigation	Assessment post-mitigation	Cumulative, synergistic and secondary effects	Comment
			to the consideration of potential social and economic impacts and opportunities for fostering further community involvement in the decision-making process.	promotion of economic and wellbeing considerations.	
Material assets (0)	The seabed, intertidal zone, water environment and the species and habitats they contain are vital components of natural resources, that perform a variety of ecosystem services.	The Plan's policies will contribute toward ensuring material assets are used in a sustainable way.	Overall largely neutral effects on material assets.	Potential benefits for materials assets were identified with the promotion of the long-term sustainability objectives of the policies.	

4. Monitoring

The monitoring of sectoral growth and environmental and socio-economic parameters will continue to be undertaken on an ongoing basis, alongside the filling of data gaps through targeted research and studies, as capacity allows. Together, the information obtained from this wide range of sources, complemented by targeted monitoring and research on specific sectoral and environmental effects, would likely help to further inform the development of the Plan.

A Monitoring and Evaluation Framework will be prepared in due course, subject to funding/capacity. The public consultation may provide additional information regarding data sources that may be helpful in the monitoring process and the SEA will be updated accordingly, linked to the objectives outlined for the SEA in Section 2g: Table 7 above and the effectiveness of measures proposed for prevention, reduction and offsetting of significant adverse effects, where any remain.

5. Next steps

This draft Strategic Environmental Assessment (SEA) Environmental Report will be deposited for a 12 week period of public consultation from xxxx 2023, alongside the Orkney Islands Regional Marine Plan (OIRMP): Consultation Draft and other supporting documents. Following the end of consultation deadline, comments will be considered over the following few months, prior to submission to the OIC committee process, and the approval processes by Scottish Ministers. The indicative timetable (see Appendix F) and engagement process is outlined in the SPP¹⁴. In summary, the key planning and SEA outputs, including indicative timescales, are:

- Update draft documents following public consultation Aug – Oct 2023;
- OIC committee process Nov – Dec 2023;
- Submission to Scottish Ministers for approval Jan – March 2024
- Publish Plan April 2024 or independent investigation post April 2024
- Post adoption statement for SEA May 2024
- Ongoing monitoring of Plan: post May 2024

Should Scottish Ministers require an independent investigation of the Plan, this would likely add another year to the publication process.

¹⁴ [Orkney Islands Marine Region: State of the Environment Assessment](#)

Appendices: Note these are in separate files

NOTE: All the appendices are in separate files to reduce file size of the Environmental Report. A full list of the appendices is provided below.

Appendix A. Links to other PPS and environmental objectives

Appendix B. Full assessment results: Baseline Assessment

APPENDIX B.1 Orkney's internationally and nationally designated sites

APPENDIX B.2 List of Priority Marine Features in Orkney

APPENDIX B.3 Water quality

APPENDIX B.4 Hoy and West Mainland National Scenic Area

APPENDIX B.5 Orkney's Scheduled Monuments

APPENDIX B.6 Orkney's Historic Properties in Care

Appendix C. Full assessment results

APPENDIX C.1 Assessment of the Vision

APPENDIX C.2 Assessment of the policies for compatibility with SEA objectives

APPENDIX C.3 Assessment of the of the environmental effects of the policies

Appendix D. Map of natural heritage designations

Appendix E. Detailed list of SEA activates to date

Appendix F. SPP indicative timetable for preparation of the Plan.

APPENDIX A: RELATIONSHIP WITH OTHER PLANS, PROGRAMMES AND STRATEGIES (PPS) AND THEIR ENVIRONMENTAL OBJECTIVES

Relationship with other plans, programmes and strategies and their environmental objectives

Name of PPS, Convention, Treaty or Directive and their environmental objectives.	Implication for, and/or relationship with, the Orkney Islands Regional Marine Plan.
OVERARCHING MARINE PPS	
United Nations Convention on the Law of the Sea (UNCLOS) (1982) provides an overarching framework for the marine environment, setting national jurisdictions and establishing rights of navigation and the legal regime of the high sea. It provides the legal basis for the protection and sustainable development of the marine environment and addresses environmental control, UNCLOS scientific research economic activities and the settlement of disputes. UNCLOS introduced the concept of Exclusive Economic Zones (EEZ). UNCLOS covers virtually all uses of the sea including navigation and over-flight, resource exploration and exploitation, conservation and pollution fishing and shipping.	In the OIRMP consideration should to be given to protecting the right of navigation. The seas around Orkney include important navigational routes for ferried, fishing vessels and freight vessels.
The Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR) (1992) aims to contribute to the control and prevention of marine pollution within the waters of the North East Atlantic (which includes all UK waters), as well as scientific co-operation in assessing the quality of these waters. Annex V of the convention also provides for the adoption of programmes and measures to assist management of human activities that can have an adverse impact on the marine environment. Marine spatial planning was included in the OSPAR Biodiversity Committee's work programmes in 2003-04. Currently there are five annexes in force which deal with: prevention and elimination of pollution from land-based sources, by dumping or incineration and from offshore sources; assessment of	The OIRMP should include policies to prevent pollution and protect and conserve the ecosystem of the maritime area; and include provision for priority species and habitats. Activities should be compliant with national legislation implementing OSPAR recommendations and decisions.

the quality of the marine environment; and protection and conservation of the ecosystem and biological diversity of the marine area.	
Safeguarding Our Seas: A Strategy for the Conservation and Sustainable Development of our Marine Environment. Defra (2002) sets out a vision for the marine environment - clean, healthy, safe, productive, and biologically diverse oceans and seas. It is underpinned by the principles of sustainable development, integrated management, the conservation of biological diversity, robust science, the precautionary principle, and stakeholder involvement. It outlines an ecosystem-based approach to marine management to better integrate marine protection objectives with sustainable social and economic goals. It covers the broad spectrum of policies that affect the marine environment.	The OIRMP should reflect the vision and principles set out in the UK Strategy for the marine environment.
EC Integrated Maritime Policy for the European Union (Blue Paper) COM (2007) 575 is based on the clear recognition that all matters relating to Europe's oceans and seas are interlinked, and that sea-related policies must develop in a joined-up way. This integrated inter-sectoral approach ensures stakeholder participation, reinforcing co-operation and co-ordination of all sea related policies. The Communication "Roadmap for Maritime Spatial Planning: Achieving common principles in the EU" was adopted by the Commission on 25 November 2008.	The OIRMP should consider how to fulfil the objective of the policy, including promoting the sustainable use of the marine environment to enable economic growth.
Guidelines for an Integrated Approach to Maritime Policy: Towards Best Practice in Integrated Maritime Governance and Stakeholder Consultation. (COM/2008/395) aims to provide a holistic approach on how to handle maritime affairs as an increasing number of governments, in Europe, and all over the world, are signing up to a new, cross-cutting, integrated approach to the governance of maritime affairs. Member States should develop their own national integrated maritime policies, embracing economic, social, cultural, and environmental contexts, with active stakeholder participation and being implemented through marine spatial planning.	The OIRMP should consider how best to support the implementation of a holistic approach to marine governance.
The EC Marine Strategy Framework Directive (2008/56/EC) establishes an overarching approach to the management of Europe's seas. It requires the UK to put in	The policies of the OIRMP should support and contribute towards national

place measures to achieve or maintain good environmental status (GES) in the marine environment by 2020. The MSFD is transposed for the whole of the UK by the Marine Strategy Regulations 2010, providing a UK-wide framework for meeting the requirements of the Directive. As a member of the EU, the UK was required to collaborate with other Member States in the north east Atlantic, to monitor, assess and report progress towards GES; and to implement a programme of measures to achieve or maintain GES targets. Scotland's National Marine Plan adopts the GES descriptors as strategic objectives.	strategic objectives to achieve or maintain good environmental status in the marine environment. It should consider the implications of the plan on biodiversity, flora and fauna; habitats; contaminants; marine litter; and underwater noise.
Marine and Coastal Access Act, 2009 Marine (Scotland) Act, (2010). The 2009 and 2010 Acts provide a statutory framework for a more simplified marine planning and licensing system. The main management measures introduced as part of the 2010 Marine Act include marine planning, marine licensing, marine conservation, seal conservation, and enforcement.	The Marine Scotland Act provides the legal basis for the development of national and regional marine plans. The OIRMP should therefore address the legislative requirements detailed within the Act.
UK Marine Policy Statement (MPS) has been prepared and adopted for the purposes of section 44 of the Marine and Coastal Access Act 2009. It will facilitate and support 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.	The OIRMP should conform to the UK MPS as set out in the 2010 Act.
UK Marine Policy Statement (MPS) (2011) sets the framework for preparing Marine Plans and taking decisions affecting the marine environment.	The objectives and policies of the OIRMP should align with the UK Marine

The Marine (Scotland) Act 2010, section 6(1) requires a national marine plan and a regional marine plan to be in conformity with any marine policy statement currently in effect for the Scottish marine area, unless relevant considerations indicate otherwise.	Policy Statement High-level Marine Objectives.
The EC Directive Establishing a framework for maritime spatial planning (2014/89/EU) sets out the fundamental elements that must be included in Maritime Spatial Plans. These include taking an ecosystem-based approach to spatial planning of marine resources; and promoting the coexistence of relevant uses and activities. The intention was to set out a planning framework within which all human activities at sea could fit.	The OIRMP should take account of the requirements of the Directive, including the adoption of an ecosystems approach.
Scotland's National Marine Plan (NMP) (2015) provides a comprehensive overarching framework for all marine activity in both Scottish inshore waters (out to 12 nautical miles) and offshore waters (12 to 200 nautical miles). The NMP sets out guidance specifically for regional planners to inform the development of regional marine plans.	The objectives and policies of the regional marine plan should: • align with the objectives and policies in the national marine plan. • Identify any requirements to take a regionally specific approach to any particular objectives and/or policies,
Scotland's National Marine Plan 2015 - Policies and Regional Policy Guidance. The Marine (Scotland) Act 2010, section 6(1) requires a national marine plan and a regional marine plan to be in conformity with any marine policy statement currently in effect for the Scottish marine area, unless relevant considerations indicate otherwise.	Identify proposed deviation from the national approach and agree this at an early stage with Marine Scotland. A PPS integration exercise will ensure that key policies, strategies and plans (PPS) are considered in the development of the OIRMP.
The Pentland Firth and Orkney Waters Marine Spatial Plan aimed 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	The OIRMP will be informed by the Marine Spatial Plan and will further develop its objectives.

Guidance to the UK Marine Policy Statement from 2021 (2020) is published on behalf of all the UK Administrations by the Department of Environment, Food and Rural Affairs. It explains how references to EU law in the UK Marine Policy Statement (MPS) should be interpreted from 1 January 2021 following the UK's withdrawal from the EU. The European Union (Withdrawal) Act 2018 will convert many EU measures into UK law. Former EU measures converted into UK law are referred to as 'retained EU law' with statutory instruments amending the retained EU law to ensure it is operable. References in the MPS to EC or EU legislation, EU legislative requirements, European legislation and EU requirements are to be read as references to retained EU law from 1 January 2021.	The OIRMP will adopt the relevant current terminology.
The UK Marine Strategy (2019) consists of a 3-stage framework for achieving Good Environmental Status (GES) in our seas. Achieving GES is about protecting the marine environment, preventing its deterioration and restoring it where practical, while allowing sustainable use of marine resources. The strategy covers 11 elements: biodiversity; non-indigenous species; commercial fish; food webs; eutrophication; sea-floor integrity; hydrographical conditions; contaminants; contaminants in seafood; marine litter and underwater noise. The updated UK Marine Strategy Part 1 marks the beginning of its second implementation cycle and reports on progress made, along with further action that is necessary.	An integration exercise will ensure that key plans, policies and strategies (PPS) are considered in the development of the OIRMP.
The Scottish Marine Regions Order (2015) The Marine Act provides for the delegation of marine planning functions to a regional level. It designated 11 Scottish marine regions for the Scottish marine area and defines their boundaries, the coordinates establishing the marine region boundaries, and the suggested names of the regions. The Orkney Marine Region is defined within the Order.	The OIRMP should cover the area defined as the Orkney Marine Region.
The Coast Protection Act (1949) is the key legislation for matters relating to coastal erosion risk on the open coast.	The OIRMP should include policy on coastal erosion.

The Scottish Crown Estate Act (2019) makes provision for the management of the Scottish Crown Estate; and for connected purposes.	The OIRMP should pay due regard to the Act and any necessary requirements.
The Islands (Scotland) Act (2018) introduced measures to support and help meet the unique needs of Scotland's islands now and in the future. It will also seek to help create the right environment for sustainable growth and empowered communities.	The OIRMP should pay due regard to the measures introduced in the Islands Act and the National Plan for Scotland's Islands.
The National Plan for Scotland's Islands (2019) provides a framework for action to meaningfully improve outcomes for island communities.	The OIRMP should pay due regard to the National Plan for Scotland's Islands.
The Submarine Telegraph Act (1885) underpinned an International Convention for the Protection of Submarine Telegraph Cables.	The OIRMP should include policy for the installation and protection of submarine cables.
The Food and Environment Protection Act (1985) replaced the Dumping at Sea Act 1974 with fresh provision for controlling the deposit of substances and articles both in the sea and under the sea-bed.	The OIRMP should include policy for the deposit of substances and articles in the sea and on the seabed.
The Orkney County Council Act (1974) authorised the County Council of Orkney to exercise harbour jurisdiction and powers in respect of development, including powers to license the construction of works and dredging in certain areas of and adjacent to the county. Also introduced the right of compulsory purchase of land for development.	The Orkney Harbour Authority will form part of the OMPAG to ensure relevant matters are considered.
The Orkney Islands Council Harbour Revision Order 1989 adds two areas to the Schedule of the Orkney County Council Act 1974 and thereby confers jurisdiction as a harbour authority on Orkney Islands Council within those areas, together with the powers contained within the 1974 Act.	

CLIMATE CHANGE	
UN Framework Convention on Climate Change entered into force on 21 March 1994 and now has near-universal membership. The ultimate objective of the Convention is to stabilize greenhouse gas concentrations "<i>at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system.</i>"	The policies of the OIRMP have a role to play in contributing towards achievement of these high-level objectives and should promote a reduction in greenhouse gas emissions, in line with national and international targets.
The Second European Climate Change Programme (2005) established the European Climate Change Programme (ECCP) in 2000 to help identify the most environmentally and cost-effective policies and measures that can be taken at European level to cut greenhouse gas emissions; and explored further cost-effective options for reducing greenhouse gas emissions in synergy with the EU's Lisbon strategy for increasing economic growth and job creation.	
Limiting Global Climate Change to 2 degrees Celsius. The way ahead for 2020 and beyond (EC, 2007) proposed that, through international negotiations, the EU should pursue a 30% reduction in greenhouse gas emissions by developed countries by 2020 (compared to 1990 levels). This was deemed necessary to ensure that the world stays within the limit of a 2°C increase in average global temperatures.	
The UK Climate Change Act 2008 and the Climate Change (Scotland) Act, (2009). focus on the need to cut greenhouse gas emissions. As of June 2019, national targets were for a 100% reduction by 2050, contributing to climate change abatement targets set at the UK, EU and international levels. In May 2019 amendments to the Scottish Climate Change Bill were lodged to set a legally binding target of net-zero (100% reduction) greenhouse gas emissions by 2045 at the latest, with Scotland becoming carbon neutral by 2040.	

The Paris Agreement (2015) is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels. To achieve this long-term temperature goal, countries aim to reach global peaking of greenhouse gas emissions as soon as possible to achieve a climate neutral world by mid-century. The Paris Agreement is a landmark in the multilateral climate change process because, for the first time, a binding agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects.	
Orkney Islands Council has commitments to reduce the Islands' total carbon dioxide emissions by 42% from the 2004-2015 baseline by 2026; Orkney Islands Council Carbon Management Programme 2016-2026 sets out the Council's aims to move towards a low carbon operation, through careful planning of all their energy consuming activities and by assessing future plans in terms of their Carbon Impact in order to reduce their total Carbon Dioxide emissions in the financial year 2025 by 42% of the baseline year 2004-05. With 18% already achieved, a further 24% reduction has been committed to by the Council.	The OIRMP should be compatible with the objectives of Orkney's Carbon Management Programme, the Sustainable Energy Strategy, and the Hydrogen Strategy.
A Sustainable Energy Strategy for Orkney, (2017-2025) provides a framework to ensure a secure, sustainable low carbon island economy driven uniquely by innovation and collaboration, enabling the community to achieve ambitious carbon reduction targets, address fuel poverty and provide energy systems solutions to the world.	
Orkney Hydrogen Strategy 2019-2025 seeks to aid development of an appropriate sustainable hydrogen economy for Orkney. This would provide economic benefits such as: local jobs; establishing a local supply chain; and an increased resilience in the local energy system.	

Climate ready Scotland: climate change adaptation programme 2019-2024 sets out policies and proposals to prepare Scotland for the challenges that we will face as our climate continues to change in the decades ahead. The Programme is a requirement of the Climate Change (Scotland) Act 2009 and addresses the risks set out in the UK Climate Change Risk Assessment (UK CCRA) 2017, published under section 56 of the UK Climate Change Act 2008. Orkney Climate Change Adaptation Plan (in preparation)	The OIRMP should be informed by Scotland's Climate Change Adaptation Framework and the emerging Orkney Climate Change Adaptation Plan to promote policies which increase the resilience and preparedness of the Orkney Islands to adapt to the effects of climate change. Measures to enable climate change adaptation should be integrated into the OIRMP. Holistic planning will be vital in building resilience to the impacts of climate change amongst communities, businesses and ecosystems. It includes planning to take account of flood risk and coastal erosion, identifying vulnerable land and infrastructure and making space for habitats.
Directive on the Assessment and Management of Flood Risks (EC Directive 2007/60/EC) aims to establish a framework for measures to reduce the risk of floods in the EU by assessing the risk of flooding in river basins and coastal regions, mapping out areas that are prone to significant floods and drawing up flood-risk management plans based on close cooperation between the EU countries.	The OIRMP must take account of the probability of flooding from all sources and the risks involved.
The Flood Risk Management (Scotland) Act (2009) requires the production of Flood Risk Management Strategies by SEPA and Local Flood Risk Plans by the Council as lead authority.	The potential additional influence of climate change should also be borne in mind. The OIRMP should use the Orkney Strategic Flood Risk have regard to the flood maps prepared by SEPA and take account of finalised and approved Flood Risk Management Strategies and Plans. It should protect
The Orkney Flood Risk Management Strategy, SEPA (2015) includes a vision for how flooding should be managed. It identifies the main flood hazards and impacts and	

sets objectives to manage these, along with a series of prioritised actions that aim to achieve these objectives. A Flood Risk Management Plan for Orkney (2016) identifies works and actions that are to be undertaken locally during the period 2016-2022, and how these are to be funded. The Surface Water Management Plan for Kirkwall (2019)	land with potential to contribute to managing flood risk, for example through natural flood management, managed coastal realignment, wash-land or green infrastructure creation, or as part of a scheme to manage flood risk.
BIODIVERSITY, FLORA & FAUNA	
The Convention Concerning the Protection of the World Cultural and Natural Heritage (1972) aims to encourage the identification, protection and preservation of cultural and natural heritage around the world, considered to be of outstanding value to humanity.	The OIRMP and its policies must reflect the objectives of these three conventions.
The Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979) is an intergovernmental treaty concerned with the conservation of wildlife and habitats on an international scale. It aims to conserve marine, terrestrial, and avian species throughout their range through international cooperation. The UK is party to the convention and to several agreements that have been concluded under its auspices. Examples include ASCOBANS (small cetaceans – Odontoceti); ARWA (migratory birds) and EUROBATS (bats).	
The Convention on the Conservation of European Wildlife and Natural Habitats (1979). (The Bern Convention) was established to ensure conservation and protection of wild plant and animal species and their natural habitats, to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species).	
The Conservation of Wild Birds Directive (79/409/EEC) is the EU's oldest piece of nature legislation. Known as the Birds Directive it was adopted unanimously by Member States in 1979 as a response to increasing concerns about the declines in	The OIRMP should: • Identify all international and national natural heritage designations

Europe's wild bird populations resulting from pollution, loss of habitats as well as unsustainable use. It protects all wild birds (together with their nests and eggs) and their associated habitats. The Conservation of Natural Habitats and of Wild Fauna and Flora Directive (92/43/EEC), more commonly known as the Habitats Directive was adopted in 1992 to protect natural habitats and certain species of wild plants and animals. The species listed on Annexes II, IV and V of the Habitats Directive, plus those birds protected under the Birds Directive, are called species of 'Community interest'. Together these Directives established a commitment to designating a network of sites known as Natura 2000 sites. Following the departure of the United Kingdom from the European Union, these sites are now described in the UK as European sites. Special Protected Areas (SPA) are designated under the Birds Directive and Special Areas of Conservation (SAC) are designated under the Habitats Directive. This is a key underlying international policy commitment, to be reflected in the policies of the OIRMP. The Convention on Wetlands of International Importance 1971 (amended 1982 and 1987) emphasizes the special value of wetland, particularly as a key habitat for waterfowl. The Convention resulted in the designation of sites known as Ramsar Sites for management and conservation at an international level. All Ramsar sites are also European sites. The Marine (Scotland) Act 2010 establishes a new power for Marine Protected Areas (MPAs) in the seas around Scotland, to recognise features of national importance and to meet international commitments for developing a network of MPAs. The Act allows for three different types of MPAs to be set up: • Nature Conservation MPAs. • Demonstration and Research MPAs. • Historic MPAs.	(including potential SPAs and SACs) on maps, distinguishing clearly between international or national sites. • Make reference to local nature conservation sites which are described and mapped in Supplementary Guidance Natural Environment Annex 1. • Include marine planning policy for any areas identified as being of international national or local importance for their natural heritage and safeguard any areas being of major importance for nature conservation. • Make clear the requirement to protect the integrity and qualifying interests of European sites and indicate the criteria against which a development affecting a natural heritage designation will be assessed. The OIMRP will be subject to a Habitats Regulations Assessment (HRA) under Article 6(3) of the Habitats Directive.

Supplementary Guidance Natural Environment Annex 1 Local Nature Conservation Sites (2017) Orkney Islands Council.	
When enacted to implement the Birds Directive and Bern Convention, the Wildlife and Countryside Act 1981 provided a relatively straightforward source of wildlife law in Great Britain. However, the legal picture is now more complicated: Firstly, the introduction of the Conservation (Natural Habitats, &c.) Regulations 1994, commonly known as the Habitats Regulations, created a separate set of rules for those species (and habitats) protected under the Habitats Directive. Secondly, devolution has meant that changes to the 1981 Act through the Nature Conservation (Scotland) Act 2004 and the Habitats Regulations have been made differently in Scotland than in England and Wales. Part 1 of the Wildlife & Countryside Act 1981 details many offences in relation to the killing and taking of wild birds, other animals and plants. Schedules are attached which categorise species. This means that the degree of protection afforded varies according to which Schedule a species is listed on. The Act applies to the terrestrial environment and inshore waters (0-12 nautical miles). The Marine (Scotland) Act 2010 also introduced improved protection for seals. The Wildlife and Natural Environment (Scotland) Act 2011 draws together and updates legislation on nature conservation. It updates much of the Wildlife and Countryside Act (WCA). Includes legislation relating to Invasive Non-Native Species (INNS).	The OIRMP should: • Include policy for protected species. • Include policy for Priority Marine Features (PMFs). • Provide for the conservation of the wider biodiversity out-with designated areas. It should also address issues that enable the spread of INNS.
The Great Britain Invasive and Non-Native Strategy (2015) aims to protect against the adverse impacts of invasive non-native species. It aims to: • get people to work better together, including the government, stakeholders, land managers and the general public. ☐ improve co-ordination and co-operation on issues at a European and international level.	The OIRMP should consider how to reduce the spread of INNS,

Managing Invasive Species in Scotland's Water Environment was developed by SEPA as a supplementary plan to the River Basin Management Plans. It provides guidance on a co-ordinated approach for organisations with a role in risk assessment, monitoring, classification, data collection and presentation and control mechanisms, to reduce the risk posed by INNS on the ecological quality of water bodies.	
Orkney Islands Council Ballast Water Management Policy aims to minimise the risk of introduction of INNS during ballast water discharge activities in Scapa Flow.	
The Nature Conservation (Scotland) Act 2004 introduced the 'biodiversity duty' - a 'duty to further the conservation of biodiversity' - for all public bodies and sets out more specific provisions within this (e.g., for SSSIs). It also required the preparation of a Scottish Biodiversity Strategy to which all public bodies should pay regard, as well as a Scottish Biodiversity 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	Orkney Islands Council has a duty, <i>"....in exercising any functions, to further the conservation of biodiversity so far as it is consistent with the proper exercise of those functions."</i> This duty must be reflected in the OIRMP and in development management decisions
Article 6 of the UN Convention on Biological Diversity (1992) (commonly known as the Rio Convention) requires that all parties develop national biodiversity strategies, plans or programmes, and that they seek to integrate the provisions of these across other policy sectors. International targets call for a step change in efforts to halt the loss of biodiversity and to restore essential services that a healthy natural environment provides.	The OIRMP should: • Assist in reversing the decline of biodiversity including Priority Marine Features and other species and habitats that are identified as priorities for conservation. • Contribute where possible to Orkney LBAP objectives and targets.
Scotland's Biodiversity It's in Your Hands (2004), aims to 'conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland, now and in the future' and sets out a vision for 2030 as well as objectives and desired outcomes.	
The 2020 Challenge for Scotland's Biodiversity is a supplement to the Scottish Biodiversity Strategy and focuses on desired outcomes for 2020. It aims to increase the	

general level of biodiversity and support ecosystems, engage people with the natural world and maximise the benefits of a diverse natural environment and the services it provides, contributing to sustainable economic growth.	
The Orkney Local Biodiversity Action Plan (2002), along with targeted versions of the Plan published in 2008, 2013 and 2018, identifies actions which can be taken locally, and which contribute to the conservation of those species and habitats identified as being “at risk” or “threatened” in the UK as a whole. It is presented as a series of habitat action plans and associated guiding principles. These plans identify the most important sites, both designated and non-designated.	The role of certain marine habitats in storing carbon (blue carbon) should be fully recognised in the OIRMP and these habitats should be afforded protection from development. The role of planning in relation to biodiversity, and in terms of raising awareness and appreciation of natural heritage, should be reinforced, and promoted by the OIRMP as far as possible.
The overarching aim of the Great Britain Invasive and Non-Native Strategy, (2015) is to minimise the risk posed by and reduce the negative impacts of INNS in Britain. It follows a hierarchical approach stressing prevention, followed by early detection and rapid response and finally long-term management and control. It aims to get people to work better together and improve coordination and cooperation on issues at a European and international level.	
Managing Invasive Species in Scotland’s Water Environment: A Supplementary Plan to the River Basin Management Plans. (SEPA, 2013) describes the roles of organisations and partners involved in risk assessment, monitoring, classification, data collection, and prevention and control mechanisms. Since these roles and responsibilities are shared across a number of organisations, both north and south of the border, it also aims to form a basis for cross-border discussions and partnership working with counterpart organisations in England. Most importantly, the plan identifies resourcing pressures and proposes key actions to address these in order to ensure that the WFD objectives are met in future river basin planning cycles.	
Scapa Flow Ballast Water Management Policy (OIC, 2017) seeks to minimize the potential for pollution resulting from oil, chemical, heavy metals and transfer of non-	The OIRMP should include policies to address the threat of invasive non-native species.

native aquatic organisms and pathogens which may be contained within ships ballast water and associated sediments. The policy applies to all vessels over 400 gross tonnage within or using Scapa Flow Harbour Area. The discharge of a ship's ballast water whilst within Scapa Flow as defined by the harbour limits is prohibited unless in accordance with the policy.	
WATER	
The Water Framework Directive 2000/60/EC provides an overarching strategy for the aquatic environment, including a requirement for EU Member States to ensure that water bodies achieve 'good ecological status' by 2015. The Water Environment and Water Services (Scotland) Act 2003 (WEWS) Act transposes the Water Framework Directive into the Scottish context. Aims to protect the water environment including marine waters. The Water Environment (Controlled Activities) (Scotland) Regulations 2005 sets out the process by which activities which have the potential to affect the water are regulated.	Planning authorities have a duty under the WEWS Act to protect and improve Scotland's water environment. The OIRMP should include policies which protect and, where appropriate, improve the water environment. These policies should support the aims and objectives of the Water Framework Directive and the WEWS Act by preventing adverse impacts on the water environment.
River Basin Management Plans were prepared under the Water Framework Directive and the WEWS Act and set specific objectives for the protection and improvement of water resources within each river basin. Orkney lies within the area covered by the Scotland River Basin Management Plan (2009).	The policies of the OIRMP should support River Basin Management Planning aims and objectives by ensuring that adverse impacts on the water environment are avoided or appropriately mitigated. They should also contribute towards improving the ecological status of water bodies in and around Orkney.

The Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2013) Regulations Identifies waters as 'shellfish water protected areas'	The OIRMP should afford an appropriate level of protection to areas designated as shellfish waters.
SOIL, GEOLOGY AND COASTAL PROCESSES	
The Scottish Soil Framework provides an overarching policy framework for the protection of soils in Scotland, in line with the European Directive. Includes coastal areas.	The OIRMP should have regard to developments which may have the potential to impact on coastal processes.
The Scottish Government's Dynamic Coast Project undertook a wide range of analysis, from coastal change due to sea level rise, to the social disadvantage of the population exposed to coastal erosion. A guidance document produced by NatureScot, Looking Ahead: Planning for Coastal Change (2019) has been prepared in partnership and promotes the use of coastal change information to plan for development and infrastructure around the coast.	The predicted effects of climate change include rising sea levels which in turn increase the risk of coastal erosion. The OIRMP should be informed by the findings of the Dynamic Coast project and the NatureScot guidance
Scotland's Geodiversity Charter 2018-2023 encourages the promotion and management of Scotland's geodiversity and better integration of geodiversity into policy and guidance, consistent with the country's economic, social, cultural and environmental needs. The Charter seeks to help protect this aspect of our natural heritage and deliver more sustainable management of Scotland's natural resources.	The OIRMP should: Identify all national and local geological and geomorphological designations within the natural heritage policy, distinguishing clearly between national sites and sites of more local importance. It should provide for the conservation of geodiversity within and outwith designated areas by linking to the OLDP policy.

LANDSCAPE / SEASCAPE	
The policies of the Council of Europe, European Landscape Convention (2000) (The Florence Convention) aim to not only safeguard protected areas, but to recognise and conserve wider landscapes. These may not be formally designated but make an important contribution to the quality of environment.	Landscapes and the natural heritage are sensitive to inappropriately designed and/or sited development. The OIRMP should address the potential effects of development on landscapes and seascapes, including the cumulative effect of incremental change.
The overarching aim of NatureScot Landscape Policy Framework: Policy Statement No. 05/01 is: <i>“To safeguard and enhance the distinct identity, the diverse character and the special qualities of Scotland’s landscapes as a whole, so as to ensure tomorrow’s landscapes contribute positively to people’s environment and are at least as attractive and valued as they are today.”</i> These principles are based on four propositions: ☐ Scotland’s landscapes are a shared responsibility. ☐ All of Scotland’s landscapes deserve attention. ☐ Scotland’s landscapes will continue to change. ☐ Scotland’s landscapes deserve greater care. The Landscape Policy Framework is currently being revised following publication of the NatureScot and HES joint Landscape Position Statement (2019).	The OIRMP should seek to protect and where appropriate enhance all types of landscape character areas, and support development that is sensitive to and does not harm the quality and distinctiveness of Orkney’s landscapes and seascapes.
The shared vision expressed in the NatureScot and HES Landscape Position Statement (2019) is that <i>“All Scotland’s landscapes are vibrant and resilient. They realise their potential to inspire and benefit everyone. They are positively managed as</i>	

<i>a vital asset in tackling climate change. They continue to provide a strong sense of place and identity, connecting the past with the present and people with nature, and fostering wellbeing and prosperity.”</i> To deliver the vision the following strategic action is needed: • Talking about landscape and its range of benefits • Engaging more local communities and other stakeholders in helping shape future landscape change • Strengthening the role of landscape approaches in the planning, management and design of built development and other land uses.	The OIRMP should pay due regard to the information and guidance provided in both the LCA and the CCA.
Orkney Landscape Character Assessment Land Use Consultants (1998) Scottish Natural Heritage Review No. 100 Provides information on the formation and shaping of Orkney’s landscape and its characteristic features. Examines the nature of recent changes in the landscape and assesses future trends and potential threats to landscape character. Develops general guidelines for planning and management throughout Orkney. Classifies the landscape by character type and provides island character area descriptions for inhabited islands. Identifies both general and area specific sensitivities or requirements for planning and management.	
The principal aim of the Coastal Character Assessment: Orkney and North Caithness Prepared by LUC for NatureScot (2016) was to undertake a coastal character assessment of Orkney and the North Caithness Coast, to include classification and description of both regional and local coastal character areas. Coastal character assessment (CCA) is designed to complement and add to landscape character assessment (LCA). An existing series of LCAs, carried out in the 1990s and currently under review, covers the whole of Scotland. These LCAs cover coastal landscapes, but the attention given to the coast, including marine influences, varies	

considerably. The CCA approach seeks to ensure a consistent treatment of Scotland's coastal landscapes.	
The special qualities of the National Scenic Areas. NatureScot Commissioned Report No. 374 (2010). Special qualities are defined as 'the characteristics that, individually or combined, give rise to an area's outstanding scenery.' These special qualities underpin the reason for designating an area as a National Scenic Area (NSA). Defining the special qualities of a particular NSA clarifies what needs to be safeguarded to maintain its outstanding scenery and provides a firm basis for future consultation and policy development, particularly in relation to managing development and land use change within NSAs. This should help ensure that we pass on the appeal and value of our finest landscapes to future generations.	The OIRMP should ensure that development proposals should not impact significantly on the special qualities of the Hoy and West Mainland NSA,
Orkney Landscape Capacity for Aquaculture: Scapa Flow and Wide Firth. NatureScot Commissioned Report 466 (2011) aims to assess both the strategic and local level landscape capacity for the siting of finfish and shellfish farms within the Scapa Flow and Wide Firth waters of Orkney. The capacity assessment should provide a basis for assessing future individual lease applications and determining their suitability for location within a specific seascape.	The OIRMP policy on Aquaculture should pay due regard to the Landscape Capacity for Aquaculture document.
CULTURAL HERITAGE	
Landscape and the Historic Environment – A Common Statement (Strategic Historic Environment Forum). The Strategic Historic Environment Forum's vision is for the historic dimension of landscape to be fully acknowledged and valued. It is at the core of a shared and	The OIRMP should pay due regard to the effect of development proposals on the historic dimension of landscape.

unifying approach to managing change in our landscape in ways which maximise public benefit for present and future generations.	
Historic Environment Scotland Act 2014. Historic Environment Policy for Scotland (2019). Our Place in Time: The Historic Environment Strategy for Scotland (2014). PAN 2/2011 Planning and Archaeology. Historic Environment Scotland Corporate Plan 2019 onwards. Managing Change in the Historic Environment Guidance Notes. These national historic environment policies aim to identify and protect historic buildings and sites from inappropriate development and damage. Policies extend beyond specific designated sites to reflect the value of undesignated / unknown sites, wider townscapes, the setting of monuments and historic buildings, and wider cultural landscapes.	The OIRMP should include policy for the protection of Orkney's cultural heritage features, including its archaeological heritage.
UNESCO Convention on Protection of Underwater Cultural Heritage (2001) aims to ensure and strengthen the protection of Underwater Cultural Heritage (UCH) over 100 years old, promoting in situ protection and preventing commercial exploitation. Responsible non-intrusive access to observe or document in situ UCH is encouraged to create public awareness, appreciation and protection of the heritage.	The OIRMP should consider how best to preserve and promote UCH sites in the region.
International Council on Monuments and Sites (ICOMOS) Charter on the Protection and Management of Underwater Cultural Heritage.	The OIRMP should consider the protection of underwater cultural heritage.

The Protection of Wrecks Act (1973) secures the protection of wrecks in territorial waters and the sites of such wrecks, from interference by unauthorised persons; and for connected purposes.	The OIRMP should consider the protection of underwater wrecks.
Marine Protected Areas in the Seas around Scotland: Guidelines on the selection, designation and management of Historic Marine Protected Areas (HMPAs). This guidance note sets out how Historic Environment Scotland will work with the Scottish Government to apply powers under the Marine (Scotland) Act 2010 to select, designate and manage HMPAs, a designation to help celebrate and protect evidence of outstanding marine cultural heritage that survives in the coasts and seas around Scotland.	The OIRMP should include policy for the protection of HMPAs in the region.
The Heart of Neolithic Orkney World Heritage Site Management Plan 2014 – 2019 has been developed by various partners and provides a framework document for how the Site will be managed over the next five years by identifying a series of key issues and devising specific objectives or actions to address these issues. This plan is currently under review and emerging changes to its vision, objectives and actions will be taken into account where possible.	The Neolithic village of Skara Brae is one of the monuments of the WHS and occupies a coastal location at Bay of Skail.
<u>The Heart of Neolithic Orkney World Heritage Site Setting Project Atkins. Ltd 2008</u> was commissioned by Historic Scotland to provide an objective description of the setting of the Heart of Neolithic Orkney World Heritage Site and to provide recommendations on approaches to defining any future Buffer Zone and the nature of policies that may apply to that Buffer Zone. Supports the HONO Management Plan and the Orkney Local Development Plan.	
	Coastal erosion is a significant issue at this site. The policies of the OIRMP should take full account of the effects of marine and

Climate Risk Assessment for the Heart of Neolithic Orkney World Heritage Site describes outcomes from a workshop in Orkney, Scotland (April 2019) to apply the Climate Vulnerability Index (CVI). The CVI is a new methodology developed to rapidly assess climate impacts – both to Outstanding Universal Value (OUV) and the associated ‘community’ (local, domestic and international) – for all types of World Heritage properties (natural, cultural or mixed). In its first application to a cultural World Heritage property, the CVI process was undertaken for the ‘Heart of Neolithic Orkney’ (HONO).	coastal development proposals on Skara Brae and its setting.
HUMAN HEALTH AND POPULATION	
Community Empowerment Act (Scotland) 2015. Community Planning Partnerships, which involve a number of public bodies, have a duty to make plans for local areas which meet the needs and ambitions of local people. Community planning priorities stress the important role played by communities in shaping and making local decisions.	The OIRMP should be consistent with the Council Plan and Community Planning priorities.
The Orkney Community Plan 2019 -2022 incorporating Orkney’s Local Outcomes Improvement Plan allows for providers of public services to work together with the community to plan and deliver services that will improve long term outcomes for individuals, families, and communities where inequality persists. Its strategic priorities are: • Strong Communities. • Living Well. • Vibrant Economy.	
The Council Plan 2018-2023.	

The Council is a leading member of The Orkney Partnership, and the Council Plan supports the strategic priorities of the Community Plan. The shared mission of both Plans is “Working together for a better Orkney.” The Council’s strategic priorities are: • Connected Communities • Caring Communities • Thriving Communities • Enterprising Communities • Quality of Life.	
The Land Reform (Scotland) Act 2003, as amended establishes rights of responsible access to most land and inland water for informal recreation and includes requirement for local authorities to draw up a plan for a system of paths (core paths) to give public reasonable access throughout their area.	The OIRMP should have a policy on tourism, sport, recreation, and leisure.
The Orkney Outdoor Access Strategy (2017) was first published in 2006 and was reviewed and updated in 2016 The strategy provides a framework to guide the development and management of outdoor access throughout the islands.	
The Orkney Core Paths Plan (2018) identifies a series of paths to promote outdoor access across Orkney and sets out the right of responsible access in Scotland. It aims to promoting more widespread and functional walking, cycling and riding and thereby support improved levels of physical activity.	
The Islands (Scotland) Act (2018) is legislation with provision to ‘island-proof’ decision-making across the public sector that will ensure the interests of islanders are reflected in future legislation and policy from the very outset.	The OIRMP will be screened for Island Communities Impact Assessment (ICIA).

Improving Health in Scotland – the Challenge (2003). Creating Places – A policy statement on architecture and place for Scotland. Good Places Better Health (2008). Equally Well: Implementation Plan (2008) and 2010 Review Recommendations. National policy outlines the need to seek to improve health and quality of life. There is a growing recognition of an additional need to shape places which are nurturing of positive health, wellbeing and resilience.	The OIRMP may include a policy on Amenity, Well-being and Quality of Life of coastal communities and pay due regard to the six Scottish government place principles.
The national tourism strategy Scotland Outlook 2030: Responsible Tourism for a Sustainable Future aims to make Scotland “the world leader in 21st century tourism which will see “communities embrace visitors and the stories of our destinations and world-famous assets are brought to life by Scotland’s people; where strong partnerships are in play to protect and enhance our environment whilst growing social, cultural and economic wealth.” This will be achieved by focusing on four key priorities: our passionate people, our thriving places, our diverse businesses, our memorable experiences.	
Working in concert with the national tourism strategy, A Visitor Management Strategy for Scotland (2021) seeks “to create a dynamic, forward looking and inclusive approach to Visitor Management for Scotland.” Its mission is: “through strategic leadership and by harnessing the collective skills of our partners in the private, public and third sectors we will deliver a world class approach to Visitor Management that protects our environment, respects our communities, enhances the experience of our visitors and supports a thriving tourism sector.”	The OIRMP should consider a Tourism, recreation, sport and leisure policy that promotes activities that have minimal impact on the environment.
The Orkney Tourism Strategy 2020-2025: A strategy for sustainable tourism seeks to establish Orkney as “a world-class sustainable destination enriching the lives of its people and visitors,” pursuing the following objectives: (1) increasing economic prosperity of the islands; (2) extending the visitor season and increasing visitor spend; (3) sustainably managing visitor numbers to protect the quality of experience, the key	

sites and routes to the sites, for visitors and local residents; (4) enhancing the islands' natural and cultural heritage; (5) conserving and people, our visitors, our businesses and our environment at the heart of tourism objectives and their delivery. These strategies reflect the changing world we live in, our new mindset and approach to how we live and work and represents a new approach, putting our communities, our dispersing the benefits of tourism throughout the whole of Orkney	
MATERIAL ASSETS – INFRASTRUCTURE	
A National Mission with Local Impact. Draft Infrastructure Investment Plan for Scotland 2021-2022 to 2025-2026 The Scottish Government has taken forward the recommendations from the Infrastructure Commission on the key challenges and opportunities for infrastructure in Scotland. The emerging National Infrastructure Investment Plan sets out a new approach to investment decision making and identifies various priorities around promoting a whole-life approach to asset management, with a particular focus on supporting net-zero objectives driven by Climate Change legislation. The draft Infrastructure Investment Plan will focus on three core strategic themes for guiding investment decisions in Scotland: • Enabling the transition to net zero. emissions and environmental sustainability • Driving inclusive growth. • Building resilient and sustainable places.	The OIRMP should have policies that support sustainable development and use.
The Orkney Harbours Port Masterplan Phase 1 is an ambitious blueprint that provides a framework for the first phase of future port and harbour development in Orkney.	The OIRMP should pay due regard to the Ports Masterplan.

MATERIAL ASSETS - ENERGY	
The Electricity Act (1989) provides the legislative background within which the energy sector functions and sets out the framework within which applications for marine energy development should seek consent. Under Section 36 of the Electricity Act 1989 (Requirements for Consent of Offshore Generating Stations) (Scotland) Order 2002, consent is required for electricity generation schemes with a capacity over 1MW.	The OIRMP should ensure compliance with the Electricity Act.
The Future of Energy in Scotland: Scottish Energy Strategy (2017) sets two targets for the Scottish energy system by 2030: □ The equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied by renewable sources. □ An increase by 30% in the productivity of energy use across the Scottish economy. Climate Change Plan: third report on proposals and policies 2018-2032 (RPP3) presented proposals and policies to meet Scotland's annual emissions reduction targets to 2032 through a sectoral approach. The seven sectors are: electricity; buildings; transport; industry; waste; land use, land use change and forestry (LULUCF); and agriculture.	The OIRMP should include policy for renewable energy development and should seek to ensure an area's full potential for electricity and heat from renewable sources is achieved, in line with national climate change targets, giving due regard to relevant environmental, community and cumulative impact considerations. It should include policy for types of development that are compatible with delivering a green recovery from the COVID-19 pandemic.
Securing a green recovery on a path to net zero: climate change plan 2018-2032 – an update (Scottish Government) sets new targets to end Scotland's contribution to climate change by 2045, with commitments to reduce emissions by 75% by 2030 and to net zero by 2045. It sets out the Scottish Government's approach to delivering a green recovery from the COVID-19 pandemic.	
The 2020 Sectoral Marine Plan for Scotland sets out the sites to be offered via the ScotWind offshore wind leasing round – and a finalised Offshore Wind Policy statement, which sets out the Scottish Government's ambitions for the future of offshore wind in Scotland.	The OIRMP should take account of areas identified for the development of wind, wave and tidal energy generation.

National Renewables Infrastructure Plan (N-RIP and N-RIP2) aims to assist the development of a globally competitive offshore renewables industry in Scotland through the creation of infrastructure to support largescale manufacturing, assembly, deployment and operations, as well as maintenance of offshore renewable energy devices.	The OIRMP should pay due regard to N-RIP and N-RIP2 when guiding the sustainable development of the marine environment.
MATERIAL ASSETS - WASTE	
Scotland's Zero Waste Plan (2010) seeks to achieve a zero waste Scotland, where we make the most efficient use of resources by minimising Scotland's demand on primary resources, and maximising the reuse, recycling and recovery of resources instead of treating them as waste.	Consider the role of the OIRMP in waste prevention and management.
Scotland: Making Things Last – a Circular Economy Strategy (2016) was developed to move the country towards a more circular economy, aligning its economic and environmental objectives. It aims to bring together business sectors and individuals to jointly work towards that goal.	
Orkney & Shetland Area Waste Plan (2003) was developed through the joint efforts of Orkney and Shetland Waste Strategy Area Groups (WSAG) to provide a strategic framework for improved waste management across the two local authority areas. The key aim of the plan is to: “Contribute to the sustainable development of the Orkney and Shetland Area by developing waste management systems that will control waste generation, reduce the environmental impacts of waste production, improve resource efficiency, stimulate investment and maximise the economic opportunities arising from waste.”	
The Marine Litter Strategy for Scotland (2014) aims to develop current and future measures to reduce litter entering the marine and coastal environment.	The OIRMP should have a policy on marine litter and waste.

MATERIAL ASSETS - AQUACULTURE	
EC Directive (2006/88/EC) Concerning the Placing on the Market of Aquaculture Animals and Products covers the placing on the market of community aquaculture animals and aquaculture products either for breeding purposes or human consumption which must satisfy general health requirements, regarding transference of diseases, introduction of exotic diseases, processing / handling and transport/storage of aquaculture animals.	The OIRMP should now consider how it can support the sustainable development of aquaculture.
The Aquaculture and Fisheries (Scotland) Act (2013) seeks to ensure that farmed and wild fisheries - and their interactions with each other - continue to be managed effectively, maximising their combined contribution to supporting sustainable economic growth with due regard to the wider marine environment.	The OIRMP should promote aquaculture which is appropriately sited and does not cause adverse impact on wild fish.
A Fresh Start, the renewed Strategic Framework for Scottish Aquaculture' was launched at a Scottish Parliamentary debate on 21 May 2009. It is based on six themes: ☐ healthier fish and shellfish ☐ improved systems for licensing aquaculture developments ☐ improved containment ☐ better marketing and improved image ☐ improved access to finance ☐ Shellfish Forum The framework sets out plans for a re-focused Ministerial Group on Aquaculture (MGA) to oversee the work of six working groups working on critical themes for the industry.	The OIRMP should promote a sustainable aquaculture industry with good stewardship.
Aquaculture Growth to 2030 – a Strategic Plan for farming Scotland's seas notes the priorities for the sector include: ☐ industry leadership and ambition ☐ enabling and proportionate regulation ☐ accelerating innovation	The OIRMP should consider how it can provide planning certainty for aquaculture by providing a clear development steer.

☐ skills development ☐ finance ☐ infrastructure	
Delivering Planning Reform for Aquaculture 2 (2016) sets out how the aquaculture industry, statutory consultees, and the planning authorities continue to work together to refine the planning system for aquaculture. The benefits as it relates to marine planning include up-to-date development plans which provide the industry and communities with greater certainty – particularly for new and previously unused sites	
Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish waters. Scottish Government (updated quarterly) provide guidance on the factors to be taken into account when considering proposals for new marine fish farms or modifications to existing operations.	The OIRMP should considering carrying capacity constraint when guiding new or expanding aquaculture developments.
The Town and Country Planning (Marine Fish Farming) (Scotland) Order, (2007) applies to marine fish farms which will now be subject to statutory planning controls, for the preparation of a development plan in the area for marine fish farms and also for the purposes of preparing a National Park Plan. It designates marine planning zones for relevant planning authorities for marine fish farming and introduces transitional arrangements where an application for a Works License has not been determined before planning controls have come into force.	The OIRMP should consider how it can support the sustainable development of aquaculture in Shetland waters
Circular SEDD 1/2007: Planning Controls for marine Fish Farming explains and gives guidance to planning officers, developers, communities and regulators on the provisions contained in the following Acts, Regulations and Order which pertain specifically to marine fish farming and which come into force on the relevant dates around April 2007. ☐ Water Environment and Water Services (Scotland) Act 2003 ☐ Planning etc. (Scotland) Act 2006 ☐ Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007 ☐ Town and Country Planning (Prescribed Date) (Scotland) Regulations 2012	The OIRMP should consider how it can support sustainable aquaculture and promote understanding of relevant legislation.

☐ Town and Country Planning (Marine Fish Farming) (Scotland) Regulations 2007 (amended 2012)	
The Scottish Salmon Producers Organisation Code of Good Practice is the entry point for membership of Scottish Salmon Producers' Organisation. The CoGP was reviewed and revised by a CoGP Working Group. It sets out the standards that farmers must demonstrate. Compliance with the Code is independently audited	
The Association of Scottish Shellfish Growers Code of Good Practice targets the overall activities of shellfish growers with the aim that growers can produce a superior quality product, maintain a high standard of shellfish health and meet or exceed hygiene regulations, whilst minimising their impact of their activities on the natural environment and ensuring that they are managed in a manner that is in harmony with the needs of other marine and shoreline users.	The OIRMP should consider how it can support and promote compliance to the Code of Good practice.
Statutory Instrument 1998 No. 994. The Food Safety (Fishery Products and Live Shellfish) (Hygiene) Regulations (1998) designates areas which are suitable or prohibited for the production or collection of live shellfish. It also covers the transportation and storage of live shellfish after dispatch. In the UK, the Shellfish Hygiene Directive and relevant Regulations are the responsibility of the Food Standards Agency (FSA). This includes responsibility for the designation of harvesting areas, setting standards and reporting the classification of harvesting areas according to the presence of faecal indicator organisms	The OIRMP should consider how it can support high standards of water quality to promote the safe production of shellfish.
MATERIAL ASSETS: FISHERIES	
The Inshore Fishing (Scotland) Act 1984 (as amended) regulates fishing in inshore waters by way of prohibiting combinations of the following: ☐ all fishing for sea fish ☐ fishing for a specified description of sea fish ☐ fishing by a specified method ☐ fishing from a specified description of fishing boat ☐ fishing from or by means of any vehicle, or any vehicle of a specific description	The OIRMP provides spatial information on important fishing grounds as well as policies to safeguard fishing opportunities.

☐ fishing by means of a specified description of equipment.	
The Sea Fisheries (Shellfish) Act, (1967) (as amended) has been amended many times. From the mid-nineties regulating orders under this Act were considered as a means of enabling more local, area management of inshore shellfish fisheries. Several Orders also under this Act have been used specifically for the localised cultivation of shellfish.	The OIRMP provides spatial information on important fishing grounds as well as policies to safeguard fishing opportunities.
The Scottish Inshore Fisheries Strategy (2015) Sets out a vision to support the development of a more sustainable, profitable and well-managed inshore fisheries sector in Scotland. The 2015 inshore strategy will therefore focus on: ☐ improving the evidence base on which fisheries management decisions are made ☐ streamlining fisheries governance, and promoting stakeholder participation ☐ embedding inshore fisheries management into wider marine planning.	
The Sea Fish (Conservation) Act, (1967) (as amended) relates to the licensing of fishing boats and places restrictions on time spent at sea. The Act also regulates size limits for fish, net size and gear type	The OIRMP supports the local management of sustainable fisheries
MATERIAL ASSETS: SHIPPING, PORTS AND TRANSPORT	
The International Maritime Organisation (IMO) is a specialised UN agency with responsibility for the safety of international shipping and the prevention of pollution from ships. Its protocols include: ☐ The international convention on the control of harmful anti-fouling systems on ships ☐ The international convention for the control and management of ships ballast water and sediments ☐ The convention of the prevention of pollution from ships (MARPOL 73/78).	The IMO Conventions must be considered by the OIRMP to ensure it is compliant with national legislation, and in relation to management issues, development opportunities and oil spill contingency planning.
The Safety of Life at Sea (SOLAS) Convention (1974) as amended includes provisions for navigation and pollution prevention. It also includes the International Ship and Port facility Security Code (ISPS), the Convention on the Control of Harmful Anti-	The OIRMP must be compliant with SOLAS requirements relating to navigation.

Fouling Systems on Ships and the Convention on the International Regulations for Preventing Collisions at Sea (COLREGS) (1972).	
Department of Transport. National Policy Statement for Ports. 2012 is part of the planning system established under the 2008 Act to deal with nationally significant infrastructure proposals. It is a National Policy Statement (NPS) and provides the framework for decisions on proposals for new port development. While the NPS covers England and Wales, statistical material, including forecasts of port freight traffic, covers Scotland and Northern Ireland, as well as England and Wales, and helps to inform ports policy there	Consider how the OIRMP can support an integrated transport policy for the Shetland Islands.
The National Transport Strategy 2 (2020) sets out an ambitious vision for Scotland’s transport system for the next 20 years. The vision is underpinned by four priorities: Reduces Inequalities; Takes Climate Action; Helps Deliver Inclusive Economic Growth; and Improves our Health and Wellbeing.	The OIRMP should be consistent with both the national and local transport strategies and should consider policies that promote the use of ‘greener’ transport, e.g., hydrogen ferries.
The Orkney Local Transport Strategy, OIC, (2007-2010) seeks to “promote, encourage and deliver an effective and efficient transportation network that supports the economic vitality, community well-being and environmental integrity of all of Orkney”, through focusing on six objectives: • Ensuring that travel opportunities meet the needs of the whole community. • Integrating various means of travel around Orkney. • Promoting accessibility for all. • Increasing levels of active travel. • Making travel safer. Reducing traffic in sensitive areas.	
PLANNING	
Under the Town and Country Planning (Scotland) Act (1997) permission is required from the local authority for coastal developments (piers, jetties, slipways, marinas etc,)	The policies of the OIRMP should align with those of the Orkney Local Development Plan.

that are located above the level of Mean Low Water Springs (MLWS), and also for fish farm developments.	
The Planning Etc, (Scotland) Act (2006) establishes the National Planning Framework, a strategy for Scotland's spatial development with the objective of contributing to sustainable development. It includes management development and planning permission for marine fish farms.	Consider how the OIRMP can guide sustainable development.
Planning Circular: The relationship between the statutory land use planning system and marine planning and licensing (2013) explores the linkages between the marine and terrestrial planning systems and provides guidance about joint working	The OIRMP should integrate land and marine planning.
National Planning Framework 3. The planning system highlights the need to allow the development of high quality, well designed, energy efficient buildings. Efficient design will contribute to climate change abatement targets, as will transport emission reductions. Redevelopment of urban and rural brownfield sites is encouraged.	The OIRMP should pay due regard to NPF3 and 4.
National Planning framework 4 – Position Statement National Planning Framework 4 (NPF4) will provide a long-term spatial plan for Scotland that sets out where development and infrastructure is needed to support sustainable and inclusive growth. It will guide spatial development, set out national policies, designate national developments and reflect regional spatial priorities. The draft NPF4 has been deposited for public consultation and it is anticipated that NPF4 will be adopted in 2022.	The OIRMP development process has considered NPF4 from the outset to ensure effective integration.
Orkney's Regional Spatial Strategy (ORSS) (indicative at this stage) Following the publication of NPF4 in 2022 and the adoption of statutory guidance by the Scottish Government, an Orkney's Regional Spatial Strategy (ORSS) will be prepared. The ORSS will identify the strategic priorities for development planning in	The OIRMP is being developed alongside the indicative ORSS to ensure effective integration.

Orkney over the next 25 years and beyond to 2050. The key strategic developments necessary to deliver these priorities will be identified alongside the outcomes to which they will contribute. The Regional Spatial Strategy will not be part of the “development plan” however the preparation of the National Planning Framework and Local Development Plans is to “have regard to” an adopted Regional Spatial Strategy.	
Scottish Planning Policy (2020). Creating Places – A policy statement on architecture and place for Scotland. Place is an agent of change. Good buildings and places can enrich our lives as individuals and as a society in many ways. The Place Principle promotes a shared understanding of place, and the need to take a more collaborative approach to a place’s services and assets to achieve better outcomes for people and communities. The principle encourages and enables local flexibility to respond to issues and circumstances in different places.	In the OIRMP the 6 guiding principles of designed places should be given due regard.
The Orkney Local Development Plan (2017) seeks to ensure that effective planning policies are in place to strengthen and support Orkney’s communities by enabling those developments which will have a positive and sustainable socio-economic impact, and utilise locally-available resources, whilst striving to preserve and enhance the rich natural and cultural heritage assets upon which Orkney’s economy and society depends.	The OIRMP should be consistent with the policies and proposals of the Orkney LDP.
Sustainable Development	
A key principle of the United Nations Conference on Environment and Development (UNCED, Earth Summit), the ‘Rio Declaration’ (1992) produced conventions dealing with climate change, biodiversity, forestry and recommended a list of development practices called Agenda 21. It gave the concept of sustainable development to be combined economic growth with ecological responsibility.	

The World Summit on Sustainable Development (WSSD) (2002) sought to focus the world's attention and direct action toward meeting difficult challenges, including improving people's lives and conserving our natural resources in a world that is growing in population, with ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security.	Ensuring that future development is sustainable should be a key principle of the OIRMP.
Securing the Future – UK Government sustainable development strategy (2005) sets out five principles for sustainable development and shared priorities agreed across the UK, including the Devolved Administrations: • living within environmental limits, • ensuring a strong, healthy, and just society, • using sound science responsibly, • promoting good governance • achieving a sustainable economy.	
Choosing Our Future: Scotland's Sustainable Development Strategy (2005) set out action which would be taken in Scotland to turn the shared priorities of the UK framework for sustainable development into action.	
Thematic Strategy on the Protection and Conservation of the Marine Environment (2002) Scottish Government provides strategic direction for the protection and conservation of the marine environment.	The OIRMP should consider the strategy in the context of protection of the water environment.
Seas the Opportunity: A Strategy for the Long-term Sustainability of Scotland's Coasts and Seas. Scottish Government (2005) is founded on the same five sustainable development guiding principles as the Securing the Future – UK Government sustainable development strategy (2005). It specifically states that these will be delivered through developing the concept of Marine Spatial Planning.	The OIRMP should adopt the guiding principles of the Strategy.
In September 2015, the 193 countries of the United Nations General Assembly, including the United Kingdom, adopted the 2030 Agenda for Sustainable Development, which included 17 Sustainable Development Goals (SDGs) focused	Local government has been identified as being best-placed to link the global goals with local communities. The key

on the three key dimensions of sustainability: economic prosperity, social equity and the environment. The Scottish Government signed up to deliver the UNSDGs in 2015.	goals that can be supported through coastal and marine planning should be identified to consider alignment with regional marine planning objectives and policies.
Europe 2020 (2010) is a European strategy for smart, sustainable and inclusive growth which sought to enable Europe to emerge stronger from the financial crisis of 2008. The Commission proposed five measurable EU targets for 2020 that would steer the process and be translated into national targets: for employment; for research and innovation; for climate change and energy; for education; and for combating poverty.	Ensuring that future development is sustainable should be a key principle of the OIRMP.
The Environment Strategy for Scotland: vision and outcomes. (2020) creates an overarching framework for Scotland's existing environmental strategies and plans, including the Climate Change Plan. These will be reviewed over time, to reflect international targets and other policy developments. The Strategy will sit alongside existing high-level Scottish Government policy frameworks, including Scotland's Economic Strategy, the Fairer Scotland Action Plan, the National Transport Strategy and the National Planning Framework.	The OIRMP should contribute to the vision of the Environment Strategy for Scotland.
UK Withdrawal from the European Union (Continuity) (Scotland) Bill (2020) aims to make sure that Scottish law can continue to align with EU law after 31 December 2020. It sets up a new organisation called Environmental Standards Scotland which will be responsible for making sure that: ☐ public bodies in Scotland apply environmental law, and ☐ environmental law in Scotland is effective in protecting the environment and our wellbeing.	The OIRMP should be consistent with the requirements of the Continuity Bill.

The Scottish Government has committed to the development of a Blue Economy Action Plan to launch a programme of collaborative projects across the public sector, Scotland's science base, marine industries and the marine environmental sector. The Plan will set out clear actions to strengthen the resilience of Scotland's marine industries ranging from renewable energy to fisheries (and the marine science, research and innovation which underpin them) and to support coastal communities, recognising the vital importance to our marine economy of the abundant natural capital in Scotland's seas and rivers.	The OIRMP should pay due regard to the aims and objectives of the emerging Blue Economy Action Plan.
CROSS SECTORAL PPS	
The Aarhus Convention (1998) establishes a number of rights of members of the public (individuals and their associations) regarding the environment: access to environmental information; public participation in environmental decision making; and access to justice. The convention is not only an environmental agreement; it is also a convention about government accountability, transparency and responsiveness.	The OIRMP should consider how best to ensure inclusivity and transparency in the development and dissemination of the plan.
The Strategic Environmental Assessment (SEA) Directive 2001/42/EC aims to ensure that environmental consequences of certain plans, programmes and policies are identified and assessed during their preparation and before their adoption. The process contributes to more transparent planning by involving the public and by integrating environmental considerations, helping to achieve the goal of sustainable development.	The OIRMP is a type of plan which qualifies for strategic environmental assessment (SEA).
The Environmental Assessment (Scotland) Act (2005) transposes the SEA Directive into Scottish legislation. It requires the preparation of an environmental report and a period of public consultation. The environmental report and the result of the consultation exercise must be taken into account in decision making.	The OIRMP should be informed by the SEA and responses to public consultation on the Environmental Report.
The Environmental Impact Assessment (EIA) Directive (85/337/EEC) amended (97/11/EC) requires an Environmental Impact Assessment (EIA) and a public	The OIRMP should consider how it can best provide baseline information to

consultation document, an Environmental Statement (ES) to be submitted for certain projects likely to have a significant effect on the environment. The provisions of the EIA Directive have been transposed in part into the following Scottish legislation: ☐ The Town and Country Planning (Environmental Impact Assessment (Scotland) Regulations (2017) ☐ The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations (2017) ☐ The Marine Works (Environmental Impact Assessment (Scotland) Regulations (2017)	inform site selection for development and EIA. It should also consider how best it can inform an effective EIA using marine spatial planning.

STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE ORKNEY ISLANDS REGIONAL MARINE PLAN

Appendix B – Environmental Baseline Report

To enable the current state of environment features of Orkney to be assessed, a search has been carried out of a range of baseline data which are relevant to the SEA issues considered in this Environmental Report. A summary is produced in this section which provides a brief description of the key environmental characteristics of Orkney. This allows any existing problems to be identified and provides the benchmark against which the forecast and monitored levels of environmental effects will be evaluated. The following features of the environment are examined:

1. Climatic effects
2. Biodiversity, fauna and flora
3. Water
4. Coastal processes / Benthic sediments / Soils
5. Geology
6. Landscape
7. Cultural heritage
8. Population and human health
9. Material assets

This report provides a baseline under each of these features, together with the relevant Strategic Environmental Assessment objectives which have been identified as criteria against which to assess the possible environmental effects of the Orkney Islands Regional Marine Plan. Each topic will include a section on the background information, current status and the environmental issues linked to the policies and text in the Plan.

Baseline Overview of Orkney

Number of islands:	70+
Number of inhabited islands:	19
Total (land) area of the Orkney Islands:	990 km ²
Total length of coastline:	over 980 km
Dimensions:	Approximately 85 km north to south and 37 km east to west
Outlying Island with highest population:	Westray
Smallest permanently inhabited island:	Papa Stronsay
Longitude: (Kirkwall)	3° W
Latitude: (Kirkwall)	59°N
Population of Orkney ¹⁵	22,400 (mid-year estimate 30 June 2020)

¹⁵ General Register Office for Scotland

Environmental Baseline, Issues and Objectives by Topic

1 Climatic Factors

SEA objectives
Contribute to national targets to address the cause of climate change by reducing greenhouse gas emissions.
Support the transformational change to a low carbon economy, consistent with national objectives and targets.
Address vulnerability in the County to the likely effects of climate change.

1.1 Background: The Enhanced Greenhouse Effect

It is widely accepted that the increasing atmospheric levels of certain gases are causing significant changes to global climates by reducing the rate of radiative heat loss and allowing temperatures around the world to rise. This is described as the enhanced greenhouse effect.

The United Nations Convention on Climate Change was established in 1992 as an international framework to agree strategies to reduce greenhouse gas emissions.

1.2 Current Status

[A State of the Environment Report: Climate](#) (2014) describes the changes in weather patterns experienced in Scotland over the last century and notes that observed recent climate trends over the period 1961-2011 show the mean annual temperature across Scotland has increased by 1.3 °C.

The Climate Change (Emissions Reductions Targets) (Scotland) Act 2019, which amends the Climate change (Scotland) Act 2009, sets targets to reduce Scotland's emissions of all greenhouse gases to net-zero by 2045 at the latest, with interim targets for reductions of at least 56% by 2020, 75% by 2030, and 90% by 2040.

Six gases are considered to contribute towards the greenhouse effect, and of these, carbon dioxide (CO₂) is the most abundant in the earth's atmosphere. CO₂ estimates are monitored on an annual basis and data supporting CO₂ emissions within the scope of Local Authorities are reported for each local authority area in the United Kingdom. The most recent emissions data for Orkney is set out in Table 1.1 below.

Table 1.1 Local authority CO₂ estimates for Orkney (2005 – 2019) ¹⁶

Year	Industry	Commerce	Public sector	Domestic	Transport	LULUCF* net emissions	Total	Population (000s mid-year estimate)	Per capita emissions (t)
		Kt CO₂							
2005	64.7	19.2	9.7	77.5	29.0	155.3	355.3	20.1	17.7
2006	63.1	21.9	8.6	82.0	30.0	153.0	358.6	20.3	17.6
2007	66.7	23.4	8.6	80.1	30.6	150.8	360.2	20.6	17.5
2008	55.5	20.0	7.5	80.8	30.0	148.8	342.6	20.7	16.5
2009	53.7	17.7	6.1	73.3	29.5	146.8	327.2	20.9	15.6
2010	57.1	22.1	6.9	78.9	29.4	145.4	339.8	21.2	16.0
2011	55.5	19.0	7.1	70.9	28.7	144.0	325.3	21.4	15.2
2012	54.2	20.7	6.2	72.7	28.0	142.7	324.6	21.5	15.1
2013	54.0	20.0	5.6	67.1	28.5	141.5	316.7	21.6	14.7
2014	57.9	16.9	5.6	59.4	29.6	140.4	309.8	21.6	14.4
2015	53.4	14.7	4.1	54.6	30.7	139.4	296.8	21.7	13.7
2016	53.6	11.1	3.2	49.2	32.1	138.3	287.6	21.9	13.2
2017	53.6	9.7	2.9	45.3	32.6	137.4	281.4	22.0	12.8
2018	57.3	9.6	2.8	44.2	31.8	136.5	282.2	22.2	12.7
2019	57.0	8.9	2.6	42.0	31.1	135.6	277.2	22.3	12.4

*LULUCF = Land Use, Land Use Change and Forestry

Table 1.1 indicates that, although there have been minor increases in some years, most notably in 2010, per capita emissions figures for Orkney over this period show an overall decrease from 17.7 to 12.4 tonnes.

¹⁶ <https://data.gov.uk/dataset/723c243d-2f1a-4d27-8b61-cdb93e5b10ff/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2019>

1.3 Environmental Issues: Likely Effects of Climate Change in Orkney

Recorded weather data confirms that temperatures have increased in the UK over recent decades, but not at the same rate in all regions. Information on climate trends for Scotland published by SNIFFER shows that between 1961 to 2004 annual average temperatures in the north of Scotland showed an upward trend.

Correspondingly, the annual heating degree days (an indicator of how much heat energy households use and represents the energy needed to keep a building at a constant temperature) have significantly reduced by 9% over the same period and may reduce even further in the future; the possible reduction by the 2080s is 50% to 300% greater than that experienced so far¹⁷.

Flooding risk due to sea level rise is likely to increase, which will put some existing vulnerable areas under greater stress. Coastal flooding can arise from a combination of factors including high tides, wind and wave exposure and storm surge. Such events are predicted to be further exacerbated by increases in sea level and storm conditions attributed to climate change. The upper range for the latest UK sea-level rise projections is higher than previous estimates, implying increased coastal-flood risk. The likelihood of compound effects from tidal flooding and extreme rainfall is increasing, which can greatly exacerbate flood impacts¹⁸.

The Orkney Flood Risk Management Plan identifies that the main source of flooding in Orkney is from the coast, which accounts for approximately 92% of the annual average damage¹⁹. The Flood Risk Management Plan considers the County's priorities and actions to avoid and reduce the risk of flooding. There are eight Potentially Vulnerable Areas across Orkney; the flood risk management plan provides detail on how flood risk is managed and minimized in these areas. The eight vulnerable areas shown include all localities at risk from flooding, some from river flooding rather than coastal flooding.

As detailed in the SoEA²⁰, Orkney has significant realized and potential for Renewable Energy Development in wind, wave and tidal resources that can support climate change targets. The policies and proposals of the OIRMP should seek to protect and improve climate change mitigation and adaptation measures and support a transition to renewable energy sources.

¹⁷ [LEWIS PDF proof page \(south-ayrshire.gov.uk\)](https://www.south-ayrshire.gov.uk/LEWIS-PDF-proof-page)

¹⁸ <http://www.mccip.org.uk/impacts-report-cards/full-report-cards/2020/>

¹⁹ <https://www.orkney.gov.uk/Service-Directory/F/local-flood-risk-management-plan.htm>

²⁰ [Orkney Islands Marine Region: State of the Environment Assessment](#)

2 Biodiversity, Flora and Fauna

SEA objectives
Conserve protected sites and species.
Safeguard valuable habitat from loss and fragmentation through development.
Protect biodiversity and, where possible, contribute towards achievement of LBAP actions.
Maintain healthy ecosystems and work with the natural processes which provide important services to communities.

During 2020 Orkney Islands Council published its State of the Environment Assessment, a baseline assessment of the Orkney Islands Marine Region. The following paragraphs summarise Section 5 Biodiversity of the Assessment, which provides an overview of the marine biodiversity of Orkney.

2.1 Background: Designated Sites

Biodiversity encompasses the whole variety of life on Earth. It is important for our health and wellbeing, and for the ecosystem services that it provides. The Orkney Islands are particularly valued for their wildlife and several sites are designated for conservation.

- **European sites** were originally designated under the EU Habitats and Birds Directives. They continue to be protected under domestic law as European sites and represent the very best of Scotland's nature and are internationally important areas for threatened habitats and species. The network includes two types of protected area:
 - **Special Areas for Conservation (SAC)** are classified under the Habitats Directive for the protection of rare, endangered, or vulnerable natural habitats and species of plants or animals (other than birds). These are the 189 habitats listed in Annex 1 and the 788 species listed in Annex 11 of the Habitats Directive. There are six SACs in Orkney.
 - **Special Protection Areas** are classified under the Birds Directive and are areas which support rare, vulnerable, and regularly occurring migratory species which are listed in Annex 1 of the Birds Directive. SPAs are intended to safeguard the habitats of these species and to protect the birds from significant disturbance. There are 15 SPAs in Orkney, including two that are entirely marine.
- **Ramsar sites** are classified under the Convention on Wetlands of Significant Importance and are internationally important wetland sites protecting wildfowl habitat. Orkney has only one Ramsar site – the East Sanday coast.
- **Sites of Special Scientific Interest (SSSI)** are designated on account of their plants, animals, or habitats; their rocks or landforms; or a combination of such

natural features. They form a network of the best examples of terrestrial natural features throughout Scotland and support a wider network across Great Britain and the European Union. SSSIs are protected under the Nature Conservation (Scotland) Act 2004. There are 36 SSSIs in Orkney but many of these are also designated as SPAs or SACs.

- **Nature Conservation Marine Protected Areas (NCMPA)** are designated to protect a wide range of habitats, species, geology and undersea landforms in Scottish Waters. There are three NCMPAs in Orkney waters.
- **Local Nature Conservation Sites (LNCS)** have been designated by Orkney Islands Council in the Local Development Plan 2017. They are regarded as being worthy of protection for their ornithological, botanical or geological / geomorphological interest. Orkney has over 240 LNCS.
- **Local Nature Reserves** are places with special local natural interest, set up to protect nature and for people to enjoy and appreciate. Orkney has two LNRs - one at Mull Head in Deerness and another at Happy Valley in Stenness.

Table 2.1 which is presented as **Appendix B.1** to this baseline, provides a summary of Orkney's national and international sites, along with the reasons for their designation (qualifying features) and the current condition status of each qualifying feature.

The distribution and extent of these sites is illustrated in **Appendix C Orkney's Nationally and Internationally Designated Natural Heritage Sites**.

2.1.2 Locally designated sites

Outwith the statutorily designated sites, the Local Nature Conservation Sites are areas of land and water that are recognised as having high biodiversity value and therefore worthy of protection, albeit at a lower level than that afforded to national and international sites. They contain valuable natural habitats which support a wide range of Orkney's wildlife and include coastal and marine habitats such as intertidal mudflats, saline lagoons, coastal saltmarsh, coastal sand dunes and vegetated shingle. Further information on Orkney's LNCSs may be accessed online at <https://www.arcgis.com/apps/MapJournal/index.html?appid=273d8d6359ae451cbe16f3a867297276>

Protected Species

Orkney's marine and coastal environments host a number of species which are protected through specific legislation:

Eurasian otter and all cetacean species (whales, dolphins, and porpoises) are afforded a strict level of protection under the Conservation (Natural Habitats &c.) Regulations 1994 (as amended in Scotland). They are listed in Schedule 2 of the Regulations, and commonly known as European Protected Species. Information on activities that constitute an offence against EPS may be accessed on the NatureScot website at <https://www.nature.scot/professional-advice/protected-areas-and->

[species/protected-species/legal-framework/habitats-directive-and-habitats-regulations/european-protected](#)

Two species of seal are native to Orkney waters – the grey seal and the harbour seal. The main legislation that protects seals in Scottish waters is the Marine (Scotland) Act 2010. This Act also provides for Scottish Ministers to designate Seal Conservation Areas. Orkney is one of five Seal Conservation Areas in Scotland.

The Conservation (Natural Habitats &c.) Regulations 1994 (as amended) also prohibit certain methods of catching or killing seals.

Under the Protection of Seals (Designation of Haul-Out Sites) (Scotland) Order certain coastal areas are designated as seal haulouts and grey seal pupping areas. Information on their locations may be accessed from Marine Scotland's National Marine Plan interactive map at <https://marinescotland.atkinsgeospatial.com/nmpi/>.

Priority Marine Features

Priority marine features (PMFs) are habitats and species that are considered to be marine nature conservation priorities in Scottish waters. Orkney's PMFs include benthic habitats such as blue mussel beds and mudflats and species with low or limited mobility including Fan mussel and Ocean quahog as well as fully mobile species such as sea trout and sand eel. Information on the presence of certain PMFs in Orkney waters may be accessed from Marine Scotland's National Marine Plan interactive map at <https://marinescotland.atkinsgeospatial.com/nmpi/>.

The full list of PMFs found in Orkney is included as **Appendix B2: List of Priority Marine Features recorded within 12 nm of Orkney**

Many these habitats and species are vulnerable to the effects of human activities, including various types of development. Some of these interactions are described in the The Feature Activity Sensitivity Tool (FeAST) is a web-based application which allows users to investigate the sensitivity of marine features and may be accessed at <https://www.nature.scot/professional-advice/protected-areas-and-species/priority-marine-features-scotlands-seas/feature-activity-sensitivity-tool-feast>

Orkney Local Biodiversity Action Plan

The original Scottish Biodiversity Strategy [Scotland's Biodiversity: It's in Your Hands](#) was published in 2004. In 2013, it was supplemented by the [2020 Challenge for Scotland's Biodiversity](#) which sets out the actions proposed to be implemented until 2020, to improve the natural environment in Scotland. Preparation of the post 2020 Strategy has been delayed due to the Covid-19 pandemic; however, a draft version is due to be released for public consultation in May 2022. Once the new Strategy has been adopted, consultation on the draft Delivery Plan is expected to take place from December 2022 until January 2023.

2.3 Environmental Issues

Continuing decline in biodiversity remains a key concern; including decline of seabird species, harbour seals. Climate change, abrasion, smothering, collision.

entanglement and pollution are all pressures identified in the SoEA²¹. The policies and proposals of the OIRMP should seek to protect and improve the quality and overall status of biodiversity in and around Orkney, including, support for biodiversity enhancement.

3. Water

SEA Objectives
Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater.
Protect against developments which have potential to cause or exacerbate coastal erosion and flooding.

3.1 The water environment of Orkney

Orkney has a diverse freshwater and marine water environment. Its catchment areas provide water supplies for people, community services and industry in the islands and the marine environment supports both the shellfish fishing industry and aquaculture. Freshwater watercourses in Orkney generally include freshwater lochs and lochans, streams and drainage ditches, in addition considerable areas of the islands are described as Groundwater Dependent Terrestrial Ecosystems (GDTE) which are waterlogged with areas of standing water for much of the year these. GDTEs are wetlands which critically depend on groundwater flows and/or chemistries²² and include dune slack, fen, wetland, peat bog, reedbed, saltmarsh, springs, flushes and seepages, swamp, wet grassland, wet heath, wet machair and wet woodland²³. In the marine environment there are coastal waters and saline lagoons.

Foul water treatment

Scottish Water also has responsibility for waste-water and, in recent years has upgraded sewerage treatment facilities at a number of locations including: Head of Work, which serves the town of Kirkwall; The Bu, which serves the town of Stromness; St Margaret's Hope; Burray; Holm; Stenness; Dounby; Evie; Finstown, Sanday and Westray. However, in several rural settlements foul water drainage facilities are at, or close to, capacity. In others there is no strategic provision for foul water drainage and properties are reliant on private systems, e.g., septic tanks and soakaways. Where a number of houses are in close proximity to each other this can lead to a proliferation of septic tank systems and a significant risk of water pollution, especially during the wetter months when percolation rates within the soil are poor. This has been a particular problem in certain areas and SEPA has designated the

²¹ [Orkney Islands Marine Region: State of the Environment Assessment](#)

²² Water Framework Directive UK Technical Advisory Group <http://www.wfduk.org/resources/groundwater-dependent-terrestrial-ecosystem-threshold-values>

²³ Scotland's Environment Web

following Planning Consultation Areas where proliferation of private waste water systems has led to a cumulative impact on the water environment:

- Pierowall, Westray
- Whitehall, Stronsay
- Birsay
- Tingwall
- Grimeston Road, Harray
- Houton
- Hatston
- Carness
- Berstane
- Burray Village
- Herston
- Longhope

3.2 Water quality and overall status classification in Orkney

The Scottish Environment Protection Agency (SEPA) has primary responsibility for the water environment and, under the Water Environment (Controlled Activities Regulations) (Scotland) 2005, operates as a regulator for abstraction from and discharges to surface and ground waters. A water quality classification system allows SEPA to determine the state of the environment, highlighting areas that need particular protection, and where improvements need to be made. On an annual basis each water body is reported as high, good, moderate, poor or bad.

The overall status classification of surface water bodies describes by how much their condition ("status") differs from near natural conditions. Water bodies in a near natural condition are at high status while those whose quality has been severely damaged are at bad status.

The water quality classification looks at both biological and chemical indicators of pollution. Water bodies with low levels of pollution are classified as high or good water quality, whereas those with high levels of pollution are classified as poor or bad.

The classification system was devised following EU and UK guidance. It is underpinned by a range of biological quality elements, supported by measurements of chemistry, hydrology (changes to water levels and water flows), morphology (changes to the beds, banks and shores of water bodies) and an assessment of invasive non-native species.

The following settlements are located close to freshwater watercourses that are included in SEPA's monitoring programme:

- Burnside (Burn of Netherbrough)
- The Palace (Burn of Boardhouse)
- Lyron (Burn of Sweenalay)
- Burray Village (Burn of Sutherland)
- Stenness Village (Loch of Stenness)

The water quality and overall status classification of monitored watercourses in Orkney, based on the findings of sampling undertaken during 2013 is summarised in Appendix B.2.

3.3 Environmental Issues

As a planning authority Orkney Islands Council has a duty to protect and improve Scotland's water environment (The Water Environment and Water Services (Scotland) Act 2003).

Water quality in Orkney is generally good but locally there are waters which are polluted by waste-water, effluents and discharges from agriculture, mineral working, and other industries. The EC Water Framework Directive seeks to achieve the continuous improvement of all water bodies through the implementation of River Basin Management Frameworks. Town and country planning has a significant role to play in ensuring an appropriate distribution of land uses and protecting the environment from pollution.

The policies and proposals of the OIRMP should seek to protect and improve the quality and overall status of the water environment in and around Orkney. Sustainable solutions to waste-water treatment should be promoted.

4. Coastal processes / Benthic sediments / Soils

SEA Objectives
Reduce the threat of contamination and seek to protect soils from damage such as erosion or compaction.
Recognise the environmental benefits provided by soils and protect their quality and quantity.

4.1 Background

The geology is predominately flagstone and sandstone deposited in Lake Orcadie, a large freshwater lake belonging to the Devonian (Old Red Sandstone) period (416 – 359 million years ago)²⁴. Metamorphic rocks are exposed near Stromness, Yesnaby and on Graemsay, mostly consisting of granitic gneisses.

4.2 Current status

The length of the Orkney Islands coastline at Mean High Water Springs (MHWS) is 1,024 km, which makes up 5% of the Scottish coastline²⁶. Of this length, 61%

²⁴

<http://www.landforms.eu/orkney/geology.htm#:~:text=Geology%20of%20Orkney%20The%20rocks%20of%20Orkney%20are,Sandstone%29%20period%20%28416%20%E2%80%93%20359%20million%20years%20ago%29>

(623km) has been categorised as hard, 36% (373 km) as soft and 3% (28 km) as artificial.

The surrounding seabed is composed of a rich variety of marine and coastal habitats including submerged reefs, maerl beds, sandbanks, burrowed mud, salt marshes and dune systems. The seabed is dominated by coast sediment and high energy infralittoral rock around most of the islands, with large areas of sand and muddy sand to the east and west of the islands, out towards and beyond the 12 nm limit (see Figure 1).

4.3 Environmental issues

All of the economic sectors assessed within this report are likely to cause some physical disturbance to the seabed. These pressures are due to abrasion; physical disturbance of seabed; disturbance in relation to physical change to another seabed type (e.g. concrete); habitat structure changes and substratum extraction. Developments including ports and harbours, aquaculture, cable laying and marine renewable energy are likely to exert the most significant pressures.

Erosion in areas of soft coast can require the installation of built defences, altering the profile and changing the substate type. In addition, pressures from the potential effects of climate change including sea level rise and soft coast erosion.

The policies and proposals of the OIRMP should seek to protect overall status of the physical coastal and benthic sediment in and around Orkney.

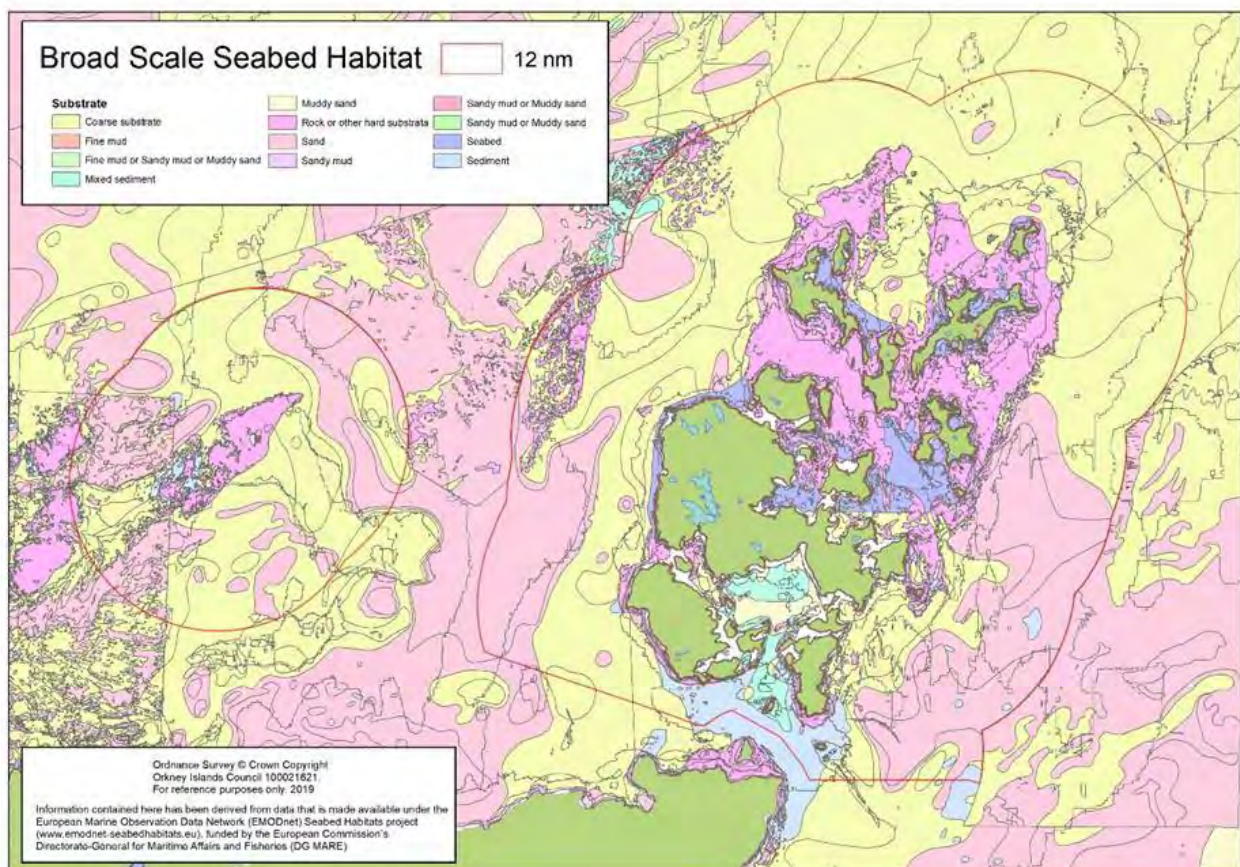


Figure 1 Seabed habitat for the Orkney Island's Marine Region

5. Geology

SEA Objective

Protect designated and undesignated sites which are recognised and valued for their geological or geomorphological importance.

5.1 Background: Summary of Orkney's geological history^{25,26}

Most of the rocks which make up Orkney as we know it today formed around 400 million years ago during the Devonian Period when Britain was positioned approximately 10° south of the equator and was part of a supercontinent made up of the land masses which are today North America and Northern Europe. At that time there were mountains to the north-west and the open Devonian Sea covered the area that is now southwest England. Between the mountains and the sea was a vast desert plain within which a large, shallow, freshwater lake occupied the topographic lowest levels. This shallow lake, known as Lake Orcadie, extended from Shetland, through Orkney, Caithness and the Moray coast and across to western Norway. It was fed by numerous rivers which flowed down from the western mountains eroding gravel sand and mud and transporting these materials into the lake where they settled out as layers on the lake bed.

The oldest rock exposed in Orkney is the Precambrian Basement Complex, examples of which outcrop around the town of Stromness and on the neighbouring island of Graemsay. These outcrops represent the tops of island hills which were surrounded by Lake Orcadie. In the warm, tropical climate evaporation rates were high and rainfall was seasonally variable, and this caused large fluctuations in the depth of the lake and the area that it covered. Mud flats on the lake margins periodically dried out before being inundated again. Evidence for this can be seen today in flagstones where mud cracks are visible which have been filled in by sand. Superimposed on this seasonal cycle were climatic patterns which varied on a much longer timescale, causing the lake to become steadily deeper and wider, at times meeting the edge of the western mountains before retreating to begin the cycle again. These cycles are easily seen in the well exposed coastal cliffs of the West Mainland where the cycle begins with a finely laminated dark grey to black muddy flagstone representing periods of greatest water depth in Lake Orcadie and ends with shallow water lake margin sediments consisting of sands, silts, and light grey muds.

At times Lake Orcadie appears to have been very productive and evidence shows that during intervening periods of drought large numbers of fish died, sinking out of the water column to the bed of the lake where they became preserved in the fine-grained muds. Remains of these fish can be seen today as fossil fragments in the flagstone strata known as the Sandwick and Rousay fish beds, which are most

²⁵ Geology of Orkney. www.fettes.com/Orkney/geology.htm

²⁶ Orkney and Shetland a Landscape Fashioned by Geology www.snh.org.uk

clearly visible at Cruaday Quarry in the parish of Sandwick. The discovery of many fossil fish during the extraction of stone for construction purposes led to designation of the quarry as a Site of Special Scientific Interest. Some of the particularly fine specimens recovered from Cruaday are now displayed at the Fossil Centre in Burray along with fossils from other locations in the Orkney and Caithness area.

This cyclicity of lake deposition continued until Upper Devonian times when the waters of Lake Orcadie retreated so far that it became broken up into many small separate lakes in a predominantly desert landscape. This dry period is characterised by sandstones derived from deposits laid down by the large, braided rivers which continued to flow from the Western Mountains, as well as the sand dunes which migrated across the desert plains. Great thicknesses of sand and gravel were deposited and are preserved, for example, on Orkney's best known natural feature, the Old Man of Hoy, where they rest on a basal plinth of tough lavas that resist erosion by the sea.

Changes in stress within the Earth's crust during Carboniferous to Permian times led to considerable volcanic activity in the area, leaving lavas and vents filled with agglomerate and ash. Intrusive igneous dykes dating from the Younger Permian (250 million years ago) are numerous and can be seen traversing the intertidal areas of many rocky shores. A particularly clear example is found at the Point of Buckquoy in Birsay where the black basalt dyke containing vesicles (bubbles) contrasts strongly with the surrounding paler sedimentary rock.

The formation of depressions in the Earth's crust, where sediments accumulated, continued around Scotland throughout Mesozoic and up to Quaternary times. Economic quantities of oil and gas accumulated in some of these depressions or basins. By the late Permian period, stresses in the Earth's crust created the Viking Graben, a rift valley located in what was to become the North Sea. This event marked the partial break-up of the supercontinent. The rift valley filled with sediments eroded from adjacent areas, including the Orkney-Shetland region, and by early Jurassic times a link with the open sea was established.

Thick sequences of marine sediments accumulated in basins around Britain during Jurassic and Cretaceous times at this time. Tensional stresses were creating a new ocean, the Atlantic, as the supercontinent split apart. North America separated from Africa in the Jurassic (around 165 million years ago) and from Europe in the Late Cretaceous. Europe and North America gradually moved apart as volcanic eruptions added new material along the central spine of the widening ocean – the Mid-Atlantic Ridge.

The earliest stages of stretching and thinning of the Earth's crust near the margin of the emergent ocean allowed molten lava to break through the crust to form a line of volcanoes, for example those running from Skye to Arran. To the present day, we continue to move farther and farther away from America as volcanic eruptions along the Mid-Atlantic Ridge adds new ocean floor, thus forcing the continents apart.

The land mass containing Orkney continued to move northward and during the Quaternary (2.6 million years ago) its geology became heavily modified by glaciation which smoothed and rounded hills and ridges on land and excavated the major firths of Hoy Sound, Eynhallow Sound and Westray Firth. Local glaciers developed at intervals on the island of Hoy where they carved out striking corries and valleys. As the last ice sheet thinned and retreated, considerable thicknesses of glacial deposits

were laid down in hollows. A coastal section at Den Wick in Deerness contains two superimposed depositions of glacial till. Likewise, cliff sections at Scara Taing in Rousay are important for the exposure of three superimposed tills and the adjacent striated (scratched) bedrock surfaces which provide evidence of fluctuating patterns of ice flow.

Although ice has covered Orkney and Shetland many times during the last two million years and sculpted the landscape, the broad outline of the islands owes much to the action of the wind, rain and sea over the last 150 million years. The sea has cut 'geos', which are long narrow slots following faults and joints, into the cliffed coastline and also eroded 'gloups' (blow-holes), caves and natural arches. The Gloup in Deerness is probably the finest example of a blow hole to be seen in Orkney and in the island of Stronsay a natural arch remains intact at the Vat of Kirbister. As erosion continues, the rock spanning arches protruding from the retreating cliff line often collapses, leaving vertical rock pillars as sea stacks; the most famous of these are the Old Man of Hoy and the Castle of Yesnaby, both formed of sandstone.

The power of the sea during westerly gales is vividly illustrated by the high-level storm beaches formed of large blocks of rock, which have been torn from the cliff by the waves and piled up in crescent-shaped ridges behind the cliff top. An excellent example can be seen at Sacquoy Head on Rousay, where boulders lie as much as 80 metres inland at the top of 18-metre-high sea cliffs.

A rise in sea level following the melting of the glaciers about 10,000 years ago was responsible for the drowned landscape of the inner coasts of Orkney. Flooding of the gently undulating Orkney landscape has formed broad open bays, generally backed by sand dunes. Layers of peat, some containing tree trunks and roots, occur beneath the sand and shingle of some modern beaches.

The combined forces of wave action and tidal currents are responsible for the constant reworking of seabed sediments which surround the coasts of Orkney, for example the process of long-shore drift causes sand and gravel to be transported laterally along the shoreline often forming distinctive geomorphological features including narrow spits of shingle or sand. These coastal features are known as 'ayres' in Orkney and are commonly found cutting across the seaward ends of shallow bays. In some cases, spits may partly, or completely, cut off a sheltered stretch of water from the sea to form a shallow lagoon or 'oyce', which eventually may silt up to become a stretch of fertile land. Spits can also form tombolos, joining islands to offshore isles. The island of Sanday is one of the best locations in Orkney where these and other coastal sand features can be seen.

5.2 Current Status: Sites designated for their geological / geomorphological importance.

Orkney's geological history is most clearly visible and interpreted along its coastlines where the rock has been subject to sea level change, deformation, erosion and localised deposition; and also, in quarries where rock extraction has exposed a sequence of rock strata. A number of sites are designated, either nationally as Sites of Special Scientific Interest and/or Geological Conservation Review Sites; or locally as Local Nature Conservation Sites on account of their geological/geomorphological importance in an Orkney context. A full list of these sites is included in **Table 5.1**.

Table 5.1: Sites in Orkney, that are designated for their geological / geomorphological importance²⁷

SITE	DESIGNATION	GEOLOGICAL/GEOMORPHOLOGICAL INTEREST
Birsay		
Point of Buckquoy	LNCS	Unique exposure demonstrates consequences of oscillation in the level of Lake Orcadie during the Devonian
Whitaloo Point	LNCS	A typical monoclinal fold in Upper Stromness Flags
Deerness		
Denwick	SSSI/GCR	Best example in Orkney of a multiple till section
Point of Ayre	GCR	Area of basaltic lava flow
Taracliff Bay – Newark Bay	GCR	Section showing transition from Rousay Flag series to Lower Eday Flag series
Mirkady Point	LNCS	Shingle spit
Eday		
Greenan Nev Coast,	GCR	Exposure of Eday marls of interest in the study of Palaeo environments
Newbiggin to Neven Point,	LNCS	Good section of the western limb of the Eday Syncline
South Fersness Bay,	GCR	Good section of the western limb of the Eday Syncline
Evie & Rendall		
Links of Aikerness	LNCS	Outcrops of Aeolianite unique in Scotland
Hoy & Graemsay		

²⁷ JNCC website; also The Orkney Local Development Plan 2014

SITE	DESIGNATION	GEOLOGICAL/GEOMORPHOLOGICAL INTEREST
Hoy	SSSI / GCR	geology, geomorphology, petrifying tufa springs, (Ward Hill, Enegars Corrie & Dwarfie Hamars) Exposures of the Hoy Volcanics and the Hoy Sandstone in their type area (Old Man of Hoy Coast) Silurian and Devonian volcanic rocks (Too of the Head)
Melsetter Coast section, Hoy	LNCS	Outcrops of the Hoy Lavas
Muckle Head and Selwick	SSSI/ GCR	Geological site due to locally important raised beach deposits
North Coast of Graemsay	LNCS	Exposure of the lower section of the Stromness Flags and crystalline basement
Sanday		
Central Sanday	SSSI/ GCR	Machair and other blown sand and shingle landforms unique in North Scotland.
Doun Helzie,	LNCS	Beach Dune and Machair association
Hegglie Ber,	LNCS	Coarse pebbly and conglomeratic facies of Lower Eday Sandstone
<i>Scar*</i>	<i>LNCS</i>	<i>Glacial erratic</i>
Sandwick		
Bay of Skail	SSSI/GCR	Middle Devonian Fish Beds with fossil plant community
<i>Cruaday Quarry*</i>	<i>SSSI/GCR</i>	<i>Site is of outstanding geological importance due to exposure and preservation of the Sandwick Fish Beds</i>
Stromness Heaths & Coasts	SSSI/GCR	Coastal geomorphology (West Coast of Orkney) Non-marine Devonian (Yesnaby & Gaulton Coast Section)

SITE	DESIGNATION	GEOLOGICAL/GEOMORPHOLOGICAL INTEREST
Shapinsay		
Vasa Loch	LNCS	Complex cusped foreland
Lairo Water and The Ouse	LNCS	Complex of shingle depositional landforms
South Ronaldsay		
Ayre of Cara	LNCS	Provides opportunity for study of rates of accretion and erosion due to construction of Churchill Barriers
Croo Stone Vent coast section	LNCS	Largest and most complex vent to be found in Orkney
Dam of Hoxa	LNCS	Composite depositional structure
South-east Coast	LNCS	Shows relationship of coastal morphology to geological structure
The Altar	LNCS	Demonstrates the influence of jointing on the resultant coastal landforms
Stromness		
South Stromness Coast	SSSI/ GCR	Crystalline basement rock with overlying Stromness Flags. Lead mineralisation.
Stronsay		
Mill Bay, Stronsay	SSSI/ GCR	Geological: Classic shelly till with palaeo-geomorphological importance.

*Non-coastal sites

SSSI: Site of Special Scientific Interest

GCR: Geological Conservation Review site (nationally important Earth Science Site)

LNCS: Local Nature Conservation Site

5.3 Environmental issues

The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their geological or geomorphological interest, and which illustrate Orkney's geological history.

6.Landscape

SEA Objectives
Maintaining and enhancing distinctive landscape character.

6.1 Background

Orkney has one National Scenic Area: the Hoy and West Mainland National Scenic Area (see Map 2). The great ice-rounded eminences of the hills of North Hoy dominate the Orkney scene with a power that is scarcely in tune with their modest height (479 metres). Their bold shape, fine grouping, soaring cliffs and headlands, including the famous stack of the Old Man of Hoy, are almost as important to the Caithness scene as they are in that of Orkney.

6.2 Current status

North Hoy has a particularly strong visual inter-relationship with the south-west mainland of Orkney, the pastoral character of which around the shores of the Loch of Stenness makes a good foil for the bold hills of Hoy. The basin of this loch is enclosed by low rolling hills of lush grassland, some arable land, scattered farm steadings and stone dykes with a noticeable lack of trees, giving a very open landscape, the character of which is enlivened by the abundant remains of ancient occupation.

This landscape culminates in the west in cliffed headlands like a rampart against the sea, which breaks through at Hoy Sound in a tidal race of impressive swiftness. The stone-built settlement of Stromness rising steeply out of its harbour further enhances the character of the area.

The Special Qualities of the Hoy and West Mainland National Scenic Area are:

- A palimpsest of geology, topography, archaeology and land use
- An archaeological landscape of World Heritage Status
- The spectacular coastal scenery
- Sandstone and flagstone as an essence of Orkney
- A long-settled and productive land and sea
- The contrast between the fertile farmland and the unimproved moorland
- A landscape of contrasting curves and lines
- Land and water in constantly changing combinations under the open sky
- The high hills of Hoy
- The townscape of Stromness, its setting and its link with the sea

- The traditional buildings and crofting patterns of Rackwick.

6.3 Environmental issues

Increased development can lead to the erosion of the setting of the seascapes and landscapes of the NSA. For example, as the infrastructure used for offshore wind farms increases in height, the distance of their visibility and therefore potential impacts increases. The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their seascape and landscape interests.



Map 2 Hoy and West Mainland National Scenic Area

7. Cultural Heritage

SEA Objectives
Promote the care and protection of the designated and non-designated historic environment.
Enable positive change in the historic environment which is informed by a clear understanding of the importance of Orkney's heritage assets and ensures their future use.
Safeguard cultural heritage features and their settings through responsible design and siting of development.

7.1 Background

Orkney is internationally renowned for the preservation and richness of 6,000 years of its archaeology upon which its successful tourism economy is based. This includes a Neolithic World Heritage site; spectacular Iron Age tower houses of the broch villages; rich Viking heritage of international significance and the unique 1st World War submerged archaeology of the German High Seas Fleet, that is at the heart of Stromness' diving industry. Orkney also has a rich maritime industrial past from the kelp industry to the herring boom and the Hudson's Bay Trading Company. Through history, the islands have played a significant role in trade, industry, politics and war.

7.2 Current status

A summary of the key elements is outlined below; further detail can be found in the SoEA²⁸

- Orkney has internationally significant coastal and marine historic environment assets.
- Since the Neolithic period some 5,000 to 6,000 years ago, when the land was first farmed, sea levels have risen approximately 5 metres.
- Sea-level change, precipitation change and storm intensity and frequency are the three key climate drivers impacting Orkney's coastal archaeology.

²⁸ [Orkney Islands Marine Region: State of the Environment Assessment](#)

- Climate-change causing rising sea-levels is the single greatest threat to Orkney's coastal historic environment assets.
- Orkney contains 3,000 documented archaeological sites of which 800 are coastal and threatened or presently eroding⁵⁵.
- Coastal and marine historic environment assets can be significantly impacted by renewable energy, aquaculture and harbour developments.
- Uncontrolled recovery of artefacts and associated damage to historic assets has a significant detrimental effect on historic significance.

7.3 Environmental issues

Erosion and sea level rise due to climate change, along with deterioration and/or removal of artifacts are key considerations for cultural heritage. The policies and proposals of the OIRMP should provide effective protection to sites which are designated for their cultural heritage interest.

8. Population and Human Health

SEA Objectives
Improve community environments and quality of life.
Protect and enhance human health and promote access to health, social and recreational facilities.

8.1 Background

The Orkney archipelago consists of 68+ islands over an area of 990km². Sixteen of the islands are populated according to census data, some uninhabited ones are still used for farming, whilst others are relatively small rocky outcrops. In addition, although the 2011 census does not show any population for Papa Stronsay, there are currently nine monks living on the island (per comm).

8.2 Current status

The Orkney population from the 2011 census is 21,349 and is estimated to be 22,2070 for 2019, across 16 islands (see Table 8.1)²⁹. A small number of other islands e.g. Auskerry, Copinsay and Hunda have seasonal populations.

²⁹ For further detail, see the accompanying Islands Communities Impact Assessment

Table 8.1: Population of Orkney Islands (Source OIC extractions from 2011 census)

Island	2011 census	Comment
Burray	409	Burray lies between Mainland and South Ronaldsay, connected by the Churchill Barriers.
Eday	160	Situated centrally among the North Isles of Orkney, 14 miles north-east of Kirkwall, Eday, the isthmus isle, eight miles long and pinched at the waist, offers a unique blend of heather-clad hilly moorland with panoramic views over sea and islands, sheer cliffs, sweeping beaches and sand dunes and rich in archaeology. Most of the crofts and farms are located on the fertile coastal strip. The numerous derelict houses are clear indicators that Eday's population was once much greater.
Egilsay	26	Three miles long by a mile and half wide off the east coast of Rousay, Egilsay a haven for birds, especially the rare Corncrake.
Flotta	80	Flotta has one of the most spectacular 360 degree panoramas in the UK: the sweep of the Hills of Hoy, the great expanse of Scapa Flow and the hills of Mainland Orkney beyond, to the east Burray and South Ronaldsay, completing the circle by looking out across the Pentland Firth to the Scottish mainland. Flotta was a strategic military base in both World Wars therefore contains much military history. Since the mid 1970s, as the location for an oil terminal that has helped keep Orkney's economy afloat.
Graemsay*	28	Graemsay is located in the Western approaches to Scapa Flow lying between Stromness on Orkney mainland and the North end of Hoy, separated from the Mainland by Clestrain Sound. The island is 409 ha (1.58 sq mi) in area and is around two miles x a mile and half. Large parts of the island have been left largely undeveloped and are a haven for many wild plants. It is mainly crofted and has a predominantly ageing population.

Hoy	419	Hoy is the second largest island in Orkney, at 57 square miles. From the summit of Ward Hill, the highest point in the county at 1570 feet, every island in Orkney can be seen with the exception of Rysa Little, which is the nearest. Hoy has significant military history. During World War II, thousands of navy personnel were based at Lyness and the now deserted naval base has been converted to a visitor centre with many exhibits from both world wars and the scuttled German fleet. This, along with the Old Man of Hoy stack and the spectacular hills and wildlife, are key tourist attractions.
North Ronaldsay	72	etc
Papa Westray	90	
Rousay	216	
Sanday	494	
Shapinsay	307	
South Ronaldsay	909	
Stronsay	353	
Westray	588	
Wyre	29	
Mainland	17169	
Total	21349	

8.3 Environmental issues

Depopulation is a problem in the smaller islands of Orkney and geographical isolation is a major contributory factor. Whilst these issues are more relevant to land use policy, the socio-economic benefits of the Plan will contribute to supporting the protection of human health. In addition, better connectivity also has potential to improve access to health, social and recreational facilities, which will be supported by the Sector Policy 4 Pipelines, Electricity and Telecommunications Infrastructure.

9. Material assets

SEA Objectives
Promote sustainable and efficient use of natural resources.

9.1 Background

The seabed, intertidal zone, water environment and the species and habitats they contain are vital components of natural resources, that perform a variety of ecosystem services.

9.2 Current status

Marine litter has been an environmental problem in the oceans and seas for decades, which can impact a variety of material assets.

9.3 Environmental issues

Litter is widespread in the marine environment and is harmful to wildlife and ecosystems. It is estimated that about 60-80% of marine debris is plastic and plastic comprises a large percentage of beach litter³⁰. The policies and proposals of the OIRMP should provide effective protection for materials assets.

³⁰ <https://meam.openchannels.org/news/skimmer-marine-ecosystems-and-management/what-marine-plastic-pollution-costing-us-impacts>

10. Summary of Baseline

The information summarised below are additional sources to compliment those provide in the body of the report.

Table 10.1: Summary of data collected in compiling the environmental baseline

DATA	SOURCE
Area and population of Orkney	General Register Office for Scotland
CLIMATIC FACTORS	
CO ₂ emissions within the scope of influence of Orkney Islands Council	Ricardo-AEA May 2014 Local and Regional CO ₂ Emissions Estimates for 2005-2012 (Ricardo-AEA/R/3374)
Types of central heating used in Orkney	Scotland's Census 2011 http://www.scotlandscensus.gov.uk/r2-downloadable-files
Average number of cars or vans in Orkney	http://www.scotlandscensus.gov.uk/documents/censusresults/release2a/rel2asbfigure21.pdf
Passenger numbers for subsidised bus services in Orkney	Transport Service, Orkney Islands Council 2014
Operational grid-connected wind turbines in Orkney December 2012 (0.5MW and over)	Orkney Islands Council Development Management Service
Information on lease arrangements for wave and tidal energy development	www.thecrownestate.co.uk
Average rainfall in Orkney	SNIFFER, 'A handbook of climate trends across Scotland', 2006 www.sniffer.org.uk
Information on current climate trends	http://www.scotlandscensus.gov.uk/documents/censusresults/release2a/rel2asbfigure21.pdf ; SNIFFER, 'A handbook of climate trends across Scotland', 2006 www.sniffer.org.uk
Information on sea level rise	National Oceanic and Atmospheric Administration (NOAA) http://oceanservice.noaa.gov/facts/sealevel.html
North of Scotland future climate change scenarios	UK Climate Impacts Programme www.ukcip.org.uk
Passenger numbers at Kirkwall Airport	Transportation Service, Orkney Islands Council 2007/08.

DATA	SOURCE
Information on Orkney's prevailing winds	May, V.J. and Hansom, J.D. (2003) <i>Coastal Geomorphology of Great Britain</i> , Geological Conservation Review Series, No. 28, Joint Nature Conservation Committee, Peterborough, 754 pp.
LOCAL AIR QUALITY	
Discharges to air from major industrial processes	Scottish Pollutant Release Inventory (SEAP), www.sepa.org.uk
Air quality in Orkney	Local Air Quality Management Progress Reports
BIODIVERSITY, FLORA & FAUNA	
Legislation relating to European Protected Species	SNH website: www.snh.gov.uk
List of statutory and non-statutory designated natural heritage sites	Scottish Natural Heritage (SNH) www.snh.gov.uk Orkney Islands Council Local Plan
Lists of Priority habitats in Orkney	Orkney Islands Council Local Biodiversity Action Plan
Information on bat sightings in Orkney	Orkney Wildlife Information and Records Centre
Information on cetacean presence in Orkney	Booth, C. & J. Sillocks, Skarfies & Selkies, (2005)
Information on basking shark presence in Orkney	Orkney Wildlife Information and Records Centre
Measures to protect species outwith designated areas	SNH website: www.snh.gov.uk
Information relating to RSPB reserves in Orkney	RSPB website: www.rspb.org.uk
Climate change and natural heritage	Scottish Natural Heritage http://www.snh.gov.uk/climate-change/impacts-in-scotland/effects/habitats/
WATER	
Water quality data (freshwater and coastal) and Groundwater quality data	Scottish Environment Protection Agency (SEPA)
Definition of Groundwater Dependent Terrestrial Ecosystems	Water Framework Directive UK Technical Advisory Group http://www.wfduk.org/resources/groundwater-dependent-terrestrial-ecosystem-threshold-values
GDTEs present in Orkney	Scotland's Environment Web

DATA	SOURCE
SOIL	
Information relating to Orkney soil types	Soil and land capability for agriculture maps (Orkney and Shetland) mapsales@macaulay.ac.uk
Scottish Natural Heritage Review No 100, Orkney Landscape Character Assessment. Land Use Consultants, Glasgow (1998)	
Plans to establish a soil monitoring system	Changing Our Ways, Scotland's Climate Change Programme, Scottish Executive 2006
Data on Agricultural Land Use in Orkney between 2005-2012	Scottish Agricultural Census 2005 – 2012
Contaminated Land Inspection Strategy 2003	Orkney Islands Council Department of Environmental Health
Derelict and Urban Vacant Land in Orkney	Scottish Vacant and Derelict Land Survey 2013 http://www.gov.scot/Publications/2014/02/7170
GEOLOGY	
Geology of Orkney	www.fettes.com/orkney/geology
Orkney and Shetland a Landscape Fashioned by Geology	www.snh.org.uk
Orkney geological sites	JNCC website The Orkney Local Development Plan 2014
LANDSCAPE	
Information on Landscape Character Assessment	Scottish Natural Heritage Review No 100, Orkney Landscape Character Assessment
Hoy and West Mainland NSA	Scottish Natural heritage www.snh.org.uk
Landscape capacity for wind energy development	Landscape Capacity Assessment for Wind Energy in Orkney, Ironside Farrer (2014)
CULTURAL HERITAGE	
Definition of the historic environment	SHEP 1 (Historic Scotland's policy for the sustainable management of the historic environment)
Current status of cultural heritage	Orkney Islands Marine Region: State of the Environment Assessment
Lists of Scheduled Monuments and Listed	PASTMAP, www.historic-

Buildings Information on Conservation Areas and Gardens and Designed Landscapes	scotland.gov.uk/index/ancientmonuments /searchmonuments.htm Scottish Natural Heritage, www.snh.org.uk
DATA	SOURCE
POPULATION & HUMAN HEALTH	
Population trends in Orkney	Orkney Economic Review 2012-13 (source General Register Office for Scotland (GROS))
Population estimates for Orkney 2015- 2035	General Register Office for Scotland (GROS) estimates http://www.gro-scotland.gov.uk/mwg-internal/de5fs23hu73ds/progress?id=ntGhk25ubu
Population trends in the Orkney Islands over the period 1961 – 2011	Scotland's Census Results Online
Life expectancy at birth of residents of the Orkney Islands over the period 2000 – 2010	General Register Office for Scotland
Age and sex structure of the population of the Orkney Islands (2011)	General Register Office for Scotland
Summary of Orkney health statistics	www.scotpho.org.uk/comparative-health/profiles/2010-chp-profiles
MATERIAL ASSETS	
Treatment of waste produced in Orkney	www.SEPA.org.uk
Scottish waste recycling targets	SEPA, www.sepa.org.uk
Source of aggregates used in Orkney	Orkney Islands Council Roads Department
Litter impacts	https://meam.openchannels.org/news/skimmer-marine-ecosystems-and-management/what-marine-plastic-pollution-costing-us-impacts
National policy guidance	Scottish Planning Policy 2014

Appendix B1: Internationally and nationally designated sites in Orkney (June 2020)³¹

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
Auskerry SSSI/SPA	Breeding storm petrel, breeding Arctic tern.	Arctic tern unfavourable declining (2018). Storm petrel favourable declining (2018).	Breeding storm petrel, breeding Arctic tern.	Arctic tern unfavourable declining (2018). Storm petrel favourable declining (2018).
Bay of Skail SSSI	Palaeozoic palaeobotany (fossil plants).	Favourable maintained (2012).	N/A	N/A
Calf of Eday SSSI/SPA	Breeding cormorant.	Cormorant favourable maintained (2016).	Breeding cormorant; breeding fulmar; breeding great black-backed gull; breeding kittiwake breeding guillemot; breeding seabird assemblage.	Cormorant breeding favourable recovered (2016). Fulmar breeding favourable maintained (2016). Great black backed gull unfavourable declining (2016). Guillemot breeding unfavourable declining (2016). Kittiwake breeding unfavourable declining (2016). Seabird assemblage breeding unfavourable declining (2016).
Central Sanday SSSI	Coastal geomorphology of Scotland (coastal sedimentary landforms); saltmarsh; machair; sand dunes.	Machair unfavourable no change (2013) Sand dunes unfavourable no change (2013). Saltmarsh favourable maintained (2012).	N/A	N/A

³¹ Scottish Natural Heritage www.snh.org.uk

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Coastal geomorphology of Scotland favourable maintained (2010).		
Copinsay SSSI/SPA	Breeding seabird colony; breeding guillemot; breeding kittiwake.	Guillemot unfavourable no change (2015). Kittiwake unfavourable declining (2015) Seabird colony, breeding unfavourable no change (2015).	Breeding seabird assemblage; breeding fulmar; breeding great black-backed gull; breeding guillemot; breeding kittiwake.	Fulmar breeding favourable maintained (2015). Great black backed gull unfavourable declining (2015). Guillemot unfavourable no change (2015). Kittiwake unfavourable declining (2015). Seabird assemblage, breeding unfavourable no change (2015).
Cruaday quarry SSSI	Silurian - Devonian chordata (fossil fish).	Silurian-Devonian chordata favourable maintained (2009)	N/A	N/A
Denwick SSSI	Quaternary of Scotland (multiple glacial till section).	Quaternary of Scotland favourable maintained (2017).	N/A	N/A
Doomy and Whitemaw Hill SSSI	Breeding Arctic skua; breeding whimbrel.	Arctic skua breeding unfavourable declining (2016). Whimbrel breeding unfavourable no change (2016).	N/A	N/A
East Sanday coast SSSI/SPA/Ramsar site	Non-breeding ringed plover, non-breeding bar-tailed godwit, non-breeding purple sandpiper, non-breeding sanderling, non-breeding turnstone; passage turnstone; rocky shore; sandflats; Harbour seal; vascular plant assemblage.	Rocky shore favourable maintained (2008). Sandflats favourable maintained (2008). Harbour seal unfavourable declining (2013). Vascular plant assemblage favourable maintained (2006).	SPA - Non-breeding bar-tailed godwit; non-breeding turnstone; non-breeding purple sandpiper. Ramsar – Non-breeding purple sandpiper; non-breeding turnstone.	SPA Bar-tailed godwit non-breeding favourable maintained (2015). Purple sandpiper non-breeding favourable maintained (2015). Turnstone non-breeding favourable maintained (2015).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Bar-tailed godwit non-breeding favourable maintained (2015). Purple sandpiper non-breeding favourable maintained (2015). Ringed plover non-breeding favourable maintained (2015). Sanderling non-breeding favourable maintained (2015). Turnstone non-breeding favourable maintained (2015). Turnstone passage favourable maintained (2016).		Ramsar Purple sandpiper non-breeding favourable maintained (2015). Turnstone non-breeding favourable recovered (2015).
Eynhallow SSSI	Harbour seal.	Harbour seal unfavourable declining (2013).	N/A	N/A
Faray and Holm of Faray SSSI/SAC	Grey seal.	Grey seal favourable maintained (2014).	Grey seal.	Grey seal favourable maintained (2014).
Glims Moss and Durkadale SSSI	Raised bog; Hydro morphological mire range; valley fen.	Hydromorphological mire range favourable maintained (2014). Raised bog favourable maintained (2004). Valley fen favourable maintained (2004).	N/A	N/A
Holm of Papa Westray SSSI (also forms part of Papa Westray (North Hill and Holm) SPA)	Breeding black guillemot.	Black guillemot breeding unfavourable no change (2013).	Papa Westray SPA Breeding Arctic skua; breeding Arctic tern.	Papa Westray SPA Arctic skua breeding unfavourable declining (2015). Arctic tern breeding unfavourable no change (2017).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
Hoy SSSI/SPA/SAC	Breeding seabird colony; breeding Arctic skua, breeding fulmar, breeding great skua, breeding guillemot. Breeding bird assemblage; breeding peregrine, breeding red-throated diver, breeding great black-backed gull; blanket bog.	Upland oak woodland favourable maintained (2009). Blanket bog favourable maintained (2014). Dystrophic loch favourable maintained (2013). Breeding bird assemblage favourable maintained (2013). Non-marine Devonian favourable maintained (2003). Old Red Sandstone igneous favourable maintained (2003). Quaternary of Scotland favourable maintained (2003). Coastal geomorphology of Scotland favourable maintained (2003). Upland assemblage favourable recovered (2014). Arctic skua unfavourable declining (2019). Fulmar breeding unfavourable no change (2017). Great skua breeding unfavourable declining (2019). Great black backed gull unfavourable declining (2019). Guillemot breeding unfavourable no change (2017). Peregrine breeding favourable maintained (2013).	SPA - Breeding seabird assemblage; breeding Arctic skua; breeding great skua; breeding great black-backed gull; breeding guillemot; breeding kittiwake; breeding peregrine; breeding red-throated diver; breeding fulmar; breeding puffin. SAC – Blanket bog; dry heaths; wet heathland with cross-leaved heath; base-rich fens; hard-water springs depositing lime; plants in crevices in base-rich rocks; Alpine and subalpine heaths; acid peat-stained lakes and ponds; vegetated sea cliffs.	SPA Arctic skua breeding unfavourable declining (2019). Fulmar breeding unfavourable no change (2017). Great black-backed gull breeding unfavourable declining (2019). Great skua breeding unfavourable declining (2019). Guillemot breeding unfavourable no change (2017). Kittiwake breeding unfavourable declining (2017). Peregrine breeding favourable maintained (2013). Puffin breeding unfavourable declining (2004). Red-throated diver breeding favourable maintained (2007). Seabird assemblage breeding unfavourable declining (2019). SAC Acid peat-stained lakes and ponds favourable maintained (2014). Alpine and subalpine heaths favourable maintained (2014). Base rich fens favourable maintained (2014).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Red-throated diver favourable maintained (2007). Seabird colony breeding favourable maintained (2000).		Blanket bog favourable maintained (2014). Dry heaths favourable maintained (2014). Hard-water springs depositing lime favourable maintained (2006). Plants in crevices on base-rich rocks favourable recovered (2015). Vegetated sea cliffs favourable maintained (2010). Wet heathland with cross-leaved heath favourable maintained (2004).
Keelylang and Swartaback Burn SSSI (also forms part of Orkney Mainland Moors SPA)	Breeding hen harrier; breeding bird assemblage; upland habitat assemblage (mosaic).	Breeding bird assemblage favourable maintained (2003). Hen harrier breeding favourable maintained (2013). Upland habitat assemblage favourable maintained (2016)	Orkney Mainland Moors SPA Breeding hen harrier, breeding short-eared owl and breeding red-throated diver; non-breeding hen harrier.	Orkney Mainland Moors SPA Hen harrier breeding favourable maintained (2013). Hen harrier non-breeding favourable maintained (2013). Red-throated diver breeding favourable maintained (2007). Short-eared owl breeding favourable maintained (2004).
Loch of Banks SSSI	Non-breeding hen harrier; breeding bird assemblage; basin fen.	Basin fen unfavourable no change (2013). Breeding bird assemblage favourable maintained (2019). Hen harrier non-breeding unfavourable no change (2014).	N/A	N/A

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
Loch of Isbister and The Loons SSSI Loch of Isbister SAC	Breeding pintail; breeding bird assemblage; basin fen.	Basin fen favourable maintained (2012). Breeding bird assemblage favourable maintained (2007). Pintail breeding favourable maintained (2012).	Loch of Isbister SAC Very wet mires often identified by an unstable 'quaking' surface; Otter; Naturally nutrient-rich lakes or lochs which are often dominated by pondweed.	Naturally nutrient-rich lochs often dominated by pondweed unfavourable declining (2014). Otter favourable maintained (2011). Very wet mires often identified by an unstable quaking surface favourable maintained (2012).
Lochs of Harray and Stenness SSSI Stenness SAC	Non-breeding goldeneye, non-breeding pochard, non-breeding scaup, non-breeding tufted duck; saline lagoon; freshwater nerite snail (<i>Theodoxus fluviatilis</i>); a caddis fly; eutrophic loch.	Eutrophic loch unfavourable no change (2010). Saline lagoon favourable maintained (1999). Freshwater nerite snail favourable maintained (2013). Goldeneye non-breeding unfavourable declining (2013). Pochard non-breeding unfavourable recovered (2013). Scaup non-breeding favourable maintained (2013). Tufted duck non-breeding unfavourable no change (2013). Caddis fly favourable maintained (2013).	Loch of Stenness SAC Lagoons.	Lagoons favourable maintained (2013).
Marwick Head SSSI/SPA	Breeding seabird colony; breeding guillemot; breeding kittiwake.	Guillemot breeding unfavourable declining (2017). Kittiwake breeding unfavourable declining (2015). Seabird colony breeding unfavourable declining (2015).	Breeding seabird assemblage; breeding guillemot; breeding kittiwake.	Guillemot breeding unfavourable declining (2017). Kittiwake breeding unfavourable declining (2015). Seabird assemblage breeding unfavourable declining (2015).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
Mill Bay SSSI	Quaternary of Scotland (exposed shelly till).	Quaternary of Scotland favourable maintained (2014).	N/A	N/A
Mill Loch SSSI	Breeding red-throated diver.	Red-throated diver breeding favourable maintained (2012).	N/A	N/A
Muckle Head and Selwick SSSI	Quaternary of Scotland.	Quaternary of Scotland favourable maintained (2002).	N/A	N/A
Muckle and Little Green Holm SSSI	Grey seal.	Grey seal favourable maintained (2014).	N/A	N/A
North Hill SSSI (also forms part of Papa Westray SPA)	Breeding Arctic skua; breeding Arctic tern; maritime cliff.	Maritime cliff favourable maintained (2012). Arctic skua breeding unfavourable declining (2015). Arctic tern breeding unfavourable no change (2017).	Papa Westray SPA Breeding Arctic skua; breeding Arctic tern.	Arctic skua breeding unfavourable declining (2015). Arctic tern breeding unfavourable no change (2017).
Northwall SSSI	Machair loch; machair.	Machair loch favourable maintained (2004). Machair favourable maintained (2012).	N/A	N/A
North Orkney	Breeding Red-throated diver. Non-breeding Great northern diver and Slavonian grebe. Migratory Velvet scoter.			
Orphir and Stenness Hills SSSI	Breeding hen harrier; breeding bird assemblage; Upland habitat assemblage (mosaic).	Breeding bird assemblage favourable maintained (2012). Upland habitat assemblage favourable maintained (2006).	Orkney Mainland Moors SPA Breeding hen harrier, breeding short-eared owl and breeding red-throated diver; non-breeding hen harrier.	Orkney Mainland Moors SPA Hen harrier breeding favourable maintained (2013).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
(also forms part of Orkney Mainland Moors SPA)		Hen harrier breeding favourable maintained (2013).		Hen harrier non-breeding favourable maintained (2013). Red-throated diver breeding favourable maintained (2007). Short-eared owl breeding favourable maintained (2004).
Pentland Firth Islands SSSI/SPA	Breeding Arctic tern; Vascular plant assemblage.	Vascular plant assemblage favourable recovered (2019). Arctic tern breeding unfavourable no change (2018).	Breeding Arctic tern.	Arctic tern breeding unfavourable no change (2018).
Rousay SSSI/SPA	Breeding Arctic tern, breeding guillemot, breeding kittiwake; breeding seabird colony; breeding Arctic skua; breeding bird assemblage; blanket bog; subalpine wet heath; mesotrophic loch; maritime cliff.	Subalpine wet heath favourable recovered (2008). Blanket bog favourable maintained (2014). Mesotrophic loch unfavourable declining (2014). Maritime cliff unfavourable recovering (2008). Vascular plant assemblage favourable maintained (2009). Breeding bird assemblage favourable maintained (2002). Arctic skua breeding unfavourable no change (2015). Arctic tern breeding unfavourable declining (2007). Guillemot breeding unfavourable declining (2016).	Breeding seabird assemblage; breeding guillemot; breeding Arctic skua; breeding Arctic tern; breeding fulmar; breeding kittiwake.	Arctic skua breeding unfavourable no change (2015). Arctic tern breeding unfavourable declining (2007). Fulmar breeding favourable maintained (2016). Guillemot breeding unfavourable declining (2016). Kittiwake breeding unfavourable declining (2016). Seabird assemblage unfavourable declining (2016).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Kittiwake breeding unfavourable declining (2016) Seabird colony breeding unfavourable declining (2016).		
Sanday SAC	N/A	N/A	Reefs; subtidal sandbanks; intertidal mudflats and sandflats; Harbour seal.	Harbour seal unfavourable declining (2013). Intertidal mudflats and sandflats favourable maintained (2008). Reefs favourable maintained (2008). Subtidal sandbanks favourable maintained (2008).
Scapa Flow	Breeding red-throated diver Non-breeding Black-throated diver, Common eider, European shag, Great northern diver, Long-tailed duck, Red-breasted merganser, Slavonian grebe.			
Stromness heaths and Coast SSSI/SAC	Subalpine dry heath; coastal geomorphology; non-marine Devonian stratigraphy; maritime cliff.	Subalpine dry heath favourable maintained (2008). Maritime cliff favourable maintained (2012). Non-marine Devonian partially destroyed (2017). Coastal geomorphology of Scotland favourable maintained (2013).	Dry heaths; base-rich fens; vegetated sea cliffs.	Base rich fens favourable maintained (2014). Dry heaths favourable maintained (2008). Vegetated sea cliffs favourable maintained (2012).
Sule Skerry SSSI Part of Sule Skerry and Sule Stack SPA	Breeding seabird colony; breeding puffin; breeding shag; breeding storm petrel.	Puffin breeding favourable declining (2015).	Sule Skerry and Sule Stack SPA Breeding gannet;	Sule Skerry and Sule Stack SPA Gannet breeding favourable maintained (2013).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Shag breeding unfavourable declining (2015). Storm petrel breeding favourable declining (2018). Seabird colony breeding favourable maintained (2015).	breeding storm petrel; breeding seabird assemblage; breeding guillemot; breeding Leach's petrel; breeding puffin; breeding shag.	Guillemot breeding favourable maintained (2015). Leach's petrel breeding unfavourable declining (2018). Puffin breeding favourable declining (2015). Seabird assemblage breeding favourable maintained (1998). Shag breeding unfavourable declining (2015). Storm petrel breeding favourable declining (2018).
Sule Stack SSSI Part of Sule Skerry and Sule Stack SPA	Breeding gannet.	Gannet breeding favourable maintained (2013).		
Switha SSSI/SPA	Non-breeding Greenland barnacle goose.	Greenland barnacle goose non-breeding favourable maintained (2013).	Non-breeding Greenland barnacle goose.	Greenland barnacle goose non-breeding favourable maintained (2013).
Ward Hill Cliffs SSSI	Maritime cliff.	Maritime cliff favourable maintained (2012).	N/A	N/A
Waulkmill SSSI	Saltmarsh; golden-rod case-bearer moth; maritime cliff.	Saltmarsh favourable maintained (2012). Golden-rod case-bearer moth favourable maintained (2014) Maritime cliff favourable maintained (2012).	N/A	N/A
West Mainland Moorlands SSSI (also forms part of Orkney Mainland Moors SPA)	Breeding hen harrier, breeding short-eared owl and breeding red-throated diver; breeding bird assemblage; upland assemblage (mosaic); blanket bog.	Blanket bog unfavourable recovering (2014). Breeding bird assemblage favourable maintained (2015). Upland assemblage unfavourable recovering (2014).	Orkney Mainland Moors SPA Breeding hen harrier, breeding short-eared owl and breeding red-throated diver; non-breeding hen harrier.	Orkney Mainland Moors SPA Hen harrier breeding favourable maintained (2013). Hen harrier non-breeding favourable maintained (2013).

Site	SSSI qualifying features	SSSI Site Condition	SPA/SAC/Ramsar qualifying interests	SPA/SAC/Ramsar Site Condition
		Hen harrier breeding favourable maintained (2013). Red-throated diver breeding favourable maintained (2007). Short-eared owl breeding not assessed.		Red-throated diver breeding favourable maintained (2007). Short-eared owl breeding favourable maintained (2004).
West Westray SSSI/SPA	Breeding guillemot; breeding seabird colony; breeding Arctic skua; breeding Arctic tern; breeding kittiwake; breeding razorbill; maritime cliff.	Maritime cliff favourable maintained (2012). Arctic skua breeding unfavourable declining (2017). Arctic tern breeding unfavourable no change (2017). Guillemot breeding unfavourable declining (2017). Kittiwake breeding unfavourable declining (2017). Razorbill breeding favourable recovered (2017). Seabird colony breeding unfavourable declining (2017).	Breeding guillemot; breeding seabird assemblage; breeding Arctic skua; breeding Arctic tern; breeding fulmar; breeding kittiwake; breeding razorbill;	Arctic skua breeding unfavourable declining (2017). Arctic tern breeding unfavourable no change (2017). Fulmar breeding favourable recovered (2017). Guillemot breeding unfavourable declining (2017). Kittiwake breeding unfavourable declining (2017). Razorbill breeding favourable recovered (2017). Seabird assemblage breeding unfavourable declining (2017).

Site	Nature Conservation Marine Protected Area (NCMPA) qualifying features	Conservation Objectives	NCMPA Site Condition
Wyre and Rousay Sound	Kelp and seaweed communities on sublittoral sediment; maerl beds; Marine Geomorphology of the Scottish Shelf Seabed – forms part of the Orkney carbonate production area..	Conserve in favourable condition or bring into, and maintain, in favourable condition.	Required measures were implemented in 2016 and the features are considered to be achieving their objectives.
Papa Westray	Black guillemot; Marine Geomorphology of the Scottish Shelf Seabed – forms part of the Orkney carbonate production area..	Conserve in favourable condition or bring into, and maintain, in favourable condition.	Black guillemot declining since site designation. The implementation of fisheries management measures should improve feature status. Geodiversity features achieving their objectives.
North-west Orkney	Sandeels; Sand banks, sand wave fields and sediment wave fields representative of the Fair Isle Strait Marine Process Bedforms Key Geodiversity Area	Conserve in favourable condition or bring into, and maintain, in favourable condition.	The protected features are considered to be in favourable condition.

Appendix B2: List of Priority Marine Features recorded within 12 nm of Orkney

Blue mussel beds

1. *Mytilus edulis* on littoral sediments (at outflow of Burn of Lingro, Scapa bay)

Flame shell beds

Horse mussel beds

1. *Modiolus modiolus* beds with hydroids and red seaweeds on tide-swept circalittoral mixed substrata
2. *Modiolus modiolus* beds on open coast circalittoral mixed sediment
3. *Modiolus modiolus* beds with fine hydroids and large solitary ascidians on very sheltered circalittoral mixed substrata
4. *Modiolus modiolus* beds with *Chlamys varia*, sponges, hydroids and bryozoans on slightly tide-swept very sheltered circalittoral mixed substrata

Intertidal mudflats

Kelp and seaweed communities on sublittoral sediment

Kelp beds

1. *Laminaria hyperborea* forest with a faunal cushion (sponges and polyclinids) and foliose red seaweeds on very exposed upper infralittoral rock
2. *Laminaria hyperborea* with dense foliose red seaweeds on exposed infralittoral rock
3. *Laminaria hyperborea* on tide-swept, infralittoral rock
4. *Laminaria hyperborea* on tide-swept infralittoral mixed substrata
5. *Laminaria hyperborea* and foliose red seaweeds on moderately exposed infralittoral rock

Low or variable salinity habitats

1. Kelp in variable or reduced salinity
2. Submerged fucoids, green or red seaweeds (Low salinity infralittoral rock)
3. Bird's nest stonewort – *Tolypella nidifica* (included in OLBAP)
4. Baltic stonewort – *Chara baltica* (included in OLBAP)
5. Small brackish water snail – *Hydrobia acuta neglecta*

Maerl beds

1. Maerl or coarse shell gravel with burrowing sea cucumbers

Native oysters

1. *Ostrea edulis* (included in OLBAP)

Seagrass beds

1. *Zostera marina/angustifolia* beds on lower shore or infralittoral clean or muddy sand
2. *Ruppia maritima* in reduced salinity infralittoral muddy sand

Tide-swept algal communities

1. Fucoids in tide-swept conditions
2. *Halidrys siliquosa* and mixed kelps on tide-swept infralittoral rock with coarse sediment
3. Kelp and seaweed communities in tide-swept sheltered conditions
4. *Laminaria hyperborea* on tide-swept infralittoral mixed substrata

Tide-swept coarse sands with burrowing bivalves

Low or limited mobility species

1. Northern feather star – *Leptometra celtica*
2. Fan mussel - *Atrina fragilis*
3. Ocean quahog – *Arctica islandica*

Mobile species

1. European spiny lobster – *Palinurus elephas*
2. European eel – *Anguilla Anguilla*
3. Atlantic salmon - *Salmo salar*
4. Sea lamprey – *Petromyzon marinus?*
5. Sea trout - *Salmo trutta*
6. Sparling – *Osmerus eperlanus*
7. Angler fish – *Lophius piscatorius*
8. Atlantic halibut – *Hippoglossus hippoglossus*
9. Atlantic herring – *Clupea harengus*
10. Atlantic mackerel – *Scomber scombrus*
11. Cod – *Gadus morhua*
12. Greenland halibut – *Reinhardtius hippoglossoides*
13. Horse mackerel – *Trachurus trachurus*
14. Ling – *Molva molva*
15. Norway pout – *Trisopterus esmarkii* (included in OLBAP)
16. Round-nose grenadier – *Coryphaenoides rupestris*
17. Saithe – *Pollachius virens*
18. Sandeels – *Ammodytes marinus* and *Ammodytes tobianus*
19. Sand goby – *Pomatoschistus minutus*
20. Whiting – *Merlangius merlangus*
21. Basking shark – *Cetorhinus maximus*
22. Common skate – *Dipturus batis* complex
23. Porbeagle shark – *Lamna nasus*
24. Spiny dogfish – *Squalus acanthias*
25. Atlantic white-sided dolphin – *Lagenorhynchus acutus* (included in OLBAP)
26. Bottlenose dolphin – *Tursiops truncatus* (included in OLBAP)

27. Fin whale – *Balaenoptera physalus* (included in OLBAP)
28. Harbour porpoise – *Phocoena phocoena*
29. Killer whale – *Orcinus orca* (Included in OLBAP)
30. Long-finned pilot whale – *Globicephala melas* (included in OLBAP)
31. Minke whale – *Balaenoptera acutorostrata*
32. Northern bottlenose whale – *Hyperoodon ampullatus* (included in OLBAP)
33. Risso's dolphin – *Grampus griseus*
34. Short-beaked common dolphin – *Delphinus delphis* (included in OLBAP)
35. Sowerby's beaked whale – *Mesoplodon bidens* (included in OLBAP)
36. Sperm whale – *Physeter macrocephalus* (included in OLBAP)
37. White-beaked dolphin – *Lagenorhynchus albirostris*
38. Harbour seal – *Phoca vitulina*
39. Grey seal – *Halichoerus grypus*
40. Otter – *Lutra lutra*

STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE ORKNEY ISLANDS REGIONAL MARINE PLAN

Appendix B.3: Water quality and overall status classification (2013)

Water body	Water quality	Change	Overall status	Change
LOCHS				
Loch of Swanney	Good	No change	Good	No change
Loch of Hundland	Good	No change	Good	No change
Loch of Boardhouse	Good	No change	Good	No change
Loch of Harray	Good	No change	Good	No change
Loch of Skail	Good	No change	Good	No change
Loch of Tankerness	Good	No change	Good	No change
Loch of Kirbister	Good	No change	Good	No change
Heldale Water	Good	No change	Good	No change
BURNS				
Burn of Hourston	Moderate	Degraded	Moderate	Improved
Voy Burn	Moderate	Improved	Moderate	Improved
Tormiston Burn	Good	No change	Moderate	No change
Netherbrough Burn	High	No change	Moderate	No change
Burn of Corrigall	Good	Degraded	Moderate	No change
Suso Burn	High	No change	Poor	No change
Burn of Sweenalay	Good	Degraded	Good	No change
Mill Burn d/s of Loch of Kirbister	High	No change	Moderate	Degraded
Mill Burn u/s of Loch of Kirbister	High	No change	Good	No change
Burn of Boardhouse	Moderate	Degraded	Moderate	Degraded
Burn of Kirbuster	High	No change	Good	No change

Water body	Water quality	Change	Overall status	Change
Burn of Hillside	High	No change	Good	No change
Swannay Burn d/s Swanney Farm	High	No change	Good	No change
Swannay Burn u/s Swannay Farm	High	No change	Good	No change
Burn of Etheriegeo	High	No change	Good	No change
Rackwick Burn	Good	Degraded	Good	No change
Mill Burn	Good	Degraded	Good	No change
Loch of Stenness to Harray connecting water	High	No change	High	No change
COASTAL WATERS				
Old Head to Tor Ness	Good	No change	Good	No change
Dunnet Head to Duncansby Head	Good	No change	Good	No change
Mull Head to Old Head	Good	No change	Good	No change
Kirk Hope	Good	No change	Good	No change
Skaith, Mainland	Good	No change	Good	No change
Burgh Head to Mull Head	High	Improved	High	Improved
Long Ayre Lagoon	High	No change	High	No change
Tor Ness to Breck Ness	Good	No change	Good	No change
The Ouse, Finstown	High	Improved	High	Improved
Point of Backaquooy Lagoon	High	Improved	High	Improved
Kirkwall	High	Improved	High	Improved
Oyce of Isbister	High	Improved	High	Improved
The Ouse, Ling Holm, Shapinsay	High	Improved	High	Improved

Water body	Water quality	Change	Overall status	Change
Breck Ness to Noup Head	High	Improved	High	Improved
Oyce of Huip, Stronsay	High	Improved	High	Improved
Sule Skerry and Sule Stack	High	Improved	High	Improved
Start Point to Burgh Head	High	Improved	High	Improved
Westray Firth	High	Improved	High	Improved
Noup Head to Start Point	High	Improved	High	Improved
Quivals Loch, Sanday	High	No change	High	No change
Bay of Brough Lagoons, Sanday	High	No change	High	No change
Bay of Brough Lagoons, Sanday	High	No change	High	No change
Point of Nevin Lagoon, Sanday	High	No change	High	Improved
Little Sea Lagoon, Sanday	High	No change	High	Improved
Bay of Ham Lagoon	High	No change	High	Improved
Vasa Loch, Shapinsay	High	No change	High	Improved
Kirkwall Lagoon (Peedie Sea)	High	No change	Good	No change
Loch of Ayre, Mainland	Good	Degraded	Good	Degraded
Loch of Stenness, Mainland	Good	Degraded	Good	Degraded
Scapa Flow	Good	No change	Good	No change

Appendix B4 Hoy and West Mainland National Scenic Area



HOY AND WEST MAINLAND NATIONAL SCENIC AREA

Orkney Isles

Description from *Scotland's Scenic Heritage* 1978

The great ice-rounded eminences of the hills of North Hoy dominate the Orkney scene with a power that is scarcely in tune with their modest height (479 metres). Their bold shape, fine grouping, soaring cliffs and headlands, including the famous stack of the Old Man of Hoy, are almost as important to the Caithness scene as they are in that of Orkney.

North Hoy has a particularly strong visual inter-relationship with the south-west mainland of Orkney, the pastoral character of which around the shores of the Loch of Stenness makes a good foil for the bold hills of Hoy. The basin of this loch is enclosed by low rolling hills of lush grassland, some arable land, scattered farm steadings and stone dykes with a noticeable lack of trees, giving a very open landscape, the character of which is enlivened by the abundant remains of ancient occupation.

This landscape culminates in the west in cliffed headlands like a rampart against the sea, which breaks through at Hoy Sound in a tidal race of impressive swiftness. The stone-built settlement of Stromness rising steeply out of its harbour further enhances the character of the area.

The Special Qualities of the Hoy and West Mainland National Scenic Area

- A palimpsest of geology, topography, archaeology and land use
- An archaeological landscape of World Heritage Status
- The spectacular coastal scenery
- Sandstone and flagstone as an essence of Orkney
- A long-settled and productive land and sea
- The contrast between the fertile farmland and the unimproved moorland
- A landscape of contrasting curves and lines
- Land and water in constantly changing combinations under the open sky
- The high hills of Hoy
- The townscape of Stromness, its setting and its link with the sea
- The traditional buildings and crofting patterns of Rackwick

Special Quality	Further information
• <i>A palimpsest of geology, topography, archaeology and land use</i>	
This is a landscape composed of different layers that can be readily seen and understood: A base layer of Geology, with its horizontal strata of Devonian sandstones and flagstones, exemplified by the Old Man of Hoy and the cliffs of the western coastline. Overlain by undulating Topography, where a rocky coast rises through gentle lowlands to higher rounded summits. Overlain by Archaeology and Land Use, where a succession of different inhabitants have left their own distinctive patterns and monuments in the Orcadian landscape.	Orkney is a landscape of distinctive geology, topography, archaeology and land use which can be seen as layers within the landscape - a palimpsest. The NSA exemplifies this. The geology is horizontally bedded and relatively uniform. The topography consists of coasts both shallow and steep, extensive lowlands in the basins of the Lochs of Harray and Stenness, and the extensive uplands of Hoy. The surface layer contains archaeological sites, modern farmland and unimproved moorland.
• <i>An archaeological landscape of world heritage status</i>	
By their location, shape and vertical presence, the Neolithic monuments of the Ring of Brodgar, the Stones of Stenness and the grass-covered tomb of Maes Howe, are distinctive landmarks of international renown.	'The Orkney imagination is haunted by time.' George Mackay Brown The Neolithic monuments of central Orkney comprise the Heart of Neolithic Orkney World Heritage Site, and have become recognisable landmarks of West Mainland. Within the NSA they include:

They lie within a landscape of low-lying farmland, which has been farmed for millennia. Wilder moors and hills rise to the east, and the Hills of Hoy form the backdrop to the south. Unusually for Orkney, there are few clear views of the open sea. The area feels enclosed, in the middle of a vast lowland amphitheatre of glistening loch and fertile pasture. The NSA is also rich in remains from other eras, from Norse and medieval to the Second World War. However, visible monuments represent only the clearest element of much more extensive and complex evidence of settlement and use of the landscape as revealed by archaeological excavations.	• The Stones of Stenness, the Ring of Brodgar and other standing stones composed of large flags of Devonian sandstone. • Maes Howe and Unstan (Onston) cairns, and other cairns and tumuli, which form distinctive, often grass covered low mounds in the landscape. The solid carved boulder block of the Dwarfie Stane on Hoy lies within the NSA (although not in the World Heritage Site).
• <i>The spectacular coastal scenery</i>	
With their towering red cliffs, the Atlantic coastline creates a spectacular scene, enhanced by the presence of the Old Man of Hoy, the highest sea stack in the British Isles. These vertical structures of red sandstone, home to numerous seabirds are both a landmark and an iconic image of the Orkney Islands, especially for those arriving by sea from across the Pentland Firth. In comparison, the sheltered waters and gentle topography of the western approaches to Scapa Flow contrast with the Atlantic-battered western seaboard.	The west coast of Mainland and Hoy contain high vertical cliffs, with St John's Head on Hoy, rising to 338m (the third highest sea cliff in Britain). They are composed of the Devonian Sandstone, with its distinctive bedding planes. The erosive force of the Atlantic storms and waves has exploited weaknesses in the strata to create cavities, skerries, ghouls, geos, caves, wave cut platforms and boulder-strewn beaches. The Old Man of Hoy towers 137m from its resistant, igneous rock foundation at sea level; it was not climbed until 1966. The cliffs provide home to numerous sea birds. The west coast of Hoy is part of the Hoy SSSI, SAC & SPA, and RSPB reserve, containing around 120,000 birds. These include nationally important populations of fulmar, great black-backed gull and guillemot.
• <i>Sandstone and flagstone as an essence of Orkney</i>	
The presence of sandstones and flagstones, whether occurring as natural exposures or comprising human artefacts, is a characteristic of the NSA, indeed of Orkney as a whole. There are the towering cliffs and stacks of Hoy with their rusty reds and ochres, and also the lower rocky coasts with their	Hoy and West Mainland are composed predominantly of Devonian Old Red Sandstone, which includes Hoy Sandstone and Stromness Flags. The sandstone fractures along bedding planes, creating blocky stones and flag stones, which creates an excellent building material, including for standing stones. It is also prone to weathering, leading to changes in the colour and hue of the rock.

wave-cut platforms and beaches of flagstones. There are the drystone dykes with their characteristic flattened stones, the traditional flagstone roofs as exemplified at Rackwick, and the golden or honey coloured stone of farm buildings and of old Stromness. There are ancient sandstone tombs, the solid carved boulder of the Dwarfie Stane, and the upstanding standing stones of the ancient circles.	
• <i>A long-settled and productive land and sea</i>	
The land has the appearance of a long and well-settled agricultural landscape, with solid farm buildings, fertile, green fields and numerous cattle. Likewise the ever-presence of the sea is a reminder that fishing and whaling have also been key to the prosperity of the islands.	The history of agriculture in Orkney goes back to Neolithic times. The mild climate, level ground and fertile soils have always made Orkney surprisingly fertile compared to Shetland, the Western Isles or mainland Scotland immediately to the south. This has been the key to the prosperity of the islands. Currently there are over 100,000 cattle in Orkney. It is a working landscape, and the current farms have had a long evolutionary history, including crofting townships and 19th century improvement farms. The steadings often preserve examples of kiln barns and other 19th century structures typical of crofting, such as the linear farmsteads. Examples of old townships include Clouston and Grimeston. The sea has always provided a source of food, as far back as the fish and shellfish remains found in the Neolithic middens. Additionally, Stromness was a centre of whaling and fishing industries, which brought prosperity to the islands.
• <i>The contrast between the fertile farmland and the unimproved moorland</i>	
The fertile low ground with its farms and fields contrasts markedly with the open, uninhabited higher ground of moorland and hill. This is emphasised by the differing colours of the two areas – the bright greens of the farmland and the browns of the uplands.	Much of the low ground of the NSA, around the loch basin of Stenness and on the gentle, coastal slopes, is comprised of rich, fertile agricultural land. The fields consist of improved grassland. On the higher ground of Ward Hill (Stenness), and on the rugged, glaciated hills of Hoy there is open, unimproved, often heather-dominated, moorland and blanket peat. These areas have long been used for peat extraction, with old cuttings and extraction routes visible in many areas.

<i>A landscape of contrasting curves and lines</i>	
The combination of curves and lines is a defining feature of this landscape. The pattern of the landform is smooth, with gentle curves, but the land itself often ends spectacularly in vertical cliffs and a horizontal horizon of sea. Rocks on the seashore and in the buildings and dykes tend to be flat and linear, and the field boundaries take straight lines across the curving landscape. There are no trees to soften the regular outlines of the farm buildings that stand proud on the undulating pasture, and the ancient monuments can be a combination of the linear and the circular: upstanding stones within a circular surround.	The low-lying land rises gently from the sea, to rounded farmland and moorland; above are the more dramatic, steeper, but smoothly-curved hills of Hoy. There are curves also in many of the ancient monuments: the distinctive curved forms of Maes Howe and other cairns in the landscape; and the circular forms of the ditches in the henge monuments of Brodgar and Stenness. These curves contrast with the linear, angular forms, often derived from the underlying sandstone: the geological bedding planes, the joints and fractures in the rocky coastline, the vertical and angular cliffs and stacks, the blocky nature of the stones, the dykes with their flat stones. Additionally, the fields and buildings tend to be rectilinear.
<i>Land and water in constantly changing combinations under the open sky</i>	
Under the wide horizons, endless combinations of water, land, sea and sky can be experienced, varying both with location and the weather. Movement is brought to the landscape by the almost ceaseless wind, whether the scudding of clouds, the shafts of sunlight moving across the fields and moors, the patterns on the water, or long grass blowing in the wind.	Sea or loch is never far distant: the lochs of Harray and Stenness, surrounded by smooth lowlands and hills; small voes and wicks such as Hamnavoe; the larger bay of Ireland, leading to sounds and deeps, and to the whale-shaped Graemsay; the enclosed Scapa Flow (bordering the NSA); the exposed Pentland Firth; and the open Atlantic Ocean.
<i>Location-specific qualities</i>	
<i>The high hills of Hoy</i>	
The high, rounded hills of Hoy form a spectacular backdrop to much of West Mainland. With their corries, deep U-shaped valleys and patterned ground, these rugged, moorland hills reflect their glacial history. Within a sheltered gully in these hills lies the small Berriedale birchwood, the most northerly native wood in Britain.	Glaciated landforms on Hoy include distinctive U-shaped valleys, moraines, including a terminal moraine at Rackwick, and corries, the most northerly in Britain. Post-glacial features include patterned ground on the summit of Ward Hill (Hoy) and raised beaches. In contrast to Hoy, Mainland is a drowned coast without raised beaches. Berriedale Wood is composed of downy birch, with rowan, willow, aspen and hazel. There is an understorey of heather, roses, honeysuckle, ferns and blueberry.

• <i>The townscape of Stromness, its setting and its link with the sea</i>	
The stone-built settlement of Stromness, rising steeply out of its harbour, further enhances the character of the area. The townscape is distinctive, comprised of sandstone houses around the bay and on the hill behind, its traditional settlement pattern little altered. Particularly notable are its narrow, stone-flagged main street, with vennels leading down to the numerous private wharves; and narrow streets and paths leading up the hill behind. The town has always been dependent on the sea, and maintains strong maritime links. There is constant movement of boats in the harbour and the surrounding seas, from fishing and diving boats, to the arrival and departure of the ferry from Caithness.	Stromness and Hamnavoe go back to Viking times, if not before, with the natural harbour and relative calm waters compared to the surrounding seaways of the Atlantic ocean and the North Sea. Immediately north of mainland Britain, Orkney and its seaways have always been a strategic point for sea navigation. In times of war it has been an alternative route to the potentially dangerous English Channel. The town has had a rich, maritime history, including being of key importance to the herring fishery. It has been an important strategic location in times of war, for example during the Napoleonic and First & Second World Wars. It has had strong links to the arctic, particularly through whaling and as base for the Hudson Bay Company.
• <i>The traditional buildings and crofting patterns of Rackwick</i>	
Set at the end of a glacial valley, between towering sandstone cliffs and a rocky beach open to the Atlantic Ocean, the distinctive and attractive village of Rackwick contains stone buildings and crofts in a traditional layout and in a spectacular setting.	'Rackwick.. the only example of a ... crofting township on estate land where most of the houses are still in place.' Bailey (2007) The distinctiveness of Rackwick is brought about by the prevalence of vernacular buildings. Modern buildings, where present, have broadly retained the vernacular style. There are also examples of old longhouses. Sandstone is the building material and some roofs consist of flagstones or turf.

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STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE ORKNEY ISLANDS REGIONAL MARINE PLAN

APPENDIX B.5: Scheduled Monuments in the Orkney Islands

Prehistoric domestic and defensive (136 items)

1282HY318191	Howen Brough, broch, Corston
1283 HY588054	The Howie, mound 300m SE of Newbanks, Deerness
1284 HY297263	Hundland, settlement mound 270m SW of
1287 HY552288 -HY554290	Knoll of Merrigarth, burnt mound & mound 300m SW of Greentoft, Southside
1289 HY266238	Knowe of Brenda, burnt mound 250m WNW of Downatown
1293 HY374320	Knowe of Dale, burnt mound 230m NNW of Mid Quandale
1294 HY249243	Knowe of Dale, burnt mound, Netherdale Marwick
1295 HY230229	Knowe of Eversti, burnt mound S of Howe
1297 HY237237	Knowe of Garraquoy, burnt mound NW of Muce
1298 HY387334	Knowe of Gorn, burnt mound N of Breckan
1302 HY293211	Knowe of Makerhouse, burnt mound 100m ESE of Makerhouse
1303 HY398235	Knowe of Midgarth, settlement & cairn SE of Wood Wick
1304 HY279256	Knowe of Nesthouse, settlement
1305 HY234242	Knowe of Netherskaill, burnt mound S of Netherskaill
1308 HY249238	Knowe of Scorn, burnt mound
1310 HY375297	Knowe of Swandro, mound 400m SSE of Skail, Westside
1328 HY512162	Hillock of Howe, broch
1333 HY289205	Easthouse, burnt mound 100m SSW of
1344 HY253149	Voy, burnt mound, NW end of Loch of Stenness
1346 HY226150	East Bigging, burnt mounds 200m S of ,Yesnaby
1355 HY555393	Muckle Hill of Linkataing, chambered cairn, homestead and field system
1360 HY390180 - HY39018	Northwald, mounds & burnt mound 300m NNE of
1362 HY312269	Park Holm, artificial island and causeway, Loch of Swannay
1363 HY368319	Lower Quandale, burnt mound WSW of
1365 HY417129	Quanterness, chambered cairn and prehistoric house 50m NW of
1367 HY364319	Quoyalonga Ness, burnt mound 400m SE of, Quandale
1371 HY362266	Robie's Knowe, burnt mound N of Dyke
1372 HY293219	Loch of Sabiston, island structure
1373 HY246270	Saevar Howe, mound
1375 HY565329	Sandhill, burnt mound 200m SE of
1377 HY449331	Loch of Scockness, broch at N end of
1394 HY311273	Stoney Holm, crannog, Loch of Swanney
1395 HY450219	Sweyn's Castle, burnt mound ESE of Skelbist, Gairsay
1412 HY412219	Wass Wick, mound
1418 HY224167	Borwick, Brough of, broch
1419 HY770527	Brae of Stennabreck, settlement WNW of Stennabreck, North Ronaldsay
1420 HY425210	Hall of Rendall, settlement 275m NE of and St Thomas's Kirk
1421 HY541210	Hillock of Burroughston, broch
1422 ND337890	Green Hill of Hestiegeo, broch
1423 HY251164	Loch of Clumly, broch
1424 HY709379	Wasso, broch, Tres Ness, Sanday
1425 HY372303	Brough, broch, Westside
1426 HY352276	Burgar, broch 320m NE of
1427 HY762514	Burrian, broch and settlement S end of Stromness, North Ronaldsay
1428 HY323193	Burrian Broch, broch, Corrigall
1429 HY296183	Burrian, broch, NE shore of Loch of Harray
1430 HY288153	Burrian, broch W shore of Loch of Harray

1431 HY308168	Knowe of Burrian, broch, Netherbrough
1434 HY513003	Castle Howe, broch 400m NW of Banks
1435 HY547033	Dingy's Howe, broch, Upper Sanday
1436 HY665299	Doocot Knowe, broch, Papa Stronsay
1437 HY220054	Upper Cairn, souterrain, Braebuster
1438 ND489988	East Broch of Burray
1439 HY548061	Eves Howe, broch 640m N of Braebuster
1440 HY527380	Quoy, broch 270m NW of
1441 HY564374	Fold of Setter, enclosure 500m SW of Carrick
1442 HY442210	Ness of Boray, broch
1443 HY632300	Green Hill, broch WSW of Huip
1444 HY253267	Oxtro or Oxta, broch, Boardhouse
1445 HY353050	Hillock of Breakna, broch 300m SE of Swanbister House
1446 HY619242	Hillock of Baywestbroch 300m W of Loch of Rothiesholm, Bay of Holland
1447 HY536223	The Hillock, broch 500m NNW of Ness of Ork
1448 HY361141	The Hillock, broch
1449 HY758522	Howmae Brae, settlement 100m WSW of Kirbist, South Bay
1450 HY390127	Ingashowe, broch 300m NE of, Finstown
1451 HY400275	Knowe of Burrian, broch, Frotoft
1452 HY431429	Knowe of Burristae, broch W of Langskaill, Bay of Kirbist
1453 HY425199	Knowe of Dishero or Discrow, broch 400m NE of South Ettit, Gorsness
1454 HY356272	Knowe of Grugar or Ryo, broch SE of Burgar
1455 HY307163	Knowe of Gullow, broch, Netherbrough
1456 HY414272	Knowe of Hunclett, broch ESE of Hunclett, Frotoft, Rousay
1457 HY425495	Knowe of Queen o'Howe, broch
1458 HY264234	Knowe of Skogar, broch S of Skogar
1459 HY363267	Knowe Stenso, broch N of Dyke
1460 HY276176	Loch of Harray, broch on W shore of
1461 HY434087	Broch of Lingro, broch
1462 HY470013	Loch of Ayre, broch at N end of, St Mary's
1463 HY371081	Loch of Kirbister, enclosures on Holm of Groundwater
1464 HY308199	Midhouse, broch 100m SSW of
1465 HY323290	Mithouse, souterrain 320m NE of
1466 HY486527	Munger House, house W of St Boniface Church, Holland
1467 HY400248	Ness of Woodwick, broch
1469 HY370307	North Howe, broch W of Quoycare, Westside
1470 HY239217	Vestra Fiold, enclosure & quarry, W of Hillcrest, North Dyke
1472 HY270151	Stackrue, broch 370m W of Lyking, Wasbister
1473 HY401228	Thing Woll, broch, Tingwall
1474 HY319298	Verron, broch 640m NW of Upper Midhouse
1475 HY231197	Verron, broch, platform and cultivation rigs, N of Bay of Skail
1476 HY391281	Viera Lodge, broch, Frotoft
1477 HY327283	Vinquin, broch, Costa
1479 HY677159 - HY673163	Auskerry, chapel & Monkshouses
1483 HY337286	Peter's Kirk, church, burial ground and broch N of Outer Urrigar
2124 HY496508	St Tredwall's Chapel & Brough
2292 HY440323	Braes of Rinyo, settlement
2399 HY246173	South Unigarth, souterrain
3399 HY663450	Whistlebare, platform settlement 250m N of, Burness
3681 HY678164	Auskerry Island, homestead
3864 HY455262	Skirmie Clett, enclosures, Wyre
4065 HY494522	Knowes of Maebeck, burnt mound
4346 HY441112	Pickaquoy, burnt mound & settlement
4654 HY596087	Brough of Deerness, chapel and settlement
4725 HY333047	Bu of Orphir, burnt mound and mill dam 250m NW of Bu Farm
5286 HY226149	East Bigging, burnt mounds 350m S of
5631 HY690214	Lamb Head, broch, Stronsay
5871 HY283117	Diamond Cottage, defended promontory N of
6162 HY676457 - HY678458	Scar, Viking burials and settlement NE of, Sanday
6214 HY219157	Brough of Bigging, promontory fort, Yesnaby

6246 HY484005 Lamb Holm, settlement 450m WSW of Italian Chapel
 6405 HY332044 Lavacroon, settlement W of Bu of Orphir
 7700 HY288137 - HY288138 Wasbister, disk barrow and round houses 600m SSE of The Brecks
 7855 HY291137 - HY289136 Wasbister, Stenness - Sandwich parish boundary, earthwork
 8631 HY768523 Brides Loch, burnt mound 340m WNW of Bride's Kirk
 8632 HY765530 Knowe o' Samilands, burnt mound, North Ronaldsay
 8645 HY750534 - HY767522 Muckle Gairsty, linear earthworks between Viggay Banks and Gairsna Geo
 8651 HY760514 Strom Ness, settlement 400m S of Howar, North Ronaldsay
 8662 HY245018 Whaness Burn, enclosed settlement 1420m NNE of Dwarfie Stane, Hoy
 8663 HY246021 Whaness Burn, enclosure 1680m NNE of Dwarfie Stane, Hoy
 8664 HY247020 Whaness Burn, enclosure 1620m NNE of Dwarfie Stane, Hoy
 9288 HY667294 Papa Stronsay, burnt mound 500m E of Mill
 10104 HY389335 Knowe of Hamar, burnt mound, 300 m ESE of Innister
 10974 ND314909 Greenhill Broch, South Walls, Orkney
 10982 ND286879 The Skeo, broch, Brims, Hoy
 90154 HY442116 Grain Earth House and Grainbank, two souterrains, Hatston
 90157 HY381268 Aiker Ness, Broch of Gurness, broch and settlement
 90195 HY483518 Knap of Howar, houses
 90218 HY371305 Midhowe Broch, broch and settlement, Rousay
 90245 HY397126 Rennibister, souterrain
 90276 HY229188 - HY234187 Skara Brae, settlement, mounds and other remains
 90337 HY427492 - HY430493 Links of Noltland, settlements
 90352 HY305126 - HY309127 Watch Stone, stone settings, Barnhouse settlement, and related remains

Crosses and carved stones (1 items)

1478 HY488527 St Boniface Graveyard, tombstone

Ecclesiastical (17 items)

1253 HY388156 Burness, broch & chapel 200m S of
 1420 HY425210 Hall of Rendall, settlement 275m NE of and St Thomas's Kirk
 1480 HY653392 Backaskaill Bay, Cross Parish Church
 1482 HY529186 Linton, chapel & graveyard 140m ENE of, Shapinsay
 1483 HY337286 Peter's Kirk, church, burial ground and broch N of Outer Urrigar
 1484 HY488527 St Boniface Church
 1486 HY424197 South Ettit, church NE of
 2124 HY496508 St Tredwall's Chapel & Brough
 2438 HY479117 Bay of Meil, chapel 250m W of Holland
 2934 HY230241 Marwick, chapel & burial ground
 2949 HY389142 Damsay, St Mary's Chapel
 3245 HY312035 Houton, chapel 60m E of Sunnybraes
 3626 HY374302 Westness Church
 3862 HY677164 Auskerry Island, two graves
 4654 HY596087 Brough of Deerness, chapel and settlement
 6162 HY676457 - HY678458 Scar, Viking burials and settlement NE of, Sanday
 10977 ND283881 Chapel of Brims, Hoy
 90034 HY239285 Brough of Birsay, settlements, church and related remains
 90137 HY466304 St Magnus Church, Egilsay
 90144 HY359288 Eynhallow Church and settlement
 90235 HY335044 St Nicholas' Church, Orphir
 90240 HY439488 Pierowall Church (Lady Kirk), Westray
 90312 HY455431 Cross-Kirk (Westside Church), church & burial ground, Tuquoy, Westray
 90317 HY443262 St Mary's Chapel, Wyre

Secular (34 items)

1260 HY668292 Earls Knoll, long cairn & windmill SSW of East House
 1487 HY224093 Breckness House and site of chapel
 1488 HY280205 Nether Benzieclett, house, Skeabrae

1489 HY320188 Bridge of Scuan, bridge, 350m NNE of Scuan
 2181 HY434220 Langskaill, Viking houses
 2726 ND324934 Crockness, Martello Tower, Long Hope
 2884 HY228239 - HY229241 Marwick, Viking houses 550m NW of Howe
 3249 HY466145 - HY468144 Car Ness Battery, Car Ness
 3253 ND374933 Buchanan Battery, Stanger Head
 3268 ND403928 Hoxa Battery & Balfour Battery, Hoxa Head
 3302 ND374924 - ND378926 Stanger Head Battery, Stanger Head
 3534 HY375296 - HY375293 Westness, Viking houses, noost & graveyard
 3756 HY670167 Auskerry Island, longhouse
 3852 HY671168 Auskerry Island, mound & rectilinear foundations
 3859 HY617846 Auskerry Island, square structure
 3873 HY676160 Auskerry Island, two rectangular buildings
 5773 HY373301 The Wirk, tower and hall, Westness, Rousay
 5871 HY283117 Diamond Cottage, defended promontory N of
 5944 HY564288 Stackel Brae, castle, Maltbarn, Eday
 6405 HY332044 Lavacroon, settlement W of Bu of Orphir
 8208 HY454431 Tuquoy, settlement W of Cross-Kirk, Westray
 8241 HY248080 Ness Battery, coast defence battery, Stromness
 8647 HY767526 Southness, farm mound E of, North Ronaldsay
 8650 HY783559 Versa Breck, buildings 130m W of lighthouse, North Ronaldsay
 8651 HY760514 Strom Ness, settlement 400m S of Howar, North Ronaldsay
 9289 HY662296 Papa Stronsay, kelp kiln 120m N of Mill
 9298 HY328010 - HY329013 Scapa Flow, wrecks of 3 battleships of German High Seas Fleet
 9308 HY343000 - HY316008 Scapa Flow, wrecks of 4 cruisers of German High Seas Fleet
 10340 HY410328 - HY410326 Green Gairsty, dyke, 740 m E of Langskaill
 10944 ND378958 Roan Head, World War II Balloon Barrage site, 290m SW of, Golta
 10945 ND386958 Roan Head, World War I Coastal Battery, 580m ESE of, Golta Peninsula
 10946 ND368955 Golta, World War II Z Battery and Light AA Battery, Flotta
 90033 HY248277 Earl's Palace, Birsay
 90034 HY239285 Brough of Birsay, settlements, church and related remains
 90079 HY441263 Cobbie Row's Castle
 90144 HY359288 Eynhallow Church and settlement
 90193 HY449108 Bishop's Palace, Kirkwall
 90194 HY449107 Earl's Palace, Kirkwall
 90211 ND338914 Hackness, Battery and Martello Tower
 90231 HY429487 Noltland Castle
 90236 HY335045 - HY335043 Earl's Bu, Norse settlement and mill, Orphir

Industrial (4 items)

3689 HY675159 Auskerry Island, kelp kiln
 4725 HY333047 Bu of Orphir, burnt mound and mill dam 250m NW of Bu Farm
 5567 ND301943 Lyness, Hoy, diesel pumping station
 6596 HY790553 Dennis Head, Old Beacon, North Ronaldsay
 9289 HY662296 Papa Stronsay, kelp kiln 120m N of Mill
 90076 HY325228 Click Mill, 500m ESE of Eastabist, Dounby

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THE ORKNEY ISLANDS REGIONAL MARINE PLAN**

APPENDIX B.6: Orkney Scheduled Monuments in the Care of Historic Scotland

Name	Location	Grid reference
Earl's Palace	Birsay	HY248277
Brough of Birsay, settlements, church and related remains	Birsay	HY239285
St Magnus Church	Egilsay	HY 466304
Aikerness, Broch of Gurness, broch and settlement	Evie	HY381268
Eynhallow Church and settlement	Eynhallow	HY359288
Cuween Hill, chambered cairn	Firth	HY364127
Rennibister, souterrain	Firth	HY397126
Wideford Hill, chambered cairn	Firth	HY409121
Click Mill, 500m ESE of Eastabist	Harray	HY325288
Dwarfie Stane, rock-cut tomb	Hoy	HY 244005
Hackness, Battery and Martello Tower	Hoy	ND 338912

Name	Location	Grid reference
Grain Earth House and Grainbank, two souterrains	Kirkwall	HY442116
Bishop's Palace	Kirkwall	HY449108
Earl's Palace	Kirkwall	HY449107
St Nicholas' Church	Orphir	HY335044
Earl's Bu, Norse settlement and mill	Orphir	HY335045
Holm of Papa Westray South, chambered cairn	Papa Westray	HY 505523
Knap of Howar, houses	Papa Westray	HY484519
Blackhammer, chambered cairn	Rousay	HY 414276
Knowe of Yarso, chambered cairn	Rousay	HY 404279
Midhowe Broch, broch and settlement	Rousay	HY 371308
Midhowe, chambered cairn and remains nearby	Rousay	HY 372306
Taversoe Tuick, chambered cairn and nearby remains	Rousay	HY 426276
Quoyness ,chambered cairn, Els Ness	Sanday	HY 677378

Name	Location	Grid reference
Skara Brae, settlement, mounds and other remains	Sandwick	HY229188
Ring of Brodgar, stone circle, henge and nearby remains	Stenness	HY294132
Maes Howe, chambered cairn	Stenness	HY318127
Knowe of Onston or Unstan, chambered cairn	Stenness	HY282117
Stenness, stone circle and henge	Stenness	HY306125
Barnhouse Stone, standing stone	Stenness	HY312121
Watch Stone, stone settings, Barnhouse settlement, and related remains	Stenness	HY305126
Tormiston Mill	Stenness	HY319125
Noltland Castle	Westray	HY 429488
Pierowall Church (Lady Kirk)	Westray	HY 439488
Cross-Kirk (Westside Church), church & burial ground, Tuquoy	Westray	HY 455432
Links of Noltland, settlements	Westray	HY 428492

Name	Location	Grid reference
Cobbie Row's Castle	Wyre	HY 442264
St Mary's Chapel	Wyre	HY 443264

Strategic Environmental Assessment of the Orkney Islands Regional Marine Plan

Appendix C.1: Assessment of the Vision for the Orkney Islands Regional Marine Plan

LEGEND:

++	+	0	?	-	--
Significantly positive effects	Positive effects	Minor or neutral effects	Effects uncertain	Adverse effects	Significantly adverse effects

SEA receptors	Assessment findings	Comment
Climatic factors	+	The Plan's vision is that the Orkney Islands marine region is clean, healthy, safe and productive; Orkney's marine and coastal environment is rich in biodiversity and managed sustainably to support thriving and resilient local communities.
Biodiversity, flora & fauna	+	The Plan seeks to protect Orkney's rich natural and cultural heritage assets which underpin its economy and contribute to the quality of life in the islands
Water	+	
Coastal processes / Benthic sediments / Soils	+	
Geology	+	
Landscape	+	
Cultural heritage	+	
Population & Human health	+	Amenity, well-being and quality of life of local communities is a key policy strand of the Plan.
Material assets	+	The Plan directs development and/or activities to areas of least constraint.

SEA receptors	Assessment findings	Comment
Assessment summary		The Vision aims to strengthen and support Orkney's marine and coastal communities by enabling those developments and/or activities which will safeguard the natural and cultural environment and have positive and sustainable socio-economic impacts. It commits to encouraging development which will make use of and support existing services and facilities and promotes development and/or activities that will facilitate resilient local communities and safeguard quality of life.

The Orkney Islands Regional Marine Plan

Appendix C.2: Assessment of the Policies of the Plan for their Compatibility with the SEA Objectives

Key:	++	Fully compatible with the SEA Objectives which are <u>relevant to the policy</u>
	+	Broadly compatible with SEA Objectives which are <u>relevant to the policy</u>
	-	Incompatible with the SEA Objectives <u>relevant to the policy</u>
	0	No link
	?	Compatibility with SEA Objectives is uncertain

OIRMP Policy	Initial Assessment									How recommendations were incorporated
GP1 Sustainable Development, Activities and Use	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	++	+	+	+	+	+	+	+	++	
	Policy is compatible with SEA objectives for: • Climate change by supporting the transformational change to a low carbon economy and increasing the use of sustainable techniques in development. • Safeguard valuable habitat from loss and fragmentation through development. • Protect against developments which have potential to cause or exacerbate coastal erosion and flooding. • Reduce the threat of contamination and seek to protect soils from damage such as erosion or compaction.									

OIRMP Policy	Initial Assessment								How recommendations were incorporated	
	- Protect designated and undesignated sites which are recognised and valued for their geological or geomorphological importance. - Seascape and landscape by facilitating positive change while maintaining and enhancing distinctive landscape character. - Safeguard cultural heritage features and their settings through responsible design and siting of development. - Population and human health by contributing to the protection of human health - Material assets by promoting the efficient use of resources and the minimisation of wastes and promoting the sustainable use of natural resources. No further recommendations.									
GP2 Safety	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	?	+	+	0	0	0	?	+	++	
	Policy is compatible with SEA objectives for: - Safeguarding valuable habitat from loss and fragmentation through development - Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater. - Protect and enhance human health and promote access to health, social and recreational facilities. - Promote sustainable and efficient use of natural resources. No further recommendations.									
GP3. Climate Change	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A

OIRMP Policy	Initial Assessment									How recommendations were incorporated
	++	++	+	0	0	0	+	+	++	
	Policy is compatible with SEA objectives for: - Climate change by contributing to national targets to address the cause of climate change by reducing greenhouse gas emissions - supporting the transformational change to a low carbon economy and increasing the use of sustainable techniques in development. - Supporting nature based solutions are considered - Population and human health by contributing to the protection of human health - Material assets by promoting the efficient use of resources and the minimisation of wastes and promoting the sustainable use of natural resources. No further recommendations.									
GP4 Supporting Sustainable Social and Economic Benefits.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	?	?	?	?	?	?	?	+	+	
	Policy is compatible with SEA objectives for: - supporting the transformational change to a low carbon economy and increasing the use of sustainable techniques in development. - Population and human health by contributing to the protection of human health No further recommendations.									

OIRMP Policy	Initial Assessment								How recommendations were incorporated
GP5 Water Environment.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets
	?	+	++	+	0	0	0	+	+
	Policy is compatible with SEA objectives for: - Maintain healthy ecosystems and work with the natural processes which provide important services to communities. - Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater. - Protect against developments which have potential to cause or exacerbate coastal erosion and flooding. - Reduce the threat of contamination and seek to protect soils from damage such as erosion or compaction. - Protect and enhance human health and promote access to health, social and recreational facilities. - Promote sustainable and efficient use of natural resources. No further recommendations.								N/A
GP6 Coastal development and coastal change	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets
	?	0	+	++	++	+	?	+	+
	Policy is compatible with SEA objectives for:								N/A

OIRMP Policy	Initial Assessment								How recommendations were incorporated	
	- Climate change by addressing vulnerability to the likely effects of climate change. - Water by promoting protection and improvement of the water environment. - Soils by addressing issues which lead to increased risk of erosion. - Geology by protecting designated and undesignated sites that are recognised and valued for their geological or geomorphological importance. No further recommendations									
GP7 Historic Environment.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	0	0	0	0	0	0	++	+	0	
	The policy is compatible with SEA objectives for: - Cultural heritage by promoting the care and protection of the designated and non-designated historic environment; enabling positive change whilst ensuring the future use of Orkney’s heritage assets; safeguarding cultural heritage features and their settings through responsible design and siting of development; and protecting the integrity and Outstanding Universal Value of the heart of Neolithic Orkney World Heritage Site. - Seascape and landscape by protecting features which contribute to the character of Orkney’s distinctive seascapes and landscapes. - Population and human health by supporting opportunities for enjoying and learning about Orkney’s cultural environment. No further recommendations.									

OIRMP Policy	Initial Assessment									How recommendations were incorporated
GP8 Nature Conservation.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	++	++	+	0	0	0	+	+	++	
	Policy is compatible with SEA objectives for: • Biodiversity by affording appropriate protection to natural heritage sites and protected species; enabling the protection of ecosystems which provide important services to communities; safeguarding valuable habitat from loss and fragmentation; affording appropriate protection marine and coastal species and promoting the protection of biodiversity as well as the appropriate enhancement or restoration of habitats. • Water by promoting protection and improvement of the water environment. • Geology by protecting designated and undesignated sites which are valued for their geological or geomorphological importance. • Landscape by facilitating positive change while maintaining and enhancing distinctive seascape and/or landscape character. • Climate change by protecting natural features which contribute towards community resilience to the effects of climate change. • Cultural heritage by recognising and protecting the contribution of coastal built features within landscapes. • Population and human health by supporting opportunities for enjoying and learning about Orkney’s natural environment. No further recommendations.									
GP9 Seascape and Landscape.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	0	0	0	0	0	++	+	+	0	

OIRMP Policy	Initial Assessment								How recommendations were incorporated	
	The policy is compatible with SEA objectives for: Landscape by facilitating positive change while maintaining and enhancing distinctive seascape and landscape character. No further recommendations.									
GP10 Surface and Underwater Noise and Vibration.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	0	++	0	?	0	0	0	+	0	
	The policy is compatible with SEA objectives for: - Conserve protected sites and species. - Protect and enhance human health and promote access to health, social and recreational facilities. No further recommendations.									
GP11 Marine Litter and Waste.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	0	+	+	+	0	+	0	+	0	
	The policy is compatible with SEA objectives for: Maintain healthy ecosystems and work with the natural processes which provide important services to communities.									

OIRMP Policy	Initial Assessment								How recommendations were incorporated	
	Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater. No further recommendations.									
GP12 Invasive Non-Native Species and Non-Native Species.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	+	++	+	0	0	0	0	+	+	
	The policy is compatible with SEA objectives for: - Conserve protected sites and species. - Maintain healthy ecosystems and work with the natural processes which provide important services to communities. - Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater. - Protect and enhance human health and promote access to health, social and recreational facilities. No further recommendations									
GP13 Amenity, Well-being and Quality of Life of Coastal Communities.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	0	0	0	0	0	0	+	++	0	

OIRMP Policy	Initial Assessment										How recommendations were incorporated	
	The policy is compatible with SEA objectives for: Population and human health by supporting opportunities for enjoying and learning about Orkney’s natural environment. No further recommendations											
SP1 Commercial Fishing.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets		N/A	
	0	-	?	-	0	0	0	+	-	+		-
	Management of commercial fishing will be for Marine Scotland to determine. The Plan policy aims to safeguard areas for fishing but cannot prevent removal of biodiversity nor impact on benthic sediments. SEA comments: Potential for largely positive effects associated with the policy through the promotion of the consideration of interactions with the fisheries sector by potential developers and other marine users in the OIRMP area. In setting out requirements for developers and marine users, and outlining support for the safeguarding of existing fishing practices where possible, preserving the potential for opportunities for future sustainable activities, and supporting the safeguarding of environmental factors upon which the sector relies (e.g. fish stocks, spawning and nursery areas), the policy has the potential for contributing overall positive effects for the sector. However, there is potential for conflicts and trade-offs between the fishing sector and other sectors (e.g. particularly in terms of displacement due factors such as the location and timing/design of development, amongst others), and hence the potential for both positive and negative effects for Material Assets, and Population and Human Health.											

OIRMP Policy	Initial Assessment												How recommendations were incorporated		
SP2 Aquaculture.	Climatic factors	Biodiversity		Water		Coastal processes / Benthic sediments / Soils		Geology		Landscape		Cultural heritage	Populatio n & Human Health	Material Assets	N/A
	0	-		-		-		0		-		0	++	+	
	The policy is compatible with SEA objectives for: • Improve community environments and quality of life. SEA comments: The mitigation applied during the determination of an aquaculture application, through existing consenting processes (e.g. potentially including planning permission under the Town and Country Planning (Scotland) Act 1997, obtaining seabed leases from TCE and landowners, Controlled Activity Regulations (CAR) Licenses from SEPA, Marine Licensing from Marine Scotland) etc will address the potential for any significant environmental effects. The policy will provide support to these processes by providing awareness and clarity for future developers and stakeholders on these requirements, and could result in benefits for Material Assets and Communities, Population and Human Health topic areas (i.e. potential for improved efficiency in the consenting process, enhanced consultation between developers and stakeholders, early identification of interactions and potential														
SP3 Shipping, Ports, Harbours and Ferries.	Climatic factors	Biodiversity		Water		Coastal processes / Benthic sediments / Soils		Geology		Landscape		Cultural heritage	Populatio n & Human Health	Material Assets	N/A
	?	+	?	+	?	+	?	+	?	+	?	?	++	-	

OIRMP Policy	Initial Assessment										How recommendations were incorporated	
	The policy is compatible with SEA objectives for: • Improve community environments and quality of life. • Protect and enhance human health and promote access to health, social and recreational facilities. SEA comments: Potential for overall positive environmental and socio-economic effects associated with the Policy. However, there is the potential for these effects to be mixed; potential socio-economic benefits through promoting the safeguarding and sustainable growth of existing port and harbour facilities, the potential safeguarding of jobs and recreational/leisure activities that rely on these facilities, and setting out support for the communities that rely economically on them. In general, protecting access to ports and harbours in the OIRMP area is considered likely to be beneficial for many marine users, particularly if the use of these facilities is shared (e.g. marine transport sector, recreational users, fishing sector, renewables sector, vessels servicing oil and gas). The potential for associated positive effects for biodiversity, water quality, coastal processes, benthic sediments and soil, geology and landscape are mixed due to the potential for likely major development of harbours and for a reduction in collision and pollution risk associated with promoting navigational safety and the safeguarding of port and harbour access.											
SP4 Pipelines, Electricity and Telecommunications Infrastructure.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils		Geology	Landscape	Cultural heritage		Population & Human health	Material Assets	N/A
	+	0	0	-	+	+	0	-	+	++	+	
	The policy is compatible with SEA objectives for:											

OIRMP Policy	Initial Assessment														How recommendations were incorporated	
	- Support the transformational change to a low carbon economy, consistent with national objectives and targets. - Protect designated and undesignated sites which are recognised and valued for their geological or geomorphological importance - Improve community environments and quality of life. - Protect and enhance human health and promote access to health, social and recreational facilities. - Promote sustainable and efficient use of natural resources. SEA comments In some instances the effects of this policy could be mixed on the SEA objectives. Promoting suitable routing of cable and pipeline infrastructure could lead to the avoidance of sensitive or designated areas, and could for example, aid in the protection of sensitive or important seabed habitats and benthic species from disturbance of effects of operation such as EMF, but would impact the seabed areas used. The potential for similar benefits for avoiding impacts to historic assets (e.g. submerged wreck sites, etc.) throughout the OIRMP area were identified. There is the potential for benefits for other marine users through avoiding conflicts and potential displacement of other marine users (e.g. fishing activities such as scallop dredging, vessel anchoring areas, etc).															
SP5 Marine Renewable Energy.	Climatic factors	Biodiversity		Water		Coastal processes / Benthic sediments / Soils		Geology		Landscape		Cultural heritage		Population & Human health		Material Assets
	++	+	?	+	?	+	?	+	?	+	?	+	?	++		
	The policy is compatible with SEA objectives for: - Climatic factors by supporting the transformational change to a low carbon economy; it addresses proposals to develop electricity generation from renewable energy techniques as well as heat networks, energy from waste and district heating. - Material assets by promoting the efficient use of resources and the minimisation of wastes through their recovery through energy recovery. SEA comments:															

OIRMP Policy	Initial Assessment									How recommendations were incorporated
	It is also broadly compatible with objectives relating to the other SEA receptors as it seeks to ensure that energy-related developments would have no unacceptable impacts on environmental and community considerations. However, the proposals within the Plan Option areas for offshore wind development may impact European sites, but until the agreed location and extent of a final suite of offshore windfarms' is confirmed, it will not be possible to determine the compatibility of this policy with the SEA objectives. The policy includes criteria to ensure a thorough assessment of environmental effects.									
SP6 Zero Carbon Fuels, Oil and Gas Transition.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	
	++	+	+	+	0	0	0	++	+	
	The policy is compatible with SEA objectives for: • Contribute to national targets to address the cause of climate change by reducing greenhouse gas emissions. • Maintain healthy ecosystems and work with the natural processes which provide important services to communities. • Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater. • Support the transformational change to a low carbon economy, consistent with national objectives and targets. • Reduce the threat of contamination and seek to protect soils from damage such as erosion or compaction. • Improve community environments and quality of life. • Protect and enhance human health and promote access to health, social and recreational facilities.									N/A

OIRMP Policy	Initial Assessment								How recommendations were incorporated	
	Promote sustainable and efficient use of natural resources. SEA comments: In general terms, support for the sustainable growth of the renewables sector has the potential for both positive and negative effects on marine, coastal and terrestrial environments due to offshore and associated land-based and landfall renewables infrastructure. The transition away from oil and gas products to zero carbon fuels should have an overall positive effect on climate mitigation and the associated environmental effects.									
SP7 Tourism, Recreation, Sport and Leisure.	Climatic factors	Biodiversity	Water	Coastal processes / Benthic sediments / Soils	Geology	Landscape	Cultural heritage	Population & Human health	Material Assets	N/A
	0	++	+	++	0	++	++	++	+	
	The policy is compatible with SEA objectives for: - Conserve protected sites and species. - Safeguard valuable habitat from loss and fragmentation through development. - Promote the protection and improvement of the water environment, including burns, lochs, estuaries, wetlands, coastal waters and groundwater. - Reduce the threat of contamination and seek to protect soils from damage such as erosion or compaction. - Recognise the environmental benefits provided by soils and protect their quality and quantity. - Maintaining and enhancing distinctive landscape character. - Safeguard cultural heritage features and their settings through responsible design and siting of development. - Improve community environments and quality of life.									

OIRMP Policy	Initial Assessment	How recommendations were incorporated
	• Protect and enhance human health and promote access to health, social and recreational facilities. • Promote sustainable and efficient use of natural resources. SEA comments: The Plan will support the sustainable development of marine recreation, sport, leisure and tourism, whilst ensuring SEA objectives are supported, providing overall positive socio-economic and environmental benefits.	

Appendix C.3: Summary of assessment of the likely environmental effects of implementation of the Orkney Islands Regional Marine Plan Policies

Key:

++	Major benefit
+	Minor - moderate benefit
--	Major adverse effects
-	Minor - moderate adverse effects
0	Neutral effects
?	Effects uncertain

SEA receptor										
Policy	Climatic factors	Biodiversity flora & fauna	Water	Coastal processes / Benthic sediments / Soil	Geology	Landscape	Cultural heritage	Population & human health	Material assets	Cumulative effect / Notes
GP1 Sustainable Development, Activities and Use	+	0	0	0	0	0	0	0	+	Broadly neutral with moderate benefit in terms of climatic factors and material assets. Policy makes provision for the incorporation of low and zero carbon energy generating technologies in development; also facilitates the prevention, reuse

SEA receptor										
Policy	Climatic factors	Biodiversity flora & fauna	Water	Coastal processes / Benthic sediments / Soil	Geology	Landscape	Cultural heritage	Population & human health	Material assets	Cumulative effect / Notes
										and recycling of waste, as well as energy recovery from waste.
GP2 Safety	0	+	+	+	?	?	?	+	?	Broadly positive with moderate benefit because safety is a paramount consideration therefore the policy will support safe practices thereby reducing potential impacts on biodiversity, water, benthic sediments and population and human health.
GP3 Climate Change	+	+	+	0	0	0	0	+	0	Moderate benefit is likely in terms of climatic factors, biodiversity, flora and fauna, water, landscape and population / human health. Enhanced flood risk management, biodiversity, and improve access to coastal open space.
GP4 Supporting Sustainable Social and Economic Benefits	+	0	0	0	0	0	0	+	+	Broadly neutral with moderate benefit in terms of climatic factors, and population / human health. Promotes developments and/or activities to reduce energy usage which can, in turn, improve quality of life. Requires development to have a positive effect on the appearance of the area.
GP5 Safeguarding Natural Capital and Ecosystem Services	+	++	+	+	+	0	0	+	+	Overall positive benefit for most SEA receptors as the key ecosystem services and natural capital that underpin the healthy ecosystem required for

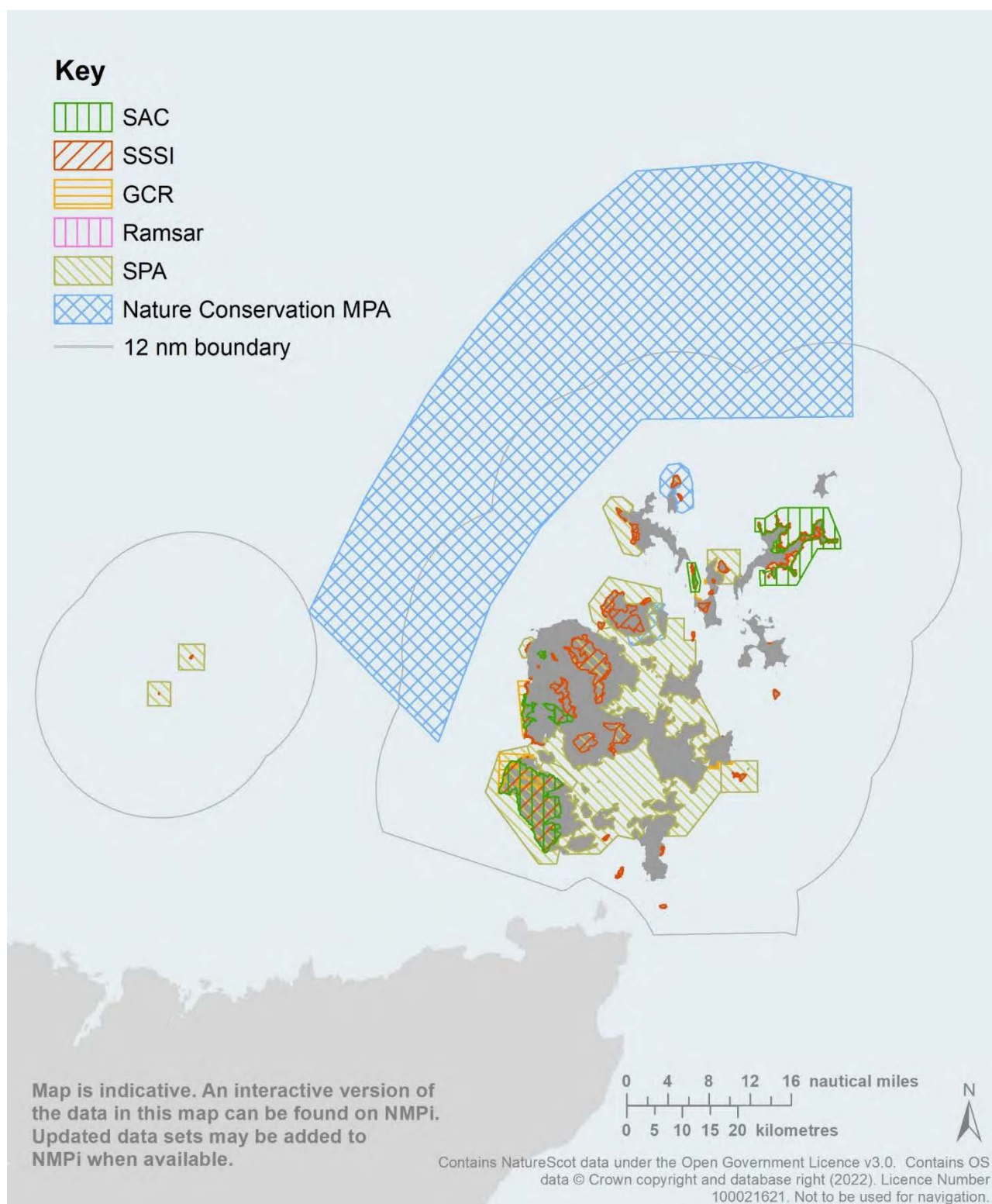
SEA receptor										
Policy	Climatic factors	Biodiversity flora & fauna	Water	Coastal processes / Benthic sediments / Soil	Geology	Landscape	Cultural heritage	Population & human health	Material assets	Cumulative effect / Notes
										safeguarding biodiversity and supporting sustainable development are supported.
GP6 Water Environment	0	+	+	+	0	0	0	?	?	Overall positive benefit for biodiversity, water and benthic sediments.
GP 7 Coastal Development and Coastal Change	+	++	+	++	++	+	+	+	++	Significant positive benefit for the protection of biodiversity, coastal processes, geology and materials as development and/or activities will have to be in accordance with multiple protection plans and frameworks and negative impacts on coastal processes and coastal protection should be minimized. All other SEA receptors are also given positive policy support.
GP8 Historic Environment.	0	0	0	0	0	+	+	+	0	Moderate benefit is likely in terms of cultural Heritage, its setting in the landscape and population / human health. The policy makes provision for enhancement of cultural heritage assets and ensures the continued availability of opportunities for enjoying and learning about Orkney's cultural environment.
GP9 Nature Conservation	0	+	+	0	0	0	0	+	0	Moderate benefit is likely in terms of biodiversity, flora and fauna, water and population / human

SEA receptor										
Policy	Climatic factors	Biodiversity flora & fauna	Water	Coastal processes / Benthic sediments / Soil	Geology	Landscape	Cultural heritage	Population & human health	Material assets	Cumulative effect / Notes
										health. Makes provision for new development to provide benefits for biodiversity and improve the water environment. Ensures the continued availability of opportunities for enjoying and learning about Orkney's natural environment
GP10 Seascape and Landscape	0	0	0	0	0	++	+	+	0	Overall moderate benefit for the setting of cultural heritage and public enjoyment of the landscape, and major benefit in terms of protection seascape/ landscape.
GP11 Surface and Underwater Noise and Vibration	0	+	0	0	0	0	0	+	0	Overall neutral benefit but will support reduced impacts on biodiversity and human health.
GP12 Marine Litter and Waste	0	+	+	?	0	+	0	+	0	Litter and waste reduction will have a positive effect on biodiversity, water, landscape and human health.
GP13 Invasive Non-Native Species and Non-Native Species	0	++	+	?	0	0	0	?	?	Positive benefits for biodiversity and water quality but impacts on benthic sediments, human health and materials assets unclear.

SEA receptor										
Policy	Climatic factors	Biodiversity flora & fauna	Water	Coastal processes / Benthic sediments / Soil	Geology	Landscape	Cultural heritage	Population & human health	Material assets	Cumulative effect / Notes
GP14 Amenity, Wellbeing and Quality of Life of Coastal Communities	0	+	0	0	0	+	?	++	0	Moderate benefit as amenity impacts considered in all development and activity proposals.
SP1 Commercial Fishing	0	-	0	-	0	0	0	+	0	Mixed effects associated with the policy through the promotion of the consideration of interactions with the fisheries sector by potential developers and other marine users in the OIRMP area but overall the biodiversity is removed.
SP2 Aquaculture	0	-	-	-	0	-	0	+	0	Overall moderate negative impact; development within this sector will continue to be managed through existing consenting processes.
SP3 Shipping, Ports, Harbours and Ferries	0	?	0	-	0	0	0	+	0	Overall neutral impacts but essential for supporting population and human health.
SP4 Pipelines, Electricity and Telecommunications Infrastructure	0	0	0	-	-	0	0	+	0	Disturbance to benthic sediments and geology will remain, but impacts will be minimised as far as reasonably practicable.

SEA receptor										
Policy	Climatic factors	Biodiversity flora & fauna	Water	Coastal processes / Benthic sediments / Soil	Geology	Landscape	Cultural heritage	Population & human health	Material assets	Cumulative effect / Notes
SP5 Marine Renewable Energy	++	0	0	0	0	-	0	+	0	Positive effects on helping reduce climate change impacts, and thus benefit human health.
SP6 Zero Carbon Fuels, Oil and Gas Transition	0	0	0	0	0	0	0	+	+	Oil and gas transition projects are largely outside the influence of the OIRMP, but the move to zero carbon fuels is supported.
SP7 Tourism, Recreation, Sport and Leisure	0	+	+	0	0	0	+	+	0	Increased awareness of potential interactions with recreational users, and setting out expectations for developers and other marine users, has the potential for a range of positive effects (e.g. potential for displacement of activities, impacts on navigational safety and human health, impacts on the natural environment).

Appendix D: Map of Designated Sites in Orkney



APPENDIX E: SEA activities

Table AE: Detailed list of SEA activities to date.

SEA Action/Activity.	When carried out.	Notes (e.g., comment on data availability, particular issues or any advice from the Consultation Authorities that has now been taken into account).
Screening to determine whether the PPS is likely to have significant environmental effects.	2021	Screening report to SEA Gateway 17/3/2021 for distribution to Consultation Authorities (CA) Screening responses issued to OIC, as Responsible Authority, 13/4/2021 Section 8(1) Screen Determination advert publicised in the 'Orkadian' newspaper, dated 10/1/2022. Details are on the OIC website, along with the Statement of Reasons.
Scoping the consultation periods and the level of detail to be included in the Environmental Report.	2022	Scoping report to SEA Gateway 21/1/2022. Includes Appx 1: Other PPS (see below) CA responses received via SEA Gateway 25/2/2022
Outline and objectives of the PPS.	2021	The Plan will support sustainable marine development in the Orkney Islands Marine Region. The objectives are given in the RMP.
Relationship with other PPS and environmental objectives.	2021 / 2022	Done at scoping stage and updated
Environmental baseline established.	2020	SoEA published 2020
Environmental problems identified.	2020	See SoEA
Assessment of future of area without the PPS.	2021	See SEA report
Alternatives considered.	2021	See SEA report
Environmental assessment methods established.	2021	See scoping report
Selection of PPS alternatives to be included in the environmental assessment.	2021-2022	Data gathering on PPS that have a bearing on the marine plan commenced 22/3/2021.

		Early draft of scoping report, including PPS considerations, prepared 18/6/2021. Final list of PPS considered prepared 16/12/2021.
Identification of environmental problems that may persist after implementation and measures envisaged to prevent, reduce and offset any significant adverse effects.	N/A	
Monitoring methods proposed.	tbc	Monitoring and review to follow publication of plan, resources permitting.
Consultation timescales. • Timescale for Consultation Authorities. • Timescale for public.	See SPP ³²	12 weeks consultation
Notification/publicity action.	See SPP ³³	

³² [Marine Planning \(orkney.gov.uk\)](http://MarinePlanning.orkney.gov.uk)

³³ *ibid*

Appendix F Copy of indicative timetable for preparation of the Plan from the SPP³⁴

This indicative timetable for the preparation of the Orkney Islands Regional Marine Plan is from the Statement of Public Participation (2021). It may be updated in accordance with any Marine Scotland requirements on behalf of Scottish Ministers.

2021												
Document	J	F	M	A	M	J	J	A	S	O	N	D
SPP*	Stage 1			Stage 1	Stage 1	Update as required						
Draft Plan		Stage 2										
SEA/HRA* etc		Stage 2										
2022												
Document	J	F	M	A	M	J	J	A	S	O	N	D
SPP	Update as required											
Draft Plan	Stage 2										Stage 2 OIC 1	Stage 2 OIC 2
SEA/HRA* etc	Stage 2										Stage 2 OIC 1	Stage 2 OIC 2
2023												
Document	J	F	M	A	M	J	J	A	S	O	N	D
SPP	Update as required											
Draft Plan	Stage 2	Stage 3 Ministerial Approval			Stage 4	Stage 4		Stage 5			Stage 5 OIC 1	Stage 5 OIC 2
SEA/HRA* etc	Stage 2	Stage 3 Ministerial Approval			Stage 4	Stage 4		Stage 5			Stage 5 OIC 1	Stage 5 OIC 2
2024												
Document	J	F	M	A	M	J	J	A	S	O	N	D
SPP	Update as required											
Draft Plan	Stage 6 Ministerial Approval			Stage 6	Stage 7 + Independent investigation**, if required							
SEA/HRA* etc	Stage 6 Ministerial Approval			Stage 6	Post adopt SEA							
*	See acronym list		OIC 1	Development and Infrastructure Committee								
	If independent investigation required, this will take approximately another year.											
**			OIC 2	Full Council meeting								
Preparation Endorsement / Approval Consultation Published												

³⁴ [Marine Planning \(orkney.gov.uk\)](https://www.orkney.gov.uk/marine-planning) (scroll to 'Related Downloads' section)

