Shetland Islands Marine Planning Partnership

Shetland Islands Regional Marine Plan

Strategic Environment Assessment: Environmental Report

2025

UHI | SHETLAND

Scottish Government
Riaghaltas na h-Alba

Shetland
Islands Council

This report has been prepared by UHI Shetland (previously the NAFC Marine Centre) on behalf of the Shetland Islands Regional Marine Planning Partnership.

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Introduction

This Non-Technical Summary provides an overview of the findings presented in the Environment Report undertaken as part of Strategic Environment Assessment (SEA) for the draft Shetland Islands Regional Marine Plan (SIRMP). The SEA aims to integrate environmental considerations into the decision-making process for the Plan. The report will assess the effects of the policies within the SIRMP against the SEA objectives and identify opportunities to mitigate any adverse effects.

The SIRMP area includes all territorial waters seaward of the Mean High Water Spring Tide (MHWS), out to 12nm but gives consideration to terrestrial features that are clearly affected by marine use. The area is equivalent to 12,305 km^2 (7,645 miles^2), approximately seven times the land area of the Shetland Islands (Figure 1).

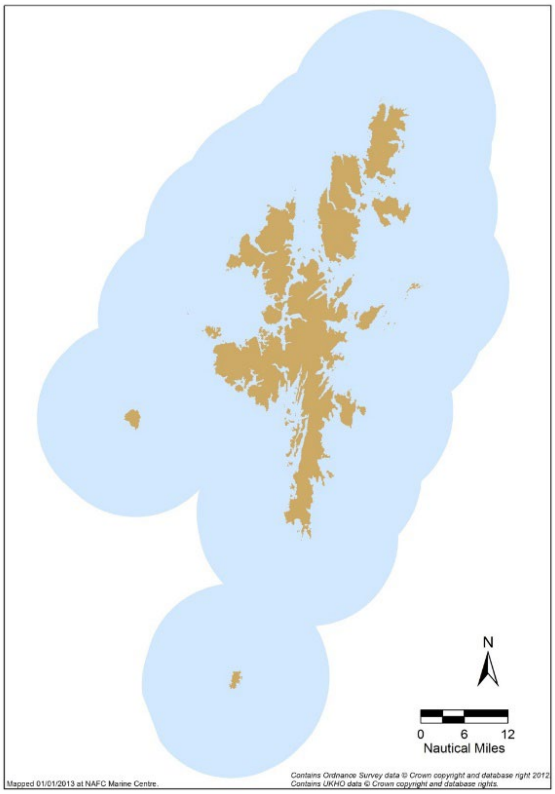

Figure 1: Shetland Islands Regional Marine Plan (SIRMP) Area

What is the Shetland Islands Regional Marine Plan?

The Draft SIRMP sits beneath the National marine Plan (NMP)[1] and alongside the other local strategies and plans such as the Shetland Islands Council (SIC) Local Development Plan (LDP)[2] and the Shetland and Orkney River Basin Management Plans.[3]

The SIRMP brings together authoritative spatial data on the marine and coastal environment and its various uses. It establishes an overarching policy framework to guide the placement of marine development. The SIRMP's planning guidance provides a firm basis for rational and consistent decision making and allows developers to make future decisions with greater knowledge. The SIRMP reflects a process of ongoing consultation with marine planners, regulators, communities and developers.

The SIRMP sets out a vision, an overall aim and a suite of objectives for the management of Shetland's marine environment. The aims and objectives align with the shared vision of the UK

[1] Scottish Government. 2015. Scotland's National Marine Plan. A Single Framework for Managing Our Seas.

[2] Shetland Islands Council (2014). Local Development Plan

[3] www.sepa.org.uk

and Scottish Governments, as set out in the UK Marine Policy Statement[4] and National Marine Plan (NMP).

The SIRMP's high-level aims are to:

- Ensure a high quality, fully functioning marine and coastal ecosystem for the health, benefit, and prosperity of local communities;
- Protect and enhance the local marine waters and coastal environment particularly where there are regionally, nationally, or internationally important marine biodiversity and geodiversity features whilst taking account of natural changes;
- Identify the differing priorities for sustainable use (such as fishing, aquaculture, recreation & tourism, marine renewables, nature conservation etc.) in consultation with marine stakeholders; and
- Promote sustainable economic marine development.

Policies included in the SIRMP will be the means of achieving the vision and objectives of the SIRMP and subsequently the high-level objectives of the NMP which are to provide clean and safe, healthy, and productive marine waters around Shetland.

The Policy Framework in the SIRMP is presented in three sections as follows:

- Section A- Clean and Safe
- Section B- Healthy and Diverse
- Section C- Productive

All proposals for marine development and use must comply with legal requirements and should be in accordance with Scotland's NMP, and the policies in the first two policy sections of the SIRMP:

- Section A- 'Clean and Safe' and
- Section B- 'Healthy and Diverse'

Before considering cross-sector policies (DEV1, DEV2, DEV3 and FISH1) and the relevant sector-specific policies within:

- Section C- 'Productive'

What is an Environmental Report?

This report summarises the findings from the Strategic Environmental Assessment (SEA) of the draft SIRMP. An SEA is required under the Environmental Assessment (Scotland) Act 2005 to assess the likelihood of any environmental or socio-economic effects occurring due to the policies within the SIRMP. The assessment indicates the benefits and potential impacts of implementing the SIRMP, including the cumulative effects of the SIRMP alongside other plans such as the Shetland Islands Council's Local Development Plan (SIC LDP).

[4] HM Government. 2011. UK Marine Policy Statement. HM Government, Northern Ireland Executive, Scottish Government and Welsh Assembly Government.

Strategic Environmental Assessment (SEA) is important for achieving sustainable development, establishing methods for protecting the environment and creating opportunities for public participation in decision making. SEA achieves this by:

- Systematically assessing and monitoring the significant environmental effects of public sector strategies, plans and programmes;
- Ensuring that expertise and views are sought at various points in the process from NatureScot, SEPA, Historic Environment Scotland (statutory consultees) and the public; and
- Requiring a public statement as to how opinions have been taken into account.

What is the current state of the environment?

The coastal waters around Shetland have been classified as being in 'good environmental status'. In 2009 Shetland became a UNESCO European Geopark based on its exceptional geological heritage.

Shetland's Coasts and seas are an integral part of Shetland's cultural and historic heritage with many structures visible around the coast and many more submerged beneath the sea.

Shetlands natural environment is rich in diversity with the landscape spread over more than a hundred islands and 2 ,702 km of coastline. As a result of this diversity of habitats, wildlife and landscape/seascape significant areas are protected by international and national environmental designations. Additionally, these assets and the actual marine environment represent an important recreational amenity for the local community and local economy.

Baseline information on the current status of Shetland's marine environment and key environmental issues has been collated within the Shetland Islands Marine Region State of Environment Assessment (SoEA) [5] which was published in July 2017.

The SoEA is divided into sections to correspond with the UK High Level Marine Objective to deliver 'clean, healthy, safe, productive and biologically diverse oceans and seas'. The 'condition of the region' has been assessed under the headings 'clean and safe' and 'healthy and biologically diverse' and looks at how well ecosystem services are functioning and identifies commercial, recreational or community activities that may be dependent on those services. The 'productive' section of the SoEA analyses key economic and spatial data concerning human activities.

How was the Strategic Environmental Assessment undertaken?

A series of guiding questions ('SEA objectives') were used to structure the assessment. Information about the existing marine environment has been used to inform the appraisal and define these appraisal objectives. The appraisal identifies the environmental and socio-

[5] Shucksmith, RJ (2017) Shetland Islands Marine Region State of the Marine Environment Assessment. UHI Shetland. Report for the Shetland Islands Marine Planning Partnership. pp172

economic, individual and cumulative effects of the policies in the SIRMP on the marine and coastal environment against the guiding questions for each SEA Topic:

- Soils, Geology and Coastal Processes
- Cultural Heritage
- Landscape and Seascape
- Biodiversity, Flora and Fauna
- Air
- Waste
- Water
- Climatic Factors
- Population and Human Health
- Economy
- Material Assets

The type and duration of the effects will be investigated as part of the SEA as follows:

- Positive and negative effects;
- Short, medium and long term effects;
- Permanent and temporary effects; and
- Secondary, cumulative and synergistic effects.

The findings have been recorded in a series of tables, and the significant impacts are described in detail in Chapter 5 of the SEA Environmental Report.

Which reasonable alternatives have been assessed?

There is a requirement to consider the appropriate alternatives to the SIRMP, the policies within it and their effect on the environment as part of the SEA process. As the SIRMP does not include specific strategic actions or measurable activities, the focus of the SEA is to assess the main objectives and policies as set out in the SIRMP and incorporate policy revisions or alternatives upon which the final SIRMP will be based.

Three alternative approaches were identified:

a) 'Do-nothing' scenario, i.e. continue under the current approach to management including using the SIMSP as supplementary guidance to the Shetland Islands Council's LDP;
b) Use the policies within the SIMSP to form a regional marine plan without update or additions; or
c) Adoption of the SIRMP after a review and update of policies guided by the public consultation and the SEA process, further consultation with key stakeholders.

What are the likely significant effects of the SIRMP?

The assessment of the SIRMP is presented in full in Chapter 5 of the SEA Environmental Report.

The assessment concludes that the SIRMP will result in positive overall environmental and socio-economic benefits particularly in relation to factors such as benefits to biodiversity, geology,

water quality, cultural heritage, landscape and seascape, population and human health and the economy.

There is the potential for small scale local negative impacts on the marine environment predominantly from policies within Policy Framework Section (c) *'Productive'* however these impacts will normally be temporary and localised during construction activities. In addition, all the *'Productive'* policies specify that all potential marine developments must comply with all policies in Policy Framework Sections (a) and (b) and policy MP DEV1 and often include avoidance and mitigation criteria.

The implementation of the SIRMP will ensure that sustainability is a key consideration in decision making for marine development in Shetland, taking into consideration the environment and socio-economic elements.

What are the likely cumulative effects if the SIRMP with other pans?

Cumulative effects can be defined as effects that occur where several individual activities which each may not have a significant effect, combine to have a significant effect. Professional judgement has been used to derive the potential cumulative effects of the policies within the SIRMP, in-combination with other plans or projects.

Within the SEA there was a focus on the cumulative effects of the policies within the SIRMP, the National Marine Plan (NMP) and the Shetland Islands Council Local Development Plan (SIC LDP).

The SIRMP sits beneath the NMP and alongside the LDP. Together the NMP and SIRMP set out a framework for social, economic and environmental policies which identify the issues to be taken into account when making decisions about projects and/or activities in the marine environment.

The SIRMP and the SIC LDP work together to set out a framework of social, economic and environmental policies which identify the issues to be taken into account when making decisions about projects and/or activities in the marine and terrestrial environments.

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 on European sites, in both coastal and marine environments.

How can these Effects be avoided or reduced?

Schedule 3 (8) of the Environmental Assessment (Scotland) Act 2005 requires that mitigation measures are integrated into the plan making process. The policies within the SIRMP have been designed to, where possible, incorporate environmental protection and best environmental practice. Mitigation measures have been built into each policy and developers are directed to key consultees who can provide guidance and best practice guidelines. It is strongly advised that developers consult with these agencies early in the application process.

As the assessment did not identify any significant effects arising from the SIRMP, the focus of further monitoring will be on unanticipated effects. The Marine Planning Partnership will continue to work closely with the Statutory Consultees and the Shetland Islands Marine Region Advisory Group to ensure that applications for future development follow the guidance provided in the SIRMP.

How will the effects of the SIRMP be monitored?

A formal review will be conducted within 5 years of the SIRMP being adopted. The review will look at how the SIRMP is being used and will monitor and appraise the environmental and socio-economic effects of the implementation of the SIRMP and how it can be improved.

The use of 'indicators' to measure how the environmental baseline has altered will be an effective tool in determining change. Indicators can comprise both quantitative (facts and figures) and qualitative (descriptive) information. The indicators selected will monitor change that results from implementing the Plan but will also take account of changes as a result of other external factors. They will therefore provide a mechanism to highlight unforeseen as well as expected changes.

What happens next?

Following the consultation, the draft SIRMP will be revised in response to comments made on the draft SIRMP and the SEA Environmental Report. The final SIRMP will then be submitted to the Scottish Ministers for consideration. The SIRMP will then be adopted and a Post-adoption Statement published. The Post-adoption statement will explain how issues raised in the SEA Environmental Report and associated views in response to the consultation, have been addressed.

1 Introduction

On 22nd March 2016, Scottish Ministers gave Direction to the NAFC Marine Centre (now UHI Shetland) and the Shetland Islands Council (SIC) to prepare a regional marine plan for the Shetland Islands. UHI Shetland and Shetland Islands Council form the 'Shetland Islands Marine Planning Partnership' and are guided by an Advisory Group comprising a range of stakeholders covering environmental, community, recreational and commercial interests. This report has been prepared on behalf of the Shetland Islands Marine Planning Partnership by UHI Shetland.

The Shetland Islands Regional Marine Plan (SIRMP) will reflect the requirements for regional marine planning under the Marine (Scotland) Act 2010 and associated Delegation of Functions (Regional Marine Plan for the Scottish Marine Region for the Shetland Isles) Direction 2016. The policy framework will be in line with Scotland's National Marine Plan (2015) (NMP)[6] and will be used to assess marine development applications for marine licences, works licences and marine planning permission, and act as guide in the planning of marine developments, activities and management decisions.

The SIRMP falls under Section 5(3) of the Environment Assessment (Scotland) Act 2005 and therefore requires a Strategic Environmental Assessment (SEA).

1.1 Purpose of this Environmental Report

The purpose of this report is to present the findings of the SEA of the Draft SIRMP. The purpose of undertaking a SEA on the SIRMP are to:

- Provide information on the SIRMP;
- Ensure that the likely significant environmental and socio-economic effects of the Draft SIRMP and any reasonable alternatives are identified and appraised;
- To help identify appropriate mitigation measures to avoid or reduce any adverse effects and enhance any identified beneficial effects associated with the SIRMP;
- To enable statutory consultees, stakeholders and the wider public the opportunity to review and comment on the environmental and socio-economic effects the Draft SIRMP may have on them; and
- To demonstrate that the Draft SIRMP has been developed in a manner consistent with the requirements of the SEA Directive.

1.2 Other Supporting Assessments

The SIRMP will be subject to a number of parallel assessments to guide its development. These include:

- Habitats Regulation Appraisal (HRA)

[6] Scottish Government. 2015. Scotland's National Marine Plan. A Single Framework for Managing Our Seas.

- Business and Regulatory Impact Assessment (BRIA)
- Equality Impact Assessment (EQIA)
- Child Rights and Wellbeing Impact Assessment (CRWIA)
- Islands Impact Assessment

1.3 Report Structure

The report is structured as follows:

- Section 1 (this section): Introduction to the report
- Section 2: Information on the SIRMP, aims and objectives
- Section 3: Environmental baseline information
- Section 4: SEA methodology
- Section 5: SEA appraisal
- Section 6: Cumulative Effects
- Section 7: Mitigation
- Section 8: Monitoring
- Section 9: Conclusions
- Section 10: Next steps
- Section 11: Links to important plans, guidance and legislation
- Section 12-14: Appendices

2 The Shetland Islands Regional Marine Plan (SIRMP)

The SIRMP area includes all territorial waters seaward of the Mean High Water Spring tide (MHWS), out to 12 nautical miles but gives consideration to terrestrial features that are clearly affected by marine use, whether these are historic assets, communities or ecological features. The area is the equivalent to 12,305 km^2 (7,645 miles^2), approximately seven times the land area of the Shetland Islands (Figure 2).

The SIRMP will encourage the sustainable development of the marine environment by providing an overarching policy framework to guide the placement of activity, from marine renewable energy to aquaculture. The SIRMP will set objectives and policies which will consider environmental protection, and where possible enhancement, alongside social and economic

Figure 2: Shetland Islands Regional Marine Plan (SIRMP) Area

considerations. It will have a role in contribution to the mitigation of, and adaption to climate change.

2.1 Purpose and Scope of the Shetland Islands Regional Marine Plan (SIRMP)

The main purpose of the SIRMP is to provide guidance and decision-making framework to assist current and future planning, regulation and management of marine and coastal activities.

The SIRMP's high-level aims are to:

- Ensure a high quality, fully functioning marine and coastal ecosystem for the health, benefit, and prosperity of local communities;
- Protect and enhance the local marine waters and coastal environment particularly where there are regionally, nationally, or internationally important marine biodiversity and geodiversity features whilst taking account of natural changes;
- Identify the differing priorities for sustainable use (such as fishing, aquaculture, recreation & tourism, marine renewables, nature conservation etc.) in consultation with marine stakeholders; and
- Promote sustainable economic marine development.

The SIRMP will provide a strategic framework for management of current activities around the Shetland Islands and for future development decisions.

2.2 Planning Context

The SIRMP will add value to the existing policy frameworks outlined in the NMP by considering local circumstance and reflecting local challenges and opportunities. It will seek to achieve a balance between national and local interests. The SIRMP sits alongside and interacts with existing land use planning regimes, in particular the Shetland Island Council (SIC) Local Development Plan (LDP). The SIRMP area overlaps with terrestrial planning boundaries to ensure that the marine and terrestrial environment are managed holistically. In addition, the Plan will need to comply with and consider a range of strategies, plans and programmes. These are detailed in Appendix 1.

The SIRMP collates data on the multiple uses of the sea around Shetland including industry, conservation, and recreation. The Plan provides an overarching policy framework to guide marine development and activity. The SIRMP will assist developers in locating suitable areas for the placement of proposed developments and/or activities in addition to assisting the consenting/licensing authorities to make informed decisions on managing Shetland's marine resources sustainably.

The maps in the SIRMP provide a comprehensive overview of how the marine area is used and where natural resources and habitats exist. This information is useful in minimising potential conflicts between marine users and resources and between the different marine sectors. The policies set out in the SIRMP will be material considerations in decision-making on marine licence applications (to Marine Directorate- Licensing Operations Team) and works licence applications and marine planning applications (to the SIC).

Key benefits of the SIRMP will be:

- Providing a plan-led approach to the management of the sea around Shetland, facilitating an integrated and informed decision-making process regarding the future distribution of use of space and resources; and
- Enabling long-term protection and use of the marine environment.

The SIRMP should assist the development applications process by enabling developers to identify suitable areas for development and potential constraints at the feasibility and pre-application stage, which should lead to reduced delays and costs.

It is anticipated that the Plan will be adopted in 2025 and will be reviewed every 5 years. The developer and the consenting/ licensing authorities are expected to reference the Plan, where appropriate, in any documentation.

2.3 SIRMP Key Facts

The key facts relating to the Draft Shetland Islands Regional Marine Plan (SIRMP) are set out below:

Responsible Authority	Shetland Islands Marine Planning Partnership (consisting of Shetland Islands Council (SIC) and UHI Shetland)
Title	Draft Shetland Islands Regional Marine Plan (SIRMP)
What prompted the Shetland Islands Regional Marine Plan (SIRMP)?	The Marine (Scotland) Act 2010 set in place a marine planning system comprising a Scottish National Marine Plan (NMP) (adopted in 2015) and the potential to develop regional marine plans. The NMP sets the wider context for planning within Scotland, including what should be considered when creating local, regional marine plans. Eleven Scottish Marine Regions have been created which cover sea areas extending out to 12 nautical miles. Regional Marine Plans will be developed by Marine Planning Partnerships, allowing more local ownership and decision making about specific issues within their area. The Shetland Islands Regional Marine Plan (SIRMP) will build upon the existing work of the 'Shetland Islands' Marine Spatial Plan' (SIMSP) which was adopted as supplementary guidance to the Shetland Islands Council's (SIC) Local Development Plan (LDP) in 2015.
Subject	The creation and establishment of a marine plan to balance demands for development with the need to protect the environment, and to achieve social and economic objectives in an open and planned way.
Period Covered by the SIRMP	2025-2030

Frequency of Updates	A formal review of the SIRMP policies will be published within 5 years of the SIRMP being adopted by Scottish Ministers.
Area Covered by the SIRMP	The SIRMP area includes all territorial waters seaward of the Mean High Water Spring tide (MHWS), out to 12 nautical miles but gives consideration to terrestrial features that are clearly affected by marine use, whether these are historic assets, communities or ecological features. The area is the equivalent to 12,305 km^2 (7,645 $miles^2$), almost seven times the land area of the Shetland Islands
Key Contact	Marine Spatial Planning Manager (email Rachel Shucksmith marineplan.shetland@uhi.ac.uk Tel 01595 772492)

2.4 Aim and Objectives of the SIRMP

The SIRMP is a spatial strategy which sets out a vision, an overall aim and a suite of objectives for the management of Shetland's marine environment. The aim and 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.

Vision

Shetland'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.

Aim

Ensure that use of the marine and coastal environment of Shetland is sustainable.

Sustainable use should not lead to loss of biodiversity or ecological balance, or reduce the availability of natural resources for future generations. This means maintaining and enhancing marine wildlife, habitats and ecosystems to enable dynamic economic activity supporting a prosperous community.

Objectives

The overarching objective of the SIRMP is to ensure the sustainable development, protection and enhancement of the Shetland Marine Region, whilst accommodating the mitigation of, and adaptation to, climate change.

Social

Ensure a high quality, fully functioning marine and coastal ecosystem for the health, benefit and prosperity of local communities.

Environmental

Protect and enhance the local marine waters and coastal environment particularly where there are regionally, nationally or internationally important marine biodiversity and geodiversity features whilst taking account of natural changes.

Economic

Promote sustainable marine development and identify in consultation with marine stakeholders the differing priorities for sustainable use (for example fishing, aquaculture, recreation & tourism, marine renewables and nature conservation).

2.5 Planning Mechanism

The SIRMP is designed to guide all marine users, planners and regulators in the placement of existing and proposed activities, operations or developments. The type of activity or development proposed may have a significant bearing on the quality of the marine environment. The inclusion of policies and management measures ensure the proper and sustainable development of the marine and coastal area and will help to address any potential adverse impacts.

Policies included in the SIRMP will be the means of achieving the vision and objective of the SIRMP and subsequently the high-level objectives of the NMP which are to provide clean and safe, healthy, and productive marine waters around Shetland.

The Policy Framework in the SIRMP is presented in three sections as follows:

- Section A- Clean and Safe
- Section B- Healthy and Diverse
- Section C- Productive

All proposals for marine development and use must comply with legal requirements and should be in accordance with Scotland's NMP, and the policies in the first two policy sections of the SIRMP:

- Section A- 'Clean and Safe' and
- Section B- 'Healthy and Diverse'

Before considering cross-sector policies (DEV1, DEV2, DEV3 and FISH1) and the relevant sector-specific policies within:

- Section C- 'Productive'

A summary of the draft SIRMP policy themes is included in Table 1.

Table 1: Summary of SIRMP Policy Themes

Policy Sections	Policy Themes
Clean and Safe	Water Resources
	Invasive Non-native Species (INNS)
	Waste Minimisation
	Surface and Underwater Noise and Vibration
	Safeguarding Ports and Navigational Safety
	Utility Cables and Pipelines

Policy Sections	Policy Themes
	Climate Change
Healthy and Biologically Diverse	Natural Heritage
	Landscape and Seascape
	Historical Environment
	Communities
	Recreation and Leisure
Productive	General Conditions
	Commercial Fishing
	Aquaculture
	Seaweed
	Marine Renewable Energy
	Marine Aggregate Extraction
	Tourism
	Shore Access and Moorings
	Cables and Pipelines
	Commercial Moorings
	Coastal Defence Construction
	Coastal Defence Demolition
	Transport
	Dredging and Disposal

2.6 Relationships with other Plans, Programmes or Strategies and Environment Objectives

Preparation of the draft SIRMP is guided and influenced by a number of existing plans, programmes and strategies. These have been developed at the national, regional and local level seeking to enhance and promote environmental, economic and social development.

The SEA Directive requires the analysis of the 'main objectives of the plan or programme and relationship with other relevant plans and programmes' and the 'environmental protection objectives established at international, community or member state level, which are relevant to the plan or programme', and the way those objectives and any environmental considerations have been considered during its preparation.

In 2007 the European Commission adopted an Integrated Maritime Policy (IMP) for the EU. The IMP seeks to enhance the sustainable development of the European maritime economy and to better protect the marine environment by facilitating the cooperation of all maritime players across sectors and borders. Marine Spatial Planning (MSP) was identified as the key instrument for implementing the IMP. At a UK level marine planning has been facilitated

through the UK Marine and Coastal Access Act 2009 and in Scotland by the Marine (Scotland) Act 2010.

In addition, a number of different treaties, conventions, instruments of legislation, local policy and initiatives have been identified as having implications for and a relationship with, the draft SIRMP. Appendix 2 lists the plans, programmes, strategies and environmental objectives which we propose to analyse for their relationship with the draft SIRMP.

3 Environmental Baseline Information

Baseline information helps to provide a basis for predicting and monitoring effects and will help to identify sustainability problems and alternative ways of dealing with them. The Environmental Assessment (Scotland) Act 2005 requires Responsible Authorities to describe the environmental characteristics of areas likely to be significantly affected by the SIRMP, including any existing environmental issues. This section of the report provides an indication of the content and level of detail to be provided in the environmental baseline for the assessment of the plan.

Baseline information on the current status of Shetland's marine environment and key environmental issues has been collated within the 'Shetland Islands Marine Region State of Environment Assessment' (SoEA).[7] The report fulfils the legislative requirements of the Marine (Scotland) Act 2010 (part 3, section 4b and 4c) and was published July 2017. Further information on the SEA topics and where the baseline environmental information can be found within the SoEA is summarised in Table 2.

The SoEA is divided into sections which correspond to the UK High Level Marine Objective to deliver 'clean, healthy, safe, productive and biologically diverse oceans and seas'. The 'condition of the region' is assessed under two sub-sections, 'clean and safe' and 'healthy and biologically diverse'. They consider the functioning of the ecosystem services attributed to specific features or qualities. Dependent commercial, recreational or community activities are also identified. Where possible current pressures are identified and trends are detailed. The 'Productive' section of the assessment analyses key economic and spatial data concerning human activities.

Baseline data will be analysed in relation to the obligations and legislative targets associated with the relevant treaties, conventions and plans, as listed in Appendix 2. This will also be presented in the Environmental Report.

Table 2: Summary of baseline environmental data for the Shetland marine region from the 'Shetland Islands Marine Region State of the Environment Assessment'

[7] Shucksmith, RJ (2017) Shetland Islands Marine Region State of the Marine Environment Assessment. NAFC Marine Centre UHI. Report for the Shetland Islands Marine Planning Partnership. pp172

Topic	State of the environment chapter	Additional data (where available)
Soils, Geology and Coastal Processes	**Section A Overview** Physical characteristics **Section B Condition of the region** *Physical* Climate change Climate change- sea level rise Flood risk management Coastal change *Clean and safe* Hazardous substance Biological effects of imposex Protected areas *Healthy and biologically diverse* Seabed habitats and species **Section C Productive** Coastal protection and flood risk management Waste disposal	
Cultural Heritage	**Section A Overview** Human habitation **Section B Condition of the region** Shetland's seascape **Section C Productive** Historic environment and cultural heritage	
Seascape and Landscape	**Section A Overview** Human habitation **Section B Condition of the region** Coastal change Shetland's seascape **Section C Productive** Historic environment and cultural heritage	
Biodiversity, Flora and Fauna	**Section A Overview** Physical characteristics Environmental characteristics **Section B Condition of the region** Healthy and biologically diverse (species and habitat subsections)	
Air	**Section C Productive** Aquaculture	DEFRA: Air Quality Levels

	Fishing Leisure, recreation and tourism Renewable energy Oil and gas Maritime transport	SEPA: Sources of air emissions
Waste	**Section B Condition of the region** Marine Litter	
Water	**Section B Conditions of the region** Hazardous substances Oil and chemical spills Microbial contamination Biotoxins Eutrophication **Section C Productive** Waste water treatment and industrial outfalls	
Climatic Factors	**Section A Overview** Physical characteristics **Section B Condition of the region** Climate change Climate change- sea level rise Flood risk management Coastal change **Section C Productive** Coastal protection and flood risk management	
Population and Human Health	**Section A Overview** Human habitation **Section C Productive** Leisure recreation and tourism Historic environment and cultural heritage	Public consultation responses
Economy	**Section A Overview** Human habitation **Section C Productive** Aquaculture Fishing Leisure, recreation and tourism Renewable energy Oil and gas Water abstraction Maritime transport	SIC Scottish Government. Visit Scotland. Business and Regulatory Impact Assessment

	Waste water treatment and industrial outfalls Telecommunications, electricity cables and water pipes	
Material Assets	**Section C Productive** Aquaculture Fishing Leisure, recreation and tourism Renewable energy Oil and gas Water abstraction Maritime transport Waste water treatment and industrial outfalls Telecommunications, electricity cables and water pipes	

3.1 Key Issues

The aims and principles of SEA are to help protect the environment and promote sustainability. The implications associated with the SIRMP are therefore presented in Table 3.

The ethos behind applying SEA to the marine environment is not to specify or focus on particular environmental issues or impacts, but rather to provide a process by which management decisions are made with the best available knowledge. The environmental issues may have both negative and positive impacts for the Shetland region.

Table 3: Summary of Issues likely to be affected by the SIRMP.

Topic	Key Issues/ Implications for SIRMP
Soils, Geology and Coastal Processes	• Changes to sedimentary processes resulting in changes to erosion or accretion patterns and/or increase the chance of coastal flooding due to sectoral or habitat enhancement policy. • Physical loss, damage or disturbance of geological features due to sectoral or habitat enhancement policy. • Climate change resulting in increased risk from sea level rise and/or increase in 'storminess', resulting in flooding and/or coastal erosion. • Protection of areas designated for geological features. • Discharges (current and historic) and diffuse pollution can lead to sediment contamination, subsequently impacting marine species and habitats.

Cultural Heritage	• Changes to cultural heritage including positive effects due to policy protection (including setting), and potential negative effects such as loss or damage due to sectoral or habitat enhancement policy. • Protection of designated and non-designated marine historic assets from inappropriate development. • Developments have the potential to uncover, disturb or destroy unexplored/unknown archaeological remains. • Cultural heritage effects may also be linked to human health (wellbeing).
Seascape and Landscape	• Changes to landscape/seascape, potentially positive and negative due to sectoral policies. Effects will be development specific and dependent on the type of development/activity, its location and setting. • Terrestrial and marine policy will need to align to ensure that the sensitivity of coastal sites and communities to visual impacts from marine developments/activities and onshore/offshore development are considered. • Landscape/seascape effects may also be linked to human health (wellbeing).
Biodiversity, Flora and Fauna	• Developments within or adjacent to international, national and local sites have the potential to have a positive/negative impact on the sites' integrity or character. • Changes to coastal processes due to sectoral or habitat enhancement policies may have effects on associated species and habitats. • Direct and indirect potential impacts of development and activities are wide ranging and species and habitat specific but can include loss of habitats, disturbance and introduction of INNS.
Air	• Developments have the potential to contribute to air pollution directly but also lead to indirect impacts for example re-routing shipping can increase fuel use. • Developments can also reduce overall carbon use by providing low carbon alternatives (e.g. renewables).
Waste	• Increases in waste due to developments and activities in the coastal zone. Waste generation requires management to prevent marine litter. • Marine litter can cause adverse environmental effects and affect local businesses from fishing to marine recreation.
Water	• Ensuring that developments or activities do not cause any water body to deteriorate in condition status nor prevent the achievement of established objectives as set out in the Scotland River Basin Management Plan (RBMP).

	• Where possible, new developments will contribute towards objectives to improve the ecological status of coastal waterbodies.
Climatic Factors	• Climate Change Mitigation – the location and development of renewable energy devices and potential impacts on the surrounding environment. • Climate Change Adaptation – consider the likely impact that developments within the coastal zone may have in terms of climate change i.e. areas at high risk and probability of coastal change and inundation, geomorphological changes that an activity, development or habitat protection will have on coastal processes, including sediment movement and increased flood risk. • Consideration of the resilience of proposed activities and developments with regards to increased sea levels and predicted increases in 'storminess' and the impact on local geology.
Population and Human Health	• Ensuring local community and visitors have continued or enhanced access to leisure and recreation assets. • Encouraging sustainable new marine developments and safeguarding existing developments from incompatible uses. • Minimising and mitigating development with the potential to cause a health risk or a nuisance i.e. pollution (including microbial contamination and marine litter), noise, vibration. • Wellbeing can be impacted by changes to cultural and natural heritage including seascape/landscape, built heritage and biodiversity loss. • Sectoral policies may affect areas of economic growth which may have positive and negative effects of local population levels, including population movements and maintaining rural communities.
Economy	• Both job losses and creation from different types of development. • The need for diverse skill sets with job creation in local areas. • In some instances, refusing development can help to secure a more diverse economic base by supporting the local distinctiveness of an area. • Support for island and remote community connectivity and transportation.
Material Assets	• There is a need to consider potential effects of new infrastructure on other users or uses of the marine environment, e.g. physical disturbance of fishing grounds; or impacts on navigational safety.

	• Need to consider the effects of development on opportunities for other types of development. • Need to ensure adequate protection of natural resources to allow full community and economic function.

3.2 Reasonable Alternatives

There is a requirement to consider appropriate alternatives to the SIRMP, the policies within it and their effect on the environment as part of the SEA process. As the SIRMP does not include specific strategic actions or measurable activities, the focus of the SEA is to assess the main objectives and policies as set out in the SIRMP and comprise possible policy revisions or alternatives on which the final SIRMP will be based.

In terms of alternatives to the SIRMP, its strategic nature suggests three scenarios:

d) 'Do-nothing' scenario, i.e. continue under the current approach to management including using the SIMSP as supplementary guidance to the Shetland Islands Council's LDP;
e) Use the policies within the SIMSP to form a regional marine plan without update or additions; or
f) Adoption of the SIRMP after a review and update of policies guided by the public consultation and the SEA process, further consultation with key stakeholders.

The assessment of alternatives is integral to the SEA process and the overall assessment of the main objectives and policies set out in the Draft SIRMP. In considering the effects of these in relation to each of the main policy areas, the assessment will take full account of the options proposed and the likely effects on the environment in the absence of the SIRMP.

4 Strategic Environmental Assessment (SEA) Methodology

Strategic environmental assessment (SEA) is a key component of sustainable development, establishing important methods for protecting the environment and extending opportunities for public participation in decision making. SEA achieves this by:

- Systematically assessing and monitoring the significant environmental effects of public sector strategies, plans and programmes;
- Ensuring that expertise and views are sought at various points in the process from NatureScot, SEPA, Historic Environment Scotland and the public; and
- Requiring a public statement as to how opinions have been taken into account.

The SEA assessment seeks to reflect the objectives of the UK Marine Policy Statement and NMP objectives and policies by assessing the impacts of the Plan on communities, the economy and the environment A five-stage approach (Figure 3) is used for the SEA process

which incorporates the requirements of the Strategic Environmental Assessment Directive outlined in the Practical Guide.[8]

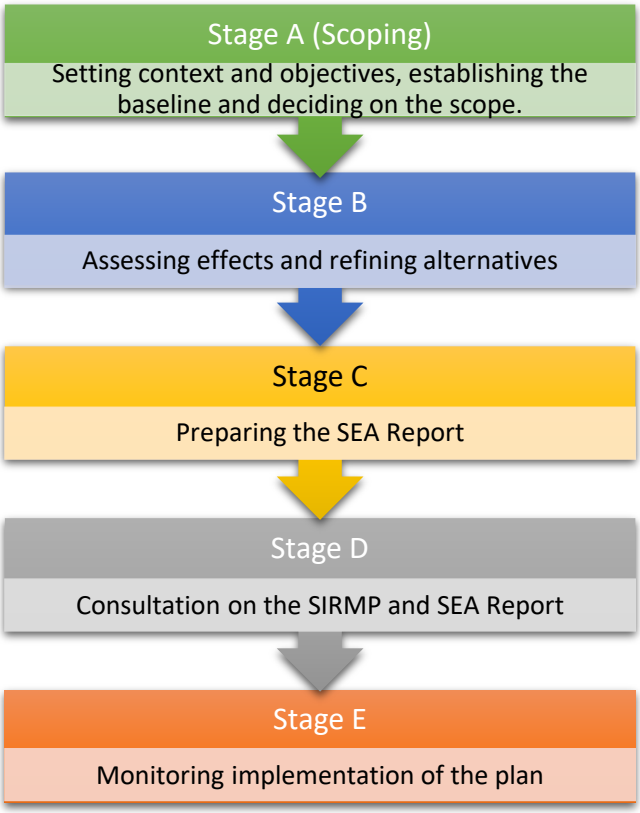

Figure 3: Five Stage SEA Approach

The **scoping stage (Stage A)** of SEA aims to identify the scope and level of detail of information to be included in the SEA Report (Stage C). It will set out the context, objectives and approach of the assessment.

Stage B will include the identification of the likely environmental, social and economic effects of the SIRMP and will use significance criteria to evaluate the predicted effects. It will also outline the potential measures to mitigate environmental, social and economic effects and introduce proposal measures to monitor these effects throughout the implementation of the plan. In addition, Stage B will develop and refine alternatives, assessing the effects (direct, indirect and cumulative) of the proposed options (as outlined in section 3.2).

Stage C presents the findings of the SEA process in an Environmental Report.

Following Stage C, the Environmental Report goes out for consultation with the public, community groups, and authorities with environmental, social and economic responsibilities (**Stage D**). Following this there will be incorporation of comments received from consultation and findings of the SEA into the SIRMP. In the final stage (**Stage E**) it is

[8]https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7657/practicalguidesea.pdf

important that there is monitoring of the environmental, social and economic effects of the SIRMP throughout the period of its implementation and that there is a response to any adverse effects.

4.1 SEA Activities to Date

SEA is an iterative assessment process that plans are required to undergo as they are being developed to ensure that potential significant environmental effects arising from the plan/programme are identified and assessed, mitigation is proposed and findings communicated to plan-makers to enable improvements to be made. The key SEA activities undertaken so far are outlined in Table 4.

Table 4: SEA activities undertaken to date

Key Activity	Date	Comments
SEA Scoping Report produced	July 2018	
Consultation on SEA Scoping	July 2018	SEA Scoping Report submitted to the SEA Gateway for the statutory 5-week consultation period.
Review of Responses to Scoping	July 2018	The SIRMP team reviewed the comments received from the CAs and these have been addressed in this Environmental Report.
Environmental Report	December 2018 -January 2019	The Draft SIRMP is assessed against the SEA objectives and the potential implications of development on the marine environment. Mitigation, environmental enhancement and monitoring are detailed in the Environmental Report.
Updated Environmental Report	October 2025	The Environmental report was updated to reflect advice from the Scottish Government in relation to required changes to SIRMP and its policies to conform to legislative requirements and Scotland's National Marine Plan.

4.2 Additional Information Reviewed

The following information was reviewed as part of the SEA Environmental Report:

- Environmental Assessment (Scotland) Act 2005
- Strategic Environmental Assessment Guidance, 2013
- A Practical Guide to the Strategic Environmental Assessment Directive, 2005

- Integrating an Ecosystems Approach into Strategic Environmental Assessment Information Note, 2016

4.3 Topics Considered in the SEA

In accordance with Schedules 2 and 3 of the Environmental Assessment (Scotland) Act 2005 the environmental issues to be addressed in the SEA are included in Table 5. These SEA topics form the basis of the assessment, identifying potential environmental and socio-economic effects of the SIRMP policies on the marine and coastal environment.

Table 5: Scoping of SEA Topics

SEA Topic	Scoped In	Scoped Out	If scoped out, why?
Physical Aspects			
Soils, Geology and Coastal Processes	✓		
Cultural Heritage	✓		
Landscape and Seascape	✓		
Environmental and Ecological Aspects			
Biodiversity, Flora and Fauna	✓		
Air	✓		
Waste	✓		
Water	✓		
Climate Change	✓		
Socio-Economic Aspects			
Population and Human Health	✓		
Economy	✓		
Material Assets	✓		

The type and duration of effects will be investigated as part of the SEA as follows:

- Positive and negative effects;
- Short, medium and long term effects;
- Permanent and temporary effects; and
- Secondary, cumulative and synergistic effects.

4.4 SEA Objectives and Guiding Questions

In accordance with SEA Guidance, the use of SEA Objectives is a suitable means to assess the impacts of the SIRMP. These objectives and indicators provide a series of questions against each of the SEA Objectives, categorised as the SEA Guiding Questions (see Table 6). Establishing appropriate objectives and guide questions is an important part of assessing the

sustainability of the Draft SIRMP. The objectives present the preferred social, economic and environmental outcome. By appraising the policies of the Draft SIRMP against the criteria, it is apparent where they will contribute sustainably, where there may be an adverse effect and where there may be a positive effect.

The range of potential environmental and socio-economic effects under consideration will be informed primarily by the SEA Directive and regulations. Annex I of the SEA Directive and Schedule 2 of the SEA Regulations require that the assessment includes information on the:

"*likely significant effects on the environment, including on issues such as: biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape; and the inter-relationship between the issues referred to*".

Therefore, these are the main topics which will be assessed within the SEA. Many of the SEA topics are interrelated – an effect where one topic may also result in a direct or indirect effect in relation to other topics.

Table 6: SEA Topics, Objectives and Guiding Questions

Topic	SEA Objective	Guiding Questions Will the SIRMP…	Proposed SEA Indicators
Physical Aspects			
Soils, Geology and Coastal Processes (Geodiversity, seabed/soils, coastal erosion)	• To protect, maintain and where appropriate, enhance the physical quality and integrity of the seabed and coastal zone and the benefits they provide to people. • To maintain integrity of sediment and coastal processes. • To protect natural features which protect against coastal erosion and flooding. • Prevent new activities which exacerbate natural coastal erosion. • Reduce levels of sediment contamination which could cause impacts on marine species.	• Enable the protection and/or enhancement of natural features that help protect important assets on vulnerable shores from erosion? • Protect and enhance designated coastal features for geomorphology? • Ensure the protection of the structural integrity and physical processes of seabed/coastal areas in designated or sensitive areas? • Affect marine and coastal processes and/or erosion rates? • Ensure level of sediment contamination will not impact species and habitats?	• Condition of coastal geological and geomorphological SSSIs, MPAs, geological Local Nature Conservation Sites and geosites identified by Geopark Shetland [Source: NatureScot, SIC and Shetland Amenity Trust (SAT)]. • Condition of features which protect coastal erosion. • Areas of coast subject to coastal change (National Coastal Change Assessment). • Monitoring data on sediment contamination (SEPA, Marine Directorate Science, SOTEAG).
Cultural Heritage (Historic Environment)	• To protect, maintain and, where appropriate, enhance the quality and local distinctiveness of the historic environment and associated benefits for people.	• Improve understanding and knowledge of the marine historic environment, promoting its contribution to local culture and tourism opportunities?	• Number of applications where consideration of impacts on historic or cultural features has been documented by the applicant.

	• To protect against damage to known and undiscovered coastal and marine archaeology and the benefits they provide for people.	• Protect and maintain the historic environment in Shetland's coastal and marine areas?	• Number of applications where there are potential impacts on a site designated for historical environment (Source: SIC). • Condition of sites designated for the historical environment (Source: SIC). • Monitoring/mapping/recording of any new sites of historical importance discovered as part of any developments or projects (Source: UHI Shetland, SIC).
Landscape and Seascape	• To protect, maintain and, where appropriate, enhance the seascape/landscape and visual amenity of the SIRMP plan area and associated benefits for people.	• Enable the protection, maintenance and enhancement of designated and non-designated landscapes and seascapes? • Improve understanding and knowledge of Shetland's seascape/ landscape and its contribution to local culture and tourism opportunities?	• Condition of National Scenic Areas and Local Landscape Areas (Source: NatureScot/SIC). • Number of applications for development with potential impacts on seascape/landscape designations (Source: SIC and NatureScot). • Proximity of existing and proposed developments i.e. any trends for clustering of developments (Source: SIC). • Visitor survey results (Source: UHI Shetland, Visit Scotland).

Environmental and Ecological Aspects			
Biodiversity, Flora and Fauna	• To protect, maintain and, where appropriate, enhance marine and coastal ecosystems, their interactions and the benefits/resources they offer to people. • To prevent damage where possible to important/protected habitats and species. • To promote people's enjoyment, understanding and appreciation of the natural heritage and need for its protection and enhancement.	• Avoid negative impacts on protected species and habitats? • Avoid negative impacts which reduce habitats or species ability to provide ecosystem services? • Protect and where possible enhance marine and coastal ecosystems and their interactions? • Safeguard and promote existing and new opportunities for people to appreciate and connect with Shetland's coastal and marine environment?	• Number and proportion of developments permitted with an unmitigated impact on designated sites, species or habitats (Source: SIC, MD-LOT and NatureScot). • Reported condition of SACs, SPAs, SSSIs, MPAs, LNCS (Source: NatureScot/SIC). • Conservation status of seabirds, otters and marine mammals (Source: SIC, SAT, RSPB, Marine Directorate Science, NatureScot/JNCC). • Fish stock assessments (Marine Directorate Science, ICES, SSMO) • Current extent and records of important habitats and species (Source: NatureScot/JNCC, Marine Directorate Science, UHI Shetland, SSMO). • Tourism figures for wildlife visitor attractions i.e. wildlife watching tours, outdoor recreation etc. (Source: Visit Shetland and SIC Economic Development).

			• Reported sightings of INNS around Shetland (Source: Marine Directorate Science, SEPA, NatureScot, UHI Shetland).
Waste	• To minimise the generation of waste and encourage greater re-use and recycling of materials.	• Promote the re-use and recycling of materials, and aim to minimise waste where possible? • Ensure adequate waste management measures are in place to prevent or minimise the creation of marine litter?	• Number of applications where a waste management plan has been undertaken and waste management measures included. • Number of reported instances of waste disposal/dumping at sea (SIC, Lerwick Port Authority (LPA), SEPA, Maritime and Coastguard Agency (MCA)). • Number of bags of coastal litter collected annually as part of the Da Voar Redd up (Source: SAT).
Water (Water quality, coastal flooding)	• To protect, maintain and enhance where possible, the quality of the water environment of Shetland. • Ensure there is no deterioration in the status of any water body and that Good Environmental Status and Good Ecological Status of the	• Avoid pollution of the coastal and marine water environment? • Maintain and/or improve the ecological status and environmental status of the waters around Shetland?	• Number of water bodies achieving 'Good Ecological Status' (GES) as required by WFD and RBMP (Source: SEPA, SIC). • Marine waters achieving GES[9] under the MSFD - current status on eutrophication,

[9] 'Good environmental status' under the Marine Strategy Framework Directive

	Shetland Marine region is achieved meeting requirements of the WFD and MSFD. • To avoid pollution of the coastal and marine water environment. • To avoid increasing flood risk from inappropriate development within areas vulnerable to flooding.	• Avoid increasing flood risk from inappropriate developments in areas vulnerable to flooding?	contamination, marine litter (Source: Marine Directorate Science).
Air	• To protect, maintain and where appropriate, enhance air quality and the benefits they provide to people. • Prevent new activities which increase emissions from other industries.	• Enable the protection and/or enhancement of air quality? • Prevent an increase in fuel consumption due to a new development or use having a significant impact on navigation?	• Number of low carbon developments approved (i.e. renewable sites). • Number of applications where there is a significant impact on navigation leading to increased fuel use.
Climatic Factors (Climate change)	• To support climate change mitigation through the sustainable development of marine renewable energy as an alternative source to greenhouse gas (GHG) emitting developments. • To reduce the vulnerability of Shetland and its marine environment and resources to the effects of climate change (e.g. sea level rise,	• Reduce greenhouse gas emissions from developments? • Contribute to the adaptation to climate change?	• Number of applications permitted for marine renewable energy developments and overall renewable energy generation for Shetland (Source: SIC and MD-LOT). • Percentage of electricity generated in Shetland from marine renewables (Source: SIC and Marine Directorate).

	coastal erosion, flooding, and introduction of non-native species (INNS)) by ensuring that adaptation to such impacts is built into plans for future development where appropriate.		• Number of applications where a flood risk assessment has been undertaken and flood prevention measures included (Source: SIC). • Number of developments subject to flooding (Source: SIC).
Socio-Economic Aspects			
Population and Human Health (Social consideration, noise, mental and physical health)	• To promote prosperity and quality of life benefits for the people and communities of Shetland through appropriate levels of development within the Shetland marine plan area. • To protect and where appropriate enhance access to marine leisure and recreational assets. • To avoid adverse effects on human health from water pollution and nuisance effects e.g. noise.	• Maintain quality of life benefits for the people and communities of Shetland? • Promote access to coastal and marine resources for tourism and recreation? • Help to avoid adverse effects on human health through poor planning resulting in water pollution and nuisance effects such as noise? • Contribute to the growth of marine activity and development without detriment to an existing sector? • Help to promote employment creation and therefore support the local economy? • Promote engagement in marine planning?	• Life expectancy for local population (i.e. livelihood viability). • Consult with local sports clubs, SIC, Visit Shetland etc. to determine number and frequency of users for marine recreational and leisure amenities. • Number of marine amenities closed/reduced due to development (Source: SIC Economic Development and Visit Shetland). • Number of incidents reported on pollution, waste or contamination to marine and coastal waters around Shetland (Source: SEPA, SIC and LPA).

			• Number of incidents on noise disturbance reported (Source: SIC, Marine Directorate Science and NatureScot).
Economy (employment, connectivity, transportation, industry e.g. fishing, aquaculture)	• Protect features or qualities of the marine environment on which marine industries are dependent. • To protect existing and future marine users from incompatible development. • To maintain or improve the connectivity and accessibility of remote island and coastal communities. • To protect mariners and marine environment from navigational risks.	• Provide clear links between ecosystem health and the industries which are dependent upon them allowing effective protection and management? • Promote co-existence and co-use of marine space? • Assist in inter-island and remote community connectivity? • Safeguard fishing opportunities by identifying and protecting important fish habitats, nursery grounds and fishing grounds?	• Water quality (Source: Food Standards Agency (FSA)/SEPA). • Unemployment/Employment statistics (Source: Scottish Government). • Income (Source: Scottish Government). • Aquaculture production statistics (Source: Marine Directorate Science). • Fisheries landings (Source: Marine Directorate Science). • Renewable energy production (Source: Marine Directorate Science). • Area available to fisheries (Source: SSMO/UHI Shetland). • Number and proportion of marine development applications objected to by other marine users (Source: SIC/MD-LOT).

			• Number of applications providing an assessment of the impact on navigation (Source: SIC/MD-LOT). • Number and cause of marine related accidents (vessels lost).
Material Assets (natural and built)	• To protect the marine environment from the adverse effects of new infrastructural developments. • To protect existing and future marine users from incompatible development. • To promote the efficient and effective sustainable use of environmental resources.	• Protect the coastal and marine environment in Shetland from incompatible developments and any adverse effects of new developments? • Promote the efficient and effective sustainable use of environmental resources.	• Number of reported navigational accidents as a result of a marine development (construction or operation) (Source: MCA, LPA and SIC). • Number of applications refused on grounds of incompatibility with other marine users (Source: SIC). • Number of applications where there are potential impacts on the marine environment as a result of infrastructure development (Source: SIC).

4.5 Assessing Impacts

The SIRMP is assessed against the SEA Objectives taking into account the characteristics of the impacts i.e. type of impact, likely magnitude of impacts and the sensitivity of the receptor. The overall Significance of Impact is determined from a combination of these factors.

The following parameters are used to indicate the character of the impact, as appropriate:

Predictable/ Unpredictable	Short/ Medium/ Long-term
Direct/ Indirect	One-off/ Intermittent/ Continuous
Positive/ Adverse	Certain/ Uncertain (identification of impact)
Temporary/ Permanent	Avoidable/ Unavoidable
Reversible/ Irreversible	Small/ Large
Localised/ Widespread	Individual/ Cumulative

4.5.1 Magnitude of Impacts

The magnitude refers to the scale of the impact in relation to the environmental baseline. The magnitude of impacts is assessed as major, moderate, minor or negligible.

4.5.2 Receptor Sensitivity

The sensitivity of the receptor should be assessed as major, moderate or minor. The method for this will be specific to the environmental medium under consideration.

4.5.3 Significance of Impact

Impact magnitude and receptor sensitivity are combined to indicate significance. Impact significance range is described in terms of major/moderate or minor/negligible and combinations (e.g. minor-moderate), adverse and positive. The scale of impacts used in the assessment is provided in Table 7 below.

Table 7: Significance of impacts and proposed symbols to be used in the framework for the assessment.

Symbol	Description of Impact
✓✓✓	Major positive impact
✓✓	Moderate positive impact
✓	Minor positive impact
=	Neutral or no impact
x	Minor negative impact
xx	Moderate negative impacts
xxx	Major negative impact
?	Uncertain impact
N/A	Not applicable – no relationship with SEA Objective

The SIRMP aims, objectives and policies have been assessed against the SEA Objectives that have been 'scoped in'. Section 5 gives more detail on the results of the assessment of the SIRMP. The detailed assessment matrix is provided in Appendix 1.

The assessment presents the overall residual impact of each element assuming general and specific mitigation is applied during implementation of the SIRMP.

5 Strategic Environmental Assessment

The purpose of this section is to identify the likely significant economic, social and environmental effects (both negative and positive) and where there are negative effects, set out measures to avoid or mitigate them.

The SIRMP has been assessed against the SEA Objectives with comments describing the potential effects. Where appropriate mitigation measures are identified in order to address adverse effects and enhance positive effects.

The potential effects of the SIRMP objectives and policies on each of the SEA Topics are reported. Sections 5.1.1-5.1.3 provide information on Physical SEA Topics, Sections 5.2.1-5.2.5 provide information on Environmental and Ecological SEA Topics. Effects on Socio-Economic SEA Topics are discussed in Sections 5.3.1-5.3.3.

A summary of the findings of the appraisal is presented in Table 8 below. The detailed matrices are presented in Appendix 1.

Table 8: Summary of the appraisal findings for each policy theme against the SEA Topic.

SEA Topic / Policy Theme	Physical Aspects	Soils, Geology and Coastal Processes	Cultural Heritage	Landscape and Seascape	Environmental and Ecological Aspects	Biodiversity, Flora and Fauna	Air	Waste	Water	Climatic Factors	Socio-Economic	Population and Human Health	Economy	Material Assets
Clean and Safe														
Water Resources		✓✓	N/A	✓		✓✓	N/A	N/A	✓✓	N/A		✓✓	✓✓/x	✓
Non-Native Species (INNS)		✓✓	✓	✓		✓✓	N/A	N/A	✓✓	✓		N/A	✓✓	✓✓
Waste Minimisation		✓	✓	✓✓		✓✓	N/A	✓✓	✓✓	✓		✓	✓✓	✓✓
Surface and Underwater Noise & Vibration		N/A	N/A	N/A		✓✓	✓✓	N/A	N/A	N/A		✓✓	?	N/A
Safeguarding Ports and Navigational Safety		N/A	N/A	✓		✓/✓ ✓	✓	N/A	✓/✓ ✓	✓		✓✓	✓/✓ ✓	✓✓
Utility Cables and Pipelines		✓✓	N/A	N/A		✓✓	N/A	N/A	✓✓	N/A		✓✓	✓✓	✓✓
Climate Change		✓✓	✓✓	✓✓		✓✓	✓✓	N/A	✓✓	✓✓		✓✓	✓✓	✓✓
Healthy and Biologically Diverse														
Species Conservation		✓✓	N/A	N/A		✓✓	N/A	✓	✓/✓ ✓	✓		=/✓	✓	N/A

Site Protection-Marine		✓/✓✓	N/A	N/A		✓/✓✓	N/A	N/A	✓✓	✓		✓/✓✓	✓/x	N/A
Site Protection-Coastal		✓✓	N/A	N/A		✓✓	N/A	N/A	✓✓	N/A		✓✓	✓/x	N/A
Biodiversity		N/A	N/A	✓✓		✓✓	N/A	N/A	N/A	N/A		✓	✓/=	N/A
Landscape and Seascape		✓/✓✓	✓✓	✓✓/✓✓		✓	N/A	N/A	N/A	N/A		✓✓	✓/=	✓✓
Historical Environment		N/A	✓✓/✓✓✓	✓		N/A	N/A	N/A	N/A	N/A		✓/✓✓	✓/=	✓✓
Communities		N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A		✓✓	x	N/A
Recreation and Leisure		N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A		✓✓	✓	✓✓
Productive														
General Conditions		✓/✓✓	✓/✓✓	✓/✓✓		✓/✓✓	✓	✓	✓	=/✓		✓/✓✓	✓	✓
Commercial Fishing		✓	✓✓	✓		✓✓	N/A	N/A	N/A	N/A		✓✓	✓✓	✓
Aquaculture		xx	x	x/xx		xx	?	x	xx	=		✓	✓✓	✓
Seaweed		x	x	x		x	?	x	x	✓		=/✓	✓	✓
Marine Renewable Energy		x	x	x		x/xx	✓✓	N/A	x	✓✓		✓	✓✓	✓
Marine Aggregate Extraction		xx	x	=		x	N/A	N/A	x	x		✓	=	✓
Tourism		x	✓/x	✓/x		✓/x	N/A	x	x	=		✓	✓✓	✓✓
Shore Access and Mooring		x	x	x		x	N/A	N/A	x/=	=		✓	✓	✓

Cables and Pipelines		x	x	N/A		x	N/A	=	x/✓	N/A		✓	✓/✓ ✓	x/✓
Commercial Moorings		x	x	x		x	N/A	N/A	N/A	N/A		N/A	✓✓	✓
Coastal Defence Construction		✓✓	✓✓	✓✓		x/✓	N/A	N/A	N/A	=		✓✓	✓✓	✓✓
Coastal Defence Demolition		=	=	=		=	N/A	✓	=	N/A		N/A	✓	✓
Transport		X	X	x/xx		x/xx	N/A	N/A	X	=		✓/✓ ✓	✓✓	✓
Dredging and Disposal		x/xx	x	N/A		x	N/A	N/A	xx	N/A		=	✓✓	✓

5.1 Physical SEA Topic Appraisal

5.1.1 Soils, Geology and Coastal Processes

The geological diversity in the Shetland Islands has been recognised by achieving European and UNESCO Global Geopark status in recognition of its internationally important geological heritage which is used to further sustainable development. In 2018 there were 71 Geoparks in the European Geopark Network and 140 in the Global Network. An important aspect of the Shetland Geopark is its diversity of Geosites – sites important for their geology or geomorphology – ranging from extinct volcanoes (Eshaness) to the shifting sands at St Ninian's tombolo. Of the 107 Geosites in the Shetland Islands, 47 are geological SSSIs or part of a geological SSSI and a further five are on biological SSSIs.

More detailed baseline environmental information relating to 'Soils, Geology and Coastal Processes' can be found in Section B *Condition of the region- Protected areas* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

There are existing pressures in the marine and coastal environment on coastal processes (and therefore soils and geology) from existing activities and uses of the waters around Shetland. In addition, climatic change may also influence these factors through increased storminess and sea level rise.

The overall objectives of the SIRMP and the policies outlined in the plan recognise and address the potential for impacts on the sediments in the coastal and marine waters of the Shetland region.

Will the policies in the SIRMP…

- **Enable the protection and/or enhancement of natural features that help protect important assets on vulnerable shores from erosion?**
  Policy MP GEOD1 is specifically in place to protect local geodiversity. It sets out the requirements for applicants to consider potential impacts on geodiversity and appropriate measures to protect or enhance marine and coastal geological and geomorphological resources and sites. Climate change is one of the biggest threats to the coastal environment, with sea levels rising there is the potential for geological features and the structural integrity of the coast to be at risk. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change through mitigation and adaptation to protect areas vulnerable to sea level rise and the overall benefit to the environment and community.

  Invasive non-native species (INNS) also pose a significant threat to marine biodiversity, especially in light of climate change. The introduction of INNS has the potential to impact habitats and species which stabilise sediments (e.g. native oysters) or reduce the spread of species that destabilise sediments (e.g. rabbits). Policy MP INNS1 requires applicants consider the potential risks of introducing or spreading INNS and if there is a risk of establishing new pathways for the spread of INNS, relevant measures should be

put in place to reduce these risks. The assessment and identification of these risks and relevant measures to reduce them can be set out in a biosecurity plan. Guidance has been created by the Shetland Marine Planning Partnership to assist applicants in creating these plans. Policy MP CD1 deals with the installation of new flood defences and coastal protection works. As part of this policy applicants should consider the wider implications of exacerbating flooding or coastal erosion processes elsewhere. This will ensure that any defence construction will be sustainable with minimal adverse effects on coastal processes.

- **Protect and enhance designated coastal features for geomorphology?**
  Policy MP GEOD1 is specifically in place to protect local geodiversity. It sets out the requirements for applicants to consider potential impacts on geodiversity and appropriate measures to protect or enhance marine and coastal geological and geomorphological resources and sites. Policy MP BIOD1 provides protection to designated sites ensuring that development has due regard to the integrity of the area and the qualities for which each site has been identified and avoids or mitigates any negative impacts on the site. MP BIOD1 protects the following sites:
  - SACs and SPAs (collectively known as European sites) and Ramsar sites which include geological features.
  - Nature Conservation Marine Protected Areas (NCMPAs) which include geological features.
  - SSSIs some of which have been designated for important geological features.
  - Local Nature Conservations sites which have been selected for their biodiversity or geodiversity interest.

- **Ensure the protection of the structural integrity and physical processes of seabed/coastal areas in designated or sensitive areas?**
  Policy MP BIOD1 provides protection to sites specifically designated for their geological features. The policy will limit the impact potential development and use may have on the structural integrity and physical processes of the seabed and coastal areas of the sites.

  Priority Marine Features (PMF) include 81 different marine habitats and species and are considered nationally important. Policy MP BIOD2 and BIOD3 gives PMFs protection from potential adverse impacts caused by development and use.

  Invasive non-native species (INNS) pose a significant threat to marine biodiversity, especially in light of climate change. The introduction of INNS has the potential to impact habitats and species which stabilise sediments (e.g. native oysters) or reduce the spread of species that destabilise sediments (such as rabbits). Policy MP INNS1 requires applicants consider the potential risks of introducing or spreading INNS and if there is a risk of establishing new pathways for the spread of INNS, relevant measures should be put in place to reduce these risks. The assessment and identification of these risks and

relevant measures to reduce them can be set out in a biosecurity plan. Guidance has been created by the Shetland Marine Planning Partnership to assist applicants in creating these plans. Policies MP VIS1 and VIS2 specifically protect the National Scenic Area (NSA) and Local Landscape and seascape. They safeguard seascape character and visual amenity which could have indirect positive benefits as protection of landscape/seascape may limit impacts on soils and geology features.

Damage to pipelines has the potential to cause damage to the benthos and intertidal substrate. Policy MP ACBP1 aims to reduce the risk of damage to cables and pipelines by directing developments away from these areas.

- **Affect marine and coastal processes and/or erosion rates?**
  Climate change is one of the biggest threats to the coastal environment, with sea levels rising there is the potential for geological features and the structural integrity of the coast to be at risk. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change through mitigation and adaptation to protect areas vulnerable to sea level rise and the overall benefit to the environment and community.

  Policies MP VIS1 and VIS2 specifically protect the National Scenic Area (NSA) and Local Landscape and seascape. They safeguard seascape character and visual amenity which could have indirect positive benefits as protection of landscape/seascape may limit impacts on soils and geology features.

  Invasive non-native species (INNS) pose a significant threat to marine biodiversity, especially in light of climate change. The introduction of INNS has the potential to impact habitats and species which stabilise sediments (e.g. native oysters) or reduce the spread of species that destabilise sediments (such as rabbits). Policy MP INNS1 requires applicants consider the potential risks of introducing or spreading INNS and if there is a risk of establishing new pathways for the spread of INNS, relevant measures should be put in place to reduce these risks. The assessment and identification of these risks and relevant measures to reduce them can be set out in a biosecurity plan. Guidance has been created by the Shetland Marine Planning Partnership to assist applicants in creating these plans.

  Policy MP CD1 and MP CD2 deal with the installation and demolition of coastal flood defences and coastal protection works. Potential installation developments should consider the wider implications of exacerbating flooding or coastal erosion processes elsewhere. This will ensure that any defence construction will be sustainable with minimal adverse effects on coastal processes. Before the demolition of coastal defences, potential impacts on the natural and built environment, coastal processes and climate change related risks and impacts (i.e., those associated with sea level rise projections) The caveats in these policies will ensure any impacts on soil, geology or coastal processes will be minimal or neutral.

Policy MP FISH1 minimises the adverse impacts on important fishing areas including seabed habitats from inappropriate development and use which will have an overall positive impact on seabed integrity.

- **Ensure level of sediment contamination will not impact species and habitats?**
  Policies MP WAT1 and WAT2 protect coastal water bodies from the adverse effects of development including contamination and pollution, and encourage the improvement of the ecological and environmental status of marine and coastal waters.

  All applications for marine-related development and use, under policy MP WST1, should include a waste minimisation and management plan, this will help to reduce commercial sources of marine litter which has the potential to contaminate soils.

  Policies MP DEV1, MP DEV2 and MP DEV3 offer a level of protection to 'Soils, Geology and Coastal Processes' by ensuring that all potential development and use comply with all policies included in Policy Framework Sections (a) and (b) including those protecting geology (MP DEV1); that the decommissioning of assets and removal of any redundant equipment will prevent any adverse impacts on the benthos and coastal processes of an area (MP DEV2) and protecting important seabed habitats by restricting development within these areas (MP DEV3).

Potential adverse impacts of the SIRMP policies on 'Soils, Geology and Coastal Processes' are predominantly linked to policies in the Productive Section. Impacts can be caused though anchoring, cable and pipe laying, capital and maintenance dredging and include loss and/or damage of the seabed, exacerbation of coastal erosion and through the suspension of sediments. However, these impacts will normally be temporary and localised during construction activities. In addition, all the productive policies specify that developments must comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP DEV1 and often include avoidance and mitigation criteria. A summary of the impacts the SIRMP policies may have on 'Soils, Geology and Coastal Processes' can be found in Table 9.

Table 9: A summary of the potential impacts of the SIRMP on 'Soils, Geology and Coastal Processes'

SEA Topic	Soils, Geology and Coastal Processes
Water Resources	✓ ✓
INNS	✓ ✓
Waste Minimisation	✓
Noise &Vibration	N /A
Safeguarding ports and Navigational	N /A
Utility Cables and Pipelines	✓ ✓
Climatic Change	✓ ✓
Species Conservation	✓ ✓
Site Protection- Marine	✓/ ✓✓
Site Protection- Coastal	✓ ✓
Biodiversity	N /A
Landscape and Seascape	✓/ ✓✓
Historical Environment	N /A
Communities	N /A
Recreation and Leisure	N /A
General conditions	✓/ ✓✓
Commercial Fishing	✓
Aquaculture and Seaweed Cultivation	x/ xx
Marine Renewable Energy	x
Marine Aggregate Extraction	x x
Tourism	x
Shore Access and Moorings	x
Cables and Pipelines	x
Commercial Moorings	x
Coastal Defence Construction	✓ ✓
Coastal Defence Demolition	=
Transport	x
Dredging and Disposal	x/ xx

5.1.2 Cultural Heritage

The coast and seas within the Shetland marine region host a rich and diverse historic and cultural heritage and are a key part of what gives the islands their unique character. It helps give a sense of place, well-being and cultural identity and enhances regional and local distinctiveness. Marine historic assets around our coast include: the wrecks of boats, ships, submarines and aircraft; harbours, lighthouses and other built structures; drowned terrestrial archaeological sites and cultural landscapes.

Many of these are unique and valuable but some are not well understood and cannot be replaced if lost or damaged. The marine historic environment requires careful and active management to ensure that it persists. The SIRMP supports the Scottish Government's aims to:

- Advance knowledge about marine heritage and make information widely available;
- Improve stewardship of key marine heritage sites; and
- Develop wider understanding and enjoyment of marine heritage[10]

More detailed environmental baseline information on the condition of 'Cultural Heritage' can be found in the *Historic Environment & Cultural Heritage* chapter of the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies in the SIRMP…

- **Improve understanding and knowledge of the marine historic environment, promoting its contribution to local culture and tourism opportunities?**
  Shetland's Historic heritage and archaeology are a key part in what gives the islands their distinctive and unique character. They are important not only to the local residents of Shetland by giving them a sense of cultural identity but also for the local tourism economy. Policies MP HIS1, HIS2 and HIS3 protect local and national heritage assets and heritage assets within designated Historic MPAs. By offering this level of specific protection to these sites they will be safeguarded for future study and research allowing our knowledge and understanding of these sites to grow. Safeguarding these sites will also create an increased interest out with the islands thus boosting the local tourism economy.

  Policy MP TR1 deals with developments specifically relating to tourism and leisure. Increased sustainable tourism and recreation has the potential to increase knowledge and understanding of the marine historic environment by increased interest and potential increased investment in this sector.

  Policy MP FISH1 safeguards fishing opportunities and thus will minimise any adverse impacts on the cultural importance of fishing.

[10] Our Place in Time. The Historic Environment Strategy for Scotland. 2014. The Scottish Government

- **Protect and maintain the historic environment in Shetland's coastal and marine areas?**

  Policies MP DEV1, MP DEV2 and MP DEV3 offer a level of protection to 'Cultural Heritage' by ensuring that all potential developments comply with all policies included in Policy Framework Sections (a) and (b) including those protecting cultural heritage (MP DEV1); that the decommissioning of assets and removal of any redundant equipment will prevent any adverse impacts on the setting of cultural heritage assets (MP DEV2) and protecting important seascapes and recreational opportunities by restricting development within restricted areas (MP DEV3).

  Policy MP HIS1 specifically protects historic assets within a Historic MPA, policy MP HIS2 protects nationally important heritage assets and MP HIS3 protects locally important heritage assets, these policies protect historic assets from the adverse effects of development through specific avoidance and mitigation criteria. The introduction of INNS has the potential to have adverse impacts on cultural heritage through direct damage (e.g. boring species) or exacerbating erosion (e.g. rabbits). Policy MP INNS1 is in place to ensure that the potential risks of introducing or spreading INNS have been adequately considered.

  Marine litter is a global environmental issue, it not only poses a threat to ecosystems it also has a social and economic impact. Policy MP WST1 requires proposals for development and use to include a waste minimisation and management plan which will protect underwater and coastal historic assets from marine waste/litter which has the potential to cause damage.

  Climate change is one of the biggest threats to the coastal environment, with sea levels rising there is the potential for the structural integrity of the coast including coastal cultural heritage assets to be at risk. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change through mitigation and adaptation to protect areas vulnerable to sea level rise and the overall benefit to the environment and community.

  Safeguarding National Scenic Areas (MP VIS1) and seascape character and visual amenity (MP VIS2) around Shetland will protect and limit any impacts on cultural heritage which form part of the seascape and/or landscape.

  Policy MP TR1 deals with developments specifically relating to tourism and leisure. To safeguard cultural heritage, any potential development must comply with all policies in Policy Framework Sections (a) and (b) and policy DEV1 including those for cultural heritage.

  Infrastructure and important built development including historical assets are protected from the adverse effects of coastal erosion or flooding by policy MP CD1 (Coastal Defence Construction). Policy MP CD2 ensures that any adverse impact on the historic value from the demolition of coastal defences will be avoided or minimised. Both of

these policies require potential developments comply with all policies included in Policy Framework Sections (a) and (b) and policy DEV1.

Potential adverse impacts of the SIRMP policies on ‘Cultural Heritage’ are predominantly linked to policies in the Productive Section. Impacts can be caused though aquaculture developments and renewable energy proposals, anchoring, cable and pipe laying, port and harbour related developments and dredging and disposal of dredged material and could include loss and/or damage of the seabed, exacerbation of coastal erosion and through the suspension of sediments. However, these impacts will normally be temporary and localised during construction activities. In addition, all the productive policies specify that developments must comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP DEV1 and often include avoidance and mitigation criteria. A summary of the impacts the SIRMP policies may have on ‘Cultural Heritage’ can be found in Table 10.

Table 10: A summary of the potential impacts of the SIRMP on 'Cultural Heritage'

SEA Topic	Cultural Heritage
Water Resources	N/A
INNS	✓
Waste Minimisation	✓
Noise &Vibration	N/A
Safeguarding ports and Navigational	N/A
Utility Cables and Pipelines	N/A
Climatic Change	✓ ✓
Species Conservation	N/A
Site Protection- Marine	N/A
Site Protection- Coastal	N/A
Biodiversity	N/A
Landscape and Seascape	✓ ✓
Historical Environment	✓✓/✓ ✓✓
Communities	N/A
Recreation and Leisure	N/A
General conditions	✓/ ✓✓
Commercial Fishing	✓ ✓
Aquaculture and Seaweed Cultivation	x
Marine Renewable Energy	x
Marine Aggregate Extraction	x
Tourism	✓/ x
Shore Access and Moorings	x
Cables and Pipelines	x
Commercial Moorings	x
Coastal Defence Construction	✓ ✓
Coastal Defence Demolition	=
Transport	x
Dredging and Disposal	x

5.1.3 Landscape and Seascape

Shetland's seascape has been formed over millions of years and has created a diverse and unique environment which is valued highly by residents and visitors to the islands. It is an intrinsic part of island life economically and culturally.

For the purposes of the SIRMP, references to seascape should be taken as meaning landscapes with views of the coast or seas, and coasts and the adjacent marine environment with cultural, historical and archaeological links with each other.

The coasts of Shetland can be split broadly into two categories; inner and outer coast. Two seascape character types have been mapped at a regional level which is low, rocky island coasts and remote high cliffs. At a local level twelve coastal character types have been identified around the Shetland coastline with a further three sub types[11]. There are also numerous features such as stacks and tombolos which add to the character of Shetlands seascape.

Marine developments and activities in the coastal zone have the potential to have both a positive and negative effect on the landscape including seascape. The effects will be development-specific and dependant on the type of development activity, its location and setting.

Baseline environmental information for the Shetland marine region relating to 'Landscape and Seascape' can be found in Section B *Condition of the region* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies in the SIRMP…

- **Enable the protection, maintenance and enhancement of designated and non-designated landscapes and seascapes?**

  Policies MP WAT1 protects the water quality of coastal water bodies from the adverse effects of development including the visual impacts of pollution and contamination and encourage the improvement of the ecological and environmental status of marine and coastal waters.

  The introduction of INNS has the potential to have adverse impacts on cultural heritage or fragile habitats which form part of the seascape/landscape through direct damage. Policy MP INNS1 requires applicants to consider the potential risks of introducing or spreading INNS and included mitigation measures where appropriate. Marine litter can be visually intrusive, affecting the character of a landscape/seascape, particularly those valued for characteristics such as wildness. Policy MP WST1 requires proposals for development and use to have a waste minimisation and management plan which will protect Shetland's landscape/seascape from marine waste/litter.

[11] NAFC Marine Centre (2017) Shetland Coastal Character Assessment.

Policy MP SHIP2 has been designed to protect Marine Environmental High Risk Areas (MEHRAs), specifically Muckle Flugga and Fethaland which are National Scenic Areas, from any adverse navigational impacts. Routing measures aim to encourage ships to follow routes where vessels are less likely to collide with each other, run ashore or get into difficulties. They also aim to reduce the scope for a disaster if a ship does get into difficulty, directing ships away from environmentally sensitive areas where pollution would be highly damaging.

Climate change is one of the biggest threats to the coastal environment, with sea levels rising there is the potential for the structural integrity of the coast to be at risk. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change through mitigation and adaptation, to protect areas vulnerable to sea level rise and the overall benefit to the environment and community.

Development and use of the marine environment must protect, and where appropriate enhance the health of the Shetland marine area. Policies BIOD1 and GEOD1 specifically protects important marine geological features from the adverse effects of development. It will ensure that the coastal landscape/seascape encompassing geological features are also conserved from inappropriate development.

Shetlands landscape and seascape have been specifically offered protection through policies MP VIS1 and VIS2 which safeguard National Scenic areas and Local Landscape Areas (MP VIS1) and seascape character and visual amenity (MP VIS2). Policy MP VIS1 protects the integrity, qualities and protected features that are important within the nationally and locally designated sites. MP VIS2 seeks the better integration of development within its surrounding landscape/seascape through adequate design measures. The policy aims to ensure that any development is in keeping with the surrounding character of the area and any potential adverse visual impacts are avoided or mitigated.

By protecting nationally and locally important heritage assets and the historic assets within Historic MPAs from the adverse impacts of development, policies MP HIS1, MP HIS2 and MP HIS3 may have indirect positive impacts for the surrounding landscape and seascape.

Policies MP DEV1, MP DEV2 and MP DEV3 offer a level of protection to ‘Landscape and Seascape’ by ensuring that all potential developments comply with all policies included in Policy Framework Sections (a) and (b) including those protecting the landscape/seascape (MP DEV1); that the decommissioning of assets and removal of any redundant equipment will prevent any adverse impacts on the landscape/seascape (MP DEV2) and through the designation of development restricted areas (Weisdale Voe), visual amenity and landscape/seascape character will be positively protected (MP DEV3).

Policy MP CD1 ensures that any defence construction is sustainable and requires any development to ensure the retention or enhancement of landscape character and popular coastal views. Policy MP CD2 specifies that proposals for the demolition of any coastal defences have considered adverse impacts on the landscape. Both of these policies ensure that any adverse impacts from defence construction or demolition on the landscape/seascape will be avoided or mitigated.

- **Improve understanding and knowledge of Shetland's seascape/landscape and its contribution to local culture and tourism opportunities?**

  The quality of Shetland's landscape has been recognised nationally by the designation of National Scenic Areas (NSAs). Policies MP VIS1 and MP VIS2 offer a level of specific protection to these NSAs and seascape and visual amenity more broadly. Policies MP BIOD1 and MP GEOD1 protect important marine geological features from the adverse effects of development. All of these policies will safeguard the landscape/seascape for future generations and create an increased interest out with the islands thus boosting the local tourism economy.

  Shetlanders have fished the waters around their islands for thousands of years and, over time, fisheries and its associated industries have shaped the current landscape and seascape use. Policy MP FISH1 looks to safeguard fishing opportunities thus safeguarding the landscape and seascape associated with it.

  Sustainable tourism and recreation in the marine environment should support the quality of the landscape/seascape on which it is reliant and can have a positive effect. Policy MP TR1 ensures that tourism and leisure developments have complied with all policies in Policy Framework Sections (a) and (b) and policy MP DEV1 including those for landscape and seascape. It is noted however that associated infrastructure supporting recreation and tourism developments could have a minor negative impact on the landscape/seascape.

Potential adverse impacts of the SIRMP policies on 'Landscape and Seascape' are predominantly linked to policies in the Productive Section. Impacts can be caused though the infrastructure relating to aquaculture developments and renewable energy proposals, mooring and anchoring and port and harbour related developments including fixed links/ferry terminals and could include visual impacts and exacerbation of coastal erosion. However, these impacts will normally be temporary and localised during construction activities. In addition, all the productive policies specify that developments must comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP DEV1 and often include avoidance and mitigation criteria. A summary of the impacts the SIRMP policies may have on 'Landscape and Seascape' can be found in Table 11.

Table 11: A summary of the potential impacts of the SIRMP on 'Landscape and Seascape'

SEA Topic	Water Resources	INNS	Waste Minimisation	Noise &Vibration	Safeguarding ports and Navigational	Utility Cables and Pipelines	Climatic Change	Species Conservation	Site Protection- Marine	Site Protection- Coastal	Biodiversity	Landscape and Seascape	Historical Environment	Communities	Recreation and Leisure	General conditions	Commercial Fishing	Aquaculture and Seaweed Cultivation	Marine Renewable Energy	Marine Aggregate Extraction	Tourism	Shore Access and Moorings	Cables and Pipelines	Commercial Moorings	Coastal Defence Construction	Coastal Defence Demolition	Transport	Dredging and Disposal
Landscape and Seascape	✓	✓	✓ ✓	N /A	✓	N /A	✓ ✓	N /A	N /A	N /A	✓ ✓	✓✓/ ✓✓✓	✓	N /A	N /A	✓/ ✓✓	✓	×/ ××	×	=	✓ /×	×	N /A	×	✓ ✓	=	×	N /A

5.2 Environmental and Ecological SEA Topic Appraisal

5.2.1 Biodiversity, Flora and Fauna

The Scottish Government's Nature Conservation Strategy sets out its vision and framework for marine nature conservation based on a three-pillar approach:

- Species conservation
- Site protection
- Wider seas policies and measures

Species Protection

Species afforded special protection within the European Habitats Directive and listed in Annex IV are called 'European protected species' (EPS), these include otters, whales, dolphins and porpoises. In addition, seals are protected under Annex V. All species of bird are protected by the EU Birds Directive. Nationally, species are protected through the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011. They provide a framework that protects animals, plants and certain habitats in Scotland. In addition, both grey and harbour seals are protected under the Marine (Scotland) Act 2010.

Site Protection

A network of Marine Protected Areas (MPAs) helps to protect nationally important marine wildlife and habitats. Developing Scotland's network of MPAs is part of a wider strategy to meet the Scottish Government's commitment to a "clean, healthy, safe, productive and biologically diverse marine and coastal environment that meets the long-term needs of people and nature".

Shetland's network includes:

- Nature Conservation MPAs (NCMPAs)
- Demonstration and Research MPAs (DRMPAs)
- Special Areas of Conservation (SACs)
- Special Protected Areas (SPAs)
- Local Habitat protected Areas
- Sites of Special Scientific Interest (SSSIs)
- National Nature Reserves (NNR)
- Local Nature Conservation Areas (LNCAs)
- RSPB Reserves
- Protected Seal Haul-out sites

Wider Seas Biodiversity

NatureScot and the Joint Nature Conservations Committee (JNCC) have worked together, with the Marine Directorate, to develop a priority list of marine habitats and species in Scotland's seas known as Priority Marine Features (PMFs). The list helps to deliver the Marine directorate's vision for marine nature conservation, outlined in the Marine Nature Conservation Strategy. The list contains 81 habitats and species considered to be of

conservation importance in Scotland's seas. There are 50 PMF species and habitats known to be present within the Shetland Marine Region.

A summary of protected areas around Shetland and their current status is in Table 12, the impacts of the SIRMP on European sites can be found in the 'Habitats Regulation Appraisal'. Baseline environmental information for the Shetland marine region relating to 'Biodiversity, Flora and Fauna' can be found in Section B *Condition of the region* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Table 12: Protected areas with the Shetland marine region.

Protection Type	Number	Condition
SAC	8 with marine elements	57% Favourable condition for all features 14% Favourable condition for some features 29% Unfavourable declining condition for all features
SPA	11 for seabirds	Of these 11, all the qualifying species are in a favourable condition at only 18% of sites.
Ramsar site	1 (not designated for marine features)	
SSSIs	31 notified for marine biological features. 36 coastal sites	Of the sites designated for biological features all the qualifying species are in a favourable condition at 26% of sites. Of the sites with both biological and geological features 66% are in a favourable condition and 33% has at least one feature in an unfavourable condition.
NCMPAs	2	Not yet assessed
DRMPA	1	N/A

NNR	2	N/A
LNCS	49	36/42 (86%) in favourable condition
RSPB Reserves	6	N/A
Local Habitat Protected Areas	24 2 voluntary	N/A
Protected Seal Haul-outs	47	N/A

Will the policies in the SIRMP…

- **Avoid negative impacts on protected species and habitats?**
  Policies MP WAT1 protects the quality of coastal water bodies from the adverse effects of development and therefore protect and sustain the biodiversity reliant on this natural resource, including the visual impacts of pollution and contamination and encourage the improvement of the ecological and environmental status of marine and coastal waters.

  The introduction of INNS has the potential to have adverse impacts on fragile habitats and species through competition with native species for food and space, habitat alteration, changes in water quality and transmission of disease and parasites. Policy MP INNS1 requires applicants consider the potential risks of introducing or spreading INNS and include mitigation measures where appropriate.

  Marine litter can be detrimental to many species through ingestion and entanglement. Policy MP WST1 requires proposals for development and use include a waste minimisation and management plan which will protect Shetland's biodiversity from marine waste/litter.

  Policy MP NOISE1 will help to safeguard marine biodiversity from the negative effects of noise. Noise has the potential to mask biologically relevant signals, can lead to a variety of behavioural reactions, affect hearing organs and injure or even kill marine life. The policy requires applicants consider the impacts of noise and where necessary, provide further information on expected noise levels to allow decision makers to determine potential impacts.

  Policies MP Port1 and MP SHIP1 will ensure the safe navigation of channels and port areas which can help to prevent collisions/incidents which in turn will protect biodiversity and ecological status. MP SHIP2 focuses on Marine Environmental High risk areas (MEHRAs) and will protect natural heritage in these areas from any adverse navigational impacts.

Damage to oil and gas pipelines has the potential to cause widespread environmental impacts. Policy MP ACBP1 aims to reduce the risk of damage to cables and pipelines from incompatible development types.

Policy MP DEV1 will reduce the risk of negative impacts on species and habitats by requiring all developments comply with all policies included in Policy Framework Sections (a) and (b), including those for natural heritage. Policy DEV2 relates to the decommissioning of assets. The removal or reuse of redundant equipment will prevent potential negative impacts on habitats and species through the break-up of redundant equipment.

- **Avoid negative impacts which reduce habitats or species ability to provide ecosystem services?**
  Policies MP WAT1 protects the quality of coastal water bodies from the adverse effects of development and therefore protect and sustain the biodiversity reliant on this natural resource including the visual impacts of pollution and contamination and encourage the improvement of the ecological and environmental status of marine and coastal waters.

  Marine litter can be detrimental to many species through ingestion and entanglement. Policy MP LITT1 requires all potential developments to have a waste minimisation and management plan which will protect Shetland's biodiversity from marine waste/litter.

  The introduction of INNS has the potential to have adverse impacts on fragile habitats and species through competition with native species for food and space, habitat alteration, changes in water quality and transmission of disease and parasites. Policy MP INNS1 requires applicants consider the potential risks of introducing or spreading INNS and include mitigation measures where appropriate.

  Policy MP NOISE1 will help to safeguard marine biodiversity from the negative effects of noise. Noise has the potential to mask biologically relevant signals, can lead to a variety of behavioural reactions, affect hearing organs and injure or even kill marine life. The policy requires applicants consider the impacts of noise and where necessary, provide further information on expected noise levels to allow decision makers to determine potential impacts.

  Policy MP CD1 relates to coastal defence construction, it is a criteria-based policy which requires any development to ensure the retention or enhancement of ecological characteristics. The policy may help to protect marine habitats and species from inundation or erosion.

  Climate change is one of the biggest threats to the coastal environment, with sea levels and sea temperatures rising, extreme weather events such as storm surges and increased flooding and coastal erosion there is the potential for there to be significant impact to Shetlands biodiversity. Policies MP CLIM1 and CLIM2 aim to minimise the

cause and effects of climate change through mitigation and adaptation to protect areas vulnerable to sea level rise and the overall benefit to the environment and community.

Policy MP DEV1 will reduce the risk of negative impacts on species and habitats by requiring all developments comply with all policies included in Policy Framework Sections (a) and (b), including those for natural heritage. Policy DEV2 relates to the decommissioning of assets. The removal or reuse of redundant equipment will prevent potential negative impacts on habitats and species through the break-up of redundant equipment.

- **Protect and where possible enhance marine and coastal ecosystems and their interactions?**

  There are a number of policies in the SIRMP within Policy Framework Section (b) Healthy and Biologically Diverse that directly protect species and habitats from inappropriate development. Table 13 gives a list of those policies and a summary of the species/habitats they relate to.

Table 13: Summary of the policies and which species/habitats they protect.

Policy	Protects…
MP BIOD1	SACs, SPAs and Ramsar sites. It reflects the legal interpretation of the Habitats Directive and subsequent case law. It will protect the species and habitats found within the Natura network
	Nature Conservation Marine Protected Areas. Protects the range of features (species, habitats and geology) to ensure the conservation objectives of the designated site are achieved.
	Demonstration and Research MPA in Fair Isle.
	SSSIs and National Nature Reserves which have been designated for their important biological features, geological features or both.
	Seals at designated seal haul-outs and will ensure any adverse impacts are avoided or mitigated.
	Local Nature Conservation Sites and RSPB Reserves. Provides protection for locally important biodiversity and ensures that development has due regard to the integrity of the area and the qualities for which it has been identified.
	Species protected by legislation (i.e.., European protected species)

MP BIOD2	Priority Marine Features (which include marine habitats and species) considered to be of conservation importance in Scottish territorial waters.
MP BIOD3	Local Habitat Protected Areas, which have been identified for their biological importance and sensitivity.
MP VIS1	National Scenic Areas. Indirect positive benefits may occur as protection of the landscape/seascape may limit impacts on biodiversity, flora and fauna.
MP VIS2	Seascape character and visual amenity. Indirect positive benefits may occur as protection of the landscape/seascape may limit impacts on biodiversity, flora and fauna.

Policy MP DEV1 will reduce the risk of negative impacts on species and habitats by requiring all developments to comply with all policies included in Policy Framework Sections (a) and (b), including those for natural heritage.

Policy MP DEV3 relates to development restricted areas. Important species and habitats will be positively impacted by the protection within these areas.

- **Safeguard and promote existing and new opportunities for people to appreciate and connect with Shetland's coastal and marine environment?**
  Policy MP BIOD1 protects Demonstration and Research MPAs. There is currently one DRMPA in Shetland around the isle of Fair Isle. It has been designated to demonstrate the potential socio-economic benefit of a MPA designation which could bring benefits to biodiversity within the Fair Isle DRMPA area.

  Shetlanders have fished the waters around their islands for thousands of years. Policy MP FISH1 Safeguards fishing areas thus protecting important fishing grounds (including nursery and spawning areas) from the adverse impacts associated with development. The policy will limit any damage to habitats or fish stocks ensuring there is a sustainable fishery for future generations.

  Tourism is important to the Shetland economy with many visitors being attracted to the Isles because of its rich biodiversity, flora and fauna. Policy MP TR1 supports the sustainable development of tourism and leisure amenities. It specifies that all proposals must comply with all policies included in Policy Framework Sections (a) and (b) and policy MP DEV1. The policy can also potentially improve the management of local resources in order to support the recreational activity having a beneficial impact to the biodiversity, flora and fauna.

Potential adverse impacts of the SIRMP policies on 'Biodiversity, Flora and Fauna' are predominantly linked to policies in the Productive Section. Impacts can be caused though

the infrastructure relating to aquaculture developments and renewable energy proposals, marine aggregate extraction, dredging and disposal of dredged materials, mooring and anchoring and port and harbour related developments. However, these impacts will normally be temporary and localised during construction activities. In addition, all the productive policies specify that developments must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 and often include avoidance and mitigation criteria. A summary of the impacts the SIRMP policies may have on 'Biodiversity, Flora and Fauna' can be found in Table 14.

Table 14: A summary of the potential impacts of the SIRMP on 'Biodiversity, Flora and Fauna'

SEA Topic	Biodiversity, Flora and Fauna
Water Resources	✓ ✓
INNS	✓
Waste Minimisation	✓ ✓
Noise &Vibration	✓ ✓
Safeguarding ports and Navigational Safety	✓/ ✓✓
Utility Cables and Pipelines	✓ ✓
Climatic Change	✓ ✓
Species Conservation	✓ ✓
Site Protection- Marine	✓/ ✓✓
Site Protection- Coastal	✓ ✓
Biodiversity	✓ ✓
Landscape and Seascape	✓
Historical Environment	N /A
Communities	N /A
Recreation and Leisure	N /A
General conditions	✓/ ✓✓
Commercial Fishing	✓ ✓
Aquaculture and Seaweed Cultivation	x/ xx
Marine Renewable Energy	x/ xx
Marine Aggregate Extraction	x
Tourism	✓ /x
Shore Access and Moorings	x
Cables and Pipelines	x
Commercial Moorings	x
Coastal Defence Construction	x/ ✓
Coastal Defence Demolition	=
Transport	x/ xx
Dredging and Disposal	x

5.2.2 Air

Developments have the potential to contribute to air pollution directly but also lead to indirect impacts, for example, re-routing shipping can increase fuel use. On the other hand, developments can also reduce overall carbon use by providing low carbon alternatives (e.g. renewables).

Baseline environmental data for the Shetland marine region relating to 'Air' can be found in Section B *Condition of the region* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies in the SIRMP…

- **Enable the protection and/or enhancement of air quality?**
  Noise from marine development and activities can occur above water and be classed as a type of air pollution. Excessive noise can impact on the quality of human life, health and use and enjoyment of areas. Policy MP NOISE1 require developers to be aware of the impacts of noise on other marine users and the community and include mitigation measures to minimise any adverse impacts associated with noise.

  Policies MP CLIM1 and CLIM2 specifically relate to climate change mitigation and adaptation. Policy MP CLIM1 aims to minimise carbon emissions and encourage the use of non-finite resources to decelerate the process of global climate change. Policy MP CLIM2 seeks to ensure developers adapt to the potential effects caused by global climate change through spatial considerations.

  Policy MP DEV1 will reduce the risk of negative impacts to air quality by requiring all developments to comply with all policies included in Policy Framework Sections (a) and (b), including those relating to climate change and noise.

  Protected habitats can act as a carbon sink, helping to reduce atmospheric carbon levels. Policy MP DEV3 restricts development in 'development restricted areas' and policies MP BIOD2 and MP BIOD3 provide protection to Priority Marine Features many of which act as a carbon sink.

  Shetland's coastline and climate mean that the islands have great potential for the generation of renewable energy. It is believed that increasing the development of marine renewable resources is imperative to facilitating the delivery of international and national commitments on greenhouse gas emissions and renewable energy. Policy MP NGR1 relates to renewable energy proposals.

- **Prevent an increase in fuel consumption due to a new development or use having a significant impact on navigation?**
  Altering navigation routes can potentially impact fuel consumption leading to increased release of pollutants such as carbon and nitrogen. Policies MP PORT1 and MP SHIP1 require developers to consider the impacts of fuel consumption.

The majority of the policies within the SIRMP have been assessed as either having no effect or a positive effect on air quality. Policies relating to aquaculture and seaweed cultivation (MP AQ1-3 and SWD1) have been assessed as having an unknown impact on air quality as the industry relies on the use of boats which subsequently causes the release of relatively small amounts of emissions. However, these are sectoral policies which must comply with all policies in Policy Framework Sections (a) and (b) and policy MP DEV1 including those relating to climate change. A summary of the impacts the SIRMP policies may have on 'Air' can be found in Table 15.

Table 15: A summary of the potential impacts of the SIRMP on 'Air'

SEA Topic	Air
Water Resources	N/A
INNS	N/A
Waste Minimisation	N/A
Noise &Vibration	✓ ✓
Safeguarding ports and Navigational	✓
Utility Cables and Pipelines	N/A
Climatic Change	✓ ✓
Species Conservation	N/A
Site Protection- Marine	N/A
Site Protection- Coastal	N/A
Biodiversity	N/A
Landscape and Seascape	N/A
Historical Environment	N/A
Communities	N/A
Recreation and Leisure	N/A
General conditions	✓
Commercial Fishing	N/A
Aquaculture and Seaweed Cultivation	?
Marine Renewable Energy	✓ ✓
Marine Aggregate Extraction	N/A
Tourism	N/A
Shore Access and Moorings	N/A
Cables and Pipelines	N/A
Commercial Moorings	N/A
Coastal Defence Construction	N/A
Coastal Defence Demolition	N/A
Transport	N/A
Dredging and Disposal	N/A

5.2.3 Waste

Marine litter is a global problem which can cause considerable harm to marine wildlife (e.g. entanglement and ingestion) and to humans (e.g. sewage-related debris). Significant quantities of marine litter appear in the seas and on beaches around Shetland every year. The marine litter comes from a variety of sources both locally and internationally from land, ships or carried on ocean currents from distant shores. The most common type of marine litter found is plastics which can remain for centuries in the marine environment often as small micro-particles (<5mm) and pose a serious risk to marine life through ingestion and the subsequent toxic effects.

There are two key pieces of legislation that cover marine litter; the EU Marine Strategy Framework Directive (MSFD) and A Marine Litter Strategy for Scotland developed by Marine Scotland.

The other form of 'waste' which has the potential to enter the marine environment is hazardous substances. They can accumulate in the marine environment at concentrations which could pose health risks to both humans and wildlife. Hazardous substances are released into the environment as a result of human activity such as, manufacturing, pest control and the burning of fossil fuels.

A full environmental assessment of the impact of waste on the Shetland marine region can be found in Section B *Condition of the region* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies in the SIRMP…

- **Promote the re-use and recycling of materials, and aim to minimise waste where possible?**

  Policy MP WST1 has been specifically designed to ensure that waste from any potential developments is kept to a minimum and promotes the idea of 'avoid, reduce, re-use and recycle. Applications for potential marine-related developments are required to include a waste minimisation and management plan.

  Policy MP DEV1 will reduce the risk of negative impacts caused by marine litter by requiring all developments to comply with all policies included in Policy Framework Sections (a) and (b), including those for waste minimisation.

  Policy MP DEV2 relates to the decommissioning of assets and requires all marine-related developments to include a decommissioning plan where appropriate to ensure the removal of redundant equipment thus limiting negative effects on the marine environment through waste/marine litter.

  Where there is the need for coastal defence demolition, policy MP CD2 requires all proposals to consider the potential to re-use materials, which will minimise waste.

- **Ensure adequate waste management measures are in place to prevent or minimise the creation of marine litter?**
  Policy MP WST1 ensures that applications for marine-related developments include a waste minimisation and management plan to ensure the safe disposal of waste material and debris associated with the construction, operation and decommissioning stages of the development.

  Policy MP DEV1 will reduce the risk of negative impacts caused by marine litter by requiring all developments to comply with all policies included in Policy Framework Sections (a) and (b), including those for waste minimisation.

  All marine-related developments should include a decommissioning plan where appropriate to ensure the removal of redundant equipment thus limiting negative effects on the marine environment through waste/marine litter (policy MP DEV2).

The potential adverse impacts of 'Waste' on the marine environment created by the policies within the SIRMP are predominantly linked to policies in the Productive Section. Waste can be caused by aquaculture and seaweed production (i.e. in the form of feed bags, chemical treatment drums, mussel pegs, floats etc., oil and gas production and wastewater pipelines. Also, an increase in tourism and recreation has the potential to create additional waste and litter in the marine environment due to increased visitor numbers. However, all of these policies require proposals to comply with all policies included in Policy Framework Sections (a) and (b) and policy MP DEV1 including the policy on the sustainable management of waste. In addition, policy MP DEV2 requires consideration to the decommissioning of redundant equipment. A summary of the impacts of the SIRMP policies on 'Waste' can be found in Table 16.

Table 16: A summary of the potential impacts of the SIRMP on 'Waste'

SEA Topic	Water Resources	INNS	Waste Minimisation	Noise &Vibration	Safeguarding ports and Navigational	Utility Cables and Pipelines	Climatic Change	Species Conservation	Site Protection- Marine	Site Protection- Coastal	Biodiversity	Landscape and Seascape	Historical Environment	Communities	Recreation and Leisure	General conditions	Commercial Fishing	Aquaculture and Seaweed Cultivation	Marine Renewable Energy	Marine Aggregate Extraction	Tourism	Shore Access and Moorings	Cables and Pipelines	Commercial Moorings	Coastal Defence Construction	Coastal Defence Demolition	Transport	Dredging and Disposal
Waste	N/A	N/A	✓ ✓	N/A	N/A	N/A	N/A	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓	N/A	×	N/A	N/A	×	N/A	=	N/A	N/A	✓	N/A	N/A

5.2.4 Water

Shetland's water resource underpins the productivity of many of its key industries, including fishing, aquaculture and tourism. It supports healthy and biologically diverse seas which are important for a number of ecosystem goods and services ranging from climate regulation, marine recreation to fisheries.

The Water Environment and Water Services (Scotland) Act (WEWS) 2003, outlines a planning, management and reporting system based on 'River Basin Districts' and 'International River Basin Districts' for Scotland's water environment. It impacts on the management of water quality and water resources, affects conservation, fisheries, flood defence, planning and environmental monitoring. The initial focus was to achieve 'good ecological status' for all waters (rivers, lakes, estuaries, ground waters and coastal waters out to 3 nautical miles) by 2015. For the Shetland area this objective was achieved. Improving and maintaining water quality in the Shetland Islands marine region will be the focus of subsequent River Basin Management Plans.

The UK Marine Strategy aims to achieve 'good environmental status' (GES) of the UK marine environment by 2020. GES involves protecting the marine environment, prevention of deterioration, restoration where practicable and sustainable use of marine resources.

The SIRMP will contribute to meeting these objectives, particularly in relation to spatial measures. The policies in the SIRMP consider how activities can shape the marine area to support the goals of these Directives, as well as those of other relevant pieces of EC legislation.

Baseline environmental information for the Shetland marine region relating to 'Water' can be found in Section B *Condition of the region* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies in the SIRMP…

- **Avoid pollution of the coastal and marine water environment?**
  Policy MP DEV1 requires that all potential developments comply with all policies included in Policy Framework Sections (a) and (b) including those relating to water quality.

  Policy MP WAT1 deals directly with water ecology. It states that any potential development shall not cause any water body to deteriorate in ecological status nor prevent the achievement of established objectives set out in the Scotland River Basin Management Plan. Where there is a significant risk that objectives will not be achieved, applicants may be required to identify how the proposal will contribute to achieving relevant objectives to improve the chemical and ecological status of coastal water bodies.

  Significant quantities of marine litter appear in the seas and adjacent water bodies around Shetland every year. The most common type of marine litter found is plastics

which can remain for centuries in the marine environment often as small micro-particles (<5mm) and pose a serious risk to marine life through ingestion and the subsequent toxic effects. Policy MP WST1 seeks to minimise the adverse effects of marine litter/waste on water quality and ecology. It requires that proposals for marine-related development include a waste minimisation and management plan to ensure the safe disposal of waste material and debris associated with the construction, operation and decommissioning stages of development. It also encourages developers to adopt the waste hierarchy; reduce, re-use or recycle.

Policies MP PORT1 and SHIP1 ensure the safe navigation of channels and port areas, Policy SHIP2 specifically protects Marine Environmental High Risk Areas (MEHRAs) from navigational impacts. All of these policies help to prevent collisions/incidents thus stopping pollutants entering the marine environment and protecting water quality and ecology.

Damage to oil and gas pipelines has the potential to cause widespread impacts on water quality. Policy MP ACBP1 aims to reduce the risk of damage to cables and pipelines from incompatible development types.

The removal or re-use of redundant equipment will prevent potential negative impacts on water quality through the break-up of redundant equipment. Policy MP DEV2 requires potential developments to be supported by a decommissioning plan where appropriate and encourages the re-use of such decommissioned assets.

There is a general presumption against the laying of new wastewater pipelines, however where it is necessary policy MP CBP2 ensures that wastewater arrangements, where permitted, are properly sited and have no public health or pollution impacts on the surrounding areas. The policy requires all proposals to comply with Policy Framework Sections (a) and (b) and Policy MP DEV1 including those protecting water ecology.

- **Maintain and/or improve the ecological status and environmental status of the waters around Shetland?**
  Policy MP DEV1 requires that all potential developments comply with all policies included in Policy Framework Sections (a) and (b) including those relating to water quality.

  Policy MP WAT1 has been specifically designed to maintain the ecological status and environmental status of the waters around Shetland. The policy states that any potential marine development may be required to contribute towards objectives to improve the ecological status of coastal water bodies and the environmental status of marine waters.

  Invasive non-native species (INNS) within Shetland's water bodies can be a potential threat to water classification. Policy MP INNS1 seeks to reduce the risk of spreading

INNS through best practice. The policy will help to minimise this risk in parallel with MP WAT1.

Policies MP BIOD1 and BIOD2 protect specific species from incompatible development. Any development that may impact water quality thus impacting the protected species will not be permitted, resulting in wider water quality benefits.

Priority marine features are dependent on good water quality. Policy MP SPCON4 will ensure that any development will protect water quality from any potential deterioration in status as it supports and sustains these important features. In addition, filter feeding PMFs such as bivalves can improve water quality.

Designated protected sites are dependent on good water quality to sustain the important marine species and habitats for which they have been designated. Policies MP MPA1 (SACs, SPAs and Ramsar sites), MP MPA2 (NCMPAs), MP MPA4 (SSMO closed areas), MP COAST1 (SSSIs and National Nature reserves) and MP COAST2 (Nature Conservation Sites and RSPB Reserves) require developments to show that there will be no adverse effects on water quality within these designated sites.

- **Avoid increasing flood risk from inappropriate developments in areas vulnerable to flooding?**
  Policy MP DEV1 requires that all potential developments comply with all policies included in Policy Framework Sections (a) and (b) including those relating to water quality.

  Climate change is one of the biggest threats to the coastal environment, with sea levels and sea temperatures rising, extreme weather events such as storm surges and increased flooding and coastal erosion there is the potential for there to be significant impact to Shetlands water bodies. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change through mitigation and adaptation to protect areas vulnerable to sea level rise and the overall benefit to the environment and community.

The potential adverse impacts to 'Water' on the marine environment created by the policies within the SIRMP are predominantly linked to policies in the Productive Section. Adverse impacts on water quality could be caused by aquaculture and seaweed production, renewable energy developments, placement of cables and pipelines, port and harbour related development including moorings and fixed links and an increase in tourism related developments. However, these impacts are normally temporary and localised during construction activities. In addition, all of the policies within the 'Productive' section must comply with all policies included in Policy Framework Sections (a) and (b) and policy MP DEV1 including the policies relating to water quality. A summary of the impacts of the SIRMP policies on 'Waste' can be found in Table 17.

Table 17: A summary of the potential impacts of the SIRMP on 'Water'

SEA Topic	Water
Water Resources	✓ ✓
INNS	✓ ✓
Waste Minimisation	✓ ✓
Noise &Vibration	N/A
Safeguarding ports and Navigational Safety	✓/ ✓✓
Utility Cables and Pipelines	✓ ✓
Climatic Change	✓ ✓
Species Conservation	✓/ ✓✓
Site Protection- Marine	✓ ✓
Site Protection- Coastal	✓ ✓
Biodiversity	N/A
Landscape and Seascape	N/A
Historical Environment	N/A
Communities	N/A
Recreation and Leisure	N/A
General conditions	✓
Commercial Fishing	N/A
Aquaculture and Seaweed Cultivation	× /×
Marine Renewable Energy	×
Marine Aggregate Extraction	×
Tourism	×
Shore Access and Moorings	× /=
Cables and Pipelines	×/ ✓
Commercial Moorings	N/A
Coastal Defence Construction	N/A
Coastal Defence Demolition	=
Transport	×
Dredging and Disposal	× ×

5.2.5 Climatic Factors

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted during the Rio de Janeiro Earth Summit in 1992. This Framework Convention is a universal convention of principle, acknowledging the existence of anthropogenic (human-induced) climate change and giving industrialised countries the majority of the responsibility in combating it. According to the latest findings of the Intergovernmental Panel on Climate Change (IPCC), without urgent action, climate change will bring severe, pervasive and irreversible impacts on all the world's people and ecosystems.

Current monitoring indicates that an increase in sea temperatures around the coast of Scotland has already occurred, with a rise in surface sea temperature in Shetland of approximately 1°C since 1990[12].

Understanding the impacts and effects of climate change is key to maintaining a safe marine environment. The UK Climate Change Risk Assessment and Marine Climate Change Impacts Partnership provide scientific evidence of impacts and projections. Adaptation is necessary to address the potential impacts of these changes, which are already occurring. Sea level rise, increased land and sea temperatures, extreme weather events, such as storm surges and increased flooding and coastal erosion will lead to increased vulnerability for development and significant change along parts of the Shetland coast.

Baseline environmental information for the Shetland marine region relating to 'Climatic Factors' can be found in Section B *Condition of the region* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

The SIRMP is based on an ecosystem approach, which ensures that the use of the marine environment is spatially planned where appropriate and requires current and future marine related activities to address and include provision for the impacts of climate change. All new and modified developments will have regard to climate change projections, and include provision for the mitigation of and adaptation to climate change impacts.

Will the policies within the SIRMP…

- **Reduce greenhouse gas emissions from developments?**
  Policy MP CLIM1 specifically relates to climate change mitigation. Applications for marine-related developments should demonstrate the resource use, energy use and emissions have been assessed and minimised as part of the overall development proposal. In addition, developments that have the potential to impact habitats which act as a carbon sink or protect against coastal erosion may be refused.

  Policy MP WST1 encourages developers to adopt sustainable management of waste ethos and consider the 'avoid, reduce, re-use and recycle' options which have the

[12] ICES Marine Data

potential to minimise greenhouse gas emissions in the long term. Best practice in waste management will be encouraged where possible through this policy.

Policies MP PORT1 and MP SHIP1 help ensure that the conditions necessary for the efficient and safe movement of shipping to and from ports and harbours are maintained. Altering navigation routes can potentially impact a vessels fuel consumption leading to an increased release of greenhouse gasses. Where shipping may be displaced, this policy may require that developers quantify and consider the impacts of increased fuel use.

Priority marine features (PMFs) can act as carbon sinks, helping to reduce CO_2 levels, combating climate change. Policy MP BIOD2 protects PMFs from the adverse impacts of inappropriate development.

Many species (e.g. kelp, horse mussel beds, maerl) within designated protected sites act as carbon sinks, their continued protection can help to combat rising CO_2 levels. Policies MP BIOD1 and MP BIOD3Local Habitat Protected Areas) protect designated sites from the adverse effects of inappropriate development. In addition, policy MP DEV3 protects habitats within 'Development Restricted Areas'.

In the future seaweed cultivation has the potential to become a source of biofuels which is a form of climate change mitigation. Seaweed is also a viable alternative to fertilisers produced from finite sources which also has climate change benefits. Policy MP SWD1 relates to seaweed cultivation developments and requires all potential developments to comply with all policies in Policy Framework Sections (a) and (b) and policy MP DEV1.

Shetland's coastline and climate mean that the Islands have great potential for the generation of renewable energy. Increasing development of marine renewable resources is imperative to facilitating the delivery of international and national commitments on greenhouse gas emissions and renewable energy, as well as climate change mitigation. Policies MP NRG1relates to renewable energy developments.

Policy MP DEV1 requires that all potential developments comply with all policies included in Policy Framework Sections (a) and (b) including those relating to climate change mitigation and adaptation.

- **Contribute to the adaptation to climate change?**
  Policy MP CLIM2 specifically relates to climate change adaptation. It requires proposals for marine-related developments demonstrate that the impacts of climate change over the lifetime of the development have been considered and minimised as part of the overall development proposal.

  Many species and habitats within the Shetland marine region act as carbon sinks (e.g. kelp, horse mussel beds). Policy MP INNS1 looks to reduce the spread of invasive non-

native species (INNS) which could have an adverse impact on these species and habitats. Applications for marine development and use should demonstrate that the potential risks of introducing or spreading INNS have been adequately considered.

Policy MP DEV1 requires that all potential developments comply with all policies included in Policy Framework Sections (a) and (b) and policies MP DEV1-3 including those relating to climate change mitigation and adaptation.

The potential adverse impacts to 'Climatic Factors' on the marine environment created by the policies within the SIRMP are predominantly linked to policies in the Productive Section. Adverse impacts on climatic factors could be caused by oil and gas production and the extraction of sand, gravel and shingle. Many of the policies however will have a neutral effect on climatic factors as they contain caveats to protect the marine environment from the adverse effects of climate change and require developers to consider resource and energy use and emissions. In addition, all of the policies within the 'Productive Section' require proposals to comply with all policies included in Policy Framework Sections (a) and (b) and policy MP DEV1 including the policies relating to climate change mitigation and adaptation. A summary of the impacts of the SIRMP policies on 'Climatic Factors' can be found in Table 18.

Table 18: A summary of the potential impacts of the SIRMP on 'Climatic Factors'

SEA Topic	Water Resources	INNS	Waste Minimisation	Noise &Vibration	Safeguarding ports and Navigational	Utility Cables and Pipelines	Climatic Change	Species Conservation	Site Protection- Marine	Site Protection- Coastal	Biodiversity	Landscape and Seascape	Historical Environment	Communities	Recreation and Leisure	General conditions	Commercial Fishing	Aquaculture and Seaweed Cultivation	Marine Renewable Energy	Marine Aggregate Extraction	Tourism	Shore Access and Moorings	Cables and Pipelines	Commercial Moorings	Coastal Defence Construction	Coastal Defence Demolition	Transport	Dredging and Disposal
Climatic Factors	N/A	✓	✓	N/A	✓	N/A	✓ ✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	=/ ✓	N/A	=/ ✓	✓ ✓	✗	=	=	N/A	N/A	=	N/A	=	N/A

5.3 Socio-Economic SEA Topic Appraisal

5.3.1 Population and Human Health

Human habitation has influenced the Shetland terrestrial and coastal environment. The first evidence of human activity in the Shetland Archipelago dates from around 4300 BC during the neolithic period. From around 800 AD Scandinavians expanded westward colonising Shetland. This Viking period lasted from 800-1100 AD with Shetland remaining part of the Danish and Norwegian empire until 1469, when Shetland and Orkney were pawned to Scotland. The population in Shetland has fluctuated over the centuries mainly due to its economic state. Shetlands population currently stands at approximately 23,200 (2015).[13]

The marine and coastal environment around Shetland is important to local residents and visitors. It is used for a variety of leisure and recreational activities from swimming, sailing and scuba diving to hiking, climbing and wildlife watching. The coast also provides inspiration for a range of artistic, cultural and community activities and informal activities such as dog walking. These activities support and enhance the local community through social interaction, improving quality of life and providing benefits to physical and mental well-being.

Baseline environmental information for the Shetland marine region relating to 'Population and Human Health' can be found in Section A *Overview* (Human habitation) and Section C *Productive* (Leisure, recreation and tourism) within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies within the SIRMP…

- **Maintain quality of life benefits for the people and communities of Shetland?**
  Policy MP COM1 relates specifically to the local community and ensures that all applications for marine-related developments have considered adverse social impacts on the local community. It requires developers to consult with community councils, local stakeholders, community groups and other relevant marine and coastal users and that an assessment of social impacts has been carried out.

  Rural communities like Shetland rely on the utility services provided by the marine cables and pipelines which support the islands. Policy MP ACBP1 ensure that important connectivity services are not disrupted through damage to cables and pipelines from incompatible development and policy MP CBP1 deals with the placement of new utility cables and pipelines.

  Climate change could cause a significant change along parts of the Shetland coast through sea level rise, increased land and sea temperatures, extreme weather events such as storm surges and increased flooding and coastal erosion. All of these will have a

[13] National Records of Scotland

negative effect on the people and communities of Shetland. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change for the overall benefit of the environment and community.

Shetlands unique natural heritage (species and habitats), geodiversity, landscape and seascape and marine and coastal heritage assets are all highly regarded and important to the local community in terms of wildlife watching, leisure activities, and reinforcing a sense of cultural identity and can have a positive effect on people's mental health and wellbeing. All the policies within Policy Framework Section (b) offer a level of protection to these sites, species and habitats. Their continued protection will ensure that the marine and coastal environment can be enjoyed by local communities as well as continue to attract tourists to the isles.

Policy MP BIOD1 protects Demonstration and Research MPAs (currently one classified site in Fair Isle) which have been designated to demonstrate the socio-economic benefit of a MPA designation. This could bring benefits to the local community of Fair Isle.

Shetlanders have fished the waters around their island for thousands of years and fishing remains one of Shetland's most important industries. Policy MP FISH1 seeks to safeguard fishing opportunities, protecting this traditional industry which is a strong part of Shetlands culture and history.

Shetlands coastline and climate mean that the islands have great potential for the generation of renewable energy. The provision and use of alternative renewable energy sources such as wind, wave and tidal developments (policies MP NRG1) will have a positive impact on human health through the reduction of carbon emitting developments.

Coastal defence construction (policy MP CD1) will safeguard people and infrastructure from the adverse effects of flooding and erosion. It will therefore have an important positive impact on communities located within areas vulnerable to flooding.

Good marine transport links are vitally important to rural island communities like Shetland which rely on the transport of both freight and passengers, whether for commercial or recreational purposes, on and off the island. Policy MP TRANS1 and MP TRANS2 relate directly to port and harbour-related developments and future fixed links/ferry terminals. Both policies recognise the importance of good transport links and support applications for appropriate developments. As with all policies in Policy Framework Section (c) developers must comply with all policies in Policy Framework Sections (a) and (b) and policy MP DEV1.

- **Promote access to coastal and marine resources for tourism and recreation?**
  Policy MP REC1 specifically safeguards marine recreation. It is acknowledged that marine recreational activities support and enhance the local community through social integration, improving quality of life and providing benefits to physical and mental

wellbeing. This policy aims to avoid or mitigate any potential negative impacts resulting from development and thus maintaining access to recreational activities.

Sustainable developments for tourism and recreation (policy MP TR1) can have a positive impact on people's mental health and physical health and wellbeing through increased opportunities to access the marine and coastal environment.

Policies MP PORT1 and MP SHIP1 relate to ports, harbours and navigation channels, they ensure all channels and port areas are protected from inappropriate development that could result in navigational or safety hazards causing risk to mariners. The policies will have a positive effect on helping people to maintain connectivity and accessibility of communities and supports access to the coastal and marine resources for recreation and tourism in a sustainable way.

Shetlands unique natural heritage (species and habitats), geodiversity, landscape and seascape and marine and coastal heritage assets are all highly regarded and important to the local community in terms of wildlife watching, leisure activities, and reinforcing a sense of cultural identity. All the policies within Policy Framework Section (b) offer a level of protection to these sites, species and habitats. Their continued protection will ensure that the marine and coastal environment can be enjoyed by local communities as well as continue to attract tourists to the isles.

Recreational activities are specifically protected in Busta Voe under policy MP DEV3 as this is a development restricted area. Visual amenity will also be protected under this policy in other localised areas.

Policy MP SA1 deals with applications relating to shore access and moorings. Shore access and moorings are important infrastructure for marine recreation activities which help contribute to a community's wellbeing and the local tourist economy.

- **Help to avoid adverse effects on human health through poor planning resulting in water pollution and nuisance effects such as noise?**
  Policy MP WAT1 refers directly to water ecology. It will ensure the ecological and environmental status of all coastal water bodies remain in 'good status' which will benefit human health through high standards of water quality. This will protect against food contamination and protect recreational users.

  Marine litter can reduce human health by lowering people's enjoyment of the marine environment. The ingestion of contaminants such as microplastics via seafood has the potential to negatively impact human health. Policy MP WST1 requires proposals for marine-related development include a waste minimisation and management plan to ensure the safe disposal of waste material and debris associated with the construction, operation and decommissioning stages of the development.

Noise and vibration can result from marine developments and activities, ranging from shipping to acoustic deterrents. The noise can be continuous or temporary and occurring at different stages of a development process; they can occur above water, underwater or both. Excessive noise can impact on the quality of human life, health and use and enjoyment of the marine environment. Noise pollution has been found to increase stress levels and linked to heart disease. Policy MP NOISE1 will help to minimise and manage noise and vibration levels by ensuring developers have considered the adverse impacts associated with noise pollution and, where appropriate, submit impact assessments and provide supporting information on the duration, type and level of noise and vibration and include mitigation measures to minimise these adverse effects.

Policy MP DEV2 refers to the decommissioning of assets. The removal or reuse of redundant equipment will prevent potential negative impacts on population and human health through positive effects on visual amenity and reduced pollution.

Sand, gravel or shingle extraction has the potential to result in coastal erosion and flooding and reduce or impact on public resources such as bathing beaches. Policy MP EX1 protects against the adverse effects of damaging extraction to human health and people's enjoyment of the marine environment.

Policy MP CBP2 relates to the placement of new domestic and wastewater pipelines. The policy aims to ensure that wastewater arrangements, where permitted, are properly sited and have no public health or pollution impacts on the surrounding area.

- **Contribute to the growth of marine activity and development without detriment an existing sector?**
  Policy MP DEV1 ensures that any proposal for a marine-related development take into consideration the impacts of the development on other users. It requires a developer to comply with all policies included in Policy Framework Sections (a) and (b), including those for communities.

  All the policies within Policy Framework Section (c) *Productive* are sectoral policies and require developers to demonstrate that they have considered other marine users in and around the location of the proposed development to create a holistic approach to marine and coastal area management. The policies also require a developer to adhere to all policies within Policy Frameworks Section (a) and (b) and policy MP DEV1.

- **Help to promote employment creation and therefore support the local economy?**
  Any policy aimed at protecting Shetlands unique natural heritage (species and habitats), geodiversity, landscape and seascape or heritage assets (all policies within Policy Framework Section (b) *Healthy and Biologically Diverse*) are also maintaining and encouraging tourist visitor numbers to the isles thus protecting and creating job opportunities in the tourism and leisure industries.

Shetlanders have fished the waters around Shetland for thousands of years and fishing remains one of Shetland's most important industries. The marine fisheries sector comprises all socio-economic activities related to the capture of wild marine organisms (fish and shellfish), and the subsequent handling and processing of catches. In 2016 the fishing sector supported 269 FTE and 167 casual fishermen[14] along with over 250 jobs in fish processing, transport, marketing, engineering and supply. Policy MP FISH1 seeks to safeguard fishing opportunities by protecting important fishing areas from inappropriate development, thus safeguarding jobs directly and indirectly relating to the fishing sector.

The aquaculture/seaweed cultivation industry in Shetland includes finfish farms, shellfish cultivation sites and seaweed cultivation. In 2017 it provided 414 FTE jobs[13] and over 200 jobs in fish processing, marine engineering and transportation. Policies MP AQ1-AQ3 all relate to aquaculture developments. Growth in this sector will create job opportunities many of which are in rural areas and outlying islands where job opportunities are comparatively limited.

Tourism was worth approximately £23.1m to the Shetland economy in 2017[15] employing 865 FTE.[16] It is still considered that there is significant scope for growth in his sector. Marine-related tourism and leisure developments (Policy MP TR1) can promote employment opportunities, community benefits and rural diversification in a sustainable manner.

- **Promote engagement in marine planning?**
  Policy MP COM1 requires developers to engage directly with the local community through a consultation process. All relevant local stakeholders, community councils, community groups and other marine and coastal users should be consulted.

  Policy MP DEV1 ensures that any proposal for marine-related development must take into consideration the impacts on other marine users. It requires developers to engage in pre-application discussions with adjacent marine users and the local community councils.

  All the policies within Policy Framework Section (c) *Productive* are sectoral policies and require developers to demonstrate that they have considered other marine users in and around the location of the proposed development to create an holistic approach to marine and coastal area management. The policies also require a developer to adhere to all policies within Policy Framework Sections (a) and (b) and Policy MP DEV1, which requires developers to engage in pre-application discussions with other marine users.

[14] Shetland Islands Council- Shetland Employment Survey 2017

[15] VisitScotland and Shetland Islands Council. Shetland Islands Visitor Survey 2017

[16] Shetland Islands Council. Shetland Employment Survey 2017.

None of the policies within the SIRMP have been assessed as having a potential negative impact on 'Population and Human Health'. The dredging and disposal policy (MP DD1) within the productive section has been assessed as having a neutral impact resulting from potential changes to water quality. However, as this policy is within Policy Framework Section (c), it requires all potential developments to comply with all policies within Policy Framework Sections (a) and (b) and policy MP DEV1. A summary of the impacts of the SIRMP policies on 'Population and Human Health' can be found in Table 19.

Table 19: A summary of the potential impacts of the SIRMP on 'Population and Human Health'

SEA Topic	Population and Human Health
Water Resources	✓ ✓
INNS	N/ A
Waste Minimisation	✓
Noise &Vibration	✓ ✓
Safeguarding ports and Navigational	✓ ✓
Utility Cables and Pipelines	✓ ✓
Climatic Change	✓ ✓
Species Conservation	=/ ✓
Site Protection- Marine	✓/ ✓✓
Site Protection- Coastal	✓ ✓
Biodiversity	✓
Landscape and Seascape	✓ ✓
Historical Environment	✓/ ✓✓
Communities	✓ ✓
Recreation and Leisure	✓ ✓
General conditions	✓/ ✓✓
Commercial Fishing	✓ ✓
Aquaculture and Seaweed Cultivation	=/ ✓
Marine Renewable Energy	✓
Marine Aggregate Extraction	✓
Tourism	✓
Shore Access and Moorings	✓
Cables and Pipelines	✓
Commercial Moorings	N/ A
Coastal Defence Construction	✓ ✓
Coastal Defence Demolition	N/ A
Transport	✓/ ✓✓
Dredging and Disposal	=

5.3.2 Economy

Fishing, crofting and the production of knitwear are the oldest traditional industries in the isles. In the 15th Century islanders first started to internationally trade with German merchantmen, trade focused on the sale of salt fish, butter and wool.

In the 1970s Shetlands economic prosperity boomed, first with increased profitability of the traditional industries such as fishing and knitwear, then with the discovery of oil in the east Shetland basin, the building of Sullom Voe Terminal. During the construction phase up to 7000 workers were accommodated in Shetland. The Sullom Voe Terminal development led to increased employment opportunity and pay. Shetland also benefited through a charge on every barrel of oil brought through the terminal. This income has been used to invest in new industries and improve infrastructure.

During the 1980s the development of aquaculture created a new industry in Shetland and is now one of Shetlands largest employers. Pelagic, demersal and shellfish fishing have remained important industries creating both direct and indirect employment across Shetland, with record landings in 2017.[17] Boats have remained in local ownership which has benefited the local community by helping to retain profits in Shetland.

New large scale infrastructure projects have created significant employment opportunities, with construction of the 'Shetland Gas Plant' from 2010 to 2016, at its peak employing over 2000 workers.

Tourism is currently of high economic value to the isles employing 865 FTE[18] in 2017 and was worth approximately £23.1m[19] and it is considered that there is significant scope for growth.

It is expected that in the future marine renewables could also provide employment opportunities as Shetland has significant wave and tidal resource.

Baseline environmental information for the Shetland marine region relating to 'Economy' can be found in Section A *Overview* (Human habitation) and Section C *Productive* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies within the SIRMP…

- **Provide clear links between ecosystem health and the industries which are dependent upon them allowing effective protection and management?**

[17] Shetland Fisheries Statistics 2017. NAFC Marine Centre, 2018.

[18] Shetland Islands Council. Shetland Employment Survey 2017.

[19] VisitScotland and Shetland Islands Council. Shetland Islands Visitor Survey 2017
Note: industries include accommodation, catering, transportation, textiles and crafts, communication. Tourism value is based on the total visitor spend.

Maintaining clean, safe and healthy waters around Shetland is key to the marine environment continuing to fulfil its role in the provision of goods and services including those required by local industries i.e. jobs, fisheries, food, marine transportation, trade and energy. Policies MP WAT1 and MP WAT2 protect water quality to avoid or mitigate any potential deterioration in water quality which could have adverse impacts on the marine ecosystems ability to provide such goods and services. In addition, policy MP CBP2 ensures that the placement of new wastewater pipelines, where permitted, are properly sited and have no public health or pollution impacts on the surrounding area which have a knock-on beneficial economic impact.

Invasive non-native species (INNS) within Shetland's water bodies can have a detrimental effect on water quality. Policy MP INNS1 will help to reduce the spread of INNS which will help protect water and thus protecting important industries such as fisheries, aquaculture and tourism.

Marine litter has the potential to have adverse effects to the marine environment; it has an impact on humans and wildlife which can have a knock-on effect to tourism levels and therefore the economy. In addition, marine litter can cause issues for fishermen and other marine users as a result of damaged gear which has associated economic costs. Policy MP WAT1 encourages waste minimisation which will reduce these knock-on effects and reduces any unnecessary costs.

Policy MP SHIP2 encourages safe navigation within marine environmental high risk areas (MEHRAs) and aims to protect sensitive habitats in areas where navigation may be particularly challenging. This has the potential to protect habitats which are of economic value.

Climate change is one of the biggest threats to the coastal environment, with sea levels and sea temperatures rising, extreme weather events such as storm surges and increased flooding and coastal erosion there is the potential for there to be significant impact to Shetlands waterbodies. A reduction in the quality of the waters around Shetland could have negative effects to many industries such as fisheries, aquaculture and seaweed cultivation as well as having a knock-on effect on tourism. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change through mitigation and adaptation to protect areas vulnerable to the effects of climate change for the overall benefit of the environment and community.

Coastal erosion and flooding can adversely affect people's income, both from loss of intertidal areas and in some cases terrestrial rural productive land. In addition, Erosion can have an effect on local property value for both residential and commercial properties. Policy MP CD1 relates to coastal defence construction and supports these developments where necessary.

Any policy aimed at protecting Shetlands unique natural heritage (species and habitats), geodiversity, landscape and seascape or heritage assets (all policies within Policy Framework Section (b) *Healthy and Biologically Diverse*) are also maintaining and encouraging tourist visitor numbers to the isles thus protecting and creating job opportunities in the tourism and leisure industries. In addition, protecting priority marine features (policy MP BIOD2) such as horse mussel beds can be beneficial to water quality which is crucial for many industries in Shetland such as fisheries and aquaculture.

- **Promote co-existence and co-use of marine space?**
  Policies MP PORT1 and SHIP1 relate to harbours, navigation channels and port areas and ensures that any potential developments located within these areas do not have adverse impacts on the effective function of ports, harbours and navigation routes.

  The marine and coastal areas around Shetland provide a variety of recreational opportunities which can provide direct and indirect economic benefits. Policy MP REC1 requires developers to be aware of existing user patterns and ensure considerations are made at an early stage in the development process.

  Policy MP DEV1 specifically requires potential marine developments comply with all policies included in Policy Framework Sections (a) and (b) which includes consideration of other sectors. It promotes co-use and co-location. It provides a clear development steer, which should help to provide transparency, minimise delays, reduce conflict and therefore potentially costs.

  All policies within Policy Framework Section (c) *Productive* are sectoral policies and require developers to demonstrate that they have considered other marine users in and around the location of the proposed development to create a holistic approach to marine and coastal area management. The policies also require a developer to adhere to all policies within Policy Framework Sections (a) and (b) and Policy MP DEV1, which requires developers to engage in pre-application discussions with other marine users.

- **Assist in inter-island and remote community connectivity?**
  Shetland's harbour areas are essential hubs for many of Shetland's marine activities including aquaculture, fisheries, tourism, recreation, oil and gas and transportation. It is essential that port activity is maintained and that safe navigation to these areas is not restricted. Policy MP PORT1 and MP SHIP1 safeguard navigation channels and port and harbour areas which act as economic hubs. Policies MP TRANS1 and MP TRANS2 support the development of ports and harbours and potential future fixed link/ferry terminals and MP SA1 and MP MO1 supports the sustainable development of shore access and moorings which all help to sustain and improve accessibility resulting in benefits to industry and local communities.

Policy MP DD1 relates to dredging and the disposal of dredged material. Dredging is necessary for the viability of the marine shipping and transport industry and to tourism and leisure. The policy supports the sustainability of these industries for the benefit of the local community in terms of employment and accessibility.

Good connectivity is vital to remote island communities who rely on it for both social and economic reasons. Policy MP ACBP1 ensures that any potential marine developments do not cause disruption to connectivity cables and pipelines which could have adverse effects on businesses as well as causing costs to the cable and pipeline owners. In addition, policy MP CBP1 deals with the placement of new utility cables and pipelines and supports the sustainable development of this infrastructure.

- **Safeguard fishing opportunities by identifying and protecting important fish habitats, nursery grounds and fishing grounds?**
  Local Habitat Protected Areas (policy MP BIOD3) act as important nursery grounds for commercial fish species and their protection helps to support the fisheries industry.

  The removal or reuse of redundant equipment (policy MP DEV2) will have potential positive impacts on fisheries by allowing greater access to fishing grounds.

  Shetlanders have fished the waters around Shetland for thousands of years and fishing remains one of Shetland's most important industries. The marine fisheries sector comprises all socio-economic activities related to the capture of wild marine organisms (fish and shellfish), and the subsequent handling and processing of catches. In 2016 the fishing sector supported 269 FTE and 167 casual fishermen[20] along with over 250 jobs in fish processing, transport, marketing, engineering and supply. Policy MP FISH1 seeks to safeguard commercial fishing and fishermen whose livelihoods depend on it.

The majority of the policies within the SIRMP have been assessed as having a positive impact on the economy. Some policies have been assessed as having both positive and negative/neutral effects as there is the potential that there would be positive benefits to the local economy as a whole but increased costs to the developer, although these in most cases will be minor and short term. A summary of the impacts of the SIRMP policies on 'Economy' can be found in Table 20.

In addition, many of the policies within the 'Productive' section e.g. AQ1-3, SWD1, NRG1, TR1 will have a positive economic impact through job creation and increased income into the local economy, however these are not directly linked to ecosystem services per se.

[20] Shetland Islands Council- Shetland Employment Survey 2017

Table 20: A summary of the potential impacts of the SIRMP on 'Economy'

Economy	SEA Topic
✓ ✓ / ×	Water Resources
✓ ✓	INNS
✓ ✓	Waste Minimisation
?	Noise &Vibration
✓ / ✓ ✓	Safeguarding ports and Navigational Safety
✓ ✓	Utility Cables and Pipelines
✓ ✓	Climatic Change
✓	Species Conservation
✓ / ×	Site Protection- Marine
✓ / ×	Site Protection- Coastal
✓ / =	Biodiversity
✓ / =	Landscape and Seascape
✓ / =	Historical Environment
×	Communities
✓	Recreation and Leisure
✓ / ✓ ✓	General conditions
✓ ✓	Commercial Fishing
✓ ✓ / ✓	Aquaculture and Seaweed Cultivation
✓ ✓	Marine Renewable Energy
=	Marine Aggregate Extraction
✓ ✓	Tourism
✓	Shore Access and Moorings
✓ / ✓ ✓	Cables and Pipelines
✓ ✓	Commercial Moorings
✓ ✓	Coastal Defence Construction
✓	Coastal Defence Demolition
✓ ✓	Transport
✓ ✓	Dredging and Disposal

5.3.3 Material Assets

Material assets are mostly linked to existing marine and coastal development. They can include marine industry related assets such as aquaculture, utility cables and pipelines, renewable energy installations etc. and coastal infrastructure relating to industry, recreation and tourism such as moorings, piers, marinas, ferry terminals etc. They are critical for the running of many industries as well as for connectivity and transportation links for the local community.

Baseline environmental information for the Shetland marine region relating to 'Material Assets' can be found in Section C *Productive* within the Shetland Islands Marine Region State of the Environment Assessment, 2017.

Will the policies within the SIRMP…

- **Protect the coastal and marine environment in Shetland from incompatible developments and any adverse effects of new developments?**
  Maintaining clean, safe and healthy waters around Shetland is key to the marine environment continuing to fulfil its role in the provision of goods and services including allowing for the continued use of natural resources. Policy MP WAT1protects water quality to avoid or mitigate any potential deterioration in water quality which could have adverse impacts on marine ecosystems. In addition, policy MP CBP2 ensures that the placement of new wastewater pipelines, where permitted, are properly sited and have no public health or pollution impacts on the surrounding area. It also requires developer to comply with all policies included in Policy Framework Sections (a) and (b) and policy MP DEV1 including those protecting the community and other marine users.

  Invasive non-native species (INNS) can attach to infrastructure, for example aquaculture equipment, overgrowing mussel lines or reducing water flow from finfish cages resulting in increased costs to these industries. It can also cause boat fouling, causing increased fuel consumption. Policy MP INNS1 aims to sustain the marine ecosystem's ability to provide goods and services.

  Marine litter has the potential to have adverse effects on material assets, it can cause damage to fishing and aquaculture equipment and have a negative visual impact which directly impacts on local tourism and leisure amenities. Policy MP WST1 encourages waste minimisation and the promotion of the 'avoid, reduce, reuse and recycle' principle.

  Climate change is one of the biggest threats to the coastal environment, with sea levels and sea temperatures rising, extreme weather events such as storm surges and increased flooding and coastal erosion there is the potential for there to be significant impact on coastal infrastructure. Policies MP CLIM1 and CLIM2 aim to minimise the cause and effects of climate change through mitigation and adaptation to protect areas vulnerable to the effects of climate change for the overall benefit of the environment

and community. These policies also seek to protect existing infrastructure from developments which have the potential to exacerbate flooding or coastal erosion.

Natural geological features such as sand bars can provide important protection for coastal material assets. Policy MP GEOD1 requires developers to consider the impacts of development on marine geodiversity.

Busta Voe is a development restricted area, policy MP DEV3 protects these areas from development. Protection of recreational opportunity within Busta Voe will have localised positive impacts on recreational assets.

Ports and harbours and important infrastructure for industry connectivity but also for the local community and tourists as transportation to and from the islands and for leisure activities. Policies MP PORT1 and MP SHIP1 protect this infrastructure from any adverse effects of inappropriate development. Policies MP TRANS1 and TRANS2 are sectoral, criteria-based policies for the development of ports and harbours and potential fixed links/ferry terminals. Potential developments must comply with all policies within Policy Framework Sections (a) and (b) and policy MP DEV1.

Good connectivity is vital to remote island communities who rely on it for both social and economic reasons. Policy MP ACBP1 ensures that any potential marine developments do not cause disruption to connectivity cables and pipelines which could have adverse effects on businesses as well as causing costs to the cable and pipeline owners. In addition, policy MP CBP1 deals with the placement of new utility cables and pipelines and supports the sustainable development of this infrastructure. It also requires all proposals to comply with all policies in Policy Framework Sections (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.

Marine and coastal heritage assets are important to the local community as part of their cultural identity, providing a sense of belonging and as a tourist attraction. Policy MP HIS1-HIS3 provide specific guidance and criteria for developers to adhere to when considering any proposed development or activity within or close to important heritage assets.

Coastal infrastructure relating to recreation and leisure activities such as piers, marinas etc. are important for the local community and to the tourism industry. Policy MP REC1 aims to create awareness and protect recreational amenities. As a criteria-based policy it aims to provide clear guidance on what proposals need to consider. In addition, Policy MP TR1 is a criteria-based policy relating to new tourism and leisure developments that sets out key conditions for tourism and leisure developments. It includes a specific policy caveat which promotes the potential sharing and enhancement of infrastructure with other marine users. It also requires all proposals to comply with all policies

included in Policy Framework Sections (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.

Many policies within Policy Section (c) *Productive* (aquaculture and seaweed developments, Marine renewable developments etc.) can help to support wider infrastructure such as piers and ferries. Any potential negative impacts on the marine environment and other marine users are mitigated through the requirement to comply with all policies within Policy Framework Sections (a) and (b) and policy MP DEV1.

Shore access includes piers, jetties, slipways, marinas and their access tracks. Policy MP SA1 relates to proposals for new shore access and moorings and Policy MP MO1 relates to commercial moorings. Both policies are criteria-based policies that set out key conditions for shore access and moorings. They include a specific policy caveat which promotes development of infrastructure within existing localities. In addition, the policies require all proposals to comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.

Policy MP CD1 relates to coastal defence construction and aims to protect infrastructure and important built development from coastal erosion or flooding. This will safeguard existing developments and industries reliant on coastal buildings and infrastructure within vulnerable areas. Policy MP CD2 relates to coastal defence demolition and ensures any demolition work will not have an adverse impact on the environment, landscape or land use. This protects coastal businesses, infrastructure and industries from any significant negative impacts arising from the demolition.

Policy MP DEV1 requires all proposals for marine-related developments to comply with all policies included in Policy Framework Sections (a) and (b) which includes consideration of other sectors including material assets. It actively promotes co-use and co-location with other marine users.

Policy MP DEV2 deals with the decommissioning of assets. Applications for marine-related developments should, where appropriate, be supported by a decommissioning plan to ensure the removal of redundant equipment to ensure it doesn't break up and become marine litter and a potential pollutant or threat to shipping. It also promotes the re-use of decommissioned assets.

- **Promote the efficient and effective sustainable use of environmental resources?**
  Policy MP FISH1 is a criteria-based policy which sets out the key considerations for developers to protect important fishing grounds. In safeguarding marine fisheries, the existing infrastructure which supports this industry is also protected.

  Policy MP EX1 relates to the extraction of natural resources such as sand, gravel and shingle and aims to protect the seabed and coastline from damaging extraction. All potential developments must comply with all policies included in Policy Framework

Sections (a) and (b) and policy MP DEV1 as well as considering the alternatives such as recyclate or secondary aggregate.

Dredging and the marine disposal of dredged material are activities necessary for the viability of the marine shipping industry of the Shetland Islands. Both dredging activity and the disposal of dredged material in the sea have the potential to cause long-term environmental impacts affecting marine life, the fishing industry and other marine users. Sustainable management of the activity is needed to minimise potential harm. Policy MP DD1 relating to the dredging and disposal of dredged material does this by ensuring that potential dredging proposals have complied with all policies within Policy Framework Sections (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.

The majority of the policies within the SIRMP have been assessed as having a positive impact on material assets. One policy (MP CBP1 Placement of Utility Cables and Pipelines) has been assessed as having both a potential positive and negative effect as new utility cables and pipelines would boost connectivity to the Isles but could have an adverse impact on other industries such as commercial fishing. But as this is a criteria-based policy it sets out key conditions for the placement of cables and pipelines to avoid or mitigate conflict with other marine users. A summary of the impacts of the SIRMP policies on 'Material Assets' can be found in Table 21.

Table 21: A summary of the potential impacts of the SIRMP on 'Material Assets'

SEA Topic	Material Assets
Water Resources	✓
INNS	✓ ✓
Waste Minimisation	✓ ✓
Noise &Vibration	N/A
Safeguarding ports and Navigational	✓ ✓
Utility Cables and Pipelines	✓ ✓
Climatic Change	✓ ✓
Species Conservation	N/A
Site Protection- Marine	N/A
Site Protection- Coastal	N/A
Biodiversity	N/A
Landscape and Seascape	✓ ✓
Historical Environment	✓ ✓
Communities	N/A
Recreation and Leisure	✓ ✓
General conditions	✓
Commercial Fishing	✓
Aquaculture and Seaweed Cultivation	✓
Marine Renewable Energy	✓
Marine Aggregate Extraction	✓
Tourism	✓ ✓
Shore Access and Moorings	✓
Cables and Pipelines	×/ ✓
Commercial Moorings	✓
Coastal Defence Construction	✓ ✓
Coastal Defence Demolition	✓
Transport	✓
Dredging and Disposal	✓

5.4 Assessing Alternatives

There is a requirement to consider appropriate alternatives to the SIRMP, the policies within it and their effect on the environment as part of the SEA process (Article 5(1) of the SEA Directive). As the SIRMP does not include specific strategic actions or measurable activities, the focus of the SEA is to assess the main objectives and policies as set out in the SIRMP and comprise possible policy revisions or alternatives on which the final SIRMP will be based.

In terms of alternatives to the SIRMP, its strategic nature suggests three scenarios:

1. Assessment against the 'do-nothing' scenario, i.e. continue under the current approach to management (using the SMSP (4th Ed.) as supplementary guidance to the councils LDP.
2. Use the policies within the SIMSP to form a regional marine plan without update or additions.
3. The preferred option – adoption of the SIRMP i.e. the statutory plan incorporating the recommendations of the SEA process, further consultation with key stakeholders and links to the objectives of the NMP.

The assessment of alternatives is integral to the SEA process and the overall assessment of the main objectives and policies set out in the consultation document. In considering the effects of these in relation to each of the main policy areas, the assessment will take full account of the options proposed and the likely effects on the environment in the absence of the SIRMP.

Each option is considered against SEA topics, whether it is likely to show a positive impact (✓), neutral (=) or negative impact (x).

Option 1 – Do Nothing Scenario

The 'do nothing' scenario while providing for the continued protection of the marine environment creates inconsistency within the marine licence system, with marine planning and works licence applications assessed against different criteria to marine licences.

The impact of this option on each SEA topic is considered in the table below:

Topic	**Impact ✓/=/x**	**Change from 'do nothing' ✓/=/x**
Soils, Geology and Coastal Processes	✓	N/A
Cultural Heritage	✓	N/A
Seascape and Landscape	✓	N/A
Biodiversity, Flora and Fauna	✓	N/A
Air	=	N/A

Waste	✓	N/A
Water	✓	N/A
Climatic Factors	✓	N/A
Population and Human Health	✓	N/A
Economy	✓	N/A
Material Assets	✓	N/A

Option 2 – Use Existing Policies Within SIMSP to Create a Regional Plan

This scenario will provide for the continued protection of the marine environment and creates consistency within the marine licence system, with marine planning and works licence applications assessed against the same criteria to marine licences. However, it does not allow for any enhancement of the Plan.

The impact of this option on each SEA topic is considered in the table below:

Topic	**Impact ✓/=/x**	**Change from 'do nothing' ✓/=/x**
Soils, Geology and Coastal Processes	✓	=
Cultural Heritage	✓	=
Seascape and Landscape	✓	=
Biodiversity, Flora and Fauna	✓	=
Air	=	=
Waste	✓	=
Water	✓	=
Climatic Factors	✓	=
Population and Human Health	✓	=
Economy	✓	✓
Material Assets	✓	✓

The main positive impact of this scenario will be to developers who will benefit from a consistent approach across licence types, helping to reduce confusion and delays within the licensing system.

Option 3- Reviewed and amended SIRMP

This scenario will provide for the continued protection of the marine environment and creates consistency within the marine licensing system, with marine planning and works licence applications assessed against the same criteria to marine licences. It allows for the amendment and refinement of the Plan, with the addition of new policies and amendment of existing policies.

The impact of this option on each SEA topic is considered in the table below:

Topic	Impact ✓/=/x	Change from 'do nothing' ✓/=/x
Soils, Geology and Coastal Processes	✓	✓
Cultural Heritage	✓	✓
Seascape and Landscape	✓	✓
Biodiversity, Flora and Fauna	✓	✓
Air	✓	✓
Waste	✓	✓
Water	✓	✓
Climatic Factors	✓	✓
Population and Human Health	✓	✓
Economy	✓	✓
Material Assets	✓	✓

Option 3 will provide positive impacts across all topic areas. It will be beneficial to developers who will be assisted by a consistent approach across licence types, helping to reduce confusion and delays within the licencing system. As policies have been refined within all topic areas which will lead to positive benefits across all areas of the marine environment. **Option 3 is therefore the preferred option.**

6 Cumulative Effects

Cumulative effects can be defined as effects that occur where several individual activities which each may not have a significant effect, combine to have a significant effect. The Environmental Assessment (Scotland) Act 2005 requires that the cumulative environmental effects of the SIRMP are identified and evaluated. Professional judgement has been used to derive the potential cumulative effects of the policies within the SIRMP, in-combination with other plans or projects.

Given that the SIRMP is a criteria-based plan with a focus on policies rather than proposals there is a reduced ability to assess the cumulative environmental effects of the SIRMP policies on their own as this is done at an individual licence application level. Therefore, this part of the SEA will focus on the potential cumulative effects of the SIRMP, the National Marine Plan (NMP) and Shetland Islands Council Local Development Plan (SIC LDP).

The SIRMP sits beneath the National Marine Plan and alongside other planning, legislative and regulatory regimes (Figure 4). The SIRMP and NMP together set out a framework of social, economic and environmental policies which identify the issues to be taken into account when making decisions about projects and/or activities in the marine environment.

The SIRMP and the SIC LDP work together to set out a framework of social, economic and environmental policies which identify the issues to be taken into account when making decisions about projects and/or activities in the marine and terrestrial environments. A review of the SIRMP and LDP against the SEA objectives demonstrates how the two plans will work together (Figure 4).

The SIRMP, NMP and the SIC LDP include a presumption for sustainable development and use. While alone, policies encouraging economic growth have the potential to result in effects on the qualifying interest of European sites. In these plans this is balanced by the requirement for development and use to be sustainable and this is further elaborated by policies which protect European sites and the features for which they are designated.

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 on European sites, in both coastal and marine environments.

Notwithstanding subsequent mitigation measures which may be applied to the sectoral policies within the SIRMP, the policies within the SIC LDP 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 which directly protect European sites, means that there will be no in-combination effects of the frameworks on these European sites.

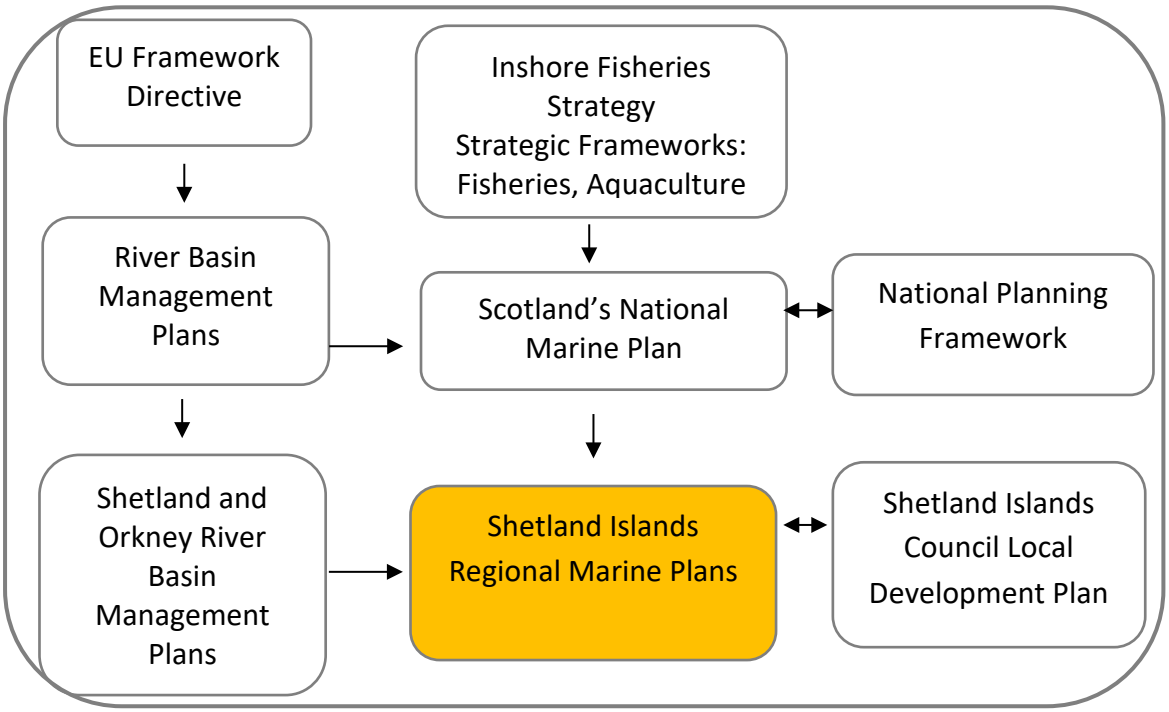

Figure 4: SIRMP policy context (terrestrial and other planning/regulatory regimes)

Table 22: Cumulative effects of the draft SIRMP and SIC LDP.

Will the draft SIRMP and SIC LDP…	Relevant SEA Topic
Support the development of a sustainable marine economy?	Both plans support economic growth and will support proposals that will result in economic benefits to the local community including safeguarding and creating of jobs. Both note that economic benefits should be a consideration in decision-making. Both emphasise the need for fairness and transparency in decision-making. Applications for development which contribute to the development of strong, healthy, vibrant and sustainable rural communities will be supported. Both plans have general policies in place to protect the community and existing marine users and note that developments should be planned to meet the economic and social needs of Shetland in a manner that does not compromise the ability of future generations to meet their own needs and to enjoy the area's high-quality environment. All policies within the SIRMP require developers to consider and consult with other marine users in the area early in the application process.
Contribute to the growth of any marine industry without detriment to another?	
Safeguard and/or create jobs that support new or existing communities?	
Remove or avoid barriers to new marine enterprise opportunities?	
Maintain or improve the accessibility and connectivity of remote island and coastal communities?	Both plans recognise the importance of good connectivity within the remote, rural communities of Shetland, not only for business and industry but for the population's health and well-being. The plans have policies both protecting existing connectivity infrastructure and for the development for new and updated connectivity developments. Both plans recognise that the development of an efficient and integrated transport system is essential to meet the long-term social and economic needs of Shetland and have policies regarding transport links including ports, harbours and ferry terminals. The two plans will work together to provide cohesive links between marine transport and the terrestrial infrastructure required for them.
Promote access to the coastal and marine resource for tourism and recreation?	
Contribute to the resilience and cohesion of coastal and island communities?	

	It is recognised by both plans that tourism is of great value to the isle's economy and that good access to Shetland's marine and coastal attractions (natural heritage, historic assets and leisure activities) is maintained and promoted for the benefit of both visitors and residents.
Avoid disturbance of key species as a result of marine activities?	Both the SIRMP and the SIC LDP have policies in place to protect internationally, nationally and locally important natural heritage sites. The plans will work together to protect both the terrestrial, coastal and marine habitats and species within these protected sites.
Safeguard marine and coastal ecosystems and their interactions?	
Avoid pollution of the coastal and marine water environment?	Both plans have policies in place to protect, preserve and improve water quality in marine and freshwater environments ensuring there is no deterioration in the ecological status of a watercourse or waterbody. Likewise, both plans have policies relating to waste. All potential developments must have consideration of waste/redundant equipment relating to the development and must have a waste management plan in place. They are also encouraged to adopt the waste hierarchy of reduce, re-use or recycle).
Maintain and/or improve the ecological status of Scottish waters?	
Avoid adversely impacting on air quality, with particular regard to known existing concentrations of transport and industrial related pollution close to the coast?	The SIRMP will help to protect existing marine transport links including ferries, ports and navigation routes. The LDP does not have the equivalent specific policies.
Reduce greenhouse gas emissions from vessels and other marine activities?	Both policies acknowledge the need to address climate change. The SIRMP has policies which specifically relate to climate change and the need for developers to consider climate change adaptation and mitigation in their applications. Both plans have policies relating to renewable energy and emphasise that Shetland is well placed to make a positive contribution to national targets set by the Scottish
Contribute to adaptation to climate change?	

	Government. It has outstanding renewable resources available such as wind, wave and tidal and the plans would support appropriate development in this sector.
Improve understanding and knowledge about the marine historic environment?	Both the SIRMP and the SIC LDP (including Supplementary Guidance 'Historic Environment'), include policies to promote the care and protection of the designated and non-designated historic environment around the isles. The historic assets are recognised as having particular value to both the local community and in attracting visiting tourists. The SIRMP and SIC LDP will presume in favour of the protection, conservation and enhancement of all elements of Shetland's historic environment.
Protect the site and setting of marine and coastal historic environment features?	
Ensure that the value and special qualities of designated landscapes is protected?	Both the SIRMP and SIC LDP include policies to protect landscape and seascape, both designated and non-designated. They apply to all potential developments within terrestrial, coastal and marine environments. All potential developments must not adversely affect the integrity of the area, qualities or protected features for which they are designated and must have taken into account the existing character and quality of the local landscape/seascape. Reference is also made to 'wildness' and 'open space'. The SIC LDP has a supplementary guidance document relating specifically to open space.
Recognise and respect the value of wider (non-designated) landscapes and seascapes?	
Encourage sectors to take into account the relative sensitivities of different seascapes?	
Avoid exacerbating coastal erosion?	The SIRMP has policies that deal specifically with coastal defence construction and coastal defence demolition to maintain the integrity of the coast and to avoid erosion. The SIRMP also has policies to protect the seabed and coastal processes. The SIC LDP has the equivalent terrestrial policies relating to soils and geodiversity which will include the coastal zone. Both plans have policies on climate change (which has the potential to have a significant effect on coastal erosion through sea level rise and an increase in extreme weather events).
Maintain the integrity of coastal processes?	
Maintain and protect the character and integrity of the seabed?	

7 Mitigation

Schedule 3 (8) of the Environmental Assessment (Scotland) Act 2005 requires that mitigation measures are integrated into the plan making process. The policies within the SIRMP have been designed to, where possible, incorporate environmental protection and best environmental practice. Each policy contains specific mitigation measures and directs you to the key consultees who can provide guidance and best practice guidelines, and it is strongly advised that developers consult with these agencies early in the application process.

Given that this assessment has not identified any significant effects arising from the draft SIRMP, the focus of further monitoring will be on unanticipated effects. It is anticipated that the Marine Planning Partnership will continue to work closely with the Statutory Consultees and Advisory Group to ensure that applications for future development follow the guidance provided in the Plan.

8 Monitoring

Section 19 of the Environmental Assessment (Scotland) Act 2005 sets out the requirements for monitoring of the plan implementation. The Marine Planning Partnership, as the responsible authority, is required to monitor the significant environmental effects of the implementation of the SIRMP for which it has carried out an environmental assessment.

A formal review will be conducted within 5 years of the SIRMP being adopted. The review will determine how the SIRMP is being implemented and will monitor and appraise the environmental and socio-economic effects of the implementation of the SIRMP and how it can be improved to address any shortfalls in policies. The monitoring process will involve reverting to the baseline information on the current condition of Shetland's marine environment as described within the State of the Environment Assessment. The use of 'indicators' to measure how the environmental baseline has altered will be an effective tool in determining change. Indicators can comprise both quantitative (facts and figures) and qualitative (descriptive) information. The indicators selected will monitor change that results from implementing the SIRMP but will also take account of changes as a result of other external factors. They will therefore provide a mechanism to highlight unforeseen as well as expected changes. The SEA indicators that will be used to monitor the SIRMP for each SEA Topic can be found in Table 6.

9 Conclusions

Whilst the SIRMP does not identify specific potential development areas and opportunities, it provides a comprehensive source of existing developments, areas of environmental sensitivity and potential planning constraints. The SIRMP provides policy guidance that

should be applied to all proposed development in the plan area for the next 5 years once adopted by Scottish Ministers.

It is considered that the SIRMP will result in positive overall environmental and socio-economic benefits and will ensure that sustainability is a key consideration in decision making for marine development in Shetland, taking into consideration the environment and socio-economic elements.

10 Next Steps

Consultation on the draft SIRMP and this accompanying SEA report along with the BRIA, HRA, EQIA and CRWIA are now open and will close 16 weeks after publication of this report. Views on this SEA report and the draft SIRMP to which it relates are now invited.

Following the consultation period, the responses received will be analysed and the findings used to further refine the SIRMP before its final submission to the Scottish Parliament. Upon adoption of the SIRMP, a Post-Adoption Statement will be prepared, reflecting on the findings of the assessment and the consultation, and outlining how the issues raised have been addressed.

Copies of the draft SIRMP and the accompanying documents, including this report will be available on Shetland UHI Website and hard copies are available for viewing within office hours at the Shetland UHI's Scalloway Campus (Port Arthur, Scalloway, Shetland, ZE1 OUN). This SEA report will also be uploaded onto the SEA Gateway.

Please send any comments to the Marine Spatial Planning Team at Shetland UHI at the above address or email: marineplan.shetland@uhi.ac.uk.

11 Links to Important Plans, Guidance and Legislation

Environmental Assessment (Scotland) Act 2005

Marine (Scotland) Act 2010

HM Government. 2011. UK Marine Policy Statement. HM Government, Northern Ireland Executive, Scottish Government and Welsh Assembly Government.

The Scottish Government. 2013. Strategic Environmental Assessment Guidance.

HM Government. 2005. A practical guide to the Strategic Environment Assessment Directive. HM Government, Northern Ireland Executive, Scottish Government and Welsh Assembly Government.

Scottish Government. 2016. Strategic Environment Assessment: integrating an ecosystem approach.

Scottish Executive. 2006. Strategic Environmental Assessment Tool Kit.

Shetland Islands Council. 2014. Shetland Local Development Plan

Scottish Government. 2015. Scotland's National Marine Plan. A Single Framework for Managing Our Seas.

Scottish Government. 2013. Scotland's National Marine Plan. Sustainability Appraisal Report

NAFC Marine Centre. 2012. A Marine Spatial Plan for the Shetland Islands. (3rd Edition)

NAFC Marine Centre. 2014. A Marine Spatial Plan for the Shetland Islands. (4th Edition)

NAFC Marine Centre. 2014. Shetland Islands' Marine Spatial Plan (4th Edition). Strategic Environment Assessment-Environmental Report

NAFC Marine Centre. 2014 Shetland Islands' Marine Spatial Plan (4th Edition). Strategic Environmental Assessment-Post Adoption Statement

Kelly, C., Gray, L., Shucksmith, R. and Tweddle, J. 2012. Review of the Marine Spatial Plan for the Shetland Islands. NAFC Marine Centre.

Shucksmith, RJ (2017) Shetland Islands Marine Region State of the Marine Environment Assessment. NAFC Marine Centre UHI. Report for the Shetland Islands Marine Planning Partnership. pp172

Scottish Government. 2018. Sectoral Marine Plan for Offshore Wind Encompassing Deep Water Options-Strategic Environmental Assessment Screening and Scoping Report.

12 Appendix 1

12.1 Detailed Assessment Matrices

Table 23: SEA assessment matrices for Policy Framework Section (a) Clean and Safe

Policy MP WAT1: Water Ecology				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	Long term, continuous, widespread, moderate positive impacts	This policy protects coastal waters from the adverse effects of development including consideration of run-off, contamination and pollution. This will have an overall beneficial impact on soils and geology in the coastal and marine area.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of water bodies achieving 'Good Ecological Status' (GES) as required by WFD and RBMP (Source: SEPA, SIC) • Marine waters achieving GES[21] under the MSFD - current status on eutrophication, contamination, marine litter (Source: Marine Directorate Science)
Cultural Heritage	N/A		N/A	
Landscape and Seascape	✓		The policies ensure that there is no deterioration in water quality which will help to ensure visual impacts of pollution and contamination will be kept to a minimum.	
Biodiversity, Flora and Fauna	✓✓	Long term, continuous, widespread, minor-moderate	This policy is intended to protect all water bodies and therefore protect and sustain the biodiversity reliant on this natural resource.	
Air	N/A		N/A	
Waste	N/A		N/A	

[21] 'Good environmental status' under the Marine Strategy Framework Directive

Water	✓✓	positive impacts	This policy will have a significant overall benefit on the water environment which prohibits developments causing any water body to deteriorate in status.	• Number of incidents reported on pollution, waste or contamination to marine and coastal waters around Shetland (Source: SEPA, SIC and Lerwick Port Authority (LPA))
Climatic Factors	N/A		N/A	
Population and Human Health	✓✓	Long term, continuous, widespread, moderate positive impacts, and minor negative	This policy will ensure the ecological and environmental status of all coastal water bodies remains in 'good status' which will benefit human health through high standards of water quality. This will protect against food contamination and protect recreational users.	
Economy	✓✓/x		The aim of this policy is to sustain clean, safe and healthy waters around Shetland. As a consequence, the marine environment will continue to fulfil its role in the provision of goods and services including those required by local industries i.e. jobs, fisheries, food, marine transportation, trade and energy. Any deterioration in water quality could have adverse impacts on the marine ecosystems ability to provide such goods and services. Maintaining high standards of water quality will allow for the safe production and harvesting of fisheries products. However, this policy may cause small increased costs to individual developers.	
Material Assets	✓		This policy aims to ensure that water quality and ecology does not decline. This also ensures the impacts of pollution and contamination will	

			be kept to a minimum which will safeguard the continued use of natural resources.	

Policy MP INNS1: Reducing the Spread of Invasive Non-native Species (INNS)				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	Long term, continuous, widespread, minor - moderate positive impacts	This policy will help to reduce the spread of INNS which could have an adverse impact on local biodiversity, which has the potential to impact habitats and species which stabilise sediments, or reduce the spread of species which could destabilise sediments (such as rabbits).	**Mitigation:** No further mitigation required. **External Monitoring:** • Reported sightings of INNS around Shetland (Source: Marine Directorate Scotland, SEPA, NatureScot, UHI Shetland).
Cultural Heritage	✓		This policy will help to reduce the spread of INNS which could have an adverse impact on cultural heritage through direct damage (e.g. boring species) or exacerbating erosion (e.g. rabbits).	
Landscape and Seascape	✓		This policy will help to reduce the spread of INNS which could have an adverse impact on cultural heritage or fragile habitats which form part of the landscape/seascape.	
Biodiversity, Flora and Fauna	✓✓	Long term, continuous, widespread, minor-	This policy will help to reduce the spread of INNS which could have an adverse impact on local biodiversity i.e. competition with native species for food and space, habitat alteration,	

		moderate positive impacts	changes in water quality and the transmission of disease or parasites.	
Air	N/A		N/A	
Waste	N/A		N/A	
Water	✓✓		This policy seeks to reduce the risk of spreading INNS through best practice. The introduction of INNS to Shetlands water bodies is a potential threat to water classification. The policy will help to minimise this risk in parallel with MP WAT1.	
Climatic Factors	✓		This policy will help to reduce the spread of INNS which could have an adverse impact on species or habitats which act as a carbon sink (e.g. kelp, horse mussel beds).	
Population and Human Health	N/A	Long term, continuous, widespread, moderate positive impacts	N/A	
Economy	✓✓		This policy will protect important industries such as fisheries, aquaculture and tourism from the negative impacts of INNS.	
Material Assets	✓✓		INNS can attach to infrastructure, for example aquaculture equipment, overgrowing mussel lines or reducing water flow from finfish cages. It can cause boat fouling, causing increased fuel consumption. This policy aims to sustain the marine ecosystem's ability to provide goods and services.	

Policy MP WST1: Waste Minimisation				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓	long term, widespread, minor positive impacts	Marine litter and waste have the potential to contaminate soils. Plastics and microplastics can persist in the sediments over long time frames. Waste management will help to reduce commercial sources of marine litter.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of applications where a waste/litter management plan/strategy has been undertaken and waste management measures included. • Number of reported instances of waste disposal/ dumping at sea (SIC, LPA, SEPA, MCA) • Number of bags of coastal litter collected annually as part of the Da Voar Redd up (Source: Shetland Amenity Trust (SAT))
Cultural Heritage	✓		Marine litter/waste has the potential to cause damage to underwater and coastal historic assets. Water management can help to reduce this impact.	
Landscape and Seascape	✓✓		Marine litter can be visually intrusive, affecting the character of a landscape/seascape, particularly those valued for characteristics such as wildness. Water management can help to reduce this impact.	
Biodiversity, Flora and Fauna	✓✓	long term, widespread, moderate positive impacts	Marine litter and waste have the potential to negatively impact habitats and species through ingestion and entanglement. Water management can help to reduce this impact.	
Air	N/A		Negligible positive impacts on air quality.	
Waste	✓✓		This policy will help to reduce waste through the promotion of avoid, reduce, reuse, recycle.	
Water	✓✓		This policy seeks to minimise the adverse effects of marine litter/waste on water quality and ecology.	

Climatic Factors	✓		The sustainable management of waste should consider the 'avoid, reduce, reuse and recycle' options which have the potential to minimise greenhouse gas emissions in the long term. Best practice in waste management will be encouraged where possible through this policy.	
Population and Human Health	✓	Long term widespread, moderate positive impacts	Marine litter can reduce human health through reduced enjoyment of the marine environment. The ingestion of contaminants such as microplastics via seafood has the potential to negatively impact human health. Water management can help to reduce this impact.	
Economy	✓✓		By encouraging waste minimisation unnecessary costs can be avoided, positively impacting the economy. Marine litter has the potential to have adverse effects as their impact to humans and wildlife can have a knock-on effect to tourism levels and therefore the economy. In addition, marine litter can cause issues for fishermen and other sea users as a result of damaged gear which has associated economic impacts.	
Material Assets	✓✓		Marine litter has the potential to have adverse effects on material assets. The visual impacts can negatively impact on local tourism and leisure amenities, can cause damage to fishing and aquaculture equipment. Water management can help to reduce these impacts.	

Policy MP NOISE1: Minimising Levels of Surface and Underwater Noise & Vibration				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **Monitoring:** • Number of incidents on noise disturbance reported (Source: SIC, Marine Directorate Science and NatureScot)
Cultural Heritage				
Landscape and Seascape				
Biodiversity, Flora and Fauna	✓✓	Short-medium term, widespread, moderate positive impacts	Noise has the potential to mask biologically relevant signals, can lead to a variety of behavioural reactions, affect hearing organs, and injure or even kill marine life. Knowledge is limited in the actual extent of impacts however this policy requires developers to provide detailed information on expected noise levels to allow decision makers to determine potential impacts. This policy will help to safeguard marine biodiversity from the negative effects of noise. The potential impacts of vibration are not fully understood. Vibration can cause disturbance to marine life by resuspension of sediment, decreased water quality and direct damage to the seabed. Any adverse impacts are thought to be localised and short term (predominantly during construction).	
Air	✓✓	Short-medium term, widespread,	Above water noise levels will have to be assessed and limited by this policy.	

		moderate positive impacts		
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Short-medium term widespread, moderate positive impacts	Marine noise can have a negative effect on humans. Excessive noise can impact on the quality of human life, health, and use and enjoyment of areas. Noise pollution has been found to increase stress levels and linked to heart disease. This policy will help to minimise and manage noise and vibration levels.	
Economy	?	Uncertain	While the policy will protect species and habitats that have potential economic value the link to positive economic impact is uncertain.	
Material Assets	N/A	N/A	N/A	
Policy MP PORT1: Harbour Plans **Policy MP SHIP1: Safeguarding Navigation Channels and Port Areas**				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **Monitoring:**
Cultural Heritage				

Landscape and Seascape				• Number of applications providing an assessment of the impact on navigation (Source: SIC/ MD-LOT) • Number, location and cause of marine related accidents (vessels lost) (Source: Maritime Coastguard Agency (MCA)) • Number of reported navigational accidents as a result of a marine development (construction or operation) (Source: MCA, Lerwick Port Authority (LPA) and SIC) • Number of applications refused on grounds of incompatibility with other marine users (Source: SIC, LPA, MD-LOT)
Biodiversity, Flora and Fauna	✓	Short-medium term, widespread, minor positive impact	This policy ensures the safe navigation of channels and port areas which can therefore help to prevent collisions/incidents which in turn will protect biodiversity and ecological status.	
Air	✓	Short-medium term, widespread, minor positive impact	Altering navigation routes can potentially impact fuel consumption, leading to increased release of pollutants such carbon and nitrogen. This policy required developers to consider impacts on fuel consumption.	
Waste	N/A	N/A	N/A	
Water	✓	Short-medium term, widespread, minor positive impact	This policy ensures the safe navigation of channels and port areas which can therefore help to prevent collisions/incidents which in turn will protect water quality and ecology.	
Climatic Factors	✓	Short-medium term, widespread, minor positive impact	Altering navigation routes can potentially impact fuel consumption, leading to increased release of greenhouse gasses. This policy requires	
Population and Human Health	✓✓	Long term, widespread moderate positive impacts	This policy ensures all channels and port areas are protected from inappropriate development that could result in navigational or safety hazards causing risk to mariners. This policy has a positive effect on helping to maintain connectivity and	

			accessibility of communities and supports access to the coastal and marine resource for recreation and tourism in a sustainable way.	
Economy	✓✓		This policy ensures there is consideration of other marine users and maintains the safe and effective function of ports and harbours, which act as economic hubs.	
Material Assets	✓✓		This policy helps to protect port infrastructure.	

Policy MP SHIP2: Marine Environmental High Risk Areas (MEHRAs)				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **Monitoring:** • Number, location and cause of marine related accidents (vessels lost) • Number of reported navigational accidents as a result of a marine development (construction or operation) (Source: MCA, LPA and SIC)
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	✓	Long term, localised, minor positive impact	This policy protects MEHRAs, specifically Muckle Flugga and Fethaland which are National Scenic Areas from any adverse navigational impacts.	
Biodiversity, Flora and Fauna	✓✓	Long term, localised, moderate positive impact	This policy focuses on MEHRAS which include areas of having high environmental sensitivity. This policy will protect natural heritage in these areas from any adverse navigational impacts.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	

Water	✓✓	Long term, localised moderate positive impact	MEHRAs include areas of having high environmental sensitivity. This policy will protect water quality from any adverse navigational impacts.	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	N/A	N/A	N/A	
Economy	✓	Long term, localised, minor positive impact	This policy encourages safe navigation and aims to protect sensitive habitats in areas where navigation may be particularly challenging. This has the potential to protect habitats which are of economic value.	
Material Assets	N/A	N/A	N/A	

Policy MP ACBP1: Avoidance of Cables and Pipelines				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	Long term, localised, moderate positive impacts	Damage to oil and gas pipelines has the potential to cause widespread damage to the benthos and intertidal substrate. This policy aims to reduce the risk of damage to cables and pipelines from incompatible development types.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of applications refused on grounds of incompatibility with cables and pipelines (Source: SIC, MD-LOT)
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	✓✓	Long term, localised,	Damage to oil and gas pipelines has the potential to cause widespread	

		moderate positive impacts	environmental impacts. This policy aims to reduce the risk of damage to cables and pipelines from incompatible development types.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	✓✓	Long term, localised, moderate positive impacts	Damage to oil and gas pipelines has the potential to cause widespread impacts on water quality. This policy aims to reduce the risk of damage to cables and pipelines from incompatible development types.	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Long term, localised, moderate positive impacts	Pipes and cables provide important connectivity services which could be disrupted and cause adverse effects on local communities, particular through damage to utilities (water and energy). This policy aims to reduce the risk of damage to cables and pipelines from incompatible development types.	
Economy	✓✓		Pipes and cables provide important connectivity services which could be disrupted and cause adverse effects on businesses, as well as causing costs to the cable and pipeline owner. This policy aims to reduce the risk of damage to cables and pipelines from incompatible development types.	

Material Assets	✓✓		Damage to cables and pipelines will be costly to repair, this policy aims to protect them from accidental damage.	

Policy MP CLIM1: Climate Change Mitigation **Policy MP CLIM2: Climate Change Adaptation**				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	long term, widespread, moderate positive impact (see specific policies for renewable energy development and coastal defence)	Policy MP CLIM1 specifically aims to minimise carbon emissions and encourage the use of non-finite resources to decelerate the process of global climate change. Policy MP CLIM2 seeks to ensure developments adapt to the potential effects caused by global change through spatial considerations e.g. location, scale and type of development within vulnerable areas to sea level rise. Overall, the policies aim to minimise the cause and effects of climate change for the overall benefit of the environment and community.	**Mitigation:** No further mitigation. **Monitoring:** • Number of applications permitted for marine renewable energy developments and overall renewable energy generation for Shetland (Source: SIC and MD-LOT). • % of electricity generated in Shetland from marine renewables (Source: SIC and Marine Directorate Science) • Number of applications where a flood risk assessment has been undertaken and flood prevention measures included (Source: SIC).
Cultural Heritage	✓✓			
Landscape and Seascape	✓✓			
Biodiversity, Flora and Fauna	✓✓			
Air	✓✓			
Waste	N/A			
Water	✓✓			
Climatic Factors	✓✓			

Population and Human Health	✓✓			• Number of developments subject to flooding (Source: SIC).
Economy	✓✓			
Material Assets	✓✓			

Table 24: SEA assessment matrices for Policy Framework Section (b) Healthy and Biologically Diverse

Policy MP BIOD1: Protected sites and species				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓	Long term, widespread minor positive impacts	Several European sites include the protection of geological features such as rocky reefs and the species living on them i.e. Pobie Bank SAC, Papa Stour SAC (caves).	**Mitigation:** No further mitigation. **Monitoring:** • Reported condition of SACs, SPAs, SSSIs, MPAs, LNCS (Source: NatureScot/ SIC) • Conservation status of seabirds, otters and marine mammals (Source: SIC, SAT, RSPB, Marine Directorate Science/JNCC) • Fish stock assessments (in relation to sand eel MPA) (Marine Directorate Science, ICES, SSMO) • Number and proportion of developments permitted with an unmitigated impact on designated sites, species or habitats (Source: SIC, MD-LOT and NatureScot) • Tourism figures for wildlife visitor attractions i.e. wildlife
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	✓✓	Long term, widespread, moderate, positive impact	This policy protects designated sites and species within the Shetland marine region. The policy reflects the legal interpretation of the Habitats Directive and subsequent case law. It will help to protect the species and habitats found within the European sites network. It is a criteria-based policy with specific compliance requirements for development likely to have adverse impacts. This will ensure any adverse impacts are avoided or mitigated.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	✓✓	Long term, widespread,	The majority of European sites are dependent on good water quality to sustain important marine species and habitats. This policy	

		minor positive impact	requires developments to show that there will be no adverse effects on these sites including their water quality unless specified under the permissible circumstances as per the policy criteria.	watching tours, outdoor recreation etc. (Source: Visit Shetland and SIC Economic Development (ED)) • Number of developments proposed adjacent to DRMPA • Impacts on DRMPA
Climatic Factors	✓	Long term, widespread, indirect, moderate positive impact	Some species protected within the European sites network can act as carbon sinks, helping to reduce CO_2 levels, combating climate change.	
Population and Human Health	✓	Long term, widespread, minor, positive impact	This policy protects designated sites and species protected under legislation from any adverse impacts caused by development. It is acknowledged that many European sites and species such as European Protected Species (EPS) and wild birds are important to the local community in terms of wildlife watching as well as a tourist attraction. Their continued protection will ensure people's enjoyment of these important areas and species is sustained.	
Economy	✓/x	Long term, widespread, minor positive impact/minor negative affect	As mentioned above many protected sites and species are important for recreation and tourism which plays an increasingly important part of the local economy. However, there may be negative economic impacts in respect of development in NCMPAs due to their protection restricting certain	

			activities and developments within the NCMPA areas.	
Material Assets	N/A	N/A	N/A	

Policy MP BIOD2: Priority Marine Features				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	Long term, widespread moderate positive impact	PMFs include a range of substrates including sub-tidal sands, gravels and mud. This policy will give areas PMF area protection from potential adverse impacts caused by development.	**Mitigation:** No further mitigation required. **Monitoring:** • Number and proportion of developments permitted with an unmitigated impact on designated sites, species or habitats (Source: SIC, MD-LOT and NatureScot) • Conservation status of seabirds, otters and marine mammals (Source: SIC, SAT, RSPB, Marine Directorate Science, NatureScot/JNCC) • Fish stock assessments (Marine Directorate Science, ICES, SSMO) • Current extent of important habitats and species (Source:
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	✓✓	Long term, widespread moderate positive impact	PMFs comprise marine habitats and species (including the marine phases of some diadromous fish species) considered to be of conservation importance in Scottish territorial waters. This policy aims to ensure that proposals have due regard to the presence and specific characteristics and qualities of these PMFs and avoid or mitigate any potential adverse direct or indirect effects on these features.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	

Water	✓✓	Long term, widespread, direct and indirect, moderate positive impact	PMFs are dependent on good water quality. This policy will ensure that any development will protect water quality from any potential deterioration in status as it supports and sustains these important features. In addition, filter feeding PMFs such as bivalves can improve water quality.	NatureScot/JNCC, Marine Directorate, UHI Shetland, SSMO) • Tourism figures for wildlife visitor attractions i.e. wildlife watching tours, outdoor recreation etc. (Source: Visit Shetland and SIC Economic Development (ED))
Climatic Factors	✓	Long term, widespread, indirect, moderate positive impact	Some PMF species can act as carbon sinks, helping to reduce CO_2 levels, combating climate change.	
Population and Human Health	✓	Long term, widespread minor positive impact	PMFs include species and habitats in Shetland which are enjoyed by locals and tourists for their amenity value. This policy will provide additional protection to these features and ensure that they are conserved for future enjoyment.	
Economy	✓	Minor positive effect	This policy aims to protect marine diversity through the protection of designated PMFs. This is important for any marine ecosystem to provide goods and services which support local industries. Protecting PMF such as horse mussel beds can have beneficial impacts to water quality. However, protection of these PMFs can lead to areas being restricted for development.	
Material Assets	N/A	N/A	N/A.	

Policy MP BIOD3: Local Habitat Protected Areas				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation. **External monitoring:** • Number and proportion of developments permitted with an unmitigated impact on local habitat protected areas (Source: SIC, MD-LOT and NatureScot) • Current extent of protected important habitats and species (Source: NatureScot/JNCC, Marine Directorate Science, UHI Shetland, SSMO)
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	✓✓	Long term, widespread, moderate positive impacts	This policy is for the protection of local habitat protected areas which have been identified for their biological importance and sensitivity.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	✓✓	Long term, widespread, moderate positive impacts	The majority of local habitat protected areas are dependent on good water quality to sustain important marine species and habitats. This policy requires developments to show that there will be no adverse effects on these sites including their water quality unless specified under the permissible circumstances as per the policy criteria.	
Climatic Factors	✓	Long term, localised, moderate positive impact	The features within the local habitat protected areas (maerl and horse mussels) can act as a carbon sink. Therefore, there continued protection can help to combat rising CO_2 levels.	

Population and Human Health	✓✓	Long term, widespread, moderate positive impacts	These local habitat protected areas are for areas in Shetland which act as important nursery grounds for commercial fish species or of high sensitivity. Their protection helps to support these services, which may help to support a sense of wellbeing.	
Economy	✓	Long term, widespread minor, positive impacts	These local habitat protected areas are for areas in Shetland which act as important nursery grounds for fisheries or are of high sensitivity. Their protection helps to support these services, which may help to support industries such as fisheries. However, compliance with this policy may cause localised increased cost to developments.	
Material Assets	N/A	N/A	N/A	

Policy MP BIOD4: Furthering the Conservation of Biodiversity				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **Monitoring:** • Number and proportion of developments permitted with an unmitigated impact on species or habitats (Source: SIC, MD-LOT and NatureScot) • Conservation status of seabirds, otters and marine mammals (Source: SIC, SAT, RSPB, Marine Directorate Science, NatureScot/JNCC) • Fish stock assessments (Marine Directorate Science, ICES, SSMO) • Current extent and/or of important habitats and species (Source: NatureScot/ JNCC, Marine Directorate Science, UHI Shetland, SSMO) • Tourism figures for wildlife visitor attractions i.e. wildlife watching tours, outdoor recreation etc. (Source: Visit
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	✓✓	Long term, moderate positive impact	This policy specifically protects important marine geological features from the adverse effects of development. It will ensure that coastal landscape/seascape encompassing geological features are also conserved from inappropriate development.	
Biodiversity, Flora and Fauna	✓✓	Long term, widespread moderate positive impact	This policy requires that development has due to the protection of locally important biodiversity.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓	Long term, minor positive impact	Many locals and tourists value biodiversity for their recreational benefit and enjoyment. This policy aims to protect biodiversity for continued enjoyment.	
Economy	✓/=	Minor positive/neutral impact	The protection of marine biodiversity in Shetland includes the protection of species which are of interest to the tourism industry and therefore has a knock-on effect to the	

			economy. However, compliance with this policy may cause localised increased cost to developments.	Shetland and SIC Economic Development (ED))
Material Assets	N/A	N/A	N/A	

Policy MP GEOD1: Safeguarding Marine Geodiversity				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	Long term, moderate positive impact	This policy ensures measures are taken to protect and/or enhance important marine geological and geomorphological resources and sites, including those of educational or research value.	**Mitigation:** No further mitigation required. **Monitoring**: • Condition of coastal geological and geomorphological SSSIs, MPAs, geological Local Nature Conservation Sites and geosites identified by Geopark Shetland [Source: NatureScot, SIC and Shetland Amenity Trust (SAT)]. • Condition of features which protect coastal erosion. • Areas of coast subject to coastal change (National Coastal Change Assessment).
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	✓✓	Long term, moderate positive impact	This policy specifically protects important marine geological features from the adverse effects of development. It will ensure that coastal landscape/seascape encompassing geological features are also conserved from inappropriate development.	
Biodiversity, Flora and Fauna	N/A	N/A	N/A	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	

Population and Human Health	✓✓	Long term, moderate positive impact	Marine geological features are valued by locals and tourists who visit these sites for their recreational benefit and enjoyment. This policy aims to protect these areas for continued enjoyment. The Geoparks also pay an important role in communities offering school activities and educational opportunities.	• Monitoring data on sediment contamination (SEPA, Marine Directorate Scotland, SOTEAG)
Economy	✓/=	Minor positive/neutral impact	Marine geology in Shetland includes nationally and locally important sites of natural amenity value which makes them of interest to the tourism industry and therefore has a knock-on effect to the economy. However, compliance with this policy may cause localised increased cost to developments.	
Material Assets	✓✓	Long term, moderate positive impact	This policy requires developers to consider the impacts of development on marine geodiversity. Geological features e.g. sand bars, can provide important protection of coastal material assets.	

Policy MP VIS1: Safeguarding National Scenic Areas (NSAs)				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓	Long term, indirect minor positive impact	Indirect positive benefits may occur as protection of the landscape/seascape may limit impacts on soils and geology features.	**Mitigation:** No further mitigation required. **Monitoring:**

Cultural Heritage	✓✓	Long term, moderate positive impact	Indirect positive benefits may occur as protection of the landscape/seascape features may limit impacts on cultural heritage elements which form part of the seascape and/or landscape.	• Condition of National Scenic Areas (Source: NatureScot/ SIC) • Number of applications for development with potential impacts on seascape/landscape designations (Source: SIC and NatureScot) • Proximity of existing and proposed developments i.e. any trends for clustering of developments (Source: SIC) • Visitor survey results (Source: UHI Shetland, Visit Scotland)
Landscape and Seascape	✓✓✓	Long term, major positive impact	This policy specifically protects important nationally designated sites of landscape and seascape quality from the adverse effects of development.	
Biodiversity, Flora and Fauna	✓	Long term, indirect minor positive impact	Indirect positive benefits may occur as protection of the landscape/seascape may limit impacts on biodiversity, flora and fauna where they form an integral part of the landscape and/or seascape.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Long term, moderate positive impact	NSAs have been designated for their national importance and amenity value. Many locals and tourists visit these sites for their recreational benefit and enjoyment. This policy aims to protect these areas for continued enjoyment, positively impacting human health and wellbeing.	
Economy	✓/=	Minor positive/neutral impact	This policy provides protection to NSAs which form part of attraction for tourism. There may be additional costs to developers in ensuring landscape/seascape impacts are minimised in these areas.	

Material Assets	N/A	N/A	N/A	

Policy MP VIS2: Safeguarding Seascape Character and Visual Amenity				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓	Long term, indirect minor positive impact	Indirect positive benefits may occur as protection of the landscape/seascape may limit impacts on soils and geology features.	**Mitigation:** No further mitigation required. **Monitoring:** • Condition of National Scenic Areas (Source: NatureScot/SIC) • Number of applications for development with potential impacts on seascape/landscape designations (Source: SIC and NatureScot) • Proximity of existing and proposed developments i.e. any trends for clustering of developments (Source: SIC) • Visitor survey results (Source: UHI Shetland, Visit Scotland)
Cultural Heritage	✓✓	Long term, moderate positive impact	Indirect positive benefits may occur as protection of the landscape/seascape features may limit impacts on cultural heritage elements which form part of the seascape and/or landscape.	
Landscape and Seascape	✓✓✓	Long term major positive impact	This policy seeks the better integration of development within its surrounding landscape/seascape through adequate design measures. The policy aims to ensure that any development is in keeping with the surrounding character of the area and any potential adverse visual impacts are avoided or mitigated.	
Biodiversity, Flora and Fauna	✓	Long term, indirect minor positive impact	Indirect positive benefits may occur as protection of the landscape/seascape may limit impacts on biodiversity, flora and fauna where they form an integral part of the landscape and/or seascape.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	

Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Long term moderate positive impact	The policy will minimise adverse visual impacts and allow locals and tourists to continue to appreciate and enjoy the local surrounding scenery and views, positively impacting human health and wellbeing.	
Economy	✓/=	Long term minor positive/neutral impact	The seascape character and visual amenity of the Shetland Islands is an important asset to the tourism sector. This policy will help to safeguard and enhance valued seascape/ landscape qualities. This may increase costs to some development types in some locations.	
Material Assets	N/A	N/A	N/A	

Policy MP HIS1: Historic Marine Protected Areas				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation. **Monitoring:** • Number of applications where consideration of impacts on HMPA have been documented by the applicant • Number of applications where there are potential impacts on a HMPA (Source: SIC)
Cultural Heritage	✓✓	Long term moderate positive impact	This policy protects historic assets within HMPAs from any potential adverse effects of development through specific avoidance and mitigation criteria.	
Landscape and Seascape	✓	Long term, minor indirect positive impact	This policy protects historic assets within HMPA, including their setting which may have indirect positive impacts for the surrounding landscape/seascape.	
Biodiversity, Flora and Fauna	N/A	N/A	N/A	

Air	N/A	N/A	N/A	• Condition of HMPA (Source: SIC, HES) • New HMPAs designations
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓	Long term, localised minor positive impact	This policy protects heritage assets from any potential adverse effects of development in Shetland. Heritage assets have potential economic value through tourism/recreation. The protection of these assets could have negative impacts on potential developers.	
Economy	✓/=	Long term minor positive/neutral impact	This policy ensures the sustainable management of Historic MPAs in Shetland. This will help to sustain these important archaeological assets potentially bringing economic benefits to communities. This could create additional costs to development proposals which could impacts HMPAs.	
Material Assets	✓✓	Long term moderate positive impact	This policy provides specific guidance and criteria for developers to adhere to when considering any proposed development or activity within or close to any proposed Historic MPA. This will provide transparency, minimise delays and reduce conflict.	

Policy MP HIS2: Safeguarding Nationally Important Heritage Assets				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **Monitoring:** • Number of applications where consideration of impacts on historic or cultural features has been documented by the applicant • Number of applications where there are potential impacts on a site designated for historical environment (Source: SIC) • Condition of sites designated for the historical environment (Source: SIC) • Monitoring/mapping/recording of any new sites of historical importance discovered as part of any developments or projects (Source: UHI Shetland, SIC)
Cultural Heritage	✓✓	Long term moderate positive impact	This policy protects nationally important heritage assets from any potential adverse effects of development through specific avoidance and mitigation criteria.	
Landscape and Seascape	✓	Long term minor positive impact	This policy protects nationally important heritage assets, including their setting which may have indirect positive impacts for the surrounding landscape/seascape.	
Biodiversity, Flora and Fauna	N/A	N/A	N/A	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Long term moderate positive impact	This policy protects nationally important heritage assets from any potential adverse effects of development in Shetland. These historic assets are also important for the enjoyment of the local community and provide a locally accessible educational and historical resource.	
Economy	✓/=	Long term minor	This policy protects nationally important heritage assets from any potential adverse effects of development. Heritage assets have	

		positive/neutral impact	potential economic value through tourism/ recreation. The protection of these assets could have negative impacts on potential developers.	
Material Assets	✓✓	Long term moderate positive impact	This policy provides specific guidance and criteria for developers to adhere to when considering any proposed development which has the potential to impact on a nationally important heritage assets. These sites can be considered material assets.	

Policy MP HIS3: Safeguarding Locally Important Heritage Assets				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **Monitoring:** • Number of applications where consideration of impacts on historic or cultural features has been documented by the applicant • Number of applications where there are potential impacts on a site designated for historical environment (Source: SIC) • Condition of sites designated for the historical environment (Source: SIC)
Cultural Heritage	✓✓✓	Long term, major positive impact	This policy protects locally important heritage assets from any potential adverse effects of development through specific avoidance and mitigation criteria.	
Landscape and Seascape	✓	Long term, minor indirect positive impact	This policy protects locally important heritage assets including their setting which may have indirect positive impacts for the surrounding landscape/seascape.	
Biodiversity, Flora and Fauna	N/A	N/A	N/A	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	

Climatic Factors	N/A	N/A	N/A	• Monitoring/mapping/recording of any new sites of historical importance discovered as part of any developments or projects (Source UHI Shetland, SIC)
Population and Human Health	✓✓	Long term moderate positive impact	This policy protects locally important heritage assets from any potential adverse effects of development in Shetland. These historic assets are also important for the enjoyment of the local community and provide a locally accessible educational and historical resource.	
Economy	✓/=	Long term minor positive/neutral impact	This policy protects locally important heritage assets from any potential adverse effects of development. Heritage assets have potential economic value through tourism/ recreation. The protection of these assets could have negative impacts on potential developers.	
Material Assets	✓✓	Long term moderate positive impact	This policy provides specific guidance and criteria for developers to adhere to when considering any proposed development which has the potential to impact on a locally important heritage site. These sites can be considered material assets.	

Policy MP COM1: Community Considerations				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **Monitoring:**
Cultural Heritage	N/A	N/A	N/A	

Landscape and Seascape	N/A	N/A	N/A	• Consult with local sports clubs, SIC, Visit Shetland etc. to determine number and frequency of users for marine recreational and leisure amenities. • Number of marine amenities closed/ reduced due to development (Source: SIC Economic Development and Visit Shetland). • Number of incidents reported on pollution, waste or contamination to marine and coastal waters around Shetland (Source: SEPA, SIC and LPA) • Number of incidents on noise disturbance reported (Source: SIC, Marine Directorate Science and NatureScot)
Biodiversity, Flora and Fauna	N/A	N/A	N/A	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Long term moderate positive impact	This policy acknowledges that development can have social implications for the local community. Adverse effects have the potential to affect the wellbeing of individuals and groups who value their use of the marine environment as integral to their way of life and social identity. This policy ensures that developers have regard to the social impacts of development on the local community and avoids or mitigates any potential negative impacts through early consultation and assessment.	
Economy	x	Medium term, indirect minor negative	This policy requires the consideration of social impacts on communities. This may result in minor increased costs to the developer.	
Material Assets	N/A	N/A	N/A	

Policy MP REC1: Safeguarding Marine Recreation				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	N/A	N/A	N/A	**Mitigation:** No further mitigation required. **External monitoring:** • Consult with local sports clubs, SIC, Visit Shetland etc. to determine number and frequency of users for marine recreational and leisure amenities. • Number of marine amenities closed/reduced due to development (Source: SIC Economic Development and Visit Shetland). • Number of incidents reported on pollution, waste or contamination to marine and coastal waters around Shetland (Source: SEPA, SIC and LPA)
Cultural Heritage	N/A	N/A	N/A	
Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	N/A	N/A	N/A	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Long term, moderate positive impact	Marine recreational activities support and enhance the local community through social integration improving quality of life and providing benefits to physical and mental well-being. This policy acknowledges this contribution and aims to avoid or mitigate any potential negative impacts resulting from development. The policy also seeks to maintain access to recreational amenities.	
Economy	✓	Long term, direct and indirect minor positive impact	The marine and coastal area around Shetland provide a variety or recreational opportunities, which can provide direct and indirect economic opportunities. The protection of recreational features may lead	

			to increased developer costs, however the provision of data on recreational use will ensure developers are aware of existing use patterns, ensuring considerations are made at an early stage of the development process.	
Material Assets	✓✓	Long term moderate positive impact	This policy creates awareness and protects recreational amenities to the local community. As a criteria-based policy, it aims to provide clear guidance on what proposals need to consider.	

Table 25: SEA assessment matrices for Policy Framework Section (c) Productive

Policy MP DEV1: Marine Developments				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓	Long term, widespread, minor positive impact	This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), including those protecting geodiversity.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of reported navigational accidents as a result of a marine development (construction or operation) (Source: MCA, LPA and SIC) • Number of applications refused on grounds of incompatibility with other marine users (Source: SIC) • Number of applications where there are potential impacts on the marine environment as a result of infrastructure development (Source: SIC).
Cultural Heritage	✓		This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), including those protecting cultural/ historic heritage.	
Landscape and Seascape	✓		This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), including those protecting landscape/ seascape.	
Biodiversity, Flora and Fauna	✓	Long term, widespread, minor positive impact	This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), including those for natural heritage.	
Air	✓		This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), which includes policy caveats which will positively impact air quality.	

Waste	✓		This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), including the policy relating to waste minimisation.	
Water	✓		This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), including those protecting water ecology.	
Climatic Factors	✓		This policy requires all proposals for marine-related developments comply with all policies included in Policy Framework Sections (a) and (b), including those for climate change mitigation and adaptation.	
Population and Human Health	✓	Long term, widespread, minor positive impact	This policy ensures that any proposal must take into consideration the impacts of development on other users as well as the requirement to comply with all policies included in Policy Framework Sections (a) and (b), including those for communities.	
Economy	✓		This policy requires all proposals for marine-related developments to comply with all policies included in Policy Framework Sections (a) and (b), which includes consideration of other sectors. It promotes co-use and co-location. It provides a clear development steer, which should help to provide transparency, minimise delays, reduce conflict and therefore potentially costs.	

Material Assets	✓		This policy requires all proposals for marine-related developments to comply with all policies included in Policy Framework Sections (a) and (b) which includes consideration of other sectors, including material assets. It promotes co-use and co-location.	

Policy MP DEV2: Decommissioning of Assets				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓	Long term, localised, widespread, positive impact	The removal of redundant equipment will prevent impacts on the benthos and coastal processes.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of developments where a decommissioning plan is requested (Source: SIC, MD-LOT) • Reported instances of redundant equipment
Cultural Heritage	✓		The removal of redundant equipment will prevent long-term negative impacts on the setting of cultural heritage assets.	
Landscape and Seascape	✓		The removal of redundant equipment will prevent long-term negative impacts on landscape/seascape.	
Biodiversity, Flora and Fauna	✓	Long term, widespread minor positive impact	The removal or reuse of redundant equipment will prevent potential negative impacts on habitats and species through the break-up of redundant equipment.	
Air	N/A		N/A	
Waste	✓		The removal or reuse of redundant equipment will reduce the creation of waste through the break-up of redundant equipment.	

Water	✓		The removal or reuse of redundant equipment will prevent potential negative impacts on water through the break-up of redundant equipment.	
Climatic Factors	=		The reuse of redundant equipment has the potential to reduce the use of new materials, potentially reducing greenhouse gas emissions.	
Population and Human Health	✓	Long term, widespread, minor positive impact	The removal or reuse of redundant equipment will prevent potential negative impacts on population and human health through positive effects on visual amenity and reduced pollution.	
Economy	✓		The removal or reuse of redundant equipment will have potential positive impacts on tourism (by avoiding negative visual impacts) and fisheries (by allowing greater access to fishing grounds).	
Material Assets	✓		Reuse of redundant equipment has the potential to create material assets.	

Policy MP DEV3: Development Restricted Areas				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	Long term moderate,	Soils, geology and coastal process will be positively impacted by the protection of important seabed habitats.	**Mitigation:** No further mitigation required. **Monitoring:**

Cultural Heritage	✓✓	localised, positive impact	Cultural heritage will be positively impacted by the protection of important seascapes and recreational opportunities.	• Number of applications which impact a Development Restricted Area (Source: SIC/MD-LOT
Landscape and Seascape	✓✓		Visual amenity and landscape/seascape character will be positively impacted by the protection of Weisdale Voe.	
Biodiversity, Flora and Fauna	✓✓	Long term, localised minor-moderate positive impact	Important species and habitats will be positively impacted by the protection within these areas.	
Air	✓	Long term, localised, minor, positive impact	Protected habitats can act as a carbon sink, helping to reduce atmospheric carbon levels.	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	✓	Long term, localised, minor positive impact	Protected habitats can act as a carbon sink, helping to reduce atmospheric carbon levels.	
Population and Human Health	✓✓	Long term, localised, minor positive impact	Recreational opportunity will be protected within Busta Voe and visual amenity will be protected in localised areas.	
Economy	✓		Protection of visual amenity will have localised positive impacts on tourism.	
Material Assets	✓		Protection of recreational opportunity within Busta Voe will have localised positive impacts on recreational assets.	

Policy MP FISH1: Safeguarding Fishing Opportunities				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓	Long term minor, localised, positive impact	This policy seeks to minimise adverse impacts on important fishing areas including seabed habitats, this will have an overall positive impact on seabed integrity.	**Monitoring:** • Number of applications refused on grounds of incompatibility with fisheries (Source: SIC/ MD-LOT) • Number of applications where there are potential impacts on fisheries or fishing communities (Source: SIC/ MD-LOT). • Fisheries landings (Source: Marine Directorate Science) • Area available to fisheries (Source: SSMO/ UHI Shetland)
Cultural Heritage	✓✓	Long term moderate, widespread, positive impact	This policy seeks to minimise adverse impacts on the cultural importance of fishing.	
Landscape and Seascape	✓	Long term minor, widespread, positive impact	Fisheries and associated industries have shaped current landscape and seascape use.	
Biodiversity, Flora and Fauna	✓✓	Long term, widespread, moderate positive	The main aim of this policy is to protect important fishery grounds (including nursery/spawning areas) from adverse impacts associated with other types of development. The policy seeks to minimise any damage to fishing habitats or fish stocks.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓✓	Long term moderate positive impact	The policy also seeks to sustain this traditional industry which is part of Shetlands culture and history.	

Economy	✓✓	Long term moderate positive impact	This policy seeks to protect commercial fisheries and the fishers whose livelihood depends on this sector. The fishing industry is one of the most important industries in Shetland, employing a large number of people both directly and indirectly through processing, transport, marketing, engineering and supply. Adverse impacts from loss of fishing grounds and/or stocks can include loss of income, loss of jobs and increased pressure on local communities.	
Material Assets	✓	Long term minor positive impact	This is a criteria-based policy which set outs the key considerations to protect fishery grounds. In safeguarding marine fisheries existing infrastructure which supports this industry is also protected.	

Policy MP AQ1: Aquaculture - Key Conditions **Policy MP AQ2: Fish Farm Management Agreements** **Policy MP AQ3: Aquaculture Development Management Plans**				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	××	Continuous, localised, direct and indirect, moderate negative impact	Aquaculture causes a localised negative impact on the benthos. The severity and extent is regulated by SEPA. Locational Guidance for finfish aquaculture restricts the cumulative pressures of sites. The policy requires development to comply with all policies included in Policy Framework Section (a) and	**Mitigation:** The original policy incorporates adherence to Policy Framework Sections (a) and (b) and Policy MP DEV 1. No further mitigation required. **Monitoring:**

			(b) and Policy MP DEV1 which includes protection of geological features.	• Aquaculture production statistics (Source: Marine Directorate Science) • Number of site applications (Source: SIC)
Cultural Heritage	×	Continuous, localised, direct and indirect, minor negative impacts	Aquaculture development can impact the setting of cultural heritage assets as well having the potential to cause direct negative impacts through smothering and abrasion (anchor chains). These impacts are managed through policies within Policy Framework Section (b).	
Landscape and Seascape	×/××	Continuous, localised, reversible, minor-moderate negative impacts	Localised impacts on seascape/landscape and setting are anticipated from the infrastructure associated with aquaculture; however, the policy requires all proposals to comply with all policies included in Policy Framework Sections (a) and (b) which includes policies relating to the protection of landscape/seascape.	
Biodiversity, Flora and Fauna	××	Continuous, localised, direct and in-direct, moderate negative impact	Aquaculture development can cause negative impacts on benthic communities through waste discharge. It can impact birds and marine mammals through noise and disturbance. These impacts are managed through policies within Policy Framework Section (a) and (b).	
Air	?	Continuous, localised, indirect, uncertain impact	Aquaculture production requires the use of boats and subsequently causes the release of relatively small amounts of emissions.	
Waste	×	Continuous, localised, direct, minor	Aquaculture production will generate waste in the form of feed bags, chemical treatment drums, mussel pegs etc. This policy requires all proposals to comply with all policies included in	

		negative impact.	Policy Framework Sections (a) and (b) and Policy MP DEV1 including the policy on the sustainable management of waste. In addition, policy DEV2 requires the consideration of decommissioning of redundant equipment.	
Water	××	Continuous, localised, direct, moderate negative impact	Localised adverse impacts are envisaged however this policy requires all proposals to comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP DEV1 including those protecting water ecology.	
Climatic Factors	=	Continuous, localised, neutral impact	This policy requires all proposals to comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP DEV1 including those for climate change mitigation and adaptation which requires developers to consider resource and energy use and emissions. This policy caveat protects the marine environment from the adverse effects of climate change. Any impacts will be neutral.	
Population and Human Health	✓	Long term, minor positive impacts	Overall positive impacts are envisaged as job opportunities can help promote a sense of wellbeing and improve mental health. Job creation also includes many of Shetland's outer isles and more remote communities (Unst, Yell, Fetlar, Whalsay, Northmavine) where job opportunities are comparatively limited. Aquaculture can negatively impact human health through noise and reduced recreational	

			opportunities, this is however mitigated through policies in sections (a) and (b).	
Economy	✓✓	Long term, moderate positive impacts	Overall positive impacts are envisaged through employment opportunities and income to local community. In addition, there are many supporting industries e.g. fish processing, marine engineering, transportation etc. There is a potential for aquaculture to adversely affect other economic activities such as commercial fishing and navigation. However, Policy MP DEV1 and FISH1 ensures consideration is given to other marine users.	
Material Assets	✓	Long term, minor positive impacts	Aquaculture development can help to support wider infrastructure such as piers and ferries. Potential negative impacts through loss of access are mitigated through policies within Policy Framework Section (a) and (b).	

Policy MP SWD1: Seaweed Cultivation				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	x	Continuous, localised, direct and indirect, minor negative impact	Seaweed cultivation may cause a localised negative impact on the benthos. The policy requires development to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting geological features.	**Mitigation:** No further mitigation required. **External Monitoring:**

Cultural Heritage	×	Continuous, localised, direct and indirect, minor negative impacts	Seaweed cultivation can impact the setting of cultural heritage assets, as well as causing direct negative impacts. These impacts are managed through policies within Policy Framework Section (b).	• Number of site applications (Source: SIC)
Landscape and Seascape	×	Continuous, localised, reversible, minor-moderate negative impacts	Localised impacts on seascape/landscape and setting are anticipated from the infrastructure associated with aquaculture however the policy requires all proposals to comply with all policies included in Policy Framework Sections (a) and (b) which includes policies relating to the protection of landscape/seascape.	
Biodiversity, Flora and Fauna	×	Continuous, localised, direct and in-direct, minor negative impact	Seaweed cultivation may cause negative impacts on seabed biodiversity through loss of seaweed from lines. During harvesting operations birds and marine mammals could be impacted through noise and disturbance. These impacts are managed through policies within Policy Framework Section (a) and (b).	
Air	?	Continuous, localised, indirect, uncertain impact	Seaweed cultivation will require the use of boats during harvesting and subsequently causes the release of relatively small amounts of emissions.	
Waste	×	Continuous, localised, direct minor negative impact.	Seaweed cultivation will require a relatively small amount of material, including lines and floats.	
Water	×	Continuous, localised, minor	It is reported that seaweed cultivation can act as a 'nutrient sink' by taking up inorganic	

		negative impacts	nutrients from the water. However, some research suggests potential negative impacts include reduced water column and benthic production and water quality changes. The policy however does include specific criteria including compliance with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1; only seaweed species native to Shetland will be grown; and there is no artificial enrichment of the marine environment to aid production. This should help to avoid or mitigate adverse effects on water ecology.	
Climatic Factors	✓	Continuous, localised, minor positive impacts	In the future, seaweed cultivation has the potential to become a source of biofuels which is a form of climate change mitigation. However, seaweed cultivation is a relatively new industry in Scotland. Seaweed is also a viable alternative to fertilisers produced from finite sources which also has climate change benefits for the future.	
Population and Human Health	=/ ✓	Continuous neutral-minor positive impact	Overall neutral or positive impacts are envisaged as job opportunities can help promote a sense of wellbeing and mental health.	
Economy	✓	Continuous, localised, minor positive impacts	Seaweed cultivation has the potential to become a commercially viable local industry in Shetland. This policy has the potential to create more local jobs and sustain a local population and level of income.	

Material Assets	✓	Continuous, localised, minor positive impacts	Overall positive impacts are envisaged through employment opportunities and high levels of income to local community. In addition, there are many supporting industries e.g. fish processing, marine engineering, transportation etc. There is a potential for aquaculture to adversely affect other economic activities such as commercial fishing and navigation. However, Policy MP DEV1 ensures consideration is given to other marine users.	

Policy MP NRG1: Renewable Energy Development Proposals				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	x	Continuous, localised, direct and indirect, moderate negative impact	Renewable energy developments can cause damage to the seabed such as direct damage, disturbance and sediment resuspension. Policy MP NRG1 seeks to manage any potential impacts through adherence to specific criteria including the provision of appropriate monitoring and restoration plans and compliance with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of geodiversity.	**Mitigation:** No further mitigation required. **Monitoring:** • Renewable energy production (Source: Marine Directorate Science) • Number of applications permitted for marine renewable energy developments and overall renewable energy
Cultural Heritage	x	Continuous, localised, direct and indirect,	Renewable development can impact the setting of cultural heritage assets, as well having the potential to cause direct negative impacts	

		minor negative impacts	through abrasion (anchor chains). These impacts are managed through policies within Policy Framework Section (b).	generation for Shetland (Source: SIC and MD-LOT). • % of electricity generated in Shetland from marine renewables (Source: SIC and Marine Scotland Science)
Landscape and Seascape	×	Continuous, localised, reversible, minor-moderate negative impacts	The potential visual impacts will be dependent on the type and scale of development proposed i.e. underwater tidal devices may not be visible whereas wind farms and some surface wave devices may have adverse visible impacts. Offshore devices however may not be perceived as intrusive in comparison to onshore developments, and this may be attributed to the sensitivities of the receptors. Each development therefore will be assessed on its merits. Policy MP NRG1 seeks to manage any potential impacts through adherence to specific criteria including compliance with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of landscape/ seascape.	
Biodiversity, Flora and Fauna	×/××	Continuous, localised, direct and in-direct, moderate negative impact	Renewable energy developments can result in adverse impacts on biodiversity such as seabed damage, disturbance, displacement, collision risk, electro-magnetic changes. Policy MP NRG1 seeks to manage any potential impacts through adherence to specific criteria including the provision of appropriate monitoring and restoration plans and compliance with all policies included in Policy Framework Section (a) and (b) and Policy MP	

			DEV1 including the protection of natural heritage.	
Air	✓✓	Continuous, indirect, moderate positive negative impact.	As a 'green' technology marine renewable energy developments have the potential to reduce overall carbon and nitrogen emissions, helping to indirectly improve air quality.	
Waste	N/A	N/A	N/A	
Water	x	Temporary short term, localised, minor negative impacts.	Renewable energy developments can cause incidences of pollution from leaks and spills from vessels, oil and hydraulic fluid from barges, anti-corrosion coatings etc. In addition, during construction renewable energy development can remobilise sediment causing a decline in water quality; however, this would be very localised and temporary. Polic MP NRG1 seeks to manage any potential impacts through adherence to specific criteria including the provision of appropriate monitoring and restoration plans and compliance with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of water ecology.	
Climatic Factors	✓✓	Medium term, moderate positive impacts.	One of the main overall benefits from renewable energy development will be the provision of alternative energy sources to carbon emitting sources. Clean technologies are a means of climate mitigation which is	

			supported by the Scottish Government and will have an overall positive impact on our climate. Renewable energy development and generation contribute to the UK and Scottish climate change targets.	
Population and Human Health	✓	Long term, minor positive impacts	The provision and alternative use of clean technology will have positive impacts on human health through the reduction of carbon emitting developments.	
Economy	✓✓	Long term, moderate positive impacts	The growth of the renewable energy sector in Shetland is expected to bring positive impacts to the local community through the provision of jobs and sustaining the local population. It is noted that the growth in renewables could result in adverse impacts to other industries reliant on the same resources/infrastructure. However, Policy MP DEV1 requires early consultation with other marine users and that co-existence options with other marine users is considered. The delivery of renewable energy projects is likely to generate investment in the economy and the existing supply chain.	
Material Assets	✓	Long term, minor positive impacts	Marine renewable development can help to support wider infrastructure such as piers and ports. Potential negative impacts through loss of access are mitigated through policies within Policy Framework Section (a) and (b).	

Policy MP EX1: Extraction of Sand, Gravel and Shingle				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	××	Direct, localised, moderate negative impact	Potential impacts include physical damage to the seabed, sediment disturbance, and coastal erosion. This criteria-based policy ensures that extraction only occurs as a last resort.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of applications permitted for sand and gravel extraction (Source: SIC, LPA and MD-LOT).
Cultural Heritage	×	Short term, direct and indirect, minor negative impacts	The extraction of sand, gravel and shingle has the potential to cause direct damage to cultural heritage assets, as well as exacerbating coastal erosion. However, this policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of cultural heritage.	
Landscape and Seascape	=	N/A	While coastal erosion has the potential to impact landscapes and seascapes, policy caveats and the wider policy framework mitigate against such impacts.	
Biodiversity, Flora and Fauna	×	Medium term, minor negative impact	The aim of this policy is to protect the seabed, benthic communities and coastline from damaging extraction. Potential impacts include physical damage to the seabed, sediment disturbance, noise (& vibration) and displacement. Indirectly, aggregate extraction can cause physical changes to bathymetry and hydrodynamic processes. The criteria in this policy will protect natural heritage from the	

			potential impacts through avoidance and mitigation measures.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	×	Medium term, minor negative impact	Aggregate extraction can cause sediment plumes caused by disturbance, overflow when loading sediments and by screening of aggregate for end user requirements. This can cause detrimental effects to water quality. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of water quality and ecology.	
Climatic Factors	×	Medium - long term, minor negative impact	Sediment stores along the coast provide a natural coastal defence role against flooding arising from sea level rise. Excessive or inappropriate aggregate extraction could exacerbate flood risk and coastal change from increased erosion rates and changes to coastal processes. This policy protects beaches and the coastline from damaging extraction which could reduce the sedimentary store of a donor beach. The policy specifically requires development proposals to include an assessment of the physical effects of the operation and its implications for coastal	

			erosion. This will help to avoid and mitigate any potential adverse effects.	
Population and Human Health	✓	Medium term, minor positive impact	Sand, gravel or shingle extraction has the potential to result in coastal erosion and flooding and reduce or impact public resources including bathing beaches. This policy protects against the adverse effects of damaging extraction to human health.	
Economy	=	Medium term, positive impact and negative impacts	Aggregate extraction can make an important contribution to the local economy through provision of jobs and as a resource to support other industries. Currently marine aggregate extraction is only undertaken on a small scale, primarily for agricultural purposes. There is the potential for aggregate extraction to negatively impact on other economic activities such as commercial fishing and navigation. It could also cause coastal erosion. However, the policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting other marine users, navigation and ensuring early stakeholder engagement.	
Material Assets	✓	Medium term, minor positive impact	This is a criteria-based policy which sets out key conditions for extraction of sand, gravel and shingle. The policy requires all proposals to comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP	

			DEV1, which considers the impacts on other users and infrastructure.	

Policy MP TR1: Tourism and Leisure Developments				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	×	Long term, local minor negative impact	This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of geodiversity features. This policy shows a commitment to sustainable tourism and leisure developments which assist in protecting the seabed from impacts such as anchor damage.	**Mitigation:** No further mitigation required**.** **Monitoring:** • Number of applications permitted for sand and gravel extraction (Source: SIC, LPA and MD-LOT).
Cultural Heritage	✓/×	Minor positive and minor negative impact	This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural heritage. However, it is acknowledged that tourism development may be associated with historic and cultural heritage features and will be supported where there are no adverse impacts on the historic/cultural feature itself. Increased sustainable tourism and recreation has the potential to increase knowledge and understanding of the marine historic environment by increased interest and potential increased investment in this sector.	

Landscape and Seascape	✓/×	Continuous, localised, direct and indirect, minor positive and negative impacts	Sustainable tourism and recreation in the marine environment should support the quality of the landscape/seascape on which it is reliant and can have a positive impact. It is noted that associated infrastructure supporting recreational and tourism developments could have minor negative impacts on the landscape/seascape. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for landscape/seascape.	
Biodiversity, Flora and Fauna	✓/×	Continuous, Minor positive and minor negative impact	Increased tourism can lead to disturbance to wildlife, trampling effects etc. This policy supports the sustainable development of tourism and leisure amenities. However, the policy specifies that all proposals must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting natural heritage. This should ensure any potential adverse impacts on biodiversity are avoided or mitigated. The policy can also potentially improve the management of local resources in order to support the recreational activity having a beneficial impact to the biodiversity, flora and fauna.	
Air	N/A	N/A	N/A	
Waste	×	Continuous, Localised,	Increased recreation and tourism have the potential to create additional waste and litter in	

		minor negative impact	the marine environment due to increased numbers of visitors. The policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 the sustainable management of waste.	
Water	x	Local minor negative impact	This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of water ecology.	
Climatic Factors	=	Neutral impact	This policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for climate change mitigation and adaptation. This policy caveat protects the marine environment from the adverse effects of climate change. Any impacts will be neutral.	
Population and Human Health	✓	Long term, minor positive impact	Sustainable developments for tourism and recreation can have a positive impact on people's mental and physical health and wellbeing through increased access to the marine and coastal environment and its amenity value.	
Economy	✓✓	Long term, widespread, moderate positive impact	Shetland's economy is becoming increasingly reliant on its service sector and tourism has the greatest potential to grow in this sector. New tourism developments can create additional jobs through a variety of the service sectors having a beneficial effect on the local economy.	

Material Assets	✓✓	Long term, moderate positive impact	This is a criteria-based policy which sets out key conditions for tourism and leisure development. It includes a specific policy caveat which promotes the potential sharing and enhancement of infrastructure with other marine users. In addition, the policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.	

Policy MP SA1: Shore Access and Moorings				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	x	Continuous, localised, direct and indirect, minor negative impact	Adverse impacts would be generated during construction of any moorings, slipways, piers and marinas which could cause direct damage to the seabed. Permanent structures will encapsulate sediments/seabed habitats. In addition, they can cause changes in sediment movement. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of geodiversity features.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of applications permitted for shore access and moorings (Source: SIC, LPA and MD-LOT).
Cultural Heritage	x	Continuous, localised, direct and indirect,	Shore access developments have the potential to change the setting of cultural heritage features and to impact seabed assets such as wrecks or historic piers/slipways etc. This policy	

		minor, negative impact	specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural/historic heritage.	
Landscape and Seascape	×	Minor, negative impact	This policy aims to protect the character of the coastal zone from inappropriate development, and to direct development requiring a coastal location to areas with existing development, or sites where the character of the coastal zone could accommodate such development. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for landscape/seascape.	
Biodiversity, Flora and Fauna	×	Minor, negative impact	This policy aims to protect the character of the coastal zone from inappropriate development and direct development requiring a coastal location to areas with existing development, or sites where the character of the coastal zone could accommodate such development. This will ensure that any potential adverse impacts on biodiversity are minimised or mitigated. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of natural heritage.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	

Water	×/=	Short term, localised' minor negative/ neutral impact	Potential impacts to water quality and ecology would be related to potential sediment disturbance from proposals and the potential for pollution events during construction and from increased vessels. However, this policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of water ecology.	
Climatic Factors	=	Neutral impact	This policy supports the sustainable development of shore access and moorings and that developers need to consider the likelihood of increased erosion or tidal inundation resulting from the development. Proposals from developers are required to consider the potential impacts of climate change and the likelihood of sea level rise and increased storminess.	
Population and Human Health	✓	Long term, minor positive impact	Shore access and mooring are important infrastructure for waterborne activities and can help contribute to a community's well-being.	
Economy	✓	Long term, minor positive impact	This policy supports the sustainable development of shore access and moorings for the benefit of industry and communities. Encouraging access to the marine and coastal environment can have a beneficial impact to the local economy and economic growth.	
Material Assets	✓	Long term, minor positive impact	This is a criteria-based policy which sets out key conditions for shore access and mooring. It includes a specific policy caveat which	

			promotes development of infrastructure within existing localities. In addition, the policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.	

Policy MP CBP1: Placement of Utility Cables and Water Pipelines				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	×	Localised, continuous, minor negative impact	The placement and burial of cables and pipelines have the potential to disturb sediments and cause erosion. The policy requires development to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 which includes protection of geological features.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of applications permitted for utility cables and pipelines (Source: SIC, LPA and MD-LOT).
Cultural Heritage	×	Localised, short term, minor negative impact	The laying, maintenance and decommissioning of cables and pipelines can have an adverse impact on underwater cultural heritage through disturbance. Landfall of the cable and pipelines can also have potential impact. However, this policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural/historic heritage.	

Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	×	Localised, short term, minor negative impact	The laying, maintenance and decommissioning of cables and pipelines can have an adverse impact on the environment through seabed disturbance, habitat loss and avoidance behaviours.[22] Electromagnetic fields (EMF) and thermal radiation can potentially cause adverse impacts from cables. EMF has the potential to affect navigation and migration in sensitive species however the extent of these effects is still largely unknown and are subject to ongoing research. Thermal radiation of cables may cause localised effects on benthic organisms. This policy specifies that development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for the protection of natural heritage.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	×	Localised, short term, minor negative impact	The laying, maintenance and decommissioning of cables and pipelines can have an adverse impact on the environment through increased sediment in the water column and through habitat disturbance which would affect water quality, however this would be localised and short term. This policy specifies that the	

[22] OSPAR Commission. (2012). Assessment of the environmental impacts of cables. [Accessed January 2018)]

			development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including the protection of water ecology.	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓	Long term, minor positive impacts	Cables and pipelines are important infrastructure for local communities and businesses. Connectivity (in terms of utilities) is particularly important for remote island communities.	
Economy	✓✓	Long term, moderate positive impacts	Cables and pipelines are important infrastructure for communities and businesses. This policy supports the sustainable development of this infrastructure.	
Material Assets	✓/×	Long term, minor positive impacts	New utility cables and pipelines would form part of Shetland's material assets. There are potential adverse impacts on other industries such as commercial fishing, particularly towed gear. This is a criteria-based policy which sets out key conditions for the placement of cables and pipelines. The policy requires all proposals to comply with all policies included in Policy Framework Sections (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users	

Policy MP CBP2: Placement of New Domestic and Trade Wastewater Pipelines				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	×	Short term, minor negative impact	There is a general presumption against the laying of new wastewater pipelines however, where it is necessary this policy aims to minimise any potential adverse effects and specifically requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for soils and geodiversity.	**Mitigation:** No further mitigation required. **Monitoring:** • Number and locations of domestic and trade wastewater pipes (Source: SIC, LPA, MD-LOT, SEPA)
Cultural Heritage	×	Localised, minor negative impact	This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural/historic heritage.	
Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	×	Direct and indirect, minor negative impact	Wastewater pipes could impact biodiversity through direct loss/impact on benthic communities and through a reduction in water quality from effluent discharge. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for the protection of natural heritage and water quality.	
Air	N/A	N/A	N/A	

Waste	=	Neutral impact	This is a criteria-based policy which sets out key conditions for the placement of new wastewater pipelines. The aim of this policy is to ensure that wastewater arrangements, where permitted, are properly sited and have no public health or pollution impacts on the surrounding area. In areas served by wastewater schemes, new developments are connected to the existing system.	
Water	✓	Long term, minor positive impact	There is a general presumption against the laying of new wastewater pipelines. The aim of this policy is to ensure that wastewater arrangements, where permitted, are properly sited and has no public health or pollution impacts on the surrounding area. However, where it is necessary this policy aims to minimise any potential adverse effects and specifically requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for the protection of water ecology. Any impacts will be neutral.	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	✓	Short term, minor positive impact	The aim of this policy is to ensure that wastewater arrangements, where permitted, are properly sited and have no public health or pollution impacts on the surrounding area.	
Economy	✓	Continuous, minor positive impact	The aim of this policy is to ensure that wastewater arrangements, where permitted, are properly sited and have no public health or	

			pollution impacts on the surrounding area which can have knock-on beneficial economic impacts.	
Material Assets	✓	Short term, minor positive impact	The policy also requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.	

Policy MP MO1: Commercial Moorings				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	×	Short term, localised minor negative impact	Sporadically placed moorings combined with the cumulative impact of numerous mooring chains have the potential to cause substantial seabed damage over a wide area. This policy therefore seeks to encourage moorings in designated places, and it also specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for geodiversity.	**Mitigation:** No further mitigation required. Monitoring: Number of applications for commercial moorings (Source: SIC, LPA, MD-LOT)
Cultural Heritage	×	Short term, localised minor negative impact	Mooring chains have the potential to negatively impact seabed heritage assets. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural/historic heritage.	

Landscape and Seascape	×	Short term, localised minor negative impact	Moorings have the potential to impact landscape/seascape. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for landscape/ seascape.	
Biodiversity, Flora and Fauna	×	Short term, localised minor negative impact	Sporadically placed moorings combined with the cumulative impact of numerous mooring chains have the potential to cause benthic impacts. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for the protection of natural heritage.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	N/A	N/A	N/A	
Economy	✓✓	Long term, localised positive impact	Commercial moorings are an important aspect to the running of many developments. The policy permits the deployment of moorings where necessary, provided that existing uses and users are considered.	
Material Assets	✓	Long term, localised minor positive impact	This is a criteria-based policy which sets out key conditions for the placement of commercial moorings. The policy requires all proposals to comply with all policies included in Policy	

			Framework Sections (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.	

Policy MP CD1: Coastal Defence Construction				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	✓✓	Long term, localised, moderate positive impact.	This is a criteria-based policy which requires any development to demonstrate the wider implications of exacerbating flooding or coastal erosion processes elsewhere. This will ensure that any defence construction will be sustainable with minimal adverse effects on coastal processes.	**Mitigation:** No further mitigation is required. **Monitoring:** • Number of applications for features which protect coastal erosion (Source SIC, LPA, MD-LOT) • Areas of coast subject to coastal change (National Coastal Change Assessment)
Cultural Heritage	✓✓	Long term, moderate positive impact	This policy aims to protect infrastructure and important built development including historic assets from the adverse effects of coastal erosion or flooding. Important tourist facilities would also be considered.	
Landscape and Seascape	✓✓	Long term, moderate positive impact	This is a criteria-based policy which requires any development to ensure the retention or enhancement of landscape character and popular coastal views. This will ensure that any defence construction will be sustainable with minimal adverse effects on landscape character.	
Biodiversity, Flora and Fauna	×/✓	Localised, negative and	This is a criteria-based policy which requires the retention or enhancement of ecological characteristics. Some localised impact of	

		positive impacts.	biodiversity may occur due to the construction of hard defences. The policy may help to protect marine habitats and species from inundation or erosion.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	=	Neutral impact	This policy is a response to the impacts of climate change i.e. adaptation to sea level rise/ increased flooding and storminess. Any impacts will be neutral.	
Population and Human Health	✓✓	Long term, moderate positive impact.	This policy is to safeguard people and infrastructure from the adverse effects of flooding and erosion. It will therefore have an important positive impact on communities located within areas vulnerable to flooding.	
Economy	✓✓	Long term, moderate positive impact.	Coastal erosion and flooding can adversely affect people's income, both from the loss of intertidal areas and in some cases terrestrial rural productive land. Erosion can have an effect on local property value for both residential and commercial properties.	
Material Assets	✓✓	Long term, localised moderate positive impact.	This policy aims to protect infrastructure and important built development from coastal erosion or flooding. This will safeguard existing developments and industries reliant on coastal buildings and infrastructure within vulnerable areas.	

Policy MSP CD2: Coastal Defence Demolition				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	=	Neutral impact	The policy specifies that the demolition of coastal defence materials will only be permitted when it can be demonstrated that there are no adverse impacts for the environment, landscape or land use. Any proposal must also consider potential re-use of material and implications for reinstatement. These policy caveats will ensure any impacts on soil, geology or coastal processes will be minimal or neutral	**Mitigation:** This policy incorporates compliance with Policy Framework Section (a) and (b). No further mitigation is required. **Monitoring:** • Number of applications for coastal defence demolition (Source SIC/ LPA)
Cultural Heritage	=	Neutral	This is a criteria-based policy which requires any development to take into account the historic value of the structure in its surrounding. This will ensure that any adverse impact on the historic value from the demolition will be avoided or minimised.	
Landscape and Seascape	=	Neutral	The policy specifies that the demolition of coastal defence materials must take into consideration any adverse impacts for the landscape. This caveat ensures that any adverse impact on the landscape from the demolition will be avoided or minimised.	
Biodiversity, Flora and Fauna	=	Neutral impact	The policy specifies that the demolition of coastal defence materials must take into consideration any no adverse impacts for the environment, landscape or land use. The	

			criteria also require consideration of value to species and habitats, such as providing a substrate for an important rocky shore habitat, or shelter for otters.	
Air	N/A	N/A	N/A	
Waste	✓	Long term, minor positive impacts	The policy requires proposals to consider the potential to re-use material which minimises waste	
Water	=	Neutral impact	This policy ensures compliance with Policy Framework Section (a) and (b) which includes compliance with Policy MSP WAT1which will protect water bodies from any adverse effects	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	N/A	N/A	N/A	
Economy	✓	Long term, minor positive impacts	The policy ensures any demolition work will not have an adverse impact on land use. This protects coastal businesses, infrastructure and industries from any significant negative impacts arising from the demolition.	
Material Assets	✓	Long term, minor positive impacts		

Policy MP TRANS1: Port and Harbour Related Development				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	×	Continuous, minor negative impacts	Port and harbour related development may result in adverse impacts on the seabed. This policy however specifies that development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for geodiversity.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of harbour related projects (Source SIC/LPA)
Cultural Heritage	×	Short term, minor negative impacts	Port and harbour development could affect the setting of cultural heritage assets and seabed assets such as wrecks. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural/historic heritage.	
Landscape and Seascape	×	Continuous, minor negative impacts	It is possible that any port or harbour development will result in changes to landscape and seascape. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for landscape/seascape in order to avoid or mitigate any potential adverse effects.	
Biodiversity, Flora and Fauna	×	Short term and continuous, minor negative impacts	Adverse impacts on biodiversity could occur during construction, which would be temporary, or long-term during operation stages of the development.	

			Impacts could include damage or loss of habitats both subtidal and intertidal, noise and vibration issues from equipment use such as piling, vessels and dredging operations and disturbance altering behaviours of mobile species. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for the protection of natural heritage.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	×	Short term, minor negative impacts	Port or harbour development could result in adverse impacts on water quality particularly during construction stages. Potential impacts include suspended sediments, accidental leaks or spillage, unlawful discharges and generation of waste waters. This policy however specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for protecting water ecology.	
Climatic Factors	=	Neutral impact	This policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for climate change mitigation and adaptation which requires developers to consider resource and energy use and	

			emissions. This policy caveat protects the marine environment from the adverse effects of climate change. Any impacts will be neutral.	
Population and Human Health	✓	Long term, moderate positive impacts	This policy supports the sustainability of industry for the benefit of the local community in terms of connectivity and accessibility and access to resources.	
Economy	✓✓	Long term, moderate positive impacts	Ports and harbours are a vital economic driver and a key part of the Shetland Islands infrastructure. The majority of industry sectors rely on ports and harbours for some aspect of trade due to the island nature of Shetland. In addition, ports and harbours support a wide range of sectors including oil and gas, renewable energy, manufacturing and tourism. This policy supports the development of ports and harbours as they have long term beneficial impacts for the local community in terms of job provision and income. These developments also help to sustain and improve accessibility.	
Material Assets	✓	Long term, moderate positive impacts	This is a criteria-based policy which set outs key conditions for port and harbour related development. The policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.	

Policy MP TRANS2: Future Fixed Links/Ferry Terminals				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	×	Short term, minor negative impact	Future fixed links and ferry terminals may result in adverse impacts on the seabed. This policy however specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for geodiversity.	**Mitigation:** No further mitigation required. **Monitoring:** • Number of ferry and fixed link projects (Source: SIC/LPA) • Location of fixed link projects • Passenger numbers (Source: SIC/Scottish Government)
Cultural Heritage	×	Short term, minor negative impact	Future fixed links and ferry terminals may result in adverse impacts on the seabed. This policy however specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural/ historic heritage.	
Landscape and Seascape	×/××	Continuous, minor-moderate negative impact	It is possible that any future fixed link/ferry terminal development will result in impacts on landscape and seascape character. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for landscape/seascape in order to avoid or mitigate any potential adverse effects.	
Biodiversity, Flora and Fauna	×/××	Continuous-short term, minor-moderate	Adverse impacts on biodiversity could occur during construction, which would be temporary or long-term during the operation stages of the development.	

		negative impact	Impacts could include damage or loss of habitats both subtidal and intertidal, noise and vibration issues from equipment use such as piling, vessels and dredging operations and disturbance altering behaviours of mobile species. This policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for the protection of natural heritage.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	N/A	N/A	N/A	
Climatic Factors	=	Neutral impact	This policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for climate change mitigation and adaptation which require developers to consider resource and energy use and emissions. This policy caveat protects the marine environment from the adverse effects of climate change. Any impacts will be neutral.	
Population and Human Health	✓✓	Long term, moderate positive impacts	This policy supports the development of future fixed link/ferry terminal developments as they have long term beneficial impacts for the local community through connectivity and access to areas of amenity value which can help with physical and mental wellbeing.	

Economy	✓✓	Long term, moderate positive impacts	This policy supports the development of future fixed link/ferry terminal developments as they have long term beneficial impacts for the local community in terms of job provision and income. These developments also help to sustain local communities and improve lifeline ferry services.	
Material Assets	✓	Long term, minor positive impacts	This is a criteria-based policy which sets out key conditions for any future fixed link/ferry terminal development. The policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.	

Policy MP DD1: Dredging and Disposal of Dredged Material				
SEA Topic	**Impact**	**Nature of the Impact (scale, duration etc.)**	**Comments**	**Any specific mitigation/monitoring**
Soils, Geology and Coastal Processes	×/××	Medium term, localised minor-moderate negative impact	Dredging/disposal activity will result in adverse impacts on the seabed. This policy however specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for geodiversity.	**Mitigation:** No further mitigation required. **Monitoring:** • Number, volume and location of dredge and disposal licences issued (Source: MD-LOT)
Cultural Heritage	×	Short term, localised minor negative impact	Dredging and disposal of material can result in the disturbance to or loss of underwater heritage assets. The magnitude of the effect will be dependent on the location and scale of dredging activity. However, this policy specifies	

			that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for cultural/ historic heritage.	
Landscape and Seascape	N/A	N/A	N/A	
Biodiversity, Flora and Fauna	x	Short term, localised minor negative impact	It is likely that any dredging/disposal activity will result in adverse impacts on biodiversity however these are likely to be one-off (capital) or temporary/long term (maintenance). Impacts include direct loss of and/or damage to the seabed and the habitats and species it supports. Suspended sediments resulting from dredging activities could cause smothering or blanketing of subtidal communities. Additional disturbance can be from noise and vibrations during dredging operations. The policy specifically protects European sites located close to existing disposal sites. In addition, the policy specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for the protection of natural heritage.	
Air	N/A	N/A	N/A	
Waste	N/A	N/A	N/A	
Water	xx	Short term, localised, moderate	It is likely that any dredging/disposal activity will result in negative impacts on water quality however these are likely to be one-off (capital) or temporary/ long term (maintenance).	

		negative impact	Impacts include an increase in suspended sediments resulting in decreased water quality and associated impacts on water ecology. In addition, depending on the scale of development dredging can cause physical changes to the bathymetry and hydrodynamic process which could further affect water quality. This policy however specifies that the development must comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those for protection of water ecology.	
Climatic Factors	N/A	N/A	N/A	
Population and Human Health	=	Neutral	This policy supports the sustainability of ports and harbours for the benefit of industry and local community in terms of connectivity and accessibility. Changes is water quality have the potential to have minor impacts on human health.	
Economy	✓✓	Long term, localised moderate positive impact	Dredging and the marine disposal of dredged material are activities necessary for the viability of the marine shipping and transport industry of the Shetland Islands and also the tourism and recreation sector. This policy supports the sustainability of this industry for the benefit of the local community in terms of employment and accessibility.	

Material Assets	✓	Long term, localised minor positive impact	This is a criteria-based policy which sets out key conditions for any future dredging activity and disposal of dredged material. The policy requires all proposals to comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 including those protecting the community and other marine users.	

13 Appendix 2

13.1 Relationship with other Plans, Programmes, Strategies and Environmental Objectives

Table 26 Relationship with other plans, programmes, strategies and environmental objectives

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Marine - Overarching		
United Nations Convention on the Law of the Sea (UNCLOS) 1982	UNCLOS provides an overarching framework for the marine environment. It sets national jurisdictions and establishes 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, 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.	The Shetland Islands are an important navigational route for ferries, fishing vessels and freight (it is part of the Inshore Traffic Route). Consideration will need to be given to protecting the right of navigation.
The OSPAR Convention	The 1992 Convention for the Protection of the Marine Environment of the Northeast Atlantic aims to contribute to the control and prevention of marine pollution within the waters of the Northeast Atlantic (which includes all UK waters), as well as scientific co-operation in assessing the quality of these waters. Annex V of the OSPAR convention also provides for the adoption of	The SIRMP must consider measures to prevent pollution and protect and conserve the ecosystem of the maritime area and include provision for priority species and habitats.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	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 quality of the marine environment; and protection and conservation of the ecosystem and biological diversity of the marine area.	Activities will be required to be compliant with national legislation implementing OSPAR recommendations and decisions.
EC Integrated Maritime Policy for the European Union (Blue paper) COM (2007) 575	This policy 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 SIRMP should consider how to fulfil the objective of the policy including maximising 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)	These guidelines aim 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 new, cross-cutting, integrated approach to the governance of maritime affairs. Member States should develop their own national integrated	The SIRMP should consider how best to support the implementation of a holistic approach to marine governance.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	maritime policies, embracing economic, social, cultural and environmental contexts, with active stakeholder participation and being implemented through marine spatial planning.	
EC Marine Strategy Framework Directive (2008/56/EC)	The Marine Strategy Framework Directive (MSFD) establishes an overarching approach to the management of Europe's seas. 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 northeast Atlantic, to monitor, assess and report progress towards GES; and to implement a programme of measures to achieve or maintain GES targets. Scotland's NMP adopts the GES descriptors as strategic objectives.	The SIRMP should consider the implications of the plan on biodiversity, habitats, flora and fauna, contaminants, marine litter and underwater noise.
EC Directive Establishing a framework for maritime spatial planning (2014/89/EU)	The Directive sets out the fundamental elements that must be reflected in Maritime Spatial Plans, ranging from the application of an ecosystem-based approach to spatial planning of marine resources to the promotion of 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 development of the Directive acknowledged that some EU Member States already had considerable experience in the assessment and planning of marine resources.	The SIMSP should reflect the requirements of the Directive including the application of the ecosystem-based approach.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Safeguarding Our Seas: A Strategy for the Conservation and Sustainable Development of our Marine Environment. Defra (2002).	This report 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.	Consider the SIRMP in the context of the UK policy for the marine environment.
Marine and Coastal Access Act, 2009 and 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 the SIRMP and therefore it should consider the legislative requirements detailed within the Act.
UK Marine Policy Statement (MPS)	The MPS is the framework for preparing Marine Plans and taking decisions affecting the marine environment. It will contribute to the achievement of sustainable development in the UK marine area. It has been prepared and adopted for the purposes of section 44 of the Marine and Coastal Access Act 2009.	The SIRMP should conform to the UK MPS as set out in the 2010 Act.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Guidance to the UK Marine Policy Statement from 2021 (2020)	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 SIRMP 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.	An integration exercise will ensure that key plans, policies and strategies (PPS) are considered in the development of the SIRMP.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	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.	
Scotland's National Marine Plan (NMP)	The overall aim of the NMP is to provide a planning framework to manage competing demands for the use of the sea whilst protecting the marine environment. The NMP includes national objectives to achieve clean and safe; healthy and biologically diverse; and productive seas. The NMP also includes sectoral objectives, challenges and policies for fisheries and aquaculture; energy; tourism and recreation; marine transport; telecommunication and cables, natural and built heritage; water and aggregates and disposal.	The NMP provides a framework and sets objectives which inform the development of regional marine plan. All policies and objectives within the SIRMP will need to align with those contained within the NMP.
Scottish Marine Regions Order (2013)	The Act provides for the delegation of marine planning functions to a regional level. The act designates 11 Scottish marine regions for the Scottish marine area and identifies their boundaries; the co-ordinates establishing the marine region boundaries; and the names of the regions suggested. The SIRMP area is defined within this Order.	This Order defines the area in which the SIRMP should be developed.
Coast Protection Act, (1949)	The Coast Protection Act 1949 (part I) empowers Local Authorities with coastlines (termed 'Coast Protection Authorities' in the Act) to carry out coast protection work inside and outside their area as necessary, subject to the approval of the Scottish Government.	Consider the aims of the legislation for coastal protection.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
The Scottish Crown Estate Act (2019)	makes provision for the management of the Scottish Crown Estate; and for connected purposes.	The SIRMP 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 SIRMP 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) and associated Implementation Plan	Provides a framework for action to meaningfully improve outcomes for island communities.	The SIRMP should pay due regard to the National Plan for Scotland's Islands.
Food and Environment Protection Act, (1985)	Part II protects the marine ecosystem and human health by controlling the deposit of articles or materials or scuttling of vessels in the sea or tidal area. However, Part II has largely been repealed under the Marine Scotland Act, 2010 and now applies only to certain reserved activities carried on in the Scottish marine area.	Consider the SIRMP in relation to certain reserved activities carried out in the marine area.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Zetland County Council Act (1974)	Under the Zetland County Council Act 1974 (the Act of 1974), as amended, the Shetland Islands Council has a duty to promote the conservancy of, and control of development in, the coastal area of Shetland, with the exception of those areas under the jurisdiction of Lerwick Port Authority or Broonies Taing Pier Trust. The Council's Works Licence Policy, adopted as a standalone policy document, provides guidance to all involved in the process of considering proposals that fall within the scope of the Act of 1974. In general terms, it means the placing of 'works', as defined by the Act of 1974, in the sea, on the seabed or on the foreshore below Mean High Water Springs (MHWS) and out to 12 nautical miles. 'Works' means developments of all types, excluding those for the purposes of marine fish farming.	Consider how the SIRMP can support local regulations.
Sustainable Development		
United Nations Conference on Environment and Development (UNCED, Earth Summit), the 'Rio Declaration'	UNCED reviewed the linkages between economic and social development and environmental protection and adopted Agenda 21. Chapter 17 of this agenda provides for 'protection of the oceans all kinds of seas including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources'.	The SIRMP should consider the UK's international priorities for sustainable development arising from this declaration.
World Summit on Sustainable Development (WSSD)	The commitments made at the WSSD have contributed to the development of Marine Spatial Planning (MSP) at both the	The SIRMP should be founded on the principles of the

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	international and European level. As well as establishing a UN system for marine monitoring by 2004 the WSSD included a number of commitments relevant to MSP, including: • Encouraging the ecosystem approach to marine management by 2010 • Setting up representative marine protection networks by 2012 Restoring depleted fish stocks to maximum sustainable yields by 2015 'where possible'.	ecosystem approach and the precautionary approach.
The EU's Sustainable Development Strategy (SDS) (2001, 2006)	• The EU SDS sets out a single coherent strategy on how the EU will live up to its long-standing commitment to meet the challenges of sustainable development. The overall aim of the EU SDS is to identify and develop actions to enable the EU to achieve a continuous long-term improvement of quality of life through the creation of sustainable communities able to manage and use resources efficiently, able to tap the ecological and social innovation potential of the economy and in the end be able to ensure prosperity, environmental protection and social cohesion.	The SIRMP should consider how best to inform on sustainable development and environmental protection.
Environment		
Aarhus Convention (1998) and Directive 2003/35/EC	The Aarhus Convention establishes a number of rights of the public (individuals and their associations) with regard to the environment:	The SIRMP should consider how best to ensure inclusivity

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	- 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.	and transparency in the development and dissemination of the plan.
Environment Action Programme (EAP)	The 8th EAP is a decision of the European Parliament and the Council and covers the period up to 2030. It had nine priority objectives which range from conversing our natural capital, improve environmental knowledge and effectively meeting the challenges of climate change.	The SIRMP should consider the plans ability to assist the EU to meet the nine objectives including covering natural capital, increase environmental knowledge basis, integrating environmental concerns into policy, meeting climate change challenges, and ensure resource efficient low-carbon economies.
Environmental Impact Assessment (EIA) Directive (85/337/EEC) amended (97/11/EC)	This Directive requires an Environmental Impact Assessment (EIA) and a public consultation document, an Environmental Statement (ES) to be submitted for certain projects considered likely to have a significant impact on the environment.	The SIRMP should consider how it can best inform on effective and provide baseline information to inform EIA and site selection.

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Strategic Environmental Assessment (SEA) Directive 2001/42/EC	The aim of the SEA Directive is to ensure that environmental consequences of certain plans, programmes and policies are identified and assessed during their preparation and before their adoption. SEA will contribute to more transparent planning by involving the public and by integrating environmental considerations, helping to achieve the goal of sustainable development.	The SIRMP should consider the requirements when developing the plan and policies.
Environmental Assessment (Scotland) Act (2005)	This Act transposes the SEA Directive into Scottish legislation. It requires the preparation of an environmental report and a consultation exercise, and the taking into account of the environmental report and the result of the consultation exercise in decision making.	Consider the SIRMP in the context of the UK policy for SEA.
Environmental Impact Assessment Regulations (various)	The provisions of the EIA Directive have been transposed in part into Scottish legislation as follows: • 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	The SIRMP should consider how it can best inform on effective EIA using MSP.
The Town and Country Planning (Scotland) Act, (1997)	Under this Act planning permission is required from the local authority for coastal developments (piers, jetties, slipways, marinas	The SIRMP will be used as a resource when assessing planning applications and will

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	etc.) located above the level of mean low water springs (MLWS), and also for marine fish farm developments.	need to help the alignment of coastal and marine issues.
The Planning Etc. (Scotland) Act, (2006)	• This act 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 SIRMP can guide sustainable development.
Planning Circular: The relationship between the statutory land use planning system and marine planning and licensing (2013)	All developments and activities which take place in Scotland's seas have implications onshore too – ranging from changing infrastructure requirements to the impacts on communities of economic growth or decline. The Scottish Government has produced a circular which explores the linkages between the marine and terrestrial planning systems and provides guidance about joint working	Consider how the SIRMP can inform on how to integrate land and marine planning.
National Planning Framework for Scotland, (2014) Scotland's third national planning framework	The third National Planning Framework for Scotland (NPF3) was published in June 2014. It set out a strategy for the spatial development of Scotland to 2030, providing a framework for planning focusing on sustainability, carbon, natural reliance and connectivity. Its vision for Scotland is: • **a successful, sustainable place.** We have a growing low carbon economy which provides opportunities that are more fairly distributed between, and within, all our communities. We live in high quality, vibrant and sustainable places with enough good	Ensure the SIRMP aligns with national planning framework policy framework, including low carbon technology, condition of natural and cultural assets.

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	quality homes. Our living environments foster better health and we have reduced spatial inequalities in well-being. There is a fair distribution of opportunities in cities, towns and rural areas, reflecting the diversity and strengths of our unique people and places. •**a low carbon place.** We have seized the opportunities arising from our ambition to be a world leader in low carbon energy generation, both onshore and offshore. Our built environment is more energy efficient and produces less waste and we have largely decarbonised our travel. •**a natural, resilient place.** Natural and cultural assets are respected, they are improving in condition and represent a sustainable economic, environmental and social resource for the nation. Our environment and infrastructure have become more resilient to the impacts of climate change. • **a connected place.** The whole country has access to high-speed fixed and mobile digital networks. We make better use of our existing infrastructure and have improved internal and international transport links to facilitate our ambition for growth and our commitment to an inclusive society.	
Scottish Planning Policy	Scottish Planning Policy (SPP) is the statement of the Scottish Government's policy on nationally important land use planning	The SIRMP should align with national policy and support

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	matter. The SPP sets out an overview of the key components and overall aims and principles of the planning system including cross-cutting policies which align with the vision set out in the NPF4. Relevant subject specific policies include historic environment, valuing natural environment, supporting aquaculture, managing flood risk and drainage.	vision including sustainable place, low carbon, natural reliance, and connected place.
Shetland Islands Council Local Development Plan 2014 (SLDP)	The SIC LDP sets out a vision and spatial strategy for the development of land over the next 10-20 years. The spatial strategy is to meet the sustainable economic and social needs of Shetland's dispersed settlement pattern by identifying allocated land, sites with development potential and Areas of Best Fit.	The SIRMP will need to complement the SIC LDP, particularly for coastal issues, and help to promote integrated land and marine planning.
Supplementary Guidance for Aquaculture Policy - SLDP	The purpose of this policy is to provide guidance to all involved in the process of considering proposals for new or amended fish farm developments.	Consider how the SIRMP can support conformity to the SG policies.
Shetland Islands' Marine Spatial Plan (SIMSP)- SLDP	The SIMSP sets out a policy framework to guide marine development and activity.	Consider the SIMSP as a basis for developing a regional marine plan.
Works Licence Policy -	The Council's Works Licence Policy provides the detailed development policy framework that underpins the Local Development CST1 Coastal Development on all marine developments, including dredging but excluding those connected	Consider how the SIRMP can guide activities which require a works licence.

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	with marine fish farming, below MHWS out to 12 nautical miles. In determining applications for marine developments, the Council will also have regard to the SIRMP which sets out the spatial development strategy for all marine resource users.	

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SEA Specific Topics		
Soil, geology and coastal processes		
EU Thematic Strategy for Soil Protection (COM (2006) 231)	The overall objective is protection and sustainable use of soil.	The SIRMP should consider developments which may have the potential to impact on coastal processes.
Scottish Soil Framework	Provides an overarching policy framework for protection of soils in Scotland in line with the European Directive. Includes coastal areas.	The SIRMP should have regard to developments which may have the potential to impact on coastal processes.
Scotland's Geodiversity Charter 2025-2030	The Charter sets out why geodiversity is important, and presents a vision that geodiversity is recognised as an integral and	The SIRMP should consider developments which may have the potential to impact on geology.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	vital part of our environment, economy, heritage and future sustainability to be safeguarded for existing and future generations in Scotland.	
Cultural and Historical Heritage		
UNESCO Convention on Protection of Underwater Cultural Heritage (2001)	This Convention 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 SIRMP should consider how best to preserve and promote UCH, in particular wreck sites, in the region.
International Council on Monuments and Sites (ICOMOS) Charter on the Protection and Management of Underwater Cultural Heritage	The Charter is intended to encourage the protection and management of Underwater Cultural Heritage (UCH) in inland and inshore waters, shallow seas and in the deep oceans. It includes submerged sites and structures, wreck sites and wreckage and their archaeological and natural context. It acts as a supplement to the ICOMOS Charter for the	The SIRMP should consider how best to preserve and promote UCH, in particular wreck sites, in the region.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	Protection and Management of Archaeological Heritage.	
European Convention on the Protection of the Archaeological Heritage (revised) Valletta	The Convention includes provisions for the identification and protection of archaeological heritage, its conservation, the control of excavations and the prevention of illicit circulation of archaeological objects.	The SIRMP should consider archaeological heritage in the region.
Ancient Monuments and Archaeological Areas Act, (1979)	An Act to consolidate and amend the law relating to ancient monuments; to make provision for the investigation, preservation and recording of matters of archaeological or historical interest and (in connection therewith) for the regulation of operations or activities affecting such matters; to provide for the recovery of grants under section 10 of the Town and Country Planning (Amendment) Act 1972 or under section 4 of the Historic Buildings and Ancient Monuments Act 1953.	The SIRMP should consider the protection of archaeological heritage around the Shetland Islands.
Protection of Wrecks Act, (1973)	An Act to secure the protection of wrecks in territorial waters and the sites of such wrecks, from interference by unauthorised persons; and for connected purposes. It	The SIRMP should consider the protection of Underwater Cultural Heritage.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	protects the sites of historic wrecks and prohibits approaching dangerous wrecks.	
Marine (Scotland) Act 2010	HMPAs are designated in Scottish territorial waters (0-12 miles) under the Marine (Scotland) Act 2010 for the purpose of preserving marine historic assets of national importance. Historic MPAs are normally considered appropriate for protecting underwater heritage, for example a particularly significant historic shipwreck, remains relating to an important fleet anchorage, battle site or navigational hazard where multiple wrecks and other features exist. It would also be possible to designate a submerged prehistoric landscape if structural or artefact-based evidence is identified on the seabed.	The SIRMP should consider the protection and management of HMPAs in the region.
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 Historic Marine Protected Areas (HMPAs), a new designation	The SIRMP should consider the protection and management of HMPAs in the region.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	to help celebrate and protect evidence of the outstanding marine cultural heritage that survives in the coasts and seas around Scotland.	
The Planning (Listed Buildings and Conservation Areas) (Scotland) Act, (1997)	An Act to consolidate certain enactments relating to special controls in respect of buildings and areas of special architectural or historic interest. This includes buildings such as lighthouses but can only be applied to those parts of the structure or building above the MLW mark.	The SIRMP should consider the protection of archaeological heritage around the Shetland Islands.
Historic Environment Scotland Policy Statement (2016)	The policy statement provides direction for Historic Environment Scotland and provides a framework that informs the day-to-day work of organisations involved in the management of the historic environment. The document has relevance to statutory planning Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA).	The SIRMP should consider the protection of archaeological heritage around the Shetland Islands.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Landscape/ Seascape		
Council of Europe, European Landscape Convention (2000) (The Florence Convention)	The European Landscape Convention is part of the Council of Europe's work on natural and cultural heritage, spatial planning and the environment. It applies to natural, urban and sub-urban areas whether on land, water or sea. The Convention establishes the general legal principles which should serve as a basis for adopting national landscape policies and promoting interaction between local, regional and national authorities as well as establishing international co-operation in such matters.	The Convention includes seascape and so the SIRMP should consider the implications of marine developments and activities in the coastal zone which have the potential for both a positive and negative impact on the landscape including seascape.
Scotland's Landscape	Produced by the Scottish Landscape Forum and NatureScot, the Charter sets an agenda for landscape planning and management. Reflects the key principles of the European Landscape Convention and emphasises the need to maintain distinctiveness and sense of place within Scotland. Calls on public bodies to recognise the importance of landscape in decision making, encourage involvement of communities in managing	The SIRMP should consider protection measures to maintain the distinctiveness of Shetland's landscape.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	landscape change, recognise the need for landscape expertise within planning, raise awareness of the role of local and national designations in safeguarding landscapes.	
Scottish Natural Heritage The special qualities of the National Scenic Areas (NSA).	NatureScot surveyed all the NSAs and, for each one, produced an up-to-date list of the landscape qualities that make each one special. 'Special qualities' are defined here as 'the characteristics that, individually or combined, give rise to an area's outstanding scenery'. The identification of these will help to safeguard the National Scenic Areas for future generation to enjoy.	The SIRMP will have regard to the NSA Special Qualities Statements for Shetland.
Shetland Coastal Character Assessment	The Coastal Character Assessment (CCA) of the Shetland Islands was prepared by the NAFC Marine Centre with guidance from Scottish Natural Heritage (NatureScot) as part of ongoing development of the Shetland Island's Marine Spatial Plan (SIMSP).	The SIRMP should consider Shetland's coastal character when guiding development.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	The aim of the study was to gather information about the various coastal character types found around Shetland, the experiences the coast currently offers to local people and visitors, and any sensitivity to development, both inland or out to sea. The objectives of the study were to: • Identify and map different coastal character types at a local level. • Describe the key features and character of each area which relates to the experience of the place. • Identify any areas around the coast sensitive to onshore and/or offshore development. • Relate the study to other published documents such as the Shetland Landscape Character Assessment (LCA) and the Shetland Islands' Council (SIC) Local Development Plan (LDP).	

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Biodiversity		
Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)	This is an intergovernmental treaty concerned with the conservation of wildlife and habitats on an international scale. It aims to conserve terrestrial marine and avian species throughout their range through international co-operation. The UK is party to the convention and to several agreements which have been concluded to date under the auspices of the convention e.g. ASCOBANS (small cetaceans - *Odontoceti*), AEWA (migratory birds) and EUROBATS (bats).	The SIRMP should consider the implications of the plan on migratory species and comply with the aims of this convention.
Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)	This convention 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 SIRMP should consider the implications of the plan in relation to the identification, protection and preservation of World Heritage Sites
The Convention on the Conservation of European Wildlife and Natural Habitats (1979) (The Bern Convention)	The Bern Convention was adopted in 1972 and came into force in 1982. The principal aims are to ensure conservation and protection of wild plant and animal species and their natural habitats, to increase co-	The SIRMP should consider the implications of the plan on protected habitats and species.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	operation between contracting parties, and to regulate the exploitation of those species (including migratory species). The Bern Convention is implemented through the Birds Directive and the Habitats Directive.	
Convention on Biological Diversity (1992)	The 1992 Convention on Biological Diversity objective is the conservation of biological diversity, the sustainable use of its components and the fair and adequate sharing of benefits from the use of genetic resources. The UK Biodiversity Action Plan (and its various subsidiary plans) is part of the convention.	The SIRMP should be founded on the principles of the ecosystem approach and the precautionary approach. It should also consider the implications of the UK Biodiversity Action Plan (BAP) and the local BAP's.

Council Directive 79/409/EEC on the conservation of wild birds/ Directive 2009/147/EC (codified version) Council Directive EEC 92/43/EEC the conservation of natural habitats and of wild fauna and flora	The Birds Directive is a comprehensive scheme of protection for all wild bird species in Europe. It recognises that habitat loss and degradation are the most serious threat to the conservation of wild birds, and as such it has established a network of Special Protected Areas (SPA), which is incorporated into the NATURA 2000 network. The Habitats Directive forms the cornerstone of Europe's nature conservation policy. The main aim of the Habitats Directive is to promote the maintenance of biodiversity by requiring member states to take measures to maintain or restore natural habitats and wild species at a favourable conservation status. In applying these measures member states have to take account of economic, social and cultural requirements as well as regional and local characteristics. It is based on two pillars: the NATURA 2000 network of protected sites and a strict system of species protection. It protects over 1,000 animal and plant species and over 200 habitat types which are of European importance.	The SIRMP should ensure that the plan will not adversely affect the integrity of relevant sites within the Natura 2000 network and should promote the protection of priority species identified in the Directive.

	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 SIRMP.	

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Biodiversity strategy for 2030	The EU's biodiversity strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030 and contains specific actions and commitments.	The SIRMP should consider the implications of the plan on ecosystem services provided by species and habitats.
Wildlife and Countryside Act, (1981)	This Act consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain. It is complimented by the Wildlife and Countryside (Service of Notices) Act 1985, which relates to notices served under the 1981 Act, and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), which implement Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive). In Scotland the most	The SIRMP should consider the implications of the plan on protected species and habitats.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	recent amendment to this Act is the Nature Conservation (Scotland) Act (2004). The Act provides for designation of Marine Nature Reserves, for which byelaws must be made to protect them. The Act was also reviewed and updated in 2008.	
The Conservation (Natural Habitats, &c) amendment (Scotland) Regulations 1994. (amendments in 2004 and 2007)	These regulations are the means through which the Habitats Directive is transposed into Scottish law. They have been amended many times, since they came into force in 1994, with the major amendments occurring in 2004 and 2007. The regulations relate to the Natura 2000 network of protected sites. The 2007 amendment relates to the creation of marine national parks.	The SIRMP should consider the implications of the plan on protected species and habitats.
Nature Conservation (Scotland) Act (2004)	Imposes a wide-ranging duty on Scotland's public sector to conserve biodiversity and protect the nation's natural heritage. The strategy includes sectoral implementation plans which identify specific actions covering marine, rural and urban issues. The Act provides the principal legislative components of a new, integrated, system for nature	The SIRMP should consider the implications of the plan on protected species and habitats.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	conservation within Scotland and makes it an offence to intentionally or recklessly disturb a dolphin, whale (cetacean) or basking shark, and requires the production of a new code of guidance covering whale and dolphin watching and similar activities.	
Conservation (Natural habitats &c.) Amendment (Scotland) Regulations 2007	Part IVA sets out the requirement for the Appropriate Assessment of land use plans. This is required where a land use plan is likely to have a significant effect on a European site and is not directly connected with or necessary to the management of the site. The Assessment should be undertaken prior to the plan being given effect and should include consultation with the appropriate nature conservation body (NatureScot). Notes that the opinion of the general public should be taken into account, if appropriate.	Consider the impacts of the SIRMP on Natura sites
Wildlife and Natural Environment (Scotland) Act 2011	Draws together and updates legislation on nature conservation; in particular it updates much of the Wildlife and Countryside Act (WCA). Includes legislation relating to INNS.	Consider the impact of SIRMP on the spread of INNS and updated legislative requirements relating to WCA.

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UK Biodiversity Framework 2024	Emphasises the importance of biodiversity and notes the impact of human development and the use of land on the health of ecosystems. Includes the overall goal of conservation and enhancement of biodiversity within the UK, to contribute to the conservation of global biodiversity. Also aims to increase public awareness and involvement in conservation.	Consider the SIRMP in the context of the UK policy for the marine environment, especially in relation to biodiversity
The Marine (Scotland) Act 2010	It 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 The 2010 Act also introduced improved protection for seals	Consider the impacts of the SIMRP on MPAs and the ability of the SIMRP to facilitate and enhance management of activities within the MPA network

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The Non-Native Species Framework Strategy for Great Britain (2008)	Aims to protect against the adverse impacts of invasive non-native species. Notes that this is considered to be a significant threat to biodiversity world-wide, and that the distribution of species could be affected by climate change over the coming years. Also reflects on the significant level of expenditure already required to control invasive species. Calls for a more preventative approach.	The SIRMP should consider how to reduce the spread of INNS.
The Great Britain Invasive and Non-Native Strategy, (2023)	An updated version of the 2008 strategy, this updated version provides updated aims and objectives and highlights required action to take from 2022 to 2030.	The SIRMP should consider how to reduce the spread of INNS.
Managing Invasive Species in Scotland's Water Environment: A Supplementary Plan to the River Basin Management Plans.	Developed by SEPA to support the work of the Water Framework Directive for water bodies to improve the ecological quality of water bodies, this plan provides guidance on a co-ordinated approach for organisations with a role in risk assessment, monitoring, classification, data collection and prevention and control mechanisms. To reduce the risk	The SIRMP should consider how to reduce the spread of INNS.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	posed by INNS on ecological quality of water bodies.	
Shetland Local Biodiversity Action Plan	The LBAP identifies locally important habitats and species and highlights and promotes actions to conserve these.	The SIRMP should have regard to locally important marine species and habitats.
Waste		
Zero Waste Plan	The Zero Waste Plan aimed to achieve a significant shift in the way our waste is managed. Its key measures included waste prevention, reducing landfill, improving management and contributing to renewable energy. The Plan set new targets of 70% of waste to be recycled and a maximum of 5% to be sent to landfill, by 2025. Measures also relate to improving information to inform future decisions and measuring the carbon impacts of waste to prioritise recycling for resources which could provide the most significant benefits.	Consider the SIRMP role in waste prevention and management.
A Marine Litter Strategy for Scotland.	This aims to develop current and future measures to reduce litter entering the marine and coastal environment. There are 5 strategic directions in the strategy including:	Consider the role of SIMRP in reducing litter.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	1. Improve public and business attitudes and behaviours around marine and coastal litter, in co-ordination with the national litter strategy. 2. Reduce marine and coastal based sources of litter, in coordination with land sourced litter being reduced by the national litter strategy. 3. Contribute to a low carbon economy by treating 'waste as a resource' and seizing the economic and environmental opportunities associated with the Zero Waste Plan. 4. Improve monitoring at a Scottish scale and develop measures for strategy evaluation. Maintain and strengthen stakeholder co-ordination at the UK, EU and international scales.	
Water		
Water Pollution by Discharges of Certain Dangerous Substances. EC Directive (76/464/EEC) Codified as 2006/11/EC	This Directive aims to regulate potential aquatic pollution by thousands of chemicals produced in Europe and covers inland surface waters, territorial waters and inland coastal waters. Member states must	The SIRMP should consider how best to support the implementation of this Directive policies to prevent or reduce the adverse impacts of pollution.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	establish pollution reduction programmes including water quality objectives. This Directive has been integrated into the Water Framework Directive.	
EC Directive on Integrated Pollution Prevention and Control (IPPC) (2008/1/EC)	The aim of the IPPC Directive is to prevent or reduce pollution of the atmosphere, water and soil, as well as the quantities of waste arising from industrial and agricultural installations, to ensure a high level of environmental protection. The implementation of this Directive will be a basic measure of the Water Framework Directive.	The SIRMP should consider how to best support activities in the area to ensure compliance with IPPC legislation.
Urban Waste Water Treatment Directive (91/271/EEC)	This Directive aims to protect the environment from the adverse effects of waste water discharges from urban and industrial sources including sewage. It also sets acceptable pollutant levels. It is enacted through the Urban Waste Water Treatment (Scotland) Amendment Regulations 2003. The implementation of this Directive will be a basic measure of the Water Framework Directive.	The SIRMP should consider how to best support the implementation of this Directive.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Water Framework Directive (2000/60/EC) Water Environment and Water Services (Scotland) Act (2003) Water Environment (Controlled Activities) (Scotland) Regulations (2011) (CAR)	The two main objectives of the WFD that are relevant to MSP are: • To prevent further deterioration, protect and enhance the status of aquatic ecosystems. • Aim to enhance protection and improvement of the aquatic environment. River Basin Management Plans (RBMP) will include programmes and measures to achieve the aims of the WFD. The Directive was transposed into Scots law by the WEWS Act (2003) (see below).	The SIRMP should consider how to create linkages with the river basin management planning process and provide a strategic overview of water quality management issues for the Shetland Islands. Ultimately, the SIRMP should ensure there is no deterioration in the status of any water body. Consider the SIRMP in the context of the arrangements for the protection of the water environment.

	The WEWS Act gave Scottish Ministers powers to introduce regulatory controls over water activities, in order to protect, improve and promote sustainable use of Scotland's water environment. This includes wetlands, rivers, lochs, transitional waters (estuaries), coastal waters and groundwater. It implements the WFD in Scotland, River Basin Management Planning, protection of the water environment and establishes a duty to provide water and sewerage services. In accordance with the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) a licence is required for activities involving discharges of pollutants; water abstraction; impoundments of rivers, lochs, wetlands and transitional water; engineering works in inland waters and wetlands; and any other activity which directly or indirectly has or is likely to have a significant adverse impact on the water environment including coastal waters out to 3 nautical miles. Applications for new fish farm developments, outfalls, etc. are examples of activities that may require a CAR licence.	The SIRMP supports the protection and improvement in ecological status of marine waters.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Shipment of Waste EC Regulation 1013/2006 (2006) (as amended)	This regulation lays out the control system for international transfers of waste, with two classifications (red or green waste) having differing provisions and also includes come outright prohibitions and exemptions.	The SIRMP should consider the implications of this in regard to water traffic and pollution potential.
Environmental Protection Act (1990)	This Act aims to control pollution arising from industrial and other processes to air, land and water. It includes any release into a sewer and accords with the Sewerage (Scotland) Act 1968.	Consider the SIRMP in the context of this Act for the marine environment.
Environment Act (1995)	This Act establishes the Scottish Environment Protection Agency (SEPA), the criteria for the establishment of National Parks and includes Shetland Islands general provisions on fisheries and the control of pollution of water in Scotland.	Consider the SIRMP in the context of the Act for the marine environment.
Pollution Prevention and Control Act (1999)	This Act provides provisions for implementing EC Directive 96/61/EC (IPPC). It regulates activities which are capable of causing any environmental pollution and preventing or controlling emissions capable of causing any such pollution.	The SIRMP should consider any implications regarding pollution and control of related activities.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
The Pollution Prevention and Control (Scotland) Regulations (2012).	The Pollution Prevention and Control (PPC) Regulations permit and regulate many industrial activities that may pollute our environment. The fundamental philosophy behind the regulations is that environmental issues should be addressed in an integrated way in order to achieve the highest level of environmental protection.	The SIRMP should consider any implications regarding pollution and control of related activities.
Urban waste Water Treatment (Scotland) Regulations (1994) Statutory Instrument 1994 No. 2842 (S.144) Amendment Regulations 2003	These regulations relate to the collection, treatment and discharge of urban waste water and the treatment of waste water from certain industrial sectors. By 2005 the Local Authority responsible will have collecting systems in place for every agglomeration with a population of between 2,000 and 15,000. The amendment regulations place a duty to maintain up to date information about sensitive areas and high dispersion areas on the Scottish Government and SEPA. The implementation of this Directive will be a basic measure of the Water Framework Directive.	Consider any implications regarding pollution and control of related activities in the SIRMP.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
The Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2013) Regulations	Identifies 84 waters as 'shellfish water protected areas'	Consider the role of SIRMP in protection shellfish waters.
Scotland River Basin Management Plan 2015-2027 and The Orkney and Shetland Area Management Plan	Managed by SEPA, these plans aim to improve the ecological quality of our rivers, lochs, estuaries, coastal waters and groundwater, where improvement is needed, whilst also avoiding deterioration in ecological quality. The plans build on the previous river basin management plans which ran until 2015.	Consider how the SIRMP can support these aspirations.
Water Resources (Scotland) Act 2013	An Act of the Scottish Parliament to make provision for the development of Scotland's water resources; to bring large-scale water abstraction under Ministerial control; to extend Scottish Water's functions and to authorise grants and loans in favour of related bodies; to permit the taking of steps for the sake of water quality; to create contracts for certain non-domestic water and sewerage services; to protect the public sewerage network from harm and to allow for maintenance of private sewage works; to	Consider how the SIRMP can support aspirations relating to water abstraction and sewage.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	enable the making of water shortage orders; and for connected purposes.	
Shetland Marine Pollution Contingency Plan	There are various oil spill response plans covering the marine and intertidal areas of the Shetland Islands including: • Sullom Voe Harbour Oil Spill Plan • Scalloway Harbour Oil Spill Response Contingency Plan • Sullom Voe Harbour Authority Port Marine Safety Code • SEPA Emergency Plan • Shetland Islands Council Control of Major Accident Hazards (COMAH) Plan • Shetland Islands Council Pipeline Safety Plan • Shetland Islands Council's Coastline Survey • Wildlife Response Co-ordinating Committee (WRCC) Oil Spill Plan for Shetland • AFEN Coastal Protection Plan • Shetland Port Waste management Plan	Consider how the SIRMP can support oil spill response plans for the Shetland Islands.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	Various bodies are involved in the Shetland area e.g. Shetland Islands Council, MCA, NatureScot, SEPA, Northlink other private vessels. The jurisdiction of the various statutory bodies in Scotland depends on where the spill is located.	
Climatic Factors		
UN Framework Convention on Climate Change	This is an international environmental treaty produced at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janiero in 1992. The treaty is aimed at reducing emissions of greenhouse gases in order to combat global warming. More recently, a number of nations approved an addition to the treaty: the Kyoto Protocol, which legally binds developed countries to emission reduction targets. The Protocol's first commitment period started in 2008 and ended in 2012. At COP17 in Durban, governments of the Parties to the Kyoto Protocol decided that a second commitment period, from 2013 onwards, would seamlessly follow the end of the first	The SIRMP will seek to help determine consent for new developments and activities which will reduce greenhouse gas emissions and adhered to the objectives set out within the Treaty.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	commitment period. The length of the second commitment period is to be determined: it will be either five or eight years long.	
Directive on the Assessment and Management of Flood Risks (EC Directive 2007/60/EC)	The Floods Directive's aim is to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. Requires members to assess the risk of flooding for all water courses and coastlines. Member States are required to map flood extent and any assets and humans at risk from flooding. Steps should then be taken to reduce the flood risk. Through this Directive the public have the right to access information on flood risk and have a say in the planning process.	The SIRMP should consider the implications of this in regard to water quality, flooding and climate change.
Marine Climate Change Impacts Partnership (MCCIP)	The United Kingdom Marine Climate Change Impacts Partnership (MCCIP) brings together scientists, government, its agencies and NGOs to provide co-ordinated advice on climate change impacts around our coast and in our seas.	Consider how the SIRMP can consider and manage the impacts of climate change around the coast.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Changing Our Ways – Scotland's Climate Change Programme (2006)	Provides national interpretation of broader climate change objectives, presenting Scotland's vision for the longer term – climate change and sustainable development. It aims to quantify the "Scottish Share" or 'equitable contribution' in carbon terms and show leadership in setting Scottish targets.	The SIRMP will seek to guide development and activities to reduce greenhouse gas emissions
The Climate Change (Scotland) Act, (2009)	The Act is a key commitment of the Scottish Government, and is the most far-reaching environmental legislation considered by the Parliament. The act sets out the statutory framework for greenhouse gas emissions reductions in Scotland and outlines the duties on Scottish Ministers and public bodies.	The SIRMP will seek to help determine consent for new developments and activities which will reduce greenhouse gas emissions
Climate Change (Emissions Reduction Targets) (Scotland) Act 2019	This amendment significantly increased Scotland's ambition, setting a legally binding target for achieving net zero emissions of all greenhouse gases by 2045	The SIRMP will seek to ensure that new marine developments will not contribute to or exacerbate the adverse impacts of climate change and will assist in the identification of climate risk. The SIRMP will seek to help determine consent for new developments and activities which will consider greenhouse
Climate Change Plan (CCP)	The Scottish Government publishes a statutory Climate Change Plan, which outlines the policies and proposals across all	

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	sectors of the economy to meet the emissions reduction targets and carbon budgets set by the legislation. The latest update was published in December 2020 (known as the CCPu). A new plan for 2026-2040 is also in development	gas emissions and ensure that new marine developments will not contribute to or exacerbate the adverse impacts of climate change and the SIRMP will consider how it can promote the decarbonisation of electricity generation.
Carbon Budget Framework	Introduced a framework for setting five-year carbon budgets, providing a more reliable approach for assessing sustained progress towards the 2045 net zero goal	
Scottish National Adaptation Plan (SNAP)	Alongside the emissions reduction plans, there are specific adaptation programmes to help Scotland build resilience and adapt to the unavoidable impacts of climate change, with the current iteration being the SNAP 2024-2029	
UK Climate Change Risk Assessment (CCRA) – Scotland (2012)	The CCRA report for Scotland provides evidence to support the Scottish Government's climate change adaptation programme. It describes and, where possible, quantifies the risks from climate change facing Scotland up until 2100.	The SIRMP will seek to ensure that new marine developments will not contribute to or exacerbate the adverse impacts of climate change and will assist in the identification of climate risk.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Flood Risk Management Scotland Act 2009 and National Flood Risk Assessment	The Act introduces a more sustainable, modern and co-ordinated approach to flood risk management. The outcomes of the National Flood Risk Assessment will help us to target actions for flood risk management in those areas where we can have the greatest impact.	The SIRMP should consider any future proposals for development within the Shetland Islands in terms of impacts on climate change.
Shetland Local Plan District- Flood Risk Management Strategy	Assessment of flood risk to commercial and domestic properties within Shetland.	Consider how the SIRMP can support measures which reduce flooding risk.
Population and human health		
Bathing Water Directive 2006	Its purpose is to preserve, protect and improve the quality of the environment and to protect human health.	Consider how the SIRMP can support measures to ensure clean and safe water for bathing.
Land Reform (Scotland) 2003 & Scottish Outdoor Access Code	This Act establishes the right of access for everyone, but only if they are exercised responsibly. It places a duty on landowners to manage their land and conduct the ownership of it to respect right of access. NatureScot have drawn up and issued a 'Scottish Outdoor Access Code' to provide guidance for recreational land users and landowners.	Consider how the SIRMP can support responsible recreational use of the Shetland region and support the right of access.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Community Empowerment (Scotland) Act	The Community Empowerment Act aims to empower community bodies through the ownership of land and buildings and by strengthening their voices in decision making. The Act does a number of things including: extending the community right to buy, making it simpler for communities to take over public sector land and buildings, and strengthening the statutory base for community planning. Crucially it can help empower community bodies through the ownership of land and buildings and strengthening their voices in the decisions and services that matter to them.	Consider how communities can influence the development of the SIRMP.
Shetland Core Path Plan (2009) adopted as SG to the SIC LDP	The purpose of the Core Path Plan (CPP) is to designate a system of paths to provide the basic framework of routes (which are) sufficient for the purpose of giving the public reasonable access throughout their area (and which will) link into and support wider networks of other paths and routes.	Consider how the SIRMP can support access and the Core Path Plan.
The Scottish Marine Tourism Strategy Action Plan	Scotland Outlook 2030 seeks to support an approach that will see tourism act positively	Consider how the SIRMP can facilitate and promote sustainable tourism development

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	in the common interest of Scotland's communities, businesses and everyone who visits and stays with us.	
Scotland Outlook 2030: Responsible Tourism For A Sustainable Future	In 2000, the Scottish Executive published a "New Strategy for Scottish Tourism", and then in 2016 a refresh "Tourism Development Framework for Scotland".	Consider how the SIRMP can support responsible tourism and recreational use of the Shetland region.
Shetland Sport and Recreation Strategy 2018-2023	Policies relating to healthy communities.	Consider how the SIRMP can support recreational use of the Shetland region.
Scottish Marine Wildlife Watching Code	The Scottish Marine Wildlife Watching Code is designed for all those who watch marine wildlife around Scotland both recreationally or commercially. It was developed by NatureScot in conjunction with recreational users, general public, charter boat and land based tour operators to whom it applies.	Consider how the SIRMP can support responsible recreational use of the Shetland region.
Paddle Scotland – Paddlers Access Code	The Scottish Canoe Association is recognised as the governing body of canoeing /kayaking in Scotland. It has three key principles for canoeists: • To care for the environment • Take responsibility for your own actions • Respect the interests of other people	Consider how the SIRMP can support responsible recreational use of the Shetland region.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
British Sub-Aqua Club Diver Code of Conduct	There is a local BSAC club (ZSAC Dive Club) within the area and many of the divers visiting the Shetland are BSAC members. BSAC have a dive code of conduct which describes best practice and this also includes their wrecks code of practice for wreck divers.	Consider how the SIRMP can support responsible recreational use of the Shetland region.
Material Assets- Fisheries		
Common Fisheries Policy Plan of Action for the Conservation and Management of Sharks	Marine fisheries conservation is an area of exclusive European Community competence. The CFP sets fisheries policy at a community level and limits the extent to which Member states can develop their own fisheries measures. Article 6 of the treaty requires that environmental protection must be integrated into Community policies to promote sustainable development. The CFP was amended in 2002 through Council Regulation 2371/2002 on the conservation and sustainable exploitation of fisheries resources under the CFP. The CFP also encompasses the Action Plan for the Conservation and Management of Sharks.	The SIRMP should consider the CFP policies in regard to the fishery resource and its sustainable management.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Inshore Fishing (Scotland) Act 1984 (as amended)	This Act 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; and • fishing by means of a specified description of equipment.	The Shetland Islands are an important area for both local and national fishing vessels as a fishery ground and refuge. The SIRMP provides spatial information on important fishing grounds and policies to safeguard fishing opportunities.
Sea Fisheries (Shellfish) Act, 1967 (as amended)	This Act 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, including the Shetland Regulatory Order.	The Shetland Islands are an important area for both local and national fishing vessels as a fishery ground and refuge. The SIRMP provides spatial information on important fishing grounds and policies to safeguard fishing opportunities.
The Sea Fish (Conservation) Act, (1967) (as amended)	This Act relates to the licensing of fishing boats and places restrictions on time spent	The Shetland Islands are an important area for both local and national fishing vessels as

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	at sea. The Act also regulates size limits for fish, net size and gear type.	a fishery ground and refuge. The SIRMP supports the local management of sustainable fisheries.
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 Shetland Islands are an important area for both local and national fishing vessels as a fishery ground and refuge. The SIRMP provides spatial information on important fishing grounds and policies to safeguard fishing opportunities.
The Shetland Islands Regulated Fishery (Scotland) Order (2012)	In operation since 2000 and managed by the Shetland Shellfish Management Organisation. Fishery data collection by the NAFC Marine Centre on Shetlands shellfish stocks has produced time series data since 2000 (18 years of data in 2018). Annual stock	Consider how the SIRMP can support the aspirations of the SSMO.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	assessments inform the management of the fishery and issuing of licences.	
Material Assets- Aquaculture		
EC Directive (2006/88/EC) Concerning the Placing on the Market of Aquaculture Animals and Products	This Directive 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 SIRMP should consider how it can support the development of sustainable development of aquaculture.
A Fresh Start: A Renewed Strategic Framework for Scottish Aquaculture. Scottish Government (2009)	The strategic framework describes the economic, environmental, social and stewardship aspects of the overarching principle of sustainability for Scottish aquaculture. It lists objectives, timescales and the bodies responsible to carry them out.	The SIRMP should consider how it can promote a sustainable aquaculture industry and good stewardship.
Delivering Planning Reform for Aquaculture 2	DPRFA2 sets out how the aquaculture industry, statutory consultees, and the planning authorities continue to work together to refine the planning system for	The SIRMP should consider how it can provide planning certainty for aquaculture by providing a clear development steer.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	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.	
Aquaculture Growth to 2030 – a Strategic Plan for farming Scotland's seas.	This provides a strategic plan for farming Scotland's seas. It notes the priorities for the sector include: • industry leadership and ambition • enabling and proportionate regulation • accelerating innovation • skills development • finance • infrastructure	The SIRMP should consider how it can provide planning certainty for aquaculture by providing a clear development steer.
Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish waters. Scottish Government (update quarterly)	The main purposes of the Locational guidelines are to provide guidance on the factors to be taken into account when considering proposals for new marine fish farms or modifications to existing operations	The SIRMP should considering carrying capacity constraint when guiding new or expanding aquaculture developments.
Statutory Instrument 1998 No. 994. The Food Safety (Fishery Products and Live Shellfish) (Hygiene) Regulations 1998	This instrument designates areas which are suitable or prohibited for the production or collection of live shellfish. It also covers the	The SIRMP should consider how it can support high standards of water quality to promote the safe production of shellfish.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	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	
Town and Country Planning (Marine Fish Farming) (Scotland) Order, (2007)	This order 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 SIRMP should consider how it can support the sustainable development of aquaculture in Shetland waters.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Aquaculture & Fisheries (Scotland) Act 2013	The purpose of the Aquaculture and Fisheries Act is 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 SIRMP should consider how it can promote compliance with this legislation and promote sustainable growth of the sector.
SEPA policies on the regulation of marine fish farming (Policy No.s 17, 29, 40)	SEPA have three policies relating to the regulation of fish farming in marine waters. In addition to this they have produced a comprehensive manual on how fish farms are regulated.	The SIRMP should consider how it can promote compliance with SEPA policies and regulations and promote sustainable growth of the sector.
The Aquatic Animal Health (Scotland) Regulations, (2009)	In Scotland, the Aquatic Animal Health (Scotland) Regulations 2009 (2009 Regulations) implement the Council Directive 2006/88/EC on animal health requirements for aquaculture animals and products thereof, and on the prevention and control of certain diseases in aquatic animals. The 2009 Regulations requires the authorisation of all Aquaculture Production Businesses (APB's) and replaces previous legislation (The	The SIRMP should consider how it can promote compliance with these regulations.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	Registration of fish and Shellfish Farming Business (Scotland) Order 1985- as amended) that required the registration of fish and shellfish farming businesses. The authorisation procedure will be undertaken on behalf of the Scottish Ministers by the Fish Health Inspectorate (FHI) based at the Marine Scotland, Marine Laboratory in Aberdeen.	
Circular SEDD 1/2007: Planning Controls for marine Fish Farming	This Circular has been issued to explain and give 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	The SIRMP should consider how it can support sustainable aquaculture and promote understanding of relevant legislation.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	• Town and Country Planning (Prescribed Date) (Scotland) Regulations 2012 • Town and Country Planning (Marine Fish Farming) (Scotland) Regulations 2007 (amended 2012)	
A Technical Standard for Scottish Finfish Aquaculture	The Standard determines technical requirements for fish farm equipment in Scotland and applies to all species of finfish. It should be used alongside operational procedures and training of staff to ensure equipment is used and maintained appropriately and procedures followed correctly.	The SIRMP should consider how it can support and promote compliance to the Technical Standard.
Association of Scottish Shellfish Growers Code of Good Practice	This code of conduct 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 SIRMP should consider how it can support and promote compliance to the Code of Good practice

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Scottish Salmon Producers Organisation Code of Good Practice	The Code of Good Practice for Scottish Finfish Aquaculture (CoGP) 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 SIRMP should consider how it can support and promote compliance to the Code of Good practice.
Scottish Natural Heritage Guidance on Landscape/Seascape Capacity for Aquaculture (2008) Scottish Natural Heritage - The siting and design of aquaculture in the landscape: visual and landscape considerations (2011)	Provides guidance to regulators and developers on how to site and design aquaculture to minimise its intrusion on the landscape/seascape.	Consider the potential of the SIRMP to support the siting the of aquaculture sites in a way which consider the seascape and landscape.
Supplementary Guidance for Aquaculture Policy - SLDP	The purpose of this policy is to provide guidance to all involved in the process of considering proposals for new or amended fish farm developments.	Consider how the SIRMP can support conformity to the SG policies.
Material Assets- Energy		
Renewable Energy Directive 2009	Promotes the use of energy from renewable sources to help reduce greenhouse gas emissions.	Consider how the SIRMP can enable renewable energy production.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Electricity Act (1989)	Provides the legislative background within which the energy sector functions. Sets out the framework within which applications for marine energy development should seek consent. Under Section 36 of the Electricity Act, 1989 (Requirement of Consent for Offshore Generating Stations) (Scotland) Order 2002, consent is required for electricity generation schemes with a capacity over 1MW.	The SIRMP should consider how best to ensure compliance with this Act.
Sectoral Marine Plans for offshore wind, wave and tidal energy	These Plans identify areas suitable for offshore wind, wave and tidal energy.	Consider areas identified for development of wind, wave and tidal devices in the SIRMP.
National Renewables Infrastructure Plan (N-RIP and N-RIP2)	Scottish Enterprise and Highlands and Islands Enterprise (HIE) have led the development of the N-RIP and N-RIP stage 2 (N-RIP2). The plan aims to assist the development of a globally competitive offshore renewables industry in Scotland through the creation of infrastructure to support large scale manufacturing, assembly, deployment and operations, and maintenance of offshore renewable energy devices.	The SIRMP should consider N-RIP and N-RIP2 when guiding the development of the marine environment.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Renewable Energy Development in Shetland – Strategy and Action Plan (2009)	The Renewables Strategy aims to drive research and development in the area of renewable energy development. In terms of marine renewables, the Strategy includes an action to investigate potential for marine research and development.	The SIRMP supports the sustainable development of marine renewables as mitigation to climate change.
Material Assets- Shipping, Ports and Transport		
International Maritime Organisation (IMO)	The 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 SIRMP to ensure it is compliant with national legislation, and in relation to management issues, development opportunities and oil spill contingency planning.
Safety of Life at Sea (SOLAS) Convention (1974) as amended.	This convention includes provisions for navigation and pollution prevention. It also includes the International Ship and Port	The SIRMP must be compliant with SOLAS requirements relating to navigation.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
	facility Security Code (ISPS), the Convention on the Control of Harmful Anti-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 and draft National Policy Statement for Ports Consultation	This statement 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 SIRMP can support an integrated transport policy for the Shetland Islands.
National Transport Strategy 2. Scottish Government 2006 (refresh 2020)	The National Transport Strategy has a vision to: • Reduce inequalities. • Take climate action. • Help deliver inclusive economic growth. • improve our health and wellbeing;	Consider how the SIRMP can support an integrated transport policy for the Shetland Islands.

Name of PPS, Convention, Treaty or Directive	Overview of key objectives	Implications and/or relationship with the Shetland Islands Regional Marine Plan (SIRMP)
Harbours Act 1964 and Harbour Revision Order 1995	Sets out responsible authority for harbour areas	Consider how SIRMP can protect harbour areas from adverse development and facilitate economic growth
Lerwick Harbour Act, (1994)	Lerwick Port Authority (LPA) operates under a variety of legislation and could have responsibility to direct vessels to ensure safety of navigation, pollution prevention and clean-up.	Consider how the SIRMP can support regulations of the Shetland area.
Shetland Transport Strategy 2008 and Shetland Transport Strategy Refresh 2018-2028	The local transport strategy for Shetland sets out a vision and objectives for transport development and improvements in Shetland over the next 5 to 15 years and the approach to be taken to achieve these objectives. It sets out strategic policies for transport and measures that will be needed over the time span of the plan to tackle the transport priorities for Shetland. These include the development internal links, external links and inter island links in Shetland.	Consider how the SIRMP can support a local transport policy for the Shetland.

14 Appendix 3

14.1 Acronyms

BAP	Biodiversity Action Plan
BRIA	Business and Regulatory Impact Assessments
CAs	Consultation Authorities
CAR	Water Environment (Controlled Activities) (Scotland) Regulations (2011)
CCA	Coastal Character Assessment
CCRA	Climate Change Risk Assessment
CFP	Common Fisheries Policy
CoGP	Code of Good Practice
COMAH	Control of Major Accidents Hazards
CPP	Core Path Plan
CRWIA	Child Rights and Wellbeing Impact Assessment
DEFRA	Department for Environment, Food and Rural Affairs
DRMPA	Demonstration and Research Marine Protected Area
EAP	Environment Action Programme
ECT	Environmental and Clean Technologies
EDU	Economic Development Unit (SIC)
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EPS	European Protected Species
EQIA	Equality and Impact Assessment
ES	Environmental Statement
ETS	Emissions Trading System
FHI	Fish Health Inspectorate
FSA	Food Standards Agency
FTE	Full Time Equivalent
GES	Good Ecological Status (WFD)
GES	Good Environmental Status (MSFD)
GHG	Greenhouse Gas
HES	Historic Environment Scotland
HLMO	High Level Marine Objectives
HMPA	Historic Marine Protected Area
HRA	Habitats Regulation Appraisal
ICES	International Council for the Exploration of the Sea
ICOMOS	international Council on Monuments and Sites
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organisation
IMP	Integrated Maritime Policy

INNS	Invasive Non-native Species
IPCC	Intergovernmental Panel on Climate Change
JNCC	Joint Nature Conservation Committee
LBAP	Local Biodiversity Action Plan
LDP	Local Development Plan
LLA	Local Landscape Area
LNCS	Local Nature Conservation Site
LPA	Lerwick Port Authority
MEHRAs	Marine Environmental High Risk Areas
MCA	Maritime and Coastguard Agency
MCCIP	Marine Climate Change Impacts Partnership
MHWS	Mean High Water Spring
MLW	Mean Low Water
MPA	Marine Protection Area
MPP	Marine Planning Partnership
MPS	Marine Policy Statement
MSFD	Marine Strategy Framework Directive
MSP	Marine Spatial Planning
NCMPA	Nature Conservation Marine Protected Area
NGO	Non-Governmental Organisation
nm	Nautical Miles
NMP	National Marine Plan
NNR	National Nature Reserve
NSA	National Scenic Area
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
PMF	Priority Marine Feature
PPC	Pollution Prevention and Control
PPS	Plans, Programmes and Strategies
RBMP	River Basin Management Plan
RLG	Regional Locational Guidance
RSPB	Royal Society for the Protection of Birds (Scotland)
SAT	Shetland Amenity Trust
SAC	Special Area of Conservation
SDS	Sustainable Development Strategy
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SG	Supplementary Guidance
SIC	Shetland Islands Council
SIRMP	Shetland Islands Regional Marine Plan
SIMSP	Shetland Islands' Marine Spatial Plan

SoEA	State of the Environment Assessment
SOTEAG	Shetland Oil Terminal Environment Advisory Group
SPA	Special Protected Area
SPP	Scottish Planning Policy
SSMEI	Scottish Sustainable Marine Environment Initiative
SSMO	Shetland Shellfish Management Organisation
SSSI	Sites of Special Scientific Interest
UCH	Underwater Cultural Heritage
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFCCC	United Nations Framework Convention on Climate Change
WCA	Wildlife and Countryside Act 1981
WEWS Act	Water Environment and Water Services (Scotland) Act 2003
WFD	Water Framework Directive
WRCC	Wildlife Response Co-ordinating Committee
WSSD	World Summit on Sustainable Development