Shetland Islands Regional Marine Plan 2019

DRAFT

Scottish Government
Riaghaltas na h-Alba
gov.scot
marinescotland

NAFC Marine Centre
University of the
Highlands and Islands

Shetland
Islands Council

SHETLAND ISLANDS REGIONAL MARINE PLAN
DRAFT

Suggested Reference
Shetland Islands Marine Planning Partnership (2019) Draft Shetland Islands Regional Marine Plan. NAFC Marine Centre UHI pp 158.

The Shetland Islands Regional Marine Plan has been developed by the Shetland Islands Marine Planning Partnership (NAFC Marine Centre UHI and Shetland Islands Council) and has been guided by an advisory group.

The development of the Shetland Islands Regional Marine Plan has been supported by funding from Marine Scotland and the Shetland Islands Council.

The maps in this document are available to view online (where copyright allows) on National Marine Planning Interactive (NMPI). http://www.gov.scot/Topics/marine/seamanagement/nmpihome

NAFC Marine Centre
University of the Highlands and Islands

Shetland Islands Council

Scottish Government
Riaghaltas na h-Alba
gov.scot

marinescotland

NAFC Marine Centre UHI is the trading name of the Shetland Fisheries Training Centre Trust, Scottish Charity Number SC003715

Contents

St Ninian’s Isle © Charlotte Slater

Fethaland © Charlotte Slater

Foreword

Shetland has a rich and diverse maritime heritage which has evolved and grown out of the Islands' geographical remoteness and the industries and communities of fishing and, more recently, oil. Shetlanders have embraced and responded to many new opportunities which, when integrated with existing traditions and skills, has resulted in a strong and dynamic marine management ethos. Further demands and opportunities are being placed on this unique ecosystem through the fast developing marine renewable energy sector.

National marine policy has been evolving since the introduction of the UK Marine and Coastal Access Act 2009 and the Marine (Scotland) Act 2010. The opportunity now exists to augment further the desire for local marine management through a more co-ordinated and robust framework that ensures the fundamental principles of sustainable development are applied to all marine activities. Whilst socio-economic and environmental factors are already integrated into a number of decision making processes, this has tended to be on a sectoral basis. As the use of valuable marine resources increases, there is a need to manage more positively the potential conflicts between sectors and between environmental and socio-economic prosperity.

The Shetland Islands Regional Marine Plan (SIRMP) presents a comprehensive picture of the marine environment around Shetland. In developing the SIRMP a large volume of existing and new data has been collated and analysed to provide the necessary underpinning knowledge that is required for a more decisive and cohesive decision making process. In recognising that marine spatial planning is a new concept and can mean different things to different people, the SIRMP includes all aspects of marine and coastal resource use including fishing, aquaculture, oil and gas, marine renewables, transportation and shipping, culture and heritage, sport and recreation, education and the environment. Building on Shetland's existing track record of effective and sustainable marine management, this will ensure the marine waters around Shetland continue to be clean, healthy, safe and productive so as to meet the long term needs of nature and the local community.

Reflections © Charlotte Slater

Bridge End, Burra © Charlotte Slater

Introduction

In Shetland, the process of developing a regional marine plan was formally initiated on 22nd March 2016 when Scottish Ministers gave Direction to the Shetland Fisheries Training Centre Trust (trading as the NAFC Marine Centre UHI) and the Shetland Islands Council (SIC) to prepare a regional marine plan for the Shetland Islands. The NAFC Marine Centre UHI and Shetland Islands Council form the 'Shetland Islands Regional Marine Planning Partnership' and are guided by an Advisory Group which comprises a range of stakeholders covering environmental, community, recreational and commercial interests.

The Shetland Islands Regional Marine Plan (SIRMP) reflects 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 is in line with Scotland's National Marine Plan (2015) (NMP) and will be used to assess marine development applications for marine licences (by Marine Scotland), works licences and marine planning applications (by Shetland Islands Council), and leases by the Crown Estate Scotland.

Plan Area

The Shetland Islands are the most northerly region within the United Kingdom, forming an archipelago comprised of over 100 islands, of which sixteen are inhabited. The islands are situated approximately 160km from mainland Scotland, 280km south-east of the Faroe Islands and 320km west of Norway. The Shetland Islands form part of the division between the Atlantic Ocean to the west and the North Sea to the east. The Shetland Islands Marine Region includes all territorial waters seaward of the mean high water of the spring tide (MHWS), out to 12 nautical miles (Figure 1). The area is the equivalent to 12 305km^2 (7 645 miles^2), approximately seven times the land area of the Shetland Islands.

The SIRMP builds upon the 4th Edition of the Shetland Islands' Marine Spatial Plan (SIMSP) (NAFC Marine Centre UHI, 2014) which was adopted as Supplementary Guidance (SG) to the Shetland Islands Council's (SIC) Local Development Plan (LDP) in 2015.

The key benefits of the SIRMP are:

- providing a plan-led approach to the management of Shetland's coastal and marine waters;
- facilitating a more integrated and informed decision making process;
- minimising conflicts of interest between marine users, activities and developers; and
- enabling long-term protection and use of Shetlands' coastal and marine waters.

The SIRMP has been produced from a sound evidence base as far as information has been available at the time of writing. As the SIRMP has been developed during a time of potential evolution of marine policy and legislation in relation to the UK leaving the European Union ('Brexit'), it should be considered as part of an on-going process, subject to monitoring and review.

Muckle Flugga © Charlotte Slater

The Shetland Islands Regional Marine Plan

Who should use this plan?

The SIRMP aims to provide support to a wide range of marine decisions throughout Shetland. It should be used by both developers and relevant public authorities in the development of any proposals, and in their consideration for consent.

Developers are responsible for ensuring that their proposals are in accordance both with the requirements set out in the National Marine Plan (NMP), this SIRMP and where appropriate, the Shetland Islands Council Local Development Plan (LDP). Developers should aim to:

- Engage with stakeholders and wider public early in their proposal's development.
- Consider the beneficial and adverse impacts of their proposed development on the economy, society and the environment. Where adverse impacts cannot be avoided, mitigation measures and alternatives should be considered.
- Supply the relevant materials for the relevant public authorities to assess their proposals.
- Ensure any evidence that is put forward is sound and proportionate to the development proposed.
- Apply the policies set out through this Plan.

Condition of the Marine Region

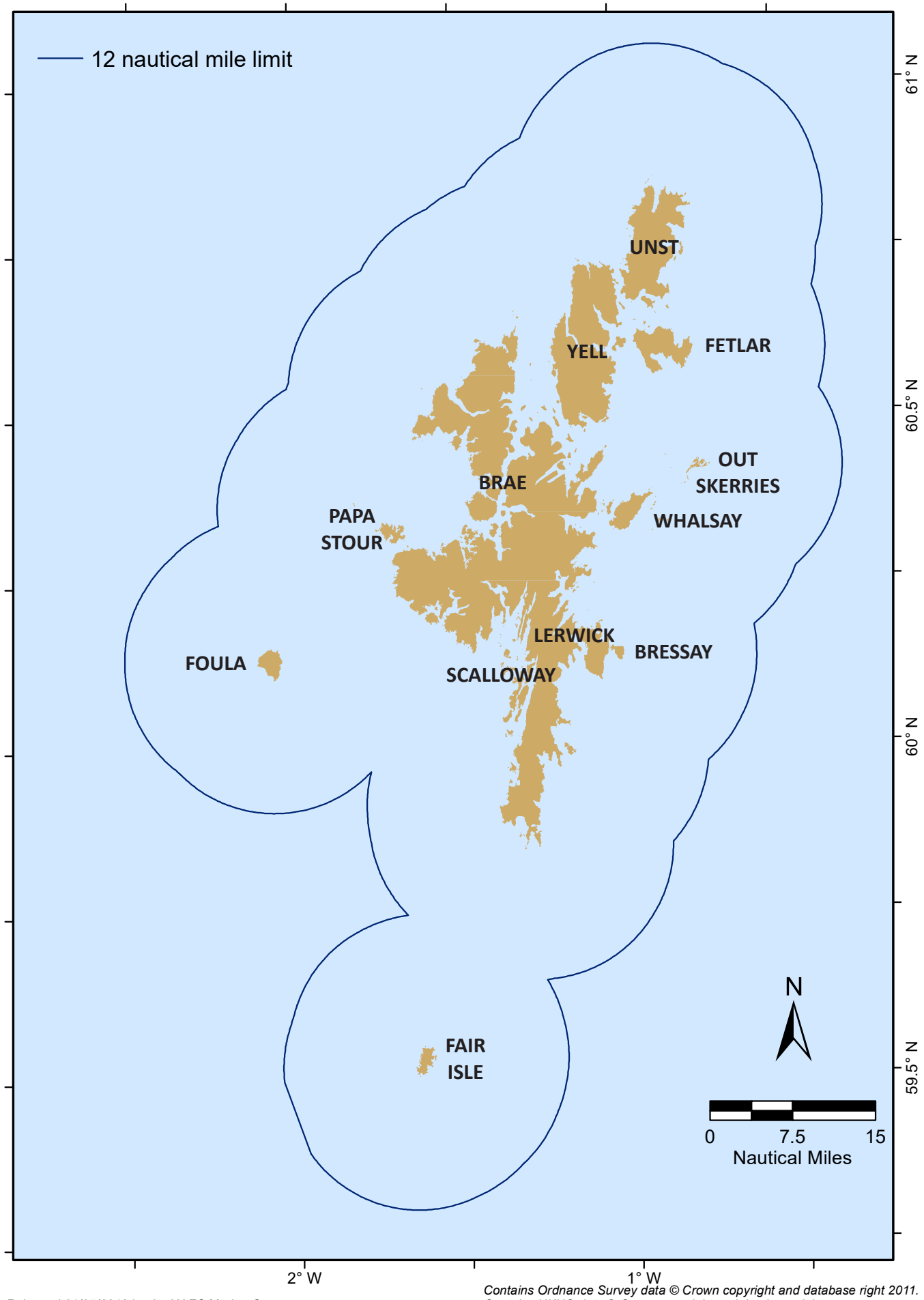
Detailed information on Shetland's marine and coastal environment can be found in the 'Shetland Islands Marine Region State of the Environment Assessment'. The assessment aims to provide a baseline assessment of the Shetland marine and coastal environment out to 12nm, using the most up-to-date data available as of December 2016. Where appropriate, this assessment has been considered in the development of the SIRMP and highlighted within the relevant policy sections.

Maps

The maps within the SIRMP are intended to act as a guide to developers and decision makers and represent the best available data at the point of publication. They are also available to view on NMPi. As our knowledge and understanding of the marine environment increases, new data will become available. When using the SIRMP it is important therefore that NMPi and/or relevant stakeholders are consulted.

Consultation

Stakeholder and local community engagement has been instrumental in developing this SIRMP. A 'statement of public participation' (SPP) can be viewed on the NAFC Marine Centre UHI web page.



Released 01/07/2013 by the NAFC Marine Centre.

Figure 1: Shetland Islands Marine Region

Saithe, Lunna Ness © Rachel Shucksmith

Vision, Aim and Objectives

The vision, aim and objectives have driven the development of the SIRMP and align with the vision, aim and objectives outlined in Scotland's National Marine Plan (NMP), National Planning Framework 3 and Scottish Planning Policy. Users of the SIRMP are advised to refer to the NMP for further information on relevant topics and issues.

VISION

For Shetland to have clean, healthy, safe, productive and diverse seas, 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 objectives of the SIRMP are to:

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).

The overarching goal of marine planning is to ensure the sustainable development, protection and enhancement of the marine area, whilst accommodating the mitigation of, and adaptation to, climate change.

Seals, Lerwick © Charlotte Slater

Sustainable Development

The Scottish Government supports the five guiding principles for sustainable development set out in the UK's shared framework for sustainable development[1]. Achieving a sustainable economy, promoting good governance and using sound science responsibly are essential to the creation and maintenance of a strong, healthy and just society capable of living within environmental limits.

Regional marine planning should contribute to sustainable development and use of marine resources by enabling development and use that balances costs and benefits. Development and use, provided it is undertaken in the right place and at the right time, can provide multiple benefits.

A key aspect of sustainable development is the need to recognise and apply the precautionary principle. This requires regulatory authorities to act cautiously to avoid damaging the environment or well-being of communities (in a way that cannot be reversed) in situations where the scientific case is not proven but the possible damage could be significant.

[1] Our Seas-a shared resource- UK High Level Marine Objectives

Ramna Stacks © NAFC Marine Centre

Legislative Context

National Context

The Marine and Coastal Access Act 2009, the Marine (Scotland) Act 2010 ('2010 Act') and the UK Marine Policy Statement 2011 (MPS), mark a significant development in the management and enhancement of Scottish marine waters. The 2010 Act provides a statutory framework for a more simplified marine planning and licensing system. The main management measures introduced as part of the 2010 Act include marine planning, marine licensing, marine conservation, seal conservation and enforcement.

It is a statutory requirement of the 2010 Act (Part 3) that Scottish Ministers prepare and adopt a national marine plan for the Scottish marine area. The 2010 Act also empowers the Scottish Ministers to create Scottish Marine Regions, and to delegate marine planning powers for these regions. Within the national and/ or regional marine plan, the Scottish Ministers must set economic, social and marine ecosystem objectives as well as objectives relating to the mitigation of, and adaptation to, climate change. In addition, an assessment of the condition of the Scottish marine area must be included, as well as a summary of significant pressures, and the impact of human activity on the area or region. Scottish Ministers published Scotland's National Marine Plan in 2015, which sets out the strategic planning framework for the sustainable use of Scotland's marine resources out to 200 nautical miles.

Marine Regions

A key component of the Marine (Scotland) Act 2010 is the establishment of Scottish Marine Regions extending out to 12 nautical miles and the development of associated regional marine plans. This plan led process will establish a statutory framework for guiding proposed activities, operations and developments in Scotland's marine and coastal areas. The development of statutory marine plans provide a key opportunity for different views and interests to be accounted for through a balanced plan led development process.

The SIRMP has been developed by the Shetland Islands Regional Marine Planning Partnership. The SIRMP builds upon the work undertaken for the Shetland Island's Marine Spatial Plan (SIMSP). The SIMSP has provided a valuable start point, with a significant amount of data collected and collated since its inception in 2006. The SIMSP provided an overview of marine resources, use, activities, assets and opportunities, which also helped to inform the 'Shetland Islands Marine Region State of the Environment Assessment'.

Local Planning Context

Under planning reform and modernisation, following the Planning etc. (Scotland) Act 2006, the Shetland Islands Council's Local Development Plan (LDP) is the main guidance for terrestrial land use and marine aquaculture planning applications in Shetland. Previously, the Shetland Islands' Marine Spatial Plan (SIMSP) had been incorporated into the LDP as Supplementary Guidance (SG); as such the SIMSP policies and maps became material consideration in any marine applications made to the Shetland Islands Council. In the future, the SIRMP will replace the SIMSP in this context, and forms a stand-alone Plan for Shetland's marine environment.

Any development proposal with a land-based element must consider the impacts on the terrestrial environment, its infrastructure and local community, as well as the implications on the marine environment. The SIRMP recognises that interactions can occur between the terrestrial and marine environment, and developers and marine users should also consider both the LDP and other relevant SG.

Wider Consideration

Marine environment policy is an important aspect of the current international, UK and Scottish environmental agenda and is undergoing a period of change and development. The Marine Strategy Regulations 2010, together with the UK 'Marine Strategy' establishes an overarching approach to the management of the UK's seas. They aim to achieve 'Good Environmental Status' of the UK's marine waters by 2020, and to protect the resource base upon which marine related economic and social activities depend. The Marine Strategy constitutes the environmental pillar of the UKs maritime policy, which is designed to achieve the full economic potential of oceans and seas in harmony with the marine environment.

River Basin Management Planning

The Scottish Environment Protection Agency (SEPA) co-ordinates the national process to achieve the objectives of the Water Environment and Water Services (Scotland) Act 2003 (WEWS), which is the framework for the production of River Basin Management Plans (RBMP).

The RBMPs promote sustainable water use while protecting and improving the water environment. RBMP processes cover inland waters, ground waters, lagoons and coastal waters out to 3 nautical miles. The Shetland and Orkney area plan is stakeholder-led by the Orkney and Shetland Area Advisory Group, of which the Shetland Islands Regional Marine Planning Partnership is a member, ensuring the two Plans come together efficiently. Details of the role of the Advisory Group and data maps for Shetland can be found on the SEPA website.

Levenwick © Charlotte Slater

Approach

Ecosystem Approach

The SIRMP adopts the ecosystem approach to the management of Shetland's marine resource. An ecosystem-based approach to the management of human activities means an approach which ensures that the collective pressure of human activities is kept within the levels compatible with the achievement of good environmental status; that does not compromise the capacity of marine ecosystems to respond to human-induced changes; and that enables the sustainable use of marine goods and services[2].

Climate Change

In accordance with the Climate Change (Scotland) Act 2009, public bodies are required to contribute to climate change mitigation and adaptation, and to act sustainably. The marine environment has a key role to play in decelerating the process of global climate change. The sea's energy can be harnessed by renewable energy technologies, and the ocean has a continual role in regulating the climate by acting as a natural carbon sink, helping mitigate climate change impacts.

Climate change mitigation can be defined as the implementation of policies and actions to reduce greenhouse gas emissions or, where possible, enhance carbon storage. Adaptation can be defined as the adjustment in economic, social or natural systems in response to actual or expected climatic change, to limit harmful consequences and exploit beneficial opportunities[3].

The SIRMP can assist the Scottish Government's move towards a low-carbon economy, in particular, meeting the Scottish Government's target for 100% of electricity to come from renewable sources by 2020. This is partially reliant on marine renewables (wave and tidal) and offshore wind as a source of power and the SIRMP aims to help integrate such developments with existing marine uses.

Marine planning will need to be responsive to climate change and ensure that decision making takes account of, and adapts to, changing marine environments. Policy requirements that demand developers and decision makers assess the consequences of climate change and altering plans or designs to account for these changes, is one example of such adaptation with the planning framework.

Based on an ecosystem approach to marine planning, the SIRMP ensures that the use of the marine environment is spatially planned where practical, facilitates climate change mitigation and requires current and future marine related activities to address and include provision for the impacts of climate change.

---

[2] A practical interpretation of the ecosystem approach is set out in regulation 5 of the Marine Strategy Regulations 2010 which transpose the Marine Strategy Framework Directive.

[3] Public Bodies Climate Change Duties: Putting Them Into Practice- Guidance Required by Part 4 of the Climate Change (Scotland) Act 2009

Dales Voe & Lerwick © Charlotte Slater

Plan Structure

The Policies

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 will ensure sustainable development of the coastal and marine area and will help to address any potential adverse impacts.

The policies included in the SIRMP are the means of achieving the vision and objectives of the SIRMP, which is to provide clean and safe, healthy and biologically diverse, and productive marine waters around Shetland.

There are two key sections within this document when considering any proposed activity or development:

- Legislative Requirements;
- Policy Framework.

All proposed developments must comply with legal requirements and adhere to all policies in the first two policy sections:

- 'Clean and Safe' and
- 'Healthy and Diverse'

Before considering their relevant development sector within:

- 'Productive'

All the policies within the SIRMP are designed to align with the Shetland Islands Council Local Development Plan, Scotland's National Marine Plan and the Scottish Government Economic Strategy. The policies laid out within this Plan, apply to the inshore coastal area out to 12nm.

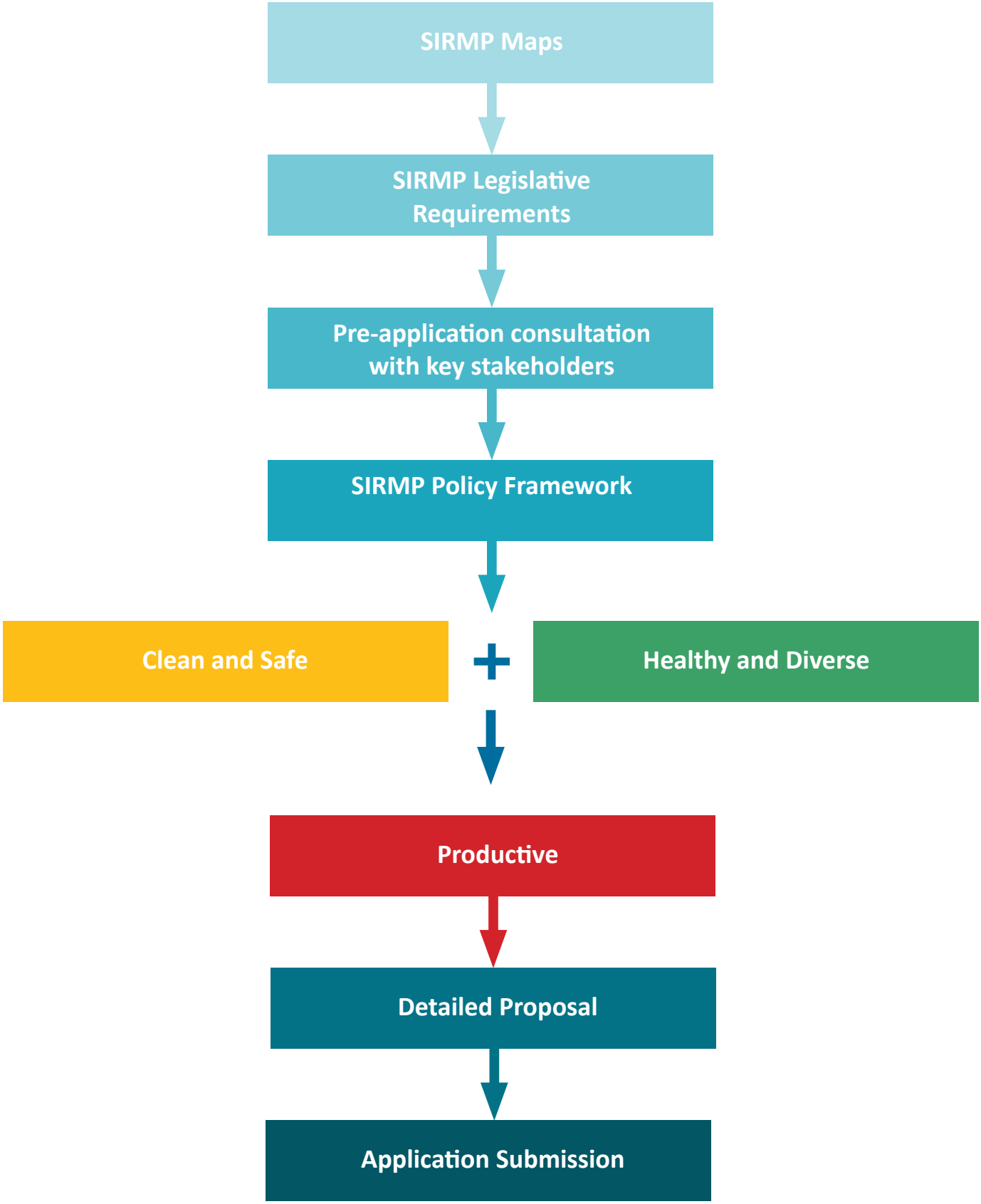
Developments

Developments are defined as a use or construction that requires a specific form of statutory consent from a competent authority to utilise a defined area. This includes new developments, alterations, extensions or changes in material use to existing developments that require statutory consent. Consents include planning permission, a works licence and a marine licence.

Activities

Activities are defined as a use or construction that is covered by a public right of use (e.g. navigation) and/or does not require specific statutory consent from a competent authority to utilise a defined area.

Planning Mechanism



Bellister © Charlotte Slater

Legislative Requirements

Any development proposal may be required to take into consideration the following principal legislative and regulatory procedures. The following is not an exhaustive list, and developers will be required to have regard to all other legislative and regulatory requirements specified in each of the policy sections and should also consult Appendix A and B. Developers are strongly advised to consult with the relevant consenting authorities as early as possible in the development of any marine proposal.

Marine Licence

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

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

The above list is not exhaustive and it is therefore recommended that prior to submitting a licence application, developers should seek further information on what is licensable and how to apply for a licence from Marine Scotland Licensing Operations Team (MS-LOT) on behalf of the Scottish Government. Exemptions from marine licensing exist for some activities due to their small size and limited impact.

Aquaculture developments require a marine licence in respect of navigational safety and wellboat operations.

Reserved matters such as defence are licensed by the Department for Business, Energy and Industrial Strategy (BEIS) on behalf of the Secretary of State. The Oil and Gas Authority (OGA) regulates the licensing of the exploration and development of the UK's offshore and onshore oil and gas resources, gas storage and unloading activities. BEIS and OGA should be consulted when requiring a marine licence for either of these reserved activities.

Key Contacts

Marine Scotland – Licensing (MS-LOT)
Department for Business, Energy and Industrial Strategy (BEIS)
Oil and Gas Authority (OGA)

Works Licences

Shetland Islands Council

Under the Zetland County Council Act 1974, as amended, (the Act of 1974), 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 Tang Pier Trust.

The Works Licence Policy, adopted by the Shetland Islands Council, provides guidance to those considering proposals that fall within the scope of the 1974 Act. In general terms, this means the placing of 'works', as defined by the 1974 Act, in the sea, on the seabed or on the foreshore below Mean High Water Springs (MHWS) and extending out to 12 nautical miles. 'Works' means developments of all types, excluding those for the purposes of marine fish farming. The 'works' that will require a works licence are primarily concerned with, but are not confined to, the following:

- Piers, marinas, breakwaters, sea defences and other constructions;
- Moorings, pontoons and moored barges;
- Pipelines and cables;
- Marine renewable energy developments (wave, tidal and wind);
- Dredging;
- Seaweed cultivation; and
- Septic tanks and outfalls.

It is recommended that any developer considering a marine development, other than aquaculture, within the area of jurisdiction of the Shetland Islands Council consult the Marine Planning Service and have regard to the Works Licence Policy as early as possible. A full copy of the Works Licence Policy and an application for a works licence can be obtained from Shetland Islands Council. Potential developers should consider the siting of the proposal using the SIRMP policies and maps in the subsequent sections.

Most works licence applications are determined under delegated powers. However, where a consultee (SNH, SEPA, Historic Environment Scotland, the Health and Safety Executive, Scottish Water or the relevant Community Council) specifically objects to a proposal, and conditions cannot address those issues, and the recommendation is for approval, the application is required to be determined by the Planning Committee of Shetland Islands Council. As part of the decision-making process both applicants and objectors are offered the opportunity of addressing the committee, in the interests of open, fair and transparent governance. As part of a works licence application, the Shetland Islands Council consults with a range of local and national organisations and these are listed within Annex II of the Works Licence Policy and Appendix B.

Key Contacts

Shetland Islands Council-Marine Planning

Lerwick Port Authority

Proposals for development below MHWS within the Lerwick Harbour limits require a works licence application to be made to the Lerwick Port Authority. The Lerwick Port Authority (LPA) have general direction, policies and byelaws which should be considered by potential developers. The LPA should be contacted for further information relating to development restrictions and opportunities within the Lerwick Harbour area.

Key Contacts

Lerwick Port Authority

Planning Permission

Land Based Elements

Marine development proposals may require a land-based element (such as land-based substation for marine renewable energy development). Land based elements of marine proposals are subject to planning permission under the Town and Country Planning (Scotland) Act 1997, as amended by the Planning etc. (Scotland) Act 2006.

Developments must adhere to national planning guidance for the historic environment, natural heritage, infrastructural services including water and waste water management, flood risk management, transportation, energy, and environmental impact assessment. It is advised that any developer proposing any land-based element consult with the Shetland Islands Council's Development Management Service as early as possible.

Aquaculture

Planning permission is required for aquaculture developments (excluding seaweed cultivation), including amendments to existing sites and the development of any new sites. The local planning authority is responsible for the determination of planning applications for aquaculture developments, and it is advised that all potential developers consult with the Marine Planning Service of the Shetland Islands Council as early a stage as possible.

Applications for aquaculture development will be considered in accordance with the Council's Aquaculture Policy, adopted as Supplementary Guidance to the LDP. As part of a planning application, the Shetland Islands Council consults with a range of local and national organisations and these are listed within Annex II of the Aquaculture Policy and Appendix B of this document.

Planning applications have to take into consideration the Scottish Planning Policy in addition to the LDP, where relevant. Similarly, other legislative frameworks should be taken into account such as Environmental Impact Assessment (finfish farms only), Marine Licensing and the Habitats Regulations.

Aquaculture developments are afforded certain Permitted Development (PD) rights through the Town and Country Planning (General Permitted Development) (Scotland) Order 1992 (as amended), which makes provision, subject to Prior Notification in most instances (unless like for like replacement), for ten classes of minor alterations to aquaculture developments without the need for further planning permission subject to the qualifications of the Order. The classes cover changes relating to: finfish cages, feed barges, cage top nets and supports, temporary equipment, shellfish longlines, change of species, moorings, cage nets, secondary cage net structures and shellfish trestles.

Key Contacts

Shetland Islands Council - Marine Planning (marine development/aquaculture)
Shetland Islands Council - Development Management (land-based development)

Further Information

Scottish Government website
Permitted Development Rights Order

Controlled Activities Regulations (CAR) Authorisation

The Water Environment and Water Services (Scotland) Act 2003 (WEWS Act) gives 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.

In accordance with the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR), an authorisation is required for activities in the marine environment (out to 3 nautical miles) involving discharges of pollutants and water abstraction. Applications for new fish farm developments, discharges to the sea from septic tanks, etc. are examples of activities that may require a CAR authorisation.

It is strongly advised that any developer proposing an activity that may have an impact on the water environment seeks further information relating to CAR from the regulator, the Scottish Environment Protection Agency (SEPA).

Key Contacts

Scottish Environment Protection Agency (SEPA) - Water Regulations

Section 36 Consent - Electricity Act 1989

Any electricity generation schemes with a permitted capacity greater than 1 megawatt must apply for and obtain consent of the Scottish Ministers under s36 of the Electricity Act 1989. Such consent must be obtained before an electricity generating station with a capacity greater than 1 MW can be constructed or operated in the Scottish marine area. Similarly to marine licences, consents can be granted with conditions to ensure full compliance with all relevant legislation.

Offshore developments with a capacity of 1MW or less are exempt from the requirement to obtain consent under s36.

All offshore generating stations, regardless of capacity, will also require a marine licence from MS-LOT. Special licensing procedures allow Marine Scotland to consider applications for consents and licences under both the Electricity and the Marine Acts together, when appropriate.

Provision within the Growth and Infrastructure Act 2013 gives Scottish Ministers powers to grant deemed planning consent for onshore ancillary development, such as substations, control buildings, etc., associated with offshore generation developments greater than 1MW. Separate planning permission from Shetland Islands Council will still be required for onshore ancillary equipment for developments below 1MW.

A works licence will be required from Shetland Islands Council for all offshore electricity generation developments and associated works within its jurisdiction, regardless of capacity.

Key Contacts

Marine Scotland - Licensing (MS-LOT)
Shetland Islands Council- Marine Planning (marine development)
Shetland Islands Council - Development Management (land-based development)
Shetland Islands Council - Planning Service

Seabed Lease- Crown Estate Scotland

Crown Estate Scotland (CES) manages the entire seabed out to 12 nautical miles (territorial sea limit). CES is therefore responsible for issuing seabed leases for activities such as aggregates, aquaculture, marine renewables, cables and pipelines. In addition, the CES is responsible for marinas, moorings and has an interest in parts of many ports and harbours.

It is likely that for the majority of marine developments, a seabed lease will be required. Therefore it is recommended that developers undertake early consultation with CES at the same time as progressing discussions with the relevant consenting bodies. It should be noted that the Scottish Crown Estate Act received royal assent in 2019. The Act includes a number of changes to who may manage the assets of the CES, allowing different types of organisations to become asset managers[4].

Key Contacts

The Crown Estate Scotland

Land-Sea Interface

The SIRMP area extends up to the MHWS level, whilst the terrestrial planning boundary extends to MLWS, therefore physically overlapping over the coastal zone. This overlap ensures that marine and land planning will address the whole of the marine and terrestrial environments respectively.

Integration of marine and terrestrial planning will be achieved through consistency between marine and terrestrial policy documents and guidance. Any marine development proposal with a land-based element must have regard to the impacts on the terrestrial environment, its infrastructure and local community, as well as the implications on the marine environment. Developers will also have to have regard to the policies as set out in the Shetland Islands Council Local Development Plan, as well as national planning guidance. Similarly, all public authorities taking authorisation or enforcement decisions that affect or might affect the UK marine area must do so in accordance with the UK Marine Policy Statement and the Scottish National Marine Plan.

[4] The Scottish Crown Estate Act 2019

Environmental Impact Assessment (EIA)

The potential impact of various types of proposed developments can be assessed by undertaking specific, detailed impact assessments in order to assess the full implications of a development proposal. The best known assessment is Environmental Impact Assessment (EIA), which identifies the environmental effects of development proposals.

Developments falling within Schedule 1 of the relevant EIA regulations e.g. the Town and Country Planning, Marine Works, or the Electricity Works (Environment Impact Assessment) (Scotland) Regulations 2017, will require EIA, this includes oil and gas installations. For developments that fall within Schedule 2 of those regulations an initial 'screening' stage is undertaken to determine whether an EIA is required. Developments falling within Schedule 2 include intensive fish farming and renewable energy development.

A 'scoping' stage in the EIA process identifies the key issues that need to be addressed. The appropriate consenting authorities for all marine developments within 12 nautical miles are likely to be the local planning authority (Shetland Islands Council), Marine Scotland on behalf of the Scottish Government, BEIS and the Oil and Gas Authority (OGA) on behalf of the Secretary of State for reserved matters.

Cumulative impacts of projects must be addressed and included in the EIA report. Cumulative impacts as defined by the European Commission Guidance are 'impacts that result from incremental changes caused by other past, present or reasonable foreseeable actions together with the project'[5]. It is envisaged that data and information within the SIRMP will assist in assessing cumulative impacts for marine developments in Shetland.

In Scotland the requirements for EIA are included within:

- The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017;
- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017; and
- The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

Key Contacts

Shetland Islands Council - Marine Planning (marine development/aquaculture)
Shetland Islands Council - Development Management (land-based development)
Marine Scotland – Licensing (MS-LOT)
Department for Business, Energy and Industrial Strategy (BEIS)
Oil and Gas Authority (OGA)

Further Information

Scottish Government website - Environmental Assessment

Cumulative and In-combination Impacts

The potential cumulative and in-combination impacts of proposed developments should be taken into consideration when planning any future developments/projects.

In accordance with the UK Marine Policy Statement, it is recommended that the consenting authorities consider the potential cumulative and in-combination impacts of activities such as whether:

- The cumulative and in-combination impact of activities, either by themselves over time or in conjunction with others, outweigh the benefits;
- A series of low impact activities would have a significant cumulative impact which outweighs the benefit;

[5] Walker, L.; Johnston, J. (1999). Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions. pp 172.

- An activity may preclude the use of the same area/resource for another potentially beneficial activity.

The assessment of cumulative and in-combination impacts is also a requirement under the EIA Directive and should be addressed in any supporting statement for development consent.

Consultation

Pre-application Consultation

Statutory requirements have been introduced to ensure communities are aware of, and have the opportunity to comment on certain types of development proposals prior to a marine licence application being submitted to MS-LOT. Pre-application consultation with local communities and early discussions with the relevant competent authority can add value at the beginning of the consent process by improving the quality of the proposal, mitigate negative impacts where possible, address any misunderstandings and deal with any community issues which can be tackled.

The regulations require that at least one consultation event must be held in a publicly accessible location and a report based on the findings of that consultation event be submitted alongside the licence application. Pre-application consultation is an additional measure which has been put in place. It does not take away the right or opportunity for individuals and communities to make formal comments during the application process.

The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013, requires that prospective applicants for marine licences for the following activities will be required to carry out a public pre-application consultation:

1. The deposit of a submarine cable into the sea or on or under the seabed from a vehicle, vessel, aircraft, marine structure or floating container, where the cable is greater than 1853m (approximately 1 nautical mile (NM)) in length and where it crosses the inter-tidal boundary.
2. The deposit of a submarine cable into the sea or on or under the seabed from a vehicle, vessel, aircraft, marine structure, floating container or a structure on land constructed or adapted wholly or mainly for depositing solids into the sea for the purposes of reclaiming land, where the area being reclaimed from the sea exceeds 10,000m^2.
3. The construction in or over the sea or on or under the seabed of a bridge, causeway or walkway over 50m in length.
4. Construction works (other than for a renewable energy structure) in or over the sea or on or under the seabed where the area of the works exceeds 1000m^2.
5. Alteration or improvement of works (other than for a renewable energy structure) in or over the sea or on or under the seabed where the area of those works, as extended, exceeds 1000m^2. The construction of a renewable energy structure in or over the sea or on or under the seabed, where the total area in which the structure is to be located exceeds 10,000m^2.
6. The alteration or improvement of a renewable energy structure in or over the sea or on or under the seabed which extends the structure, where the total area in which that structure is to be located to over 10,000m^2.

In terms of the planning acts, statutory pre-application consultation is only a requirement for major and national developments, and is therefore rarely applicable to marine aquaculture developments.

Policy Section A - Clean and Safe

Bannaminn © Charlotte Slater

Meal Beach © Christina Kelly

Water Resources

Shetland's water resource underpins the productivity of many of its key industries. 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. An overview of the current status of Shetland's marine environment in relation to water quality is given in the 'Shetland Islands Marine Region State of the Environment Assessment'.

River Basin Management Planning

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.

Marine Strategy

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[6], 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.

Policy MP WAT1: Water Ecology

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. Development adjacent to a water body must be accompanied by sufficient information to enable a full assessment of the likely effects including cumulative effects.

Existing discharge locations are shown in Map 1, Shellfish Protected Areas are shown in Map 2.

[6] HM Government. 2012. Links between the Marine Strategy Framework and Water Framework Directives

Policy MP WAT2: Improving Water Quality and Ecology

Development and use of the marine environment will be required to contribute towards objectives to improve the ecological status of coastal water bodies and the environmental status of marine waters where there is a risk that an environmental objective will not be achieved.

Justification

Coastal and marine developments and activities can have adverse effects on transitional waters, coastal waters and marine waters. During construction, operation, maintenance and decommissioning phases of certain developments, there may be increased demand for water, discharges to water, and adverse ecological effects resulting from physical modifications to the water environment. In addition, there may be an increased risk of spills and leaks of pollutants into the water environment, and an increased likelihood of transmission of invasive non-native species, for example through the transport of construction equipment from various locations, and their impacts on ecological water quality need to be considered.

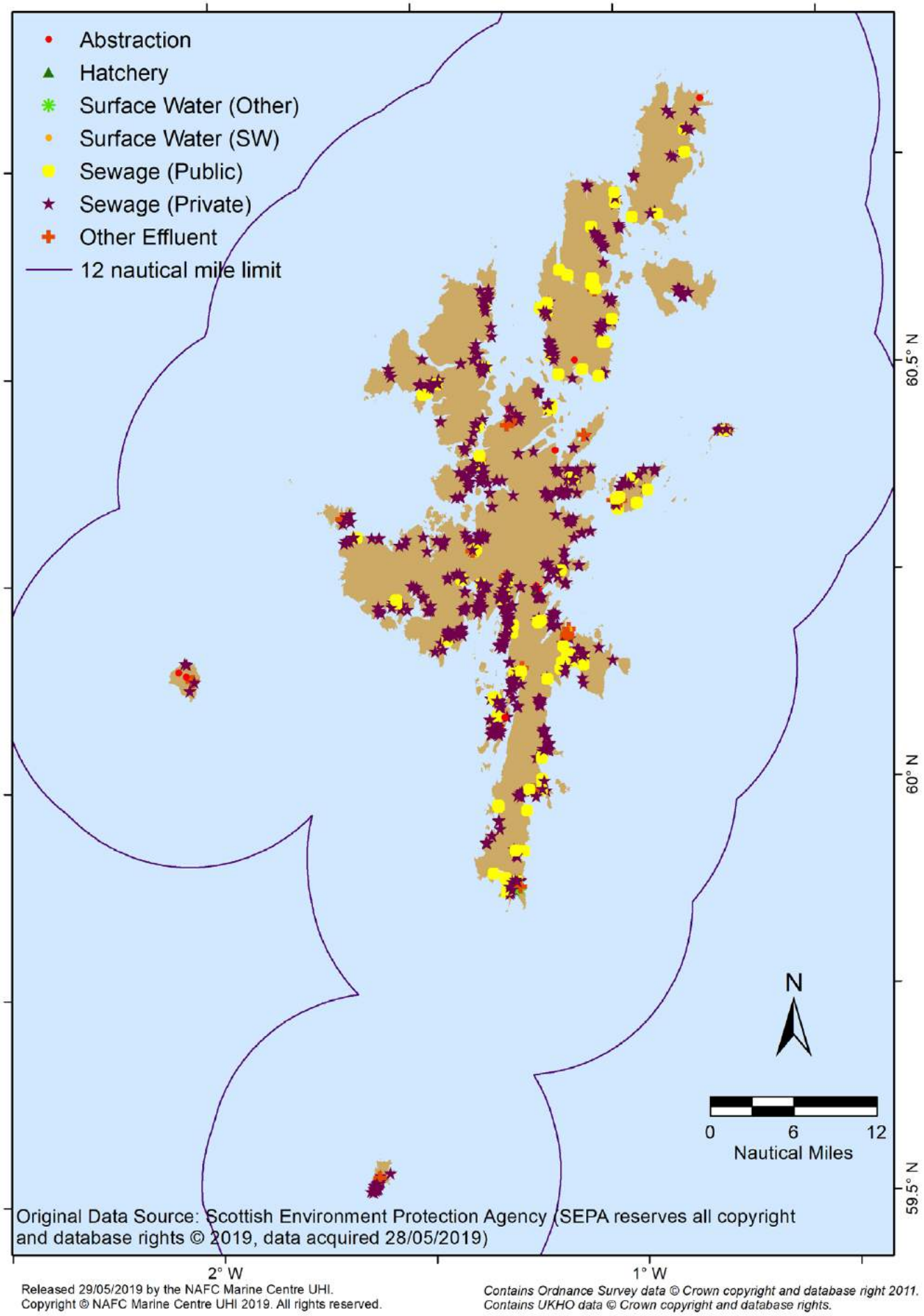
Developments can also contribute to the improvement of water quality and ecology.

Key Consultees

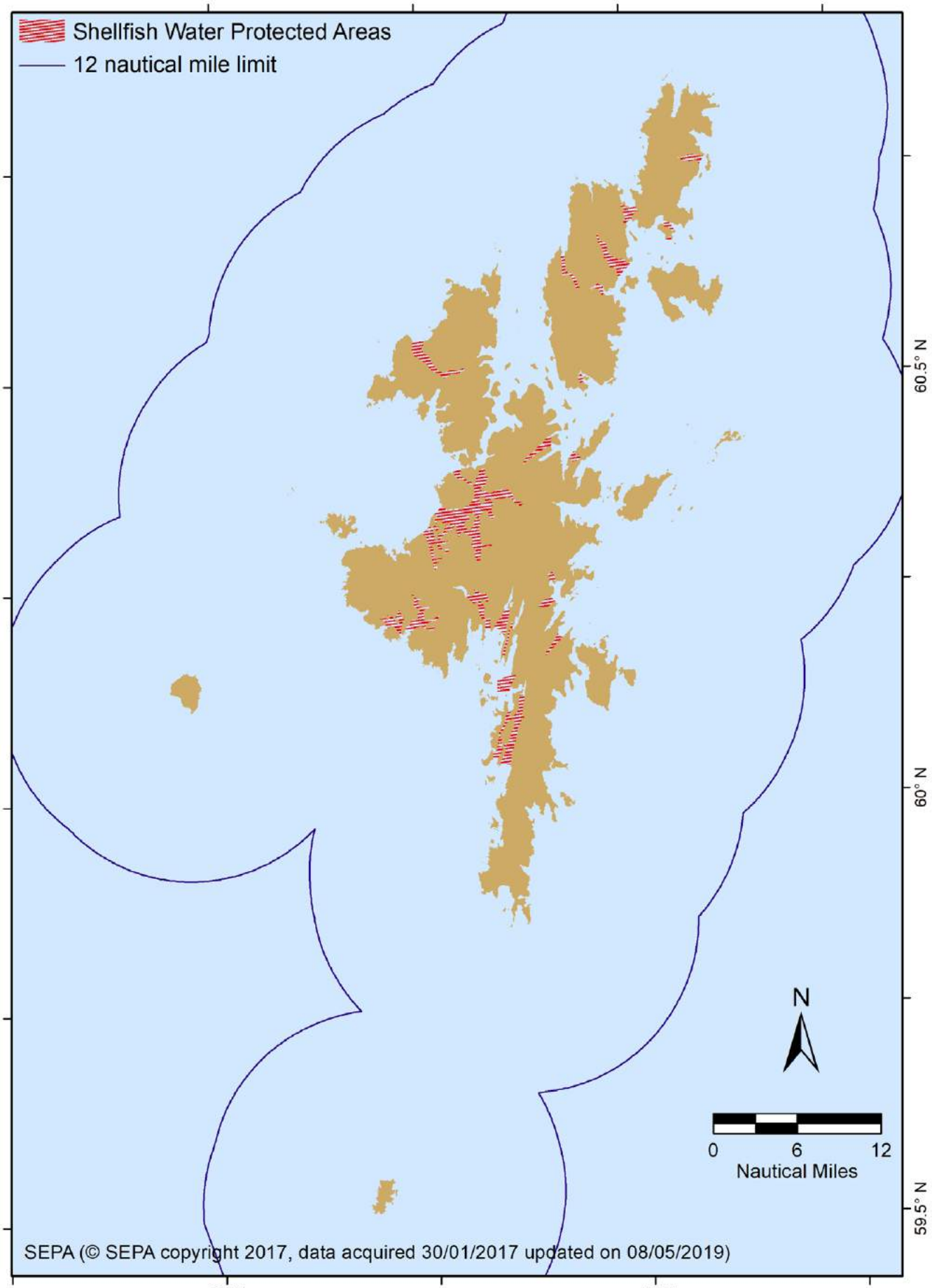
- SEPA

Further Information

- Scotland River Basin Management Plan
- HM Government. 2012. Links between the Marine Strategy Framework and Water Framework Directives
- Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2016



Map 1: Discharge locations within the Shetland Islands Marine Region



Map 2: Shellfish Water Protected Areas within the Shetland Islands Marine Region

Sea squirts © Charlotte Slater

Non-native Species (NNS)

An introduced species (alien species, exotic species, non-indigenous species, or non-native species) is a species living outside its native distributional range, which has arrived there by human activity, either deliberate or accidental. Invasive non-native species (INNS) are those species which may have an adverse impact on native biological diversity and a range of other activities. The 'Shetland Islands Marine Region State of the Environment Assessment' highlights the increasing number of non-native species found in the Shetland Islands Marine Region.

The 'Invasive Non-Native Species Framework Strategy for Great Britain'[7] (UK INNS Strategy) provides an overarching framework to minimise the risk posed and reduce the negative impacts caused by INNS in Great Britain. Locally the 'Biosecurity Plan for the Shetland Islands', published in 2015, sets out a management strategy to address the introduction and spread of INNS, and therefore will be instrumental in mitigating and adapting to any discovery in local marine waters.

Policy MP INNS1: Reducing the Spread of Invasive Non-Native Species (INNS)

Applications for marine development and use should demonstrate that the potential risks of introducing or spreading INNS have been adequately considered. Necessary measures should be proposed if risks are identified in their proposal, particularly when moving equipment, boats or live stock (e.g. fish and shellfish), introducing structures suitable for settlement of aquatic INNS or which facilitate the movement of terrestrial INNS, including to islands.

Development proposals in areas where INNS are known to exist must include necessary measures or a biosecurity plan approved by the consenting authority or regulator that seeks to minimise the risk of spreading the INNS or identifies ways to eradicate the organisms and set up a scheme to prevent reintroduction.

Justification

Invasive non-native species (INNS) have the potential to pose one of the most significant threats to marine biodiversity, especially in light of climate change. The effects of introduced species on their host environment can include competition with native species for resources such as food and space, habitat alteration, changes in water quality and the transmission of disease or parasites. Raising awareness of the potential for the introduction and spread of INNS is of paramount importance to marine dependent industries in Shetland, such as tourism, aquaculture and fisheries. The Biosecurity Plan for the Shetland Islands highlights sector specific measures which can be implemented to reduce the spread of NNS.

Known locations of NNS are shown in Map 3.

[7] DEFRA. 2015. The Invasive Non-Native Species Framework Strategy for Great Britain. ©Crown copyright 2015

Key Consultees

- SNH - record findings of INNS
- NAFC Marine Centre UHI - local reporting and recording of sightings of marine INNS
- Shetland Biological Records Centre - local reporting and recording of sightings of terrestrial INNS
- SEPA

Further Information

- NAFC Marine Centre UHI Biosecurity Plan for the Shetland Islands
- NAFC Marine Centre UHI INNS information
- SNH - marine non-native species information
- SNH- Marine Biosecurity Planning Guidance
- Scottish Government- Non-native species: code of practice
- Defra Non-native species information
- SEPA - Invasive non-native species

Invasive non-native species

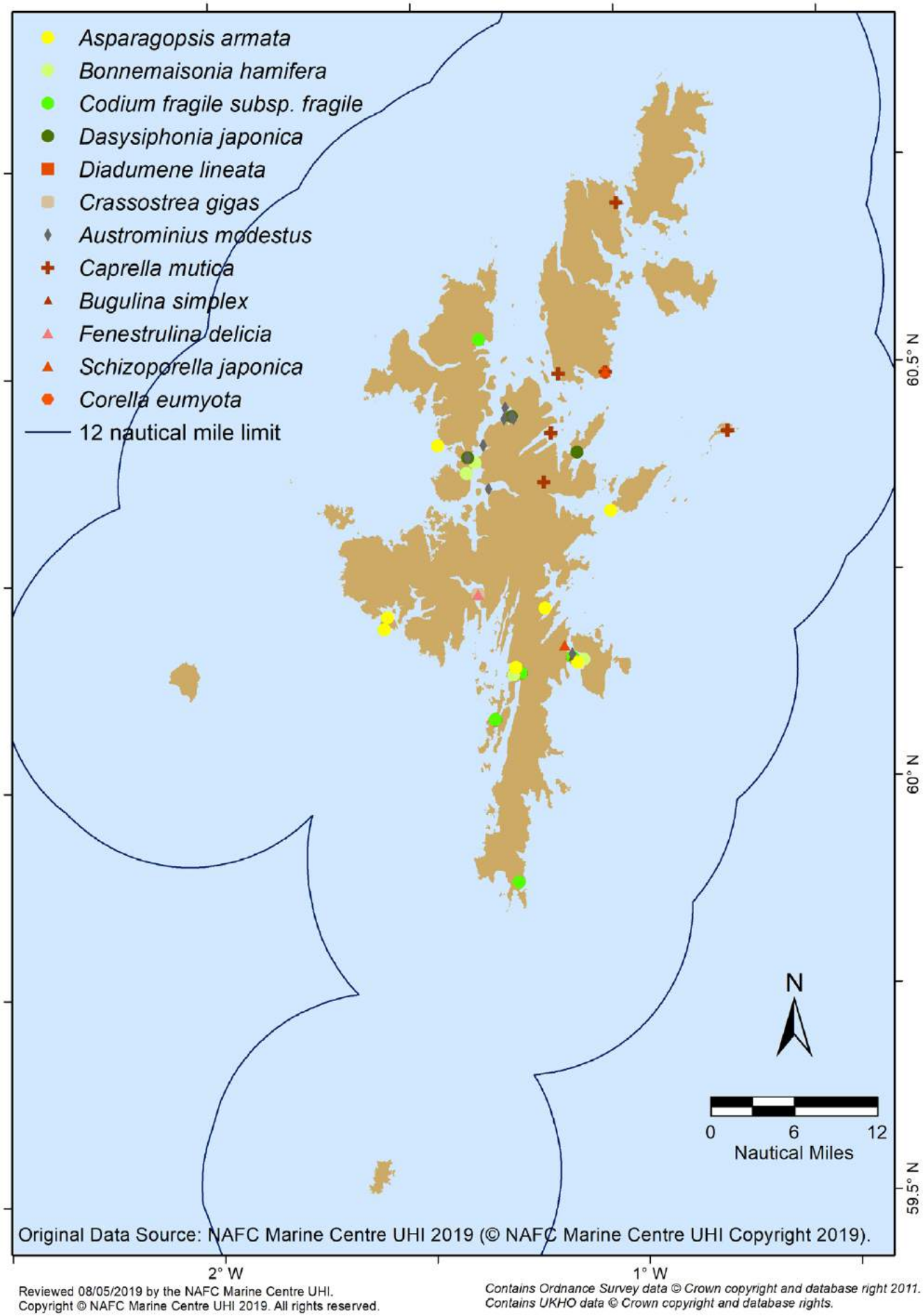
Systematic investigative research of INNS commenced in Shetland in 2012 as part of the SIMSP, to help inform future policy development in this area. A 'Biosecurity Plan for the Shetland Islands' has been developed based on the results of this research. The Biosecurity Plan forms part of Shetland's overall approach to marine planning and management by ensuring levels of INNS do not adversely alter the ecosystem, nor impact marine industries. The Biosecurity Plan includes a range of measures such as raising awareness and education about INNS and providing advice on appropriate surveillance methods. The reporting of any sightings of INNS to the **NAFC Marine Centre UHI** and **Shetland Biological Records Centre** is encouraged and advocated as part of this continuous investigative research process. This will ensure that a proactive approach to INNS is applied and preventative measures are in place to address any potential problem if and when it should arise in the future.

All other marine users can ensure the potential spread of INNS is reduced by:
a) Maintaining boat hulls clear of fouling organisms, particularly when moving to and from new areas;
b) Cleaning boats and equipment before transporting them from one water body to another;
c) Cleaning and drying dive and fishing gear after use.

Marinas and ports are encouraged to promote awareness of INNS amongst their users. Please note that artificial structures have the potential to become platforms for the settlement of INNS and therefore can act as a 'stepping stone' for the spread of INNS.

Examples of INNS with potential to cause adverse effects in and around Shetland waters:

- *Didemnum vexillum* (carpet sea squirt/ marine vomit)
- *Styela clava* (leathery sea squirt)
- *Watersipora subtorquata* (a bryozoan)
- *Schizoporella japonica* (a bryozoan) – reported in Shetland already
- *Sargassum muticum* (wireweed)



Map 3: Records of non-native species within the Shetland Islands Marine Region

Marine Litter © Charlotte Slater

Waste Minimisation

The impact of marine litter has become of increasing public concern. Marine Litter was also highlighted as an issue within the 'Shetland Islands Marine Region State of the Environment Assessment'. In 2014 Marine Scotland published a 'Marine Litter Strategy' as part of its overall approach to marine planning and management. In supporting the Scottish Government's commitment to reduce marine litter the SIRMP aims to encourage marine users and developers to dispose of litter in ways which do not harm the marine environment.

Policy MP LITT1: Waste Minimisation

All applications for marine-related development and use shall 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, unless directed by the consenting authority or regulator that this is not required.

The production of waste should be minimised as far as possible through consideration of the waste hierarchy (reduce, re-use or recycle) and disposal of any waste must only be through the use of appropriate licensed facilities.

In accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL), the discharge of all garbage/litter into the sea is strictly prohibited[8].

Justification

Marine litter is a global environmental issue which poses a threat to ecosystems in terms of direct and indirect environmental, social and economic impacts. In terms of environmental impact, marine litter can result in the deaths of hundreds of thousands of seabirds and marine mammals globally each year from becoming entangled in or ingesting marine litter[9]. Marine litter can also destroy coastal habitats, interfere with biological production and destroy or smother the seabed.

Marine litter also has social and economic impacts, it is reported that UK local authorities spend approximately £15 million annually removing beach litter. It has been estimated that marine litter costs the Shetland economy on average £950,000 annually[10].

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

[9] http://www.kimointernational.org/action-areas/marine-litter/

[10] KIMO. 2010. Economic Impacts of Marine Litter.

It is estimated that marine rubbish costs the Scottish fishing fleet approximately £11.5 million each year, with dumped catch, repairs to gear and lost fishing time costing each vessel in the Scottish Fleet between £15,000 and £17,000 each year[11].

In 2017 the main sources of marine litter identified at a national level were reported as: 46.2% non-sourced, 30.4% public, 10.8% fishing, 8.5% sewage related debris, 2.9% shipping, 1% fly tipped and 0.2% medical[12]. In Shetland, surveys have been completed by Da Voar Redd Up volunteers since 1988 on the distribution and sources of marine litter. In Spring 2018 over 65 tonnes of litter was collected by the volunteers. The main types of litter comprised plastics, textiles (including nets/ ropes) and plastic bottles. A number of surveys noted that the main sources of litter collected at the coast were from the sea, and mainly associated with fisheries (fishing and aquaculture) activities: fishing rope, nets, fish boxes, mussel pegs, etc. Other sources of coastal litter included agricultural and domestic waste. In addition to locally generated litter, it has also come from as far away as Canada, USA, Mexico, Denmark and Russia.

Da Voar Redd Up

Da Voar Redd Up is an annual clean-up of Shetland's beaches and roadsides after the winter storms to get the islands clean for summer visitors, wildlife and the residents. "Da Voar Redd Up" means The Spring Clean Up. The clean ups are undertaken by local residents and industry on a voluntary basis and approximately 20% of the population take part (over 4500 people), and do so year on year since it began in 1988. From 1998 to 2018 this has equated to 100 000 volunteers and 1 900 tonnes of rubbish.

Key Consultees

- Shetland Islands Council- statutory powers to consent and prosecute for littering and dumping on public ground
- SEPA - responsible for registering waste carriers and controlling fly tipping
- MS-LOT- statutory duty to control deposits of articles in sea / tidal areas e.g. disposal of dredged material as well as having consenting powers for marine licences
- Maritime and Coastguard Agency (MCA) - control and manage pollution at sea i.e. from vessels

Further Information

- Marine Scotland - Marine Litter Strategy for Scotland
- Code of Practice on Litter and Refuse (Scotland) 2018
- SEPA - waste guidance
- Shetland Amenity Trust Da Voar Redd Up
- Kimo - Marine litter information

[11] KIMO. 2017. Fishing For Litter Scotland 2014-2017. Final Report

[12] Marine Conservation Society Great British Beach Clean Report 2017

Rib © NAFC Marine Centre UHI

Surface and Underwater Noise and Vibration

Noise and vibration can result from marine development and activities, ranging from shipping to acoustic deterrents. The noise can be continuous or temporary, and occurring at different stages of a development process. Noise and vibration from marine development and activities can occur above water, underwater or both. Within the Shetland Islands Marine Region the current levels of underwater noise, and therefore their impacts are not known.

Policy MP NOISE1: Minimising Levels of Surface and Underwater Noise and Vibration
Applications for marine-related development and use should, where directed by the consenting authority or regulator:

a) submit a surface and underwater noise and vibration impact assessment or supporting information to describe the duration, type and level of noise and vibration expected to be generated at all stages of the development (construction, operation, decommissioning); and

b) include mitigation measures to minimise the adverse impacts associated with the duration and level of noise and vibration activity.

Development must also take into consideration the potential cumulative effects of surface and underwater noise and vibration within the marine area. Developers should consider whether the level of surface or underwater noise and vibration has the potential to affect a marine species and where this includes a European Protected Species (EPS) note that an EPS Licence may be required. Consideration of impacts on Priority Marine Features (PMFs) may also be required.

It is advised that developers consult with the local planning authority, Marine Scotland and SNH in relation to potential noise impacts as early as possible in the design and development of any marine-related project.

Justification

As recognised in the UK Marine Policy Statement, 'noise resulting from a proposed activity or development in the marine area, coastal and estuarine waters can have adverse effects on biodiversity', however knowledge is limited on the actual extent of impacts. Anthropogenic noise emitted within the marine environment has the potential to mask biologically relevant signals, can lead to a variety of behavioural reactions, affect hearing organs, and injure or even kill marine life. Particular sources of concern are marine related noise as a result of: explosions; shipping; seismic surveys; offshore construction and offshore industrial activities, i.e. dredging, drilling and piling; sonar of various types; and acoustic deterrent devices.

Marine noise can have a negative effect on human beings. For example, excessive noise can impact on the quality of human life, health, and use and enjoyment of areas, including those with high visual quality[13]. The potential impact on all marine receptors therefore needs to be considered and managed appropriately.

[13] UK Marine Policy Statement

Noise impact assessments or supporting information will be expected to include details on the type, level and duration of noise expected to be generated throughout all stages of the development. Examples of noise mitigation measures include use of marine mammal observers (MMOs) and passive acoustic monitoring (PAM), locating noise generating devices away from sensitive receptors where feasible.

Key Consultees

- SNH
- Marine Scotland

Further information

- OSPAR Commission. 2009. Overview of the impacts of anthropogenic underwater sound in the marine environment.
- Senior, B., Bailey, H., Lusseau, D., Foote, A & Thompson, P.M. (2008). Anthropogenic noise in the Moray Firth SAC; potential sources and impacts on bottlenose dolphins. Scottish Natural Heritage Commissioned Report No. 265 (ROAME No. F05LE02).
- Lepper, P.A., Gordon, J., Booth, C., Theobald, P., Robinson, S.P., Northridge, S & Wang, L. (2014). Establishing the sensitivity of cetaceans and seals to acoustic deterrent devices in Scotland. Scottish Natural Heritage Commissioned Report No. 517.
- JNCC guidelines for minimising the risk of injury to marine mammals from geophysical surveys. August 2017
- JNCC Statutory nature conservation agency protocol for minimising the risk of injury to marine mammals from piling noise. August 2010.
- COWRIE (Collaborative Offshore Wind Research Into The Environment)
- JNCC Guidelines for minimising the risk of injury to marine mammals from using explosives. August 2010.
- Southhal et al. (2007). Marine Mammal Noise Exposure Criteria: Initial Scientific Recommendations. Aquatic Mammals 33: 411-521.
- Richardson, W.J., Malme, C.I., Green, C.R.jr. and D.H. Thomson (1995). Marine Mammals and Noise. Academic Press, San Diego, CA 576 pp.

Scalloway Harbour © Charlotte Slater

Safeguarding Ports and Navigation Safety

One of the objectives of the SIRMP is to provide a safe marine environment for all users and activities. The SIRMP policies can help ensure that the conditions necessary for the efficient and safe movement of shipping to and from ports and harbours are maintained. It is also important to create conditions for safe shipping traffic around the Shetland coast in association with the relevant consenting authorities and maritime agencies. The subsequent shipping policies and mapping will contribute toward safe shipping and navigation around the Shetland coast.

Policy MP PORT1: Harbour Plans

All proposals for marine-related developments located within or adjacent to a designated harbour area must comply with any harbour plans, policies, directions and by-laws in place within such designated harbour areas.

Policy MP SHIP1: Safeguarding Navigation Channels and Port Areas

Development proposals that would have an adverse impact on the efficient and safe movement or navigation of shipping to and from ports, harbours, marinas and anchorages or the long-term operational capacity of a ferry operation will be refused. Where shipping may be displaced, developers may be required to quantify and consider the impacts of increased fuel use.

Developments which have the potential to restrict future expansion of important ports and harbours will be refused.

Harbour areas and anchorages are shown in Map 4, shipping routes (commercial and recreational) are shown in Map 5.

Justification

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. It should be noted that any development within the Lerwick harbour area will require a Works Licence from the Lerwick Port Authority.

Decision-makers should carefully evaluate and balance shipping interests with other water uses around the Shetland coast and require that the provisions for safe shipping traffic are safeguarded as a condition of any development consent. Navigation channels are not a given size, but more related to its distance between two land masses. For this reason, it is difficult to put a standard safety zone around shipping routes without wasting an area for another use that could safely occur. It should also be noted ferry terminals and port areas require a certain amount of operational area for vessels approaching and leaving a pier, in addition to a navigation space for onward shipping routes.

Shipping over 5000 tonnes is regulated by international agreements, and are generally inflexible in terms of where they can go. The types of large vessels that Shetland receives are: cruise liners, large shipping and ferry vessels, cargo, oil-related vessels such as diving support ships, platform supply vessels and oil tankers.

The identification and location of main shipping routes are shown in Map 5, providing a spatial overview of important navigational areas.

In some areas of Shetland shipping not regulated by international agreements has greater potential to be flexible with respect to other uses. The types of vessels Shetland receive in this category are: small fishing vessels, small ferries, aquaculture work boats, yachts and hobby boats. Only small ferry and yacht routes have been mapped, shown in Map 5. In many voes of Shetland however, there are narrow channels with little room for manoeuvring. New activities that potentially conflict with safe navigation will have to consider navigation as the dominant use for safety reasons. Therefore, in the case of conflicts, new uses are secondary. Pre-application consultation for a development proposal with the relevant authorities e.g. Lerwick Port Authority or Shetland Islands Council Port and Harbour Operations, and the Northern Lighthouse Board is strongly advised.

Policy MP SHIP2: Marine Environmental High Risk Areas (MEHRAs)
Developments should consider the presence and status of Marine Environmental High Risk Areas (MEHRAs).

MEHRAs are shown in Map 5.

Justification

Shipping is under significant pressure to minimise the impact of accidents and operations on the marine environment. Oil spills, collisions and groundings, as well as waste discharges, anti-fouling systems, anchor damage, wake impacts and ship-generated noise, have become increasingly important and high profile issues. Since the Braer ran aground off Shetland in 1993, the need for further protective measures to eliminate and reduce shipping-related impacts around the UK coast has been highlighted.

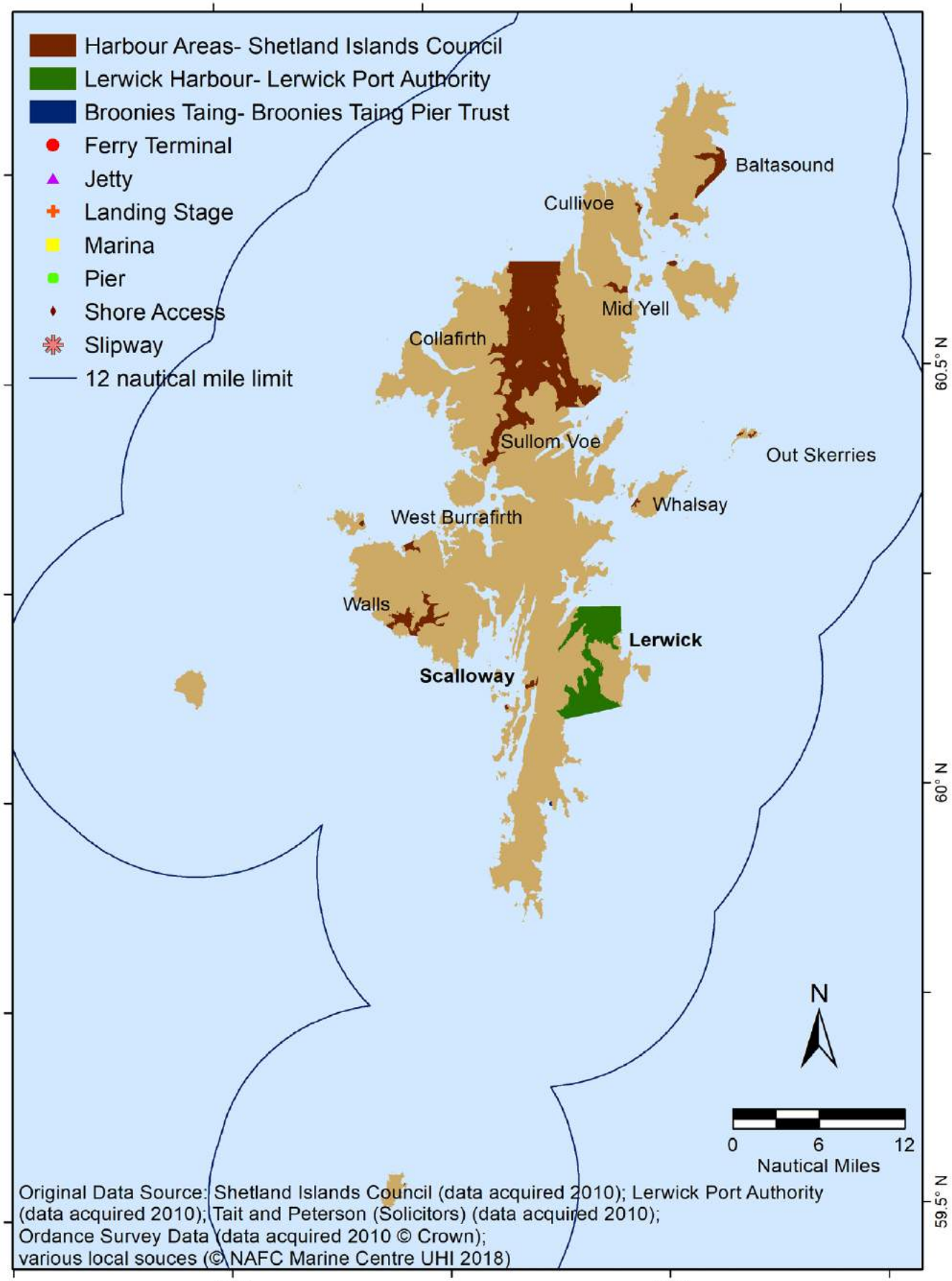
Ship owners and operators can take action through ensuring the integrity, maintenance and effective environmental management of their vessels and secondly, through due consideration of the environmental requirements of any regions in which their ships will operate. In order to achieve the latter, Marine Environmental High Risk Areas (MEHRAs) have been identified. 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.

Key Consultees

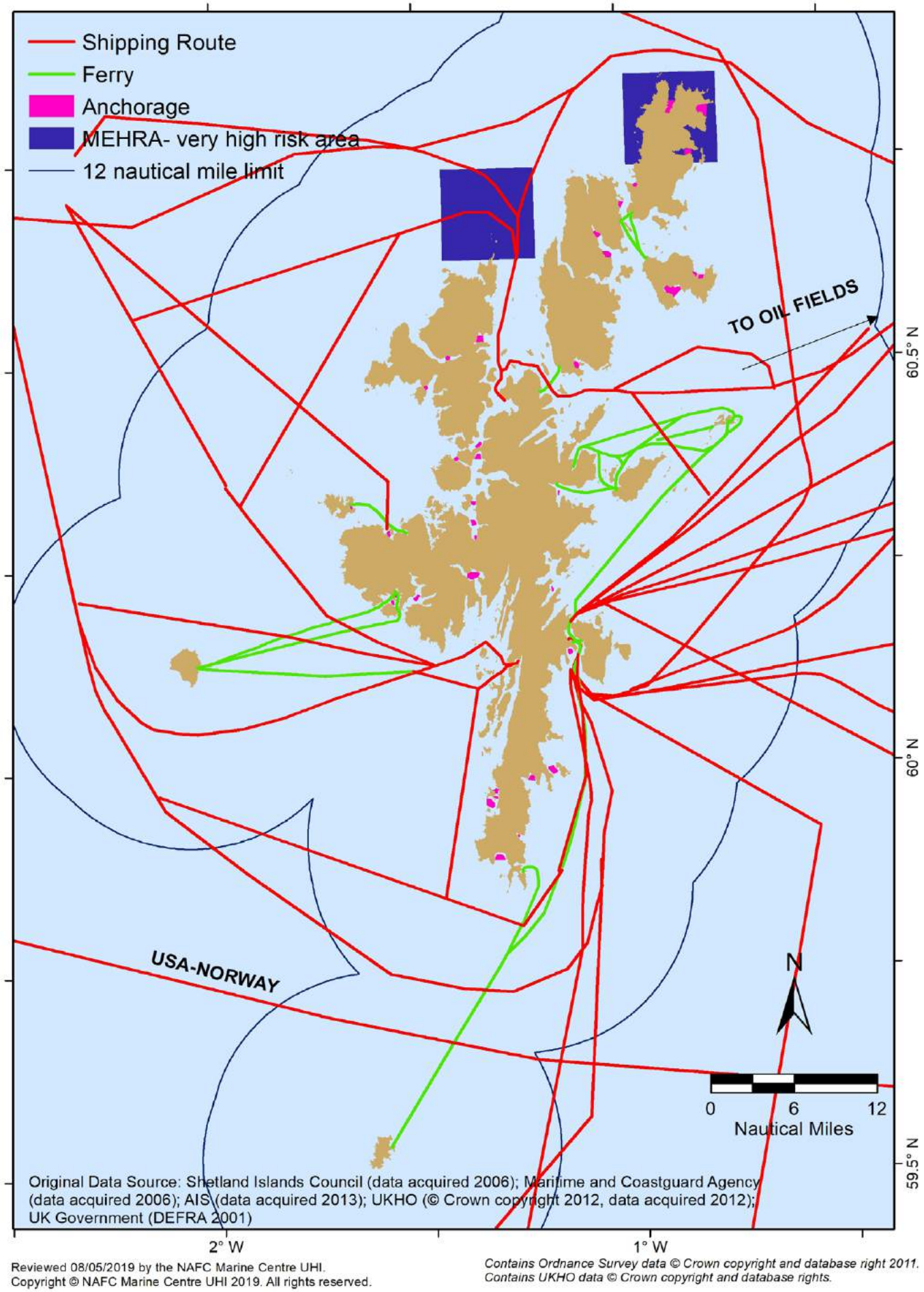
- Marine Scotland
- Northern Lighthouse Board
- Shetland Islands Council - Harbour Master & Port Operations
- Lerwick Port Authority

Further Information

- Maritime and Coastguard Agency
- Lerwick Port Authority- Environment-quality-and-safety, General Directions and Harbour Byelaws
- Marine Environmental High Risk Areas (MEHRAs)
- International Maritime Organization (IMO)
- Department for Transport Port Marine Safety Code
- Scalloway Harbour Oil Spill Contingency Plan
- Sullom Voe Harbour Oil Spill Contingency Plan



Map 4: Harbour Areas and shore access locations within the Shetland Islands Marine Region



Map 5: Main shipping routes and MEHRAs within the Shetland Islands Marine Region

Cullivoe © Richard Shelmerdine

Utility Cables and Pipelines

Utility cables (e.g. telecommunications, electricity) and pipelines (e.g. oil and gas, water, aquaculture) are buried deep in the seabed where possible. Where burial is not feasible, they tend to be placed on top of the seabed and protected for example, by rock armour or concrete mattresses. Installers and operators are required to promote marine safety and protection by raising awareness among other marine users of the location of this infrastructure.

Policy MP ACBP1: Avoidance of Cables and Pipelines

Activities that could damage any cable or pipeline (e.g. dredging or mooring attachments to the seabed) must not be carried out in the following situations:

a) within the 500m exclusion zone(s) established under the Petroleum Act 1987 around oil and gas platforms, well heads and associated pipelines; and

b) within a 250m exclusion zone either side of utility (telecommunications, electricity or water supply) cables or pipelines.

Cable and pipeline locations are shown in Map 6.

Justification

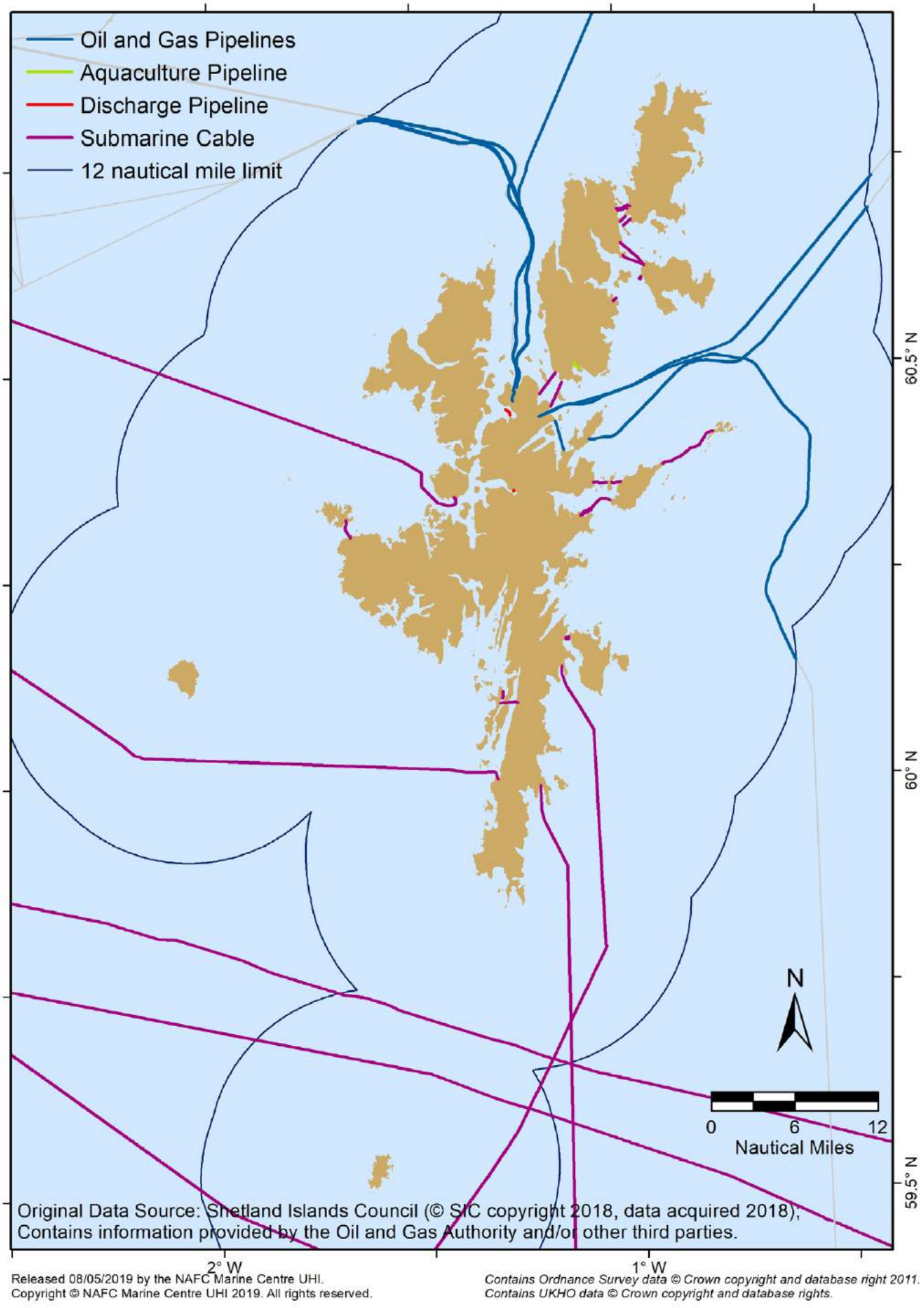
The aim of this policy is to establish clear safety zones that address potentially serious public safety issues. In the past, some dredging and trawling activities have caused damage to communication and electricity cables. These cables provide lifeline services to Shetland and damage can jeopardise this, as well as requiring extra resources for repair. As pressure on marine resources, exploration and installation activity increases around Shetland waters, in order to reduce disruption, it is imperative that marine users are made aware of this infrastructure and avoid it. The identification of major cables and pipelines, as outlined in Map 6, is a step in meeting this aim.

Key Consultees

- Marine Scotland
- Shetland Islands Council
- Scottish Water
- SSE
- SEPA

Further Information

- European Subsea Cables Association
- KIS-ORCA Information Service Cable Awareness



Map 6: Cable and pipeline locations within the Shetland Islands Marine Region

Quendale beach © Christina Kelly

Climate Change

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.

Policy MP CLIM1: Climate Change Mitigation

Applications for marine-related developments should demonstrate, in a format approved by the consenting authority or regulator, that:

a) resource use;
b) energy use; and
c) emissions have been assessed and minimised as part of the overall development proposal.

Developments which have the potential to impact habitats which act as a carbon sink or protect against coastal erosion may be refused.

Examples of low resource use include use of energy efficient construction, use of renewable energy sources, reduced need for travel/transportation and waste management.

Policy MP CLIM2: Climate Change Adaptation

Applications for marine-related developments should 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.

Justification

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.

In determining applications for development, consenting authorities should, where relevant, consider the likely impact of the proposed development on climate change, including any management and/or mitigation measures proposed by the developer. Developers may be asked to consider impacts on habitats which act as a carbon sink e.g. kelp forests and horse mussel beds.

Key Consultees

Please refer to Appendix B for Key Consultees.

Further Information

- UK Climate Change Projections
- UK Climate Change Risk Assessment (CCRA)
- Scotland's Climate Change Adaptation Framework 2009
- Scotland's Climate Change Adaptation Framework. Sector Action Plans 2011
- Scotland's Coastal Change Assessment
- Marine Climate Change Impacts Partnership

Policy Section B - Healthy and Diverse

Jewel Anemones © Rachel Shucksmith

Pebble beach, Sullom © Charlotte Slater

Healthy and Diverse

The geology of the islands of Shetland is complex and it has one of the greatest variety of rock types in a small area than found almost anywhere else. This complexity has created a varied and intricate coastline which influences and is influenced by the species, habitats and communities found around the coast.

Shetland has internationally, nationally and locally important marine natural heritage features and designated areas. As well as their conservation importance these habitats and species directly and indirectly support a range of goods and services including wild fisheries, tourism, recreation, carbon sequestration and coastal protection. This natural capital has benefited the people of Shetland since the first evidence of human activity from around 4300 BC.

Plan led sustainable development will help to secure the respect and protection that Shetland's natural and historic marine environment requires. In doing so this will provide the opportunities and means to enhance quality of life, reduce poverty and disadvantage, increase wealth, health and well-being, and build stronger, more sustainable and empowered communities.

Maps

Important species and habitats in Shetland are protected under a range of legislation, clearly shown in the accompanying maps (Maps 13 to 22), including:

i. The Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations);
ii. OSPAR list of threatened and/or in decline species and habitats;
iii. The Wildlife and Countryside Act 1981 as amended;
iv. Nature Conservation (Scotland) Act 2004;
v. Biodiversity Action Plan (UK and Local);
vi. Birds of Conservation Concern (BoCC); and
vii. Priority Marine Features (PMFs)

All maps are available to view on the Scottish Government website NMPi.

Sources of Information

In Shetland there are a number of sources of information available in relation to Shetland's natural and historic marine environment. These include SNH, RSPB Scotland, NAFC Marine Centre UHI and the Shetland Amenity Trust which incorporates the Shetland Biological Records Centre, and the Shetland Sites and Monument Records (SMR) via the Shetland Regional Archaeology Service.

Further information can also be found in the '**Shetland Islands Marine Region State of the Environment Assessment**'.

Atlantic Puffins, Noss © Christina Kelly

Natural Heritage

The Scottish Government's 'Nature Conservation Strategy' sets out its vision for the marine environment. It states:

'Marine Scotland's vision is for a clean, healthy, safe, productive and biologically diverse marine and coastal environment that meets the long term needs of people and nature.

We recognise that biologically diverse seas and healthy, functioning marine ecosystems are vital to underpin a wide variety of marine industries and interests. It is vital that we manage our marine environment in such a way as to promote current sustainable use and to ensure future generations benefit from a healthy resource.'

The 'Nature Conservation Strategy' sets out a framework for marine nature conservation based on a three pillar approach:

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

This is reflected in the National Marine Plan Policy 'GEN 9 Natural Heritage' which states:

Development and use of the marine environment must:
(a) Comply with legal requirements for protected areas and protected species.
(b) Not result in significant impact on the national status of Priority Marine Features.
(c) Protect and, where appropriate, enhance the health of the marine area.

It should be noted that all marine developments must comply with this policy.

The SIRMP will safeguard and enhance biodiversity and geodiversity through the identification and protection of sites and / or features of international, national and local importance.

The policies within this section aim to protect sites, habitats and species from loss or damage taking account of:

- The hierarchy of designations of international, national and local importance
- The irreplaceability of habitats, sites and / or features and contribution to the terrestrial and marine ecological network of sites and features in and around Shetland.
- Impact on priority marine features and / or habitats and protected / priority species.

Applicants may be required to submit supporting evidence for any development or activity where there will be an unavoidable impact on biodiversity or geodiversity, demonstrating both the need for the development or activity and that a full range of possible alternative courses of action have been properly examined and none found to acceptably meet the need identified.

Ronas Voe © Charlotte Slater

Site Protection- Marine Protected Areas (MPAs)

A network of Marine Protected Areas (MPAs) helps to protect nationally and internationally important marine wildlife, habitats, geology and undersea landforms. 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".

The Scottish Government identify that a well-managed network of MPAs will:

- protect important marine habitats and species
- deliver benefits for our marine environments
- support coastal communities
- help sustain marine industries
- provide for recreational uses

Shetland's network includes:

- Nature Conservation MPAs (NCMPAs)
- Special Areas of Conservation (SACs)
- Special Protection Areas (SPAs)
- Habitat Protected Areas (SSMO closed areas)
- Sites of Special Scientific Interest (SSSIs) - see 'Site Protection- Coastal Areas'
- Local Nature Conservation Areas (LNCAs) - see 'Site Protection- Coastal Areas'

Natura 2000 sites - SACs and SPAs

Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) taken together are commonly known as Natura 2000 sites. They are designated and protected in Scottish law through the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland). These Regulations are referred to as the 'Habitats Regulations' and cover the requirements for protected Natura 2000 sites as well as those for 'European Protected Species'.

The Habitats Regulations require competent authorities to carry out an appropriate assessment (AA) for any plan or proposal that might affect a Natura 2000 site. This involves determining whether the proposal is likely to have a significant effect on the site (i.e. whether it could affect any of the habitats or species for which the site is designated) either alone or in-combination, and if so, carrying out an appropriate assessment of the implications of the proposal for the site's integrity, in view of the site's conservation objectives. The full process is known as a 'Habitats Regulations Appraisal' (HRA). A competent authority is any body that has the power to undertake or give any consent, permission or other authorisation for a plan or project. For example, the local planning authority i.e. Shetland Islands Council is the Competent Authority in respect of planning applications and works licences; Marine Scotland is the competent authority for marine licence applications, the Department for Business, Energy and Industrial Strategy (BEIS) is the competent authority for reserved matters.

Although not expressly required by the Habitats Regulations, authorities undertaking an HRA should consult Scottish Natural Heritage (SNH) when determining likely significant effect before concluding that an AA is not required. Where an AA is required, the authority must consult SNH and should have regard to any representations they may make. A person applying for any such consent, permission or other authorisation shall provide such information as the competent authority may reasonably require for the purposes of the assessment. It is strongly recommended that developers consult with the relevant competent authority in the early stages of the development proposal.

There are currently 12 SPAs and 13 SACs in Shetland, of which 11 SPAs are for seabirds and seven SACs have a marine element. There are currently three proposed SPAs around Shetland, 'East Mainland Coast' (encompassing the marine waters from Samphrey in the north to Aith Ness in the South); 'Bluemull and Colgrave Sounds' (lying between the islands of Unst, Yell and Fetlar), and 'Seas off Foula'. The former two sites are important feeding grounds for red-throated divers breeding on nearby freshwater lochs and peatland pools. The East Mainland Coast proposed SPA also supports wintering populations of great northern diver, common eider, Slavonian grebe, long-tailed duck and red-breasted merganser. The Seas off Foula are important for five seabird species: great skua, northern fulmar, Arctic skua, common guillemot and Atlantic puffin.

Ramsar Sites

Internationally important wetland areas are protected under the Ramsar Convention on Wetlands of International Importance. In Shetland there is one Ramsar site, located at Ronas Hill – North Roe and Tingon, designated for its upland Bog area. For Ramsar sites, the Scottish Government has chosen as a matter of policy to apply the same considerations to their protection as if they were SPAs or SACs.

Policy MP MPA1: Plans or projects that may affect SACs, SPAs (collectively known as Natura 2000 sites) and Ramsar Sites

Developments or uses that may have a likely significant effect (LSE) on a Natura 2000 site (including proposed sites) must comply with legal requirements for these protected areas. This includes a Habitats Regulations Appraisal (HRA) undertaken by a competent authority (normally the licensing or consenting authority/ body). Proposals which may adversely affect the site's integrity (i.e. compromise any of the conservation objectives for the site), either alone or in-combination, as determined by appropriate assessment (AA), will not normally be permitted. Where a competent authority may wish to consent a proposal despite the potential for an adverse effect on the site's integrity, the competent authority must first show that there are no alternative solutions, and that it is imperative, and of over-riding public interest to grant consent.

Map 7 shows the location of pSPAs and SPAs. Map 8 shows the location of SACs and Ramsar sites.

Justification

Development not directly connected with or necessary to the management of a Natura 2000 site or a proposed Natura 2000 site, and where it cannot be determined that they will not have a likely significant effect on the site (either individually or in-combination with other plans or projects), must undergo an appropriate assessment (AA). The AA determines whether or not these would adversely affect the integrity of Natura 2000 sites. Should this assessment not show conclusively that there will be no adverse effect on the integrity of any Natura 2000 site, competent authorities are required by the 1994 Regulations to refuse the application except in exceptional circumstances.

For a proposal to be considered directly connected with, or necessary to the conservation management of the site, it must be entirely in accordance with the conservation objectives of the qualifying interests of the site. On a multi-interest site therefore, a proposal which may benefit one interest may be contrary to the conservation objectives for another interest, and should therefore be subject to a Habitats Regulation Appraisal (HRA).

In the case of Natura 2000 sites, examples of imperative reasons of over-riding public interest for priority qualifying interests might include the following:

- works required for human health or public safety or beneficial consequences of primary importance to the environment;
- other reasons which in the opinion of the European Commission are imperative reasons of over-riding public interest.

Examples of imperative reasons of over-riding public interest for non-priority qualifying interests might also include the following:

- Works necessary in the interests of national security and defence;
- Provision of a clear and demonstrable direct environmental benefit on a national or international scale;
- A vital contribution to strategic economic development or regeneration; or,
- Where failure to proceed would have unacceptable social and/or economic consequences.

Key Consultees

- SNH

Further Information

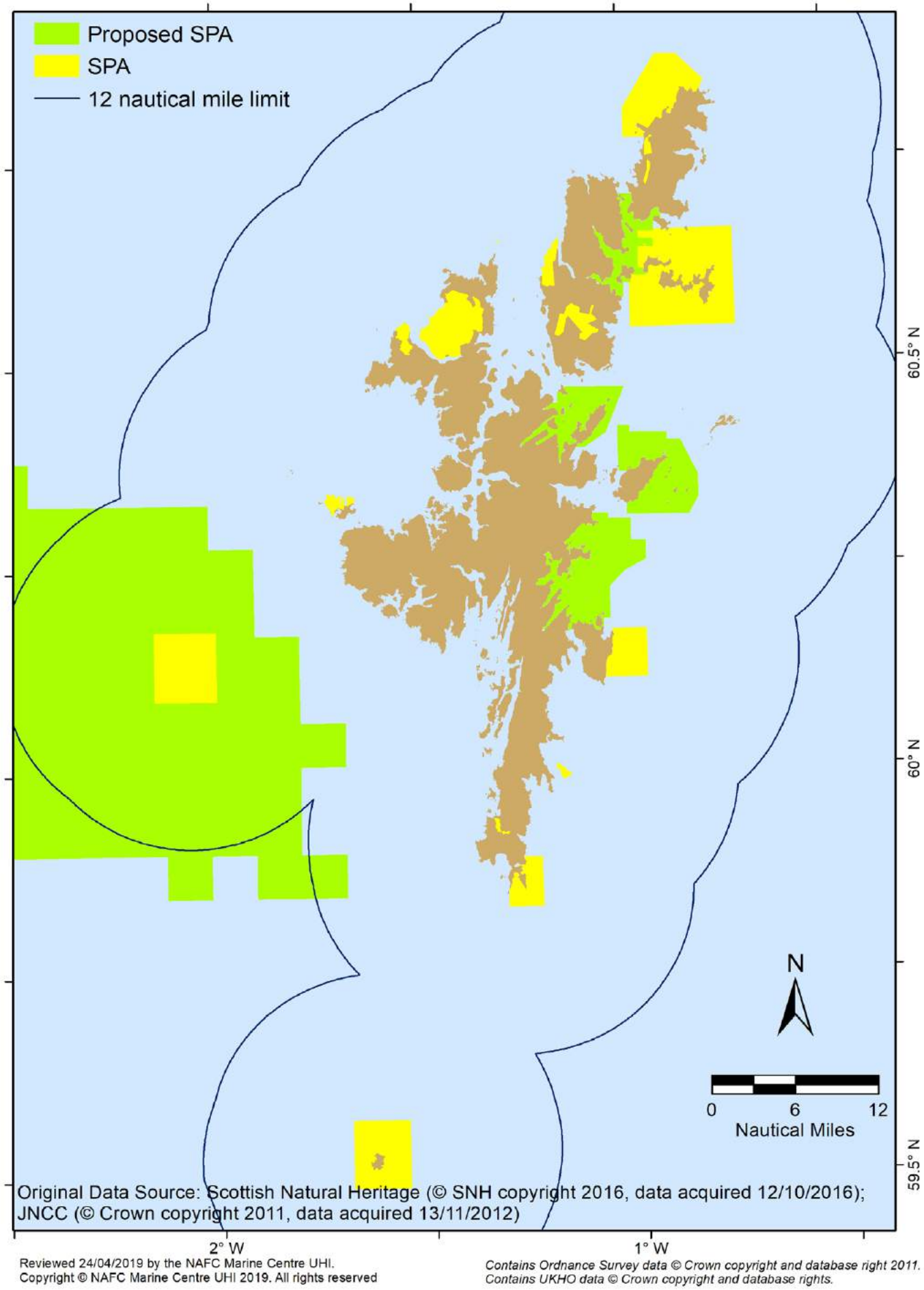
- Scottish Natural Heritage- Natura 2000 sites
- JNCC Natura 2000 sites
- RSPB. Wild Birds and the Law: Scotland

The Waddenzee Ruling 7th September 2004

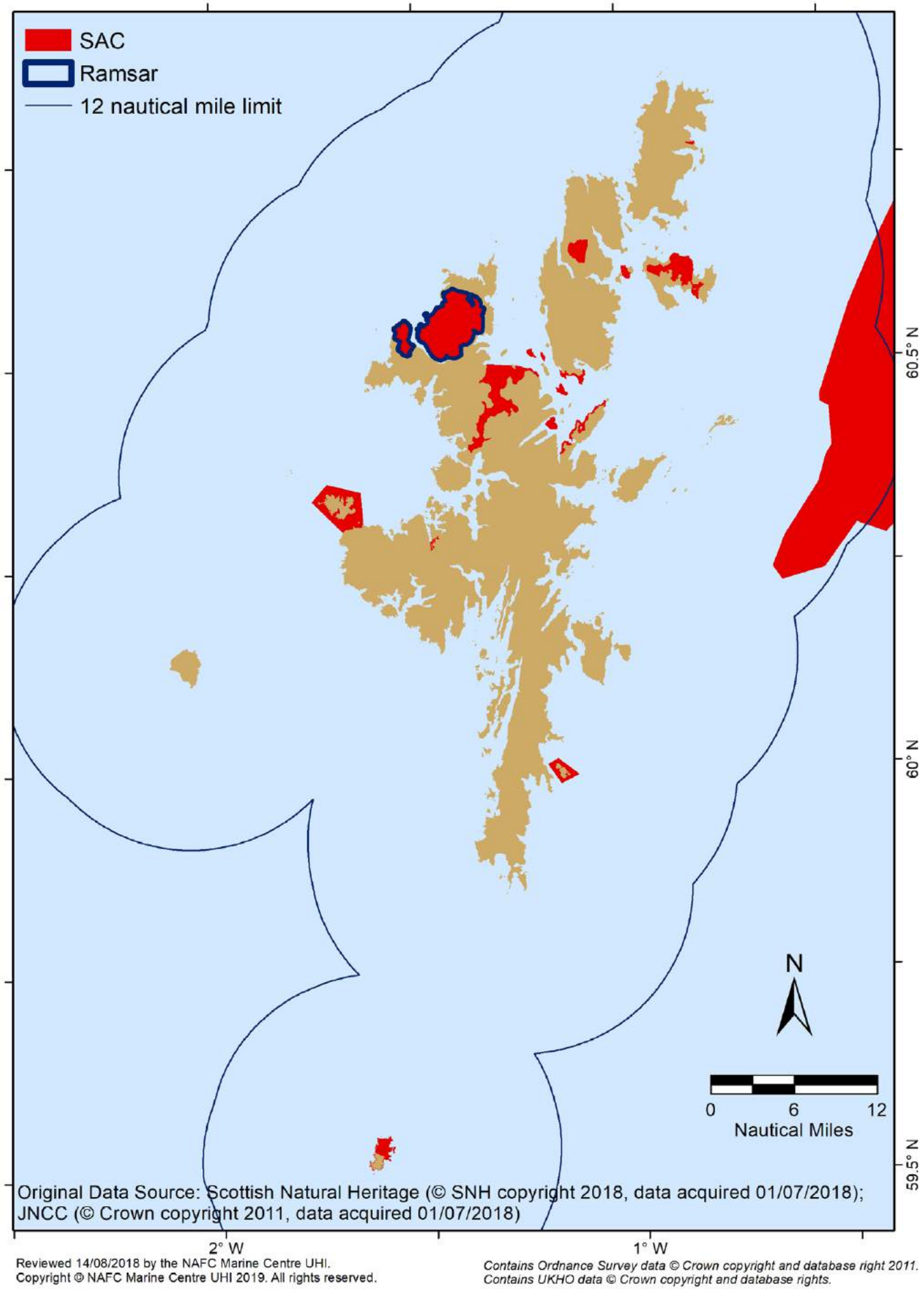
Judgement of the European Court: Case C-127/02 – The European Court of Justice in Case C-127/02 (the 'Waddenzee Ruling') said in re-iteration:

'…any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects'.

A plan or project may only be authorised 'where no reasonable scientific doubt remains as to the absence of such effects'. This is the so-called 'Precautionary Principle'.



Map 7: Designated and proposed SPAs within the Shetland Islands Marine Region



Map 8: Designated SACs and Ramsar sites within the Shetland Islands Marine Region

Nature Conservation Marine Protected Areas (NCMPAs)

Nature conservation MPAs (NCMPAs) are regions of the seas and coasts where wildlife is protected from damage and disturbance. The MPAs consist of the marine components of sites designated as SACs, SPAs, SSSIs and Ramsar. Together these help to form an ecologically coherent network, as per international agreements including the OSPAR Convention and the Convention on Biological Diversity.

Policy MP MPA2: Nature Conservation Marine Protected Areas (NCMPAs)

Development capable of affecting any Nature Conservation MPA will only be permitted where it has been adequately demonstrated, to the satisfaction of the consenting authority and Marine Scotland (acting on behalf of Scottish Ministers) and with advice from SNH, that the proposal has had due regard to the conservation objectives of the designated site and either:

a) there will be no significant risk of hindering the conservation objectives of the Nature Conservation MPA, or

b) there is an urgent need for the development to be approved, or

c) the benefit to the public outweighs the risk of damage to the environment and there are no alternative solutions.

In the last case the applicant must undertake measures of equivalent environmental benefit to offset the damage that will or may be caused by the development.

Nature Conservation MPA locations are shown in Map 9.

Justification

Section 83 of the Marine (Scotland) Act 2010 places a range of duties on public authorities to ensure that they do not grant authorisation to a development which would prevent the conservation objectives of a MPA being achieved. The draft 'Nature Conservation MPA Management Handbook' sets out the aims, principles, roles, responsibilities, conservation objectives and management measures for the MPA network.

Key Consultees

- SNH

Further information

- Supplementary Guidance Natural Heritage
- Scottish Natural Heritage- Protected Areas
- Scottish Natural Heritage – Nature Conservation MPAs
- Scottish Government – Marine Protected Areas
- RSPB. Wild Birds and the Law: Scotland

Demonstration and Research Marine Protected Areas (DRMPAs)

Demonstration & Research MPAs can be developed for the purpose of demonstrating, or carrying out research on sustainable methods of marine management or exploitation in territorial waters (Section 67 Marine (Scotland) Act 2010). It is not the intention for Demonstration & Research MPAs to introduce restrictions on existing or normally sustainable activities. However, restrictions may be introduced if they are necessary to support the demonstration or the research objectives of the site. All DRMPA should consider if the objectives can be achieved through arrangements such as voluntary agreements and stakeholder agreement.

The waters around Fair Isle have been designated a Demonstration and Research MPA, for further information see page 50.

Policy MP MPA3: Demonstration and Research Marine Protected Areas (DRMPAs)

Development capable of affecting any Demonstration and Research MPA will only be permitted where it has been adequately demonstrated, to the satisfaction of the consenting authority and Marine Scotland, that the proposal has had due regard to the purpose of the designated site and there will be no significant risk of hindering the purpose of the Demonstration and Research MPA.

Demonstration and Research MPA locations are shown in Map 9.

Justification

There is currently one DRMPA in Shetland, around the coast of Fair Isle. While voluntary agreements between stakeholders are encouraged, restrictions may be introduced if they are necessary to support the demonstration or the research objectives of the site.

Key Consultees

- Marine Scotland
- Fair Isle Marine Environment and Tourism Initiative (FIMETI)

Further information

- Demonstration and Research MPAs

Policy MP MPA4: Habitat Protected Areas

Developments or activities likely to have a significant effect on features protected within an SSMO closed area will only be permitted where it can be demonstrated that:

a) there will be no adverse direct or indirect effect to the feature's integrity or important physical features; or

b) mitigation measures are included to minimise the impacts to the priority marine habitat or species including species behaviour such as breeding, feeding, nursery or resting; or

c) there is no reasonable alternative or less ecologically damaging location; and

d) the reasons for the development clearly outweigh the value of the feature by virtue of social or economic benefits of national importance.

SSMO Closed Areas

The SSMO has worked closely with the inshore fishing industry to protect areas of seabed which support sensitive species and habitats, these include horse mussel, seagrass and maerl beds. These areas have been surveyed by the NAFC Marine Centre UHI to ensure the spatial extent of the habitats are known, and appropriate measures can be put in place. These areas are closed to dredge fishing.

SSMO Closed areas are shown in Map 10.

Justification

The SSMO closed areas represent examples of horse mussel, maerl and seagrass beds. These habitats provide a range of goods and services including acting as nursery grounds for commercial species of fish and shellfish, assisting in climate regulation by providing a carbon sink and helping to stabilise soft sediments. The statutory protection provided by the SSMO and by the SIRMP gives a consistent management approach to these habitats.

Key Consultees

- SSMO

Further Information

- NAFC Marine Centre UHI
- SSMO

Nature Conservation MPAs (NCMPAs)

Nature Conservation MPAs are identified for features (the collective term for species, habitats and geology) that the Scottish Government believes require additional protection. There are two nature conservation MPA areas in Shetland, 'Fetlar to Haroldswick' and 'Mousa to Boddam'.

The Fetlar to Haroldswick NCMPA incorporates the sea area used for foraging by black guillemots, while the inlets, sounds and stretches of open coastline support a range of seabed habitats and species. This includes extensive and biologically diverse maerl and horse mussel beds, as well as more widely distributed shallow tide-swept sands with burrowing bivalves and coarser sediment communities representative of Scotland's seas more generally.

The Mousa to Boddam NCMPA encompasses the known extent of sandeel grounds in two distinct areas around the island of Mousa and off the coast at Boddam, south-east Shetland. The MPA contains the area of most consistent and reliable sandeel recruitment in Shetland. Around Mousa, the MPA overlaps an existing Special Area of Conservation (SAC) designated for reefs, sea caves and harbour seals.

Both the 'Mousa to Boddam NCMPA' and the 'Fetlar to Haroldswick NCMPA' sit within the Shetland carbonate production area, a key geodiversity area in Scottish waters. The Shetland carbonate production area is an internationally important example of a non-tropical shelf carbonate system. These sediments supply the carbonate sands of the coastal machair around Shetland. Machair supports specific and diverse grassland vegetation and is one of the rarest habitats in Europe.

Further information

- Scottish Government MPA
- SNH MPA webpages

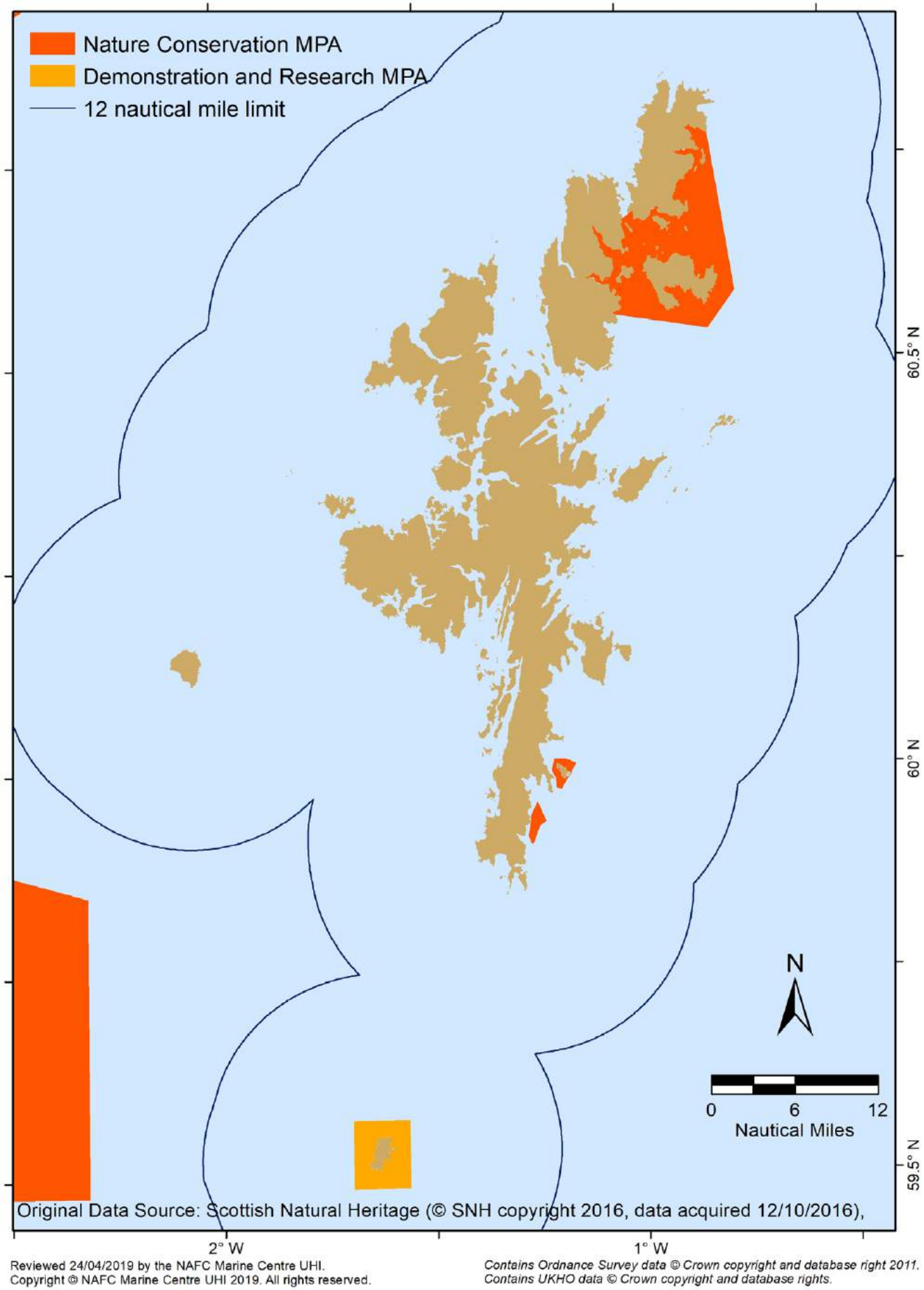
Demonstration and Research Marine Protected Area for the Waters around Fair Isle

The Fair Isle Marine Environment and Tourism Initiative (FIMETI), led by the Fair Isle community in partnership with Fair Isle Bird Observatory and The National Trust for Scotland put forward Fair Isle's case for a Demonstration and Research Marine Protected Area. The MPA was designated on the 9th November 2016 and is intended to serve three purposes:

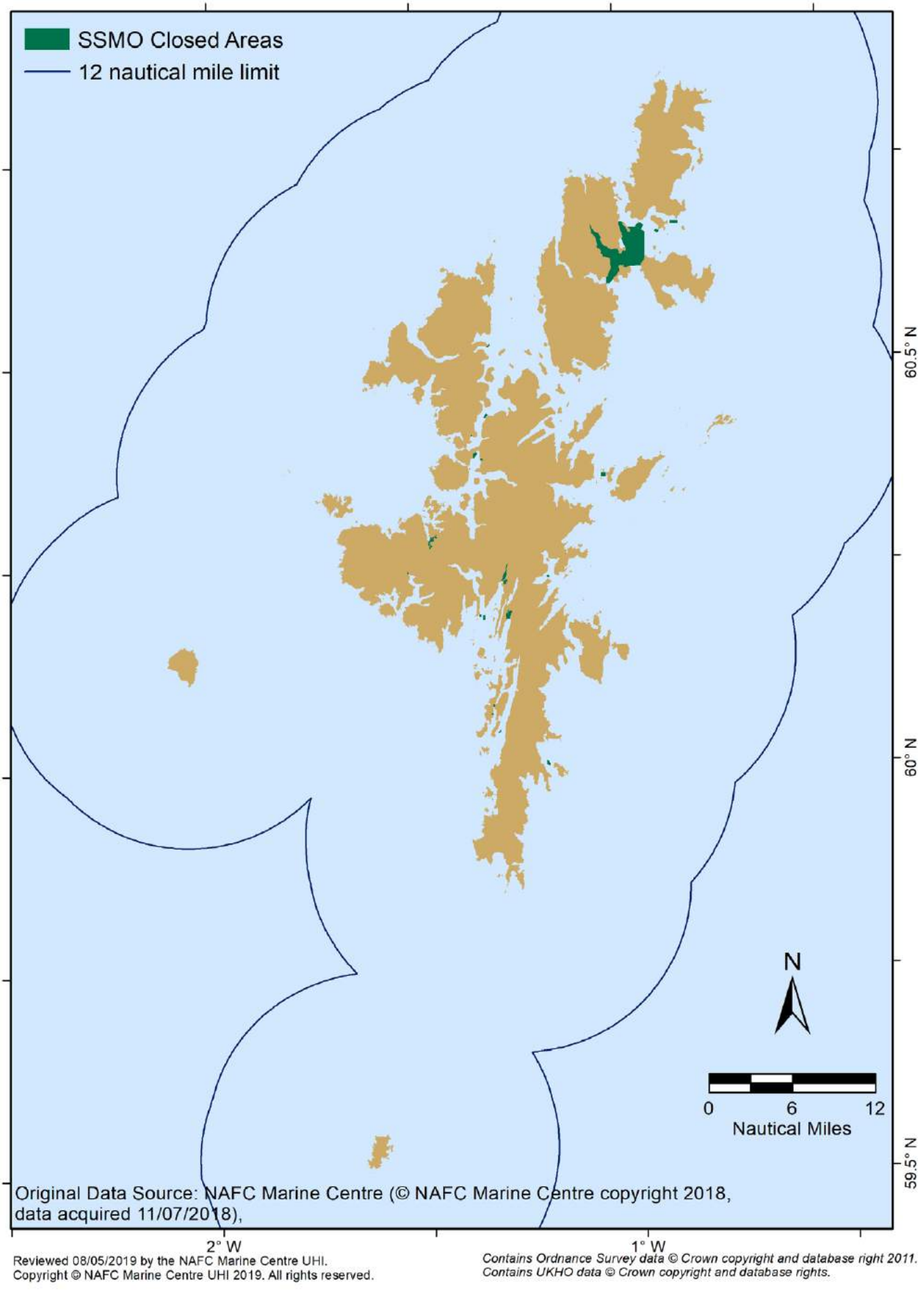
- To trial a series of management measures, supplemented by interpretation and dissemination, which demonstrates the role of MPA's in delivering fully sustainable marine management;
- To demonstrate the relationship between a fully functioning marine environment and the socio-economic stability of a peripheral coastal community; and
- To meet a requirement of the Council of Europe in the form of a condition on the renewal of the Council of Europe Diploma for Fair Isle.

Further Information

- Fair Isle Bird Observatory
- Fair Isle Marine Environment and Tourism Initiative (FIMETI)



Map 9: Nature Conservation Marine Protected Areas (NCMPAs) and Demonstration and Research Marine Protected Areas (DRMPAs) within the Shetland Islands Marine Region



Map 10: SSMO closed areas for habitat protection within the Shetland Islands Marine Region

Mousa © Charlotte Slater

Site Protection- Coastal Areas

Coastal habitat protection helps to support the MPA network. Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNRs) provide statutory protection, while Local Nature Conservation Areas (LNCAs) give non-statutory protection to coastal habitats and species.

Sites of Special Scientific Interest (SSSI)

There are 78 designated SSSIs in Shetland, 31 are notified for marine biological features, including seabirds and red-throated divers, and 36 are coastal sites notified for geological or geomorphological features, although on five of these the geological interest does not extend down to MHWS. A further two geological sites are within 100 metres of MHWS.

National Nature Reserves (NNRs)

Shetland has two National Nature Reserves, Noss and Hermaness. All NNRs are home to nationally or internationally important species and habitats. The reserves must be well managed for wildlife. They are also managed so that people can enjoy these special places.

Policy MP COAST1: Developments in or near SSSIs and National Nature Reserves (NNR)

Development likely to have an effect on a Site of Special Scientific Interest (SSSIs) or National Nature Reserve (NNR) will only be permitted:

a) if there is no adverse impact on the special interest of the site or it can be subject to conditions that will prevent damaging impacts on those interests; and

b) where there is no reasonable alternative or less ecologically damaging location and the reasons for the development clearly outweigh the value of the site by virtue of social or economic benefits of national importance.

SSSI and NNR sites are shown in Map 11.

Justification

SSSIs are those areas of land and water (to the seaward limits of local authority areas) that SNH considers to best represent our natural heritage – its diversity of plants, animals and habitats, rocks and landforms, or combinations of such natural features. They are the essential building blocks of Scotland's protected areas for nature conservation. Many are also designated as Natura 2000 sites (Special Protection Areas or Special Areas of Conservation). The national network of SSSIs in Scotland forms part of the wider UK series. SNH designates SSSIs under the Nature Conservation (Scotland) Act 2004, SSSIs are protected by law. It is an offence for any person to intentionally or recklessly damage the protected natural features of a SSSI.

Key Consultees

- SNH

Further Information

- SSSIs

Non-statutory Sites

Local Nature Conservation Sites (LNCSs)

The Shetland Islands Council identified a network of 49 Local Nature Conservation Sites (LNCS) to highlight sites with important natural heritage features to both developers and the Council. In identifying LNCS the Council does not seek to prohibit development; they are a way of providing more information to ensure that development takes into account the important and sensitive features of these sites. However, there may be occasions where development would be considered inappropriate and would not be permitted.

Policy MP COAST2: Development on or near to a Local Nature Conservation Site (LNCS) or RSPB Scotland Reserve

Development that affects a Local Nature Conservation Site (LNCS) or RSPB Scotland Reserve will only be permitted where:

a) it will not adversely affect the integrity of the area or the qualities or purposes for which it has been identified; and

b) any such effects are clearly outweighed by social, environmental or economic benefits.

Local Nature Conservation Sites and RSPB Scotland Reserves are shown in Map 12. All new marine-related developments should have regard to the Shetland Islands Council's Local Development Plan and in particular, Supplementary Guidance for Local Nature Conservation Sites.

Justification

LNCS identify sites of nature conservation value at the local scale; they may have been selected for their biodiversity or geodiversity interest. The introduction of a LNCS system will help to protect Shetland's natural heritage and consequently contribute to environmental objectives, as well as bringing wider benefits, such as protecting and enhancing tourism opportunities. The identification of these sites early in the planning process will allow for the effective avoidance of unacceptable effects on the integrity of these sites, increasing the transparency of the process.

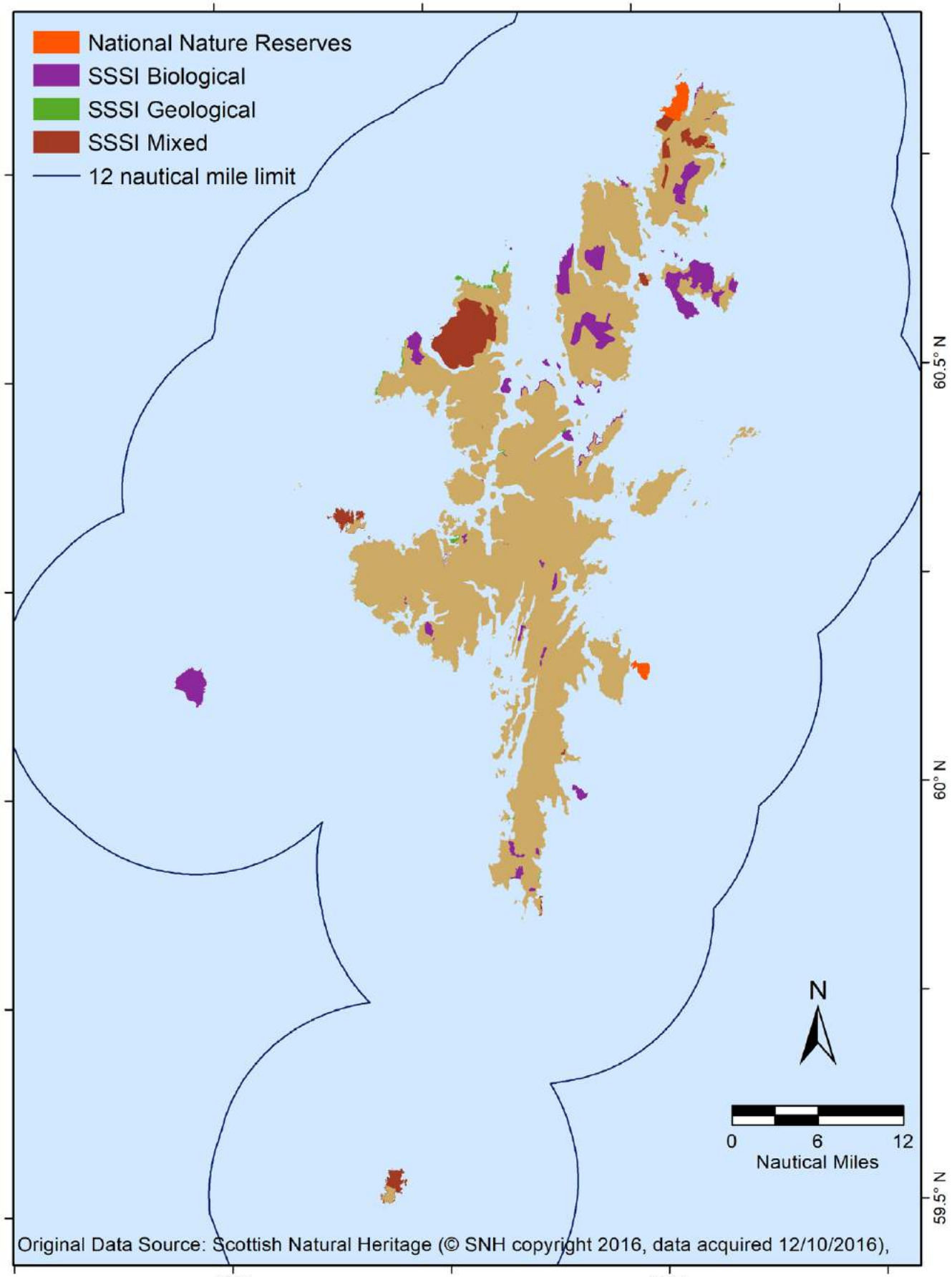
In Shetland there are six RSPB Scotland reserves. RSPB Scotland reserves are areas of land set aside for nature, where the main purpose of management is the conservation of habitats and species of national and international significance. These reserves not only highlight important natural heritage areas but also represent important tourism assets.

Key Consultees

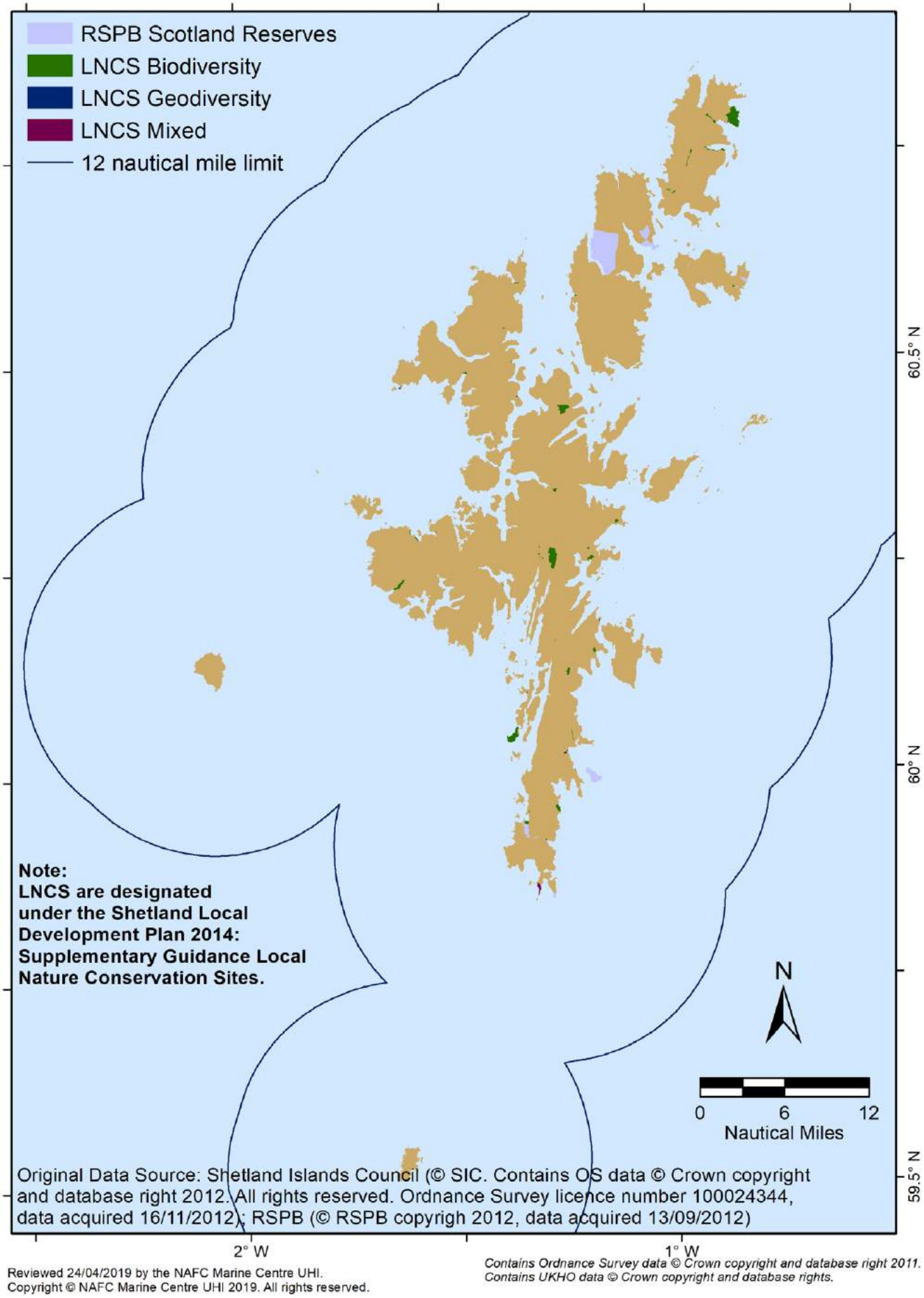
- Shetland Islands Council

Further information

- Shetland Islands Council's Local Development Plan
- Supplementary Guidance Local Nature Conservation Sites



Map 11: Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNR) within the Shetland Islands Marine Region



Reviewed 24/04/2019 by the NAFC Marine Centre UHI.

Map 12: Local Nature Conservation Sites (LNCS) and RSPB Scotland Reserves within the Shetland Islands Marine Region

European otters © Richard Shucksmith

Species Licensing

Wildlife in Scotland is protected by a range of national and international legislation. These laws are designed to protect rare and vulnerable species as well as their breeding and resting places. However, it is also recognised that there are particular circumstances where it is desirable to license acts which would otherwise be illegal.

Marine Scotland and SNH can issue licences under certain circumstances defined in wildlife legislation. Scottish marine wildlife is protected under these main pieces of legislation:

- The Wildlife and Countryside Act 1981 (as amended);
- The Conservation (Natural Habitats &c.) Regulations 1994 (as amended);
- Nature Conservation (Scotland) Act 2004;
- Marine (Scotland) Act 2010; and
- Wildlife and Natural Environment (Scotland) Act 2011 (the 'WANE Act').

Habitat Regulations

The Habitats Regulations requires strict protection of a number of marine species of European importance, as listed in Annex IV. In Shetland's marine environment these most notably include all species of cetaceans, and the European otter which forages in Shetland's coastal waters. The Habitats Regulations also makes provision for the protection of select species from exploitation, as listed in Annex V.

European Protected Species (EPS)

The Habitats Regulations afford protection to certain species identified in the Habitats Directive including species in need of strict protection. The species listed in Annex IV of the Directive are called 'European Protected Species' (EPS). Marine EPS whose natural range includes any area in Scottish waters (both inshore and offshore) include European otters, whales, dolphins and porpoises.

Regulation 39 and 43 of the Habitats Regulations make it an offence to deliberately or recklessly capture, kill or disturb an EPS.

In some instances a licence may be granted to carry out an activity which otherwise would have been deemed unlawful (EPS Licence). When EPS are present, licences to permit development can only be granted subject to three strict tests being met:

- Test 1: The reason for the licence must relate to one of several specified purposes listed in Regulation 44(2) of the Conservation (Natural Habitats &c.) Regulations 1994 (as amended);
- Test 2: There must be no satisfactory alternative; and
- Test 3: The proposed action must not be detrimental to the maintenance of the species at 'favourable conservation status'.

More information on the tests is available on the SNH website.

The Scottish Government issues licenses under Regulation 44 of the Habitats Regulations (as amended) for specific purposes. Marine Scotland is the responsible authority for licensing of cetaceans relating to development, whilst SNH deals with licenses for research and survey work, including that associated with monitoring of developments. SNH are responsible for issuing licences for European otters. In addition, SNH provide statutory nature conservation advice to Marine Scotland within 12 nm. Information is available from the Scottish Government website and the SNH website.

Wildlife and Countryside Act 1981- Schedule 5 species

The Wildlife and Countryside Act 1981 (1981 Act), as amended and enhanced by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011 (the 'WANE Act'), is the primary legislation which protects animals, plants and certain habitats in Scotland. The 1981 Act (as amended) details a large number of offences in relation to the killing, injuring and taking of wild birds, other animals and plants.

The 1981 Act (as amended) makes it an offence (subject to exceptions) to either intentionally or recklessly damage, destroy, obstruct, or disturb any such place the animals on Schedule 5 use for shelter and protection. It also protects animals that are listed on Schedule 5 from being taken from the wild, killed or injured, either intentionally or recklessly. Schedule 5 species (which include basking sharks, fan mussels, long and short snouted seahorse) prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places.

The WANE Act, was introduced to clarify and simplify existing laws and amend existing legislation including the 1981 Act (as amended). Whilst species are protected under the 1981 Act (as amended) and the WANE Act, there are a number of circumstances in which a licence may be granted to permit actions that may otherwise be considered an offence under the 1981 Act. These are listed in section 16 of the 1981 Act. In addition, the WANE Act amended the 1981 Act so that a licence may be granted 'that undertaking the conduct authorised by the licence will give rise to, or contribute towards the achievement of, a significant social, economic or environmental benefit'.

Policy MP SPCON1: Development and European Protected Species and Schedule 5 Species

Development or uses that could affect a European Protected Species (EPS) or Schedule 5 species will be permitted only if:
a) it can be shown that the development is not likely to result in an offence being committed under Regulation 39 of The Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations) or Section 9 of the Wildlife and Countryside act 1981 (as amended); or
b) if an offence[14] might result, it is determined that a licence would be, or has been, issued by the appropriate authority (either SNH or Marine Scotland).

An EPS licence can only be issued if it passes three strict legal tests:

1. **The licence must relate to one of seven purposes listed in Regulation 44 of the Habitats Regulations.[15]**
2. **There must be no satisfactory alternative, which means that all reasonable alternatives must have been considered and judged to be unsatisfactory.**
3. **The action authorised must not be detrimental to the maintenance of the population at a favourable conservation status in their natural range.**

[14] These include deliberately or recklessly: Killing, injuring, harassing of disturbing an EPS animal or Schedule 5 species; Obstructing, damaging or destroying its place of rest or shelter, or disturbing an animal whilst it is occupying that place; in addition cetaceans are given additional protection in that it's an offence to deliberately or recklessly disturb any dolphin, porpoise or whale. These offences apply to all stages of an EPS animal's or Schedule 5 species' life.

[15] These relate to a number of activities for which a licence may be obtained, including development. The most commonly cited purpose in development cases is 44(e) - "preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment"

Under the Wildlife and Countryside Act 1981 the Schedule 5 species also require a licence to disturb from either SNH or Marine Scotland.

Where development is permitted under such a licence, a Species Protection Plan containing appropriate mitigation will nevertheless be required to minimise the impact on the species.

Developers may be required to submit site survey information which complies with current best practice guidelines and proposed mitigation plans to avoid potential impacts on EPS and Schedule 5 species. Mitigation plans should use the hierarchy of avoidance, mitigation and compensation, and use the precautionary principle within this decision making process.

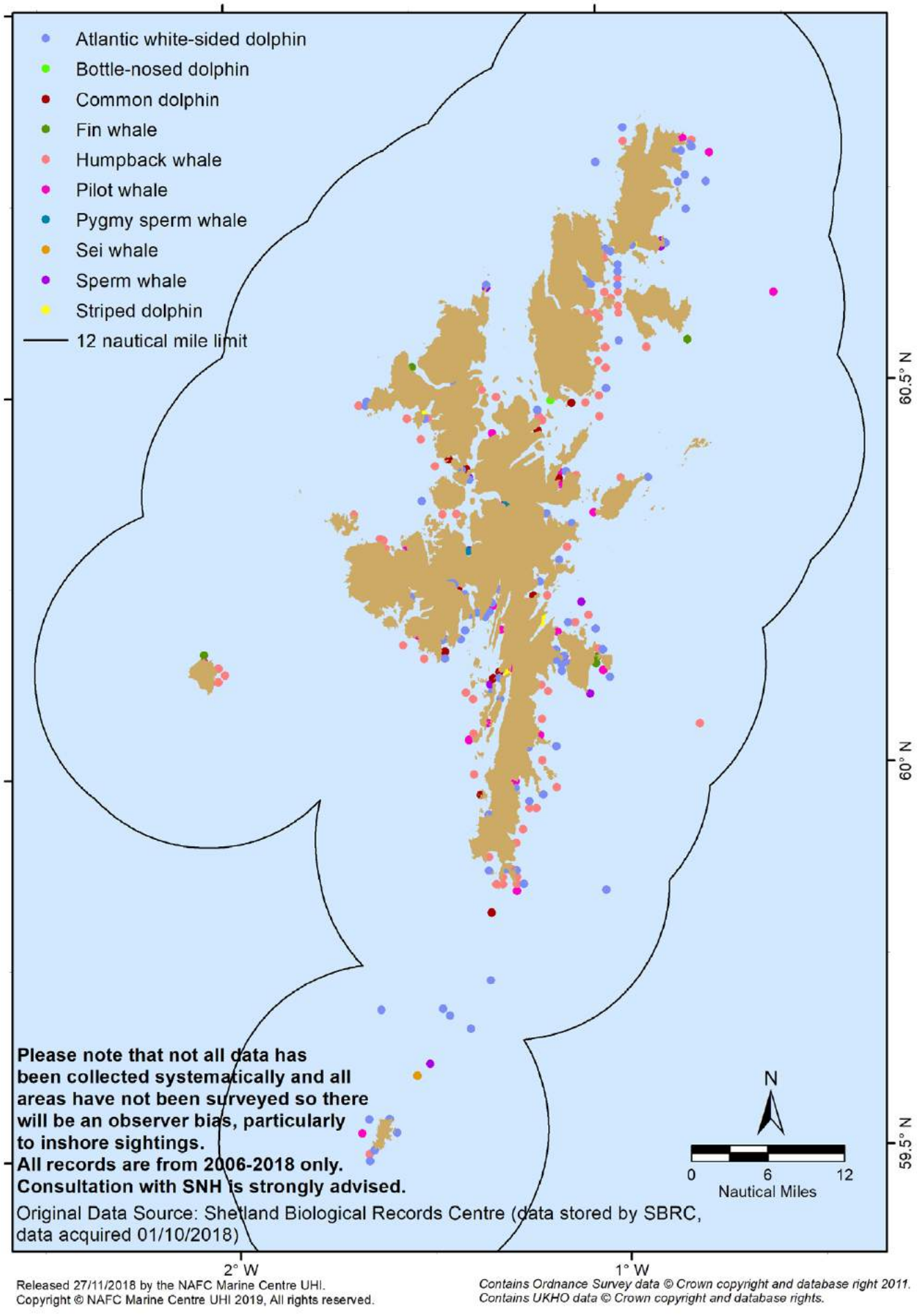
Records of cetacean sightings are shown in Map 13 (a-e), European otter sightings in Map 14 and basking shark sightings in Map 15.

Key Consultees

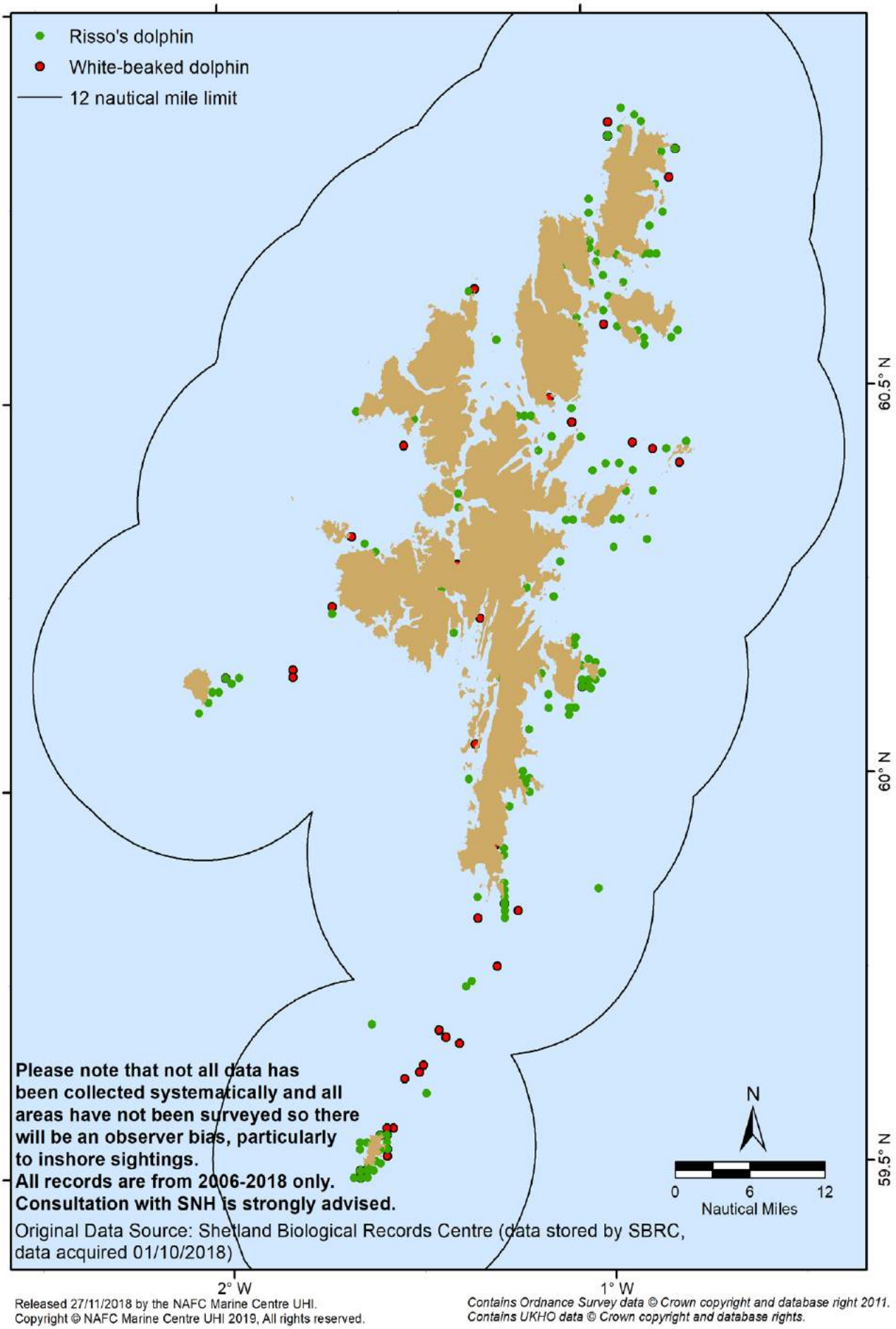
- Marine Scotland
- SNH

Further Information

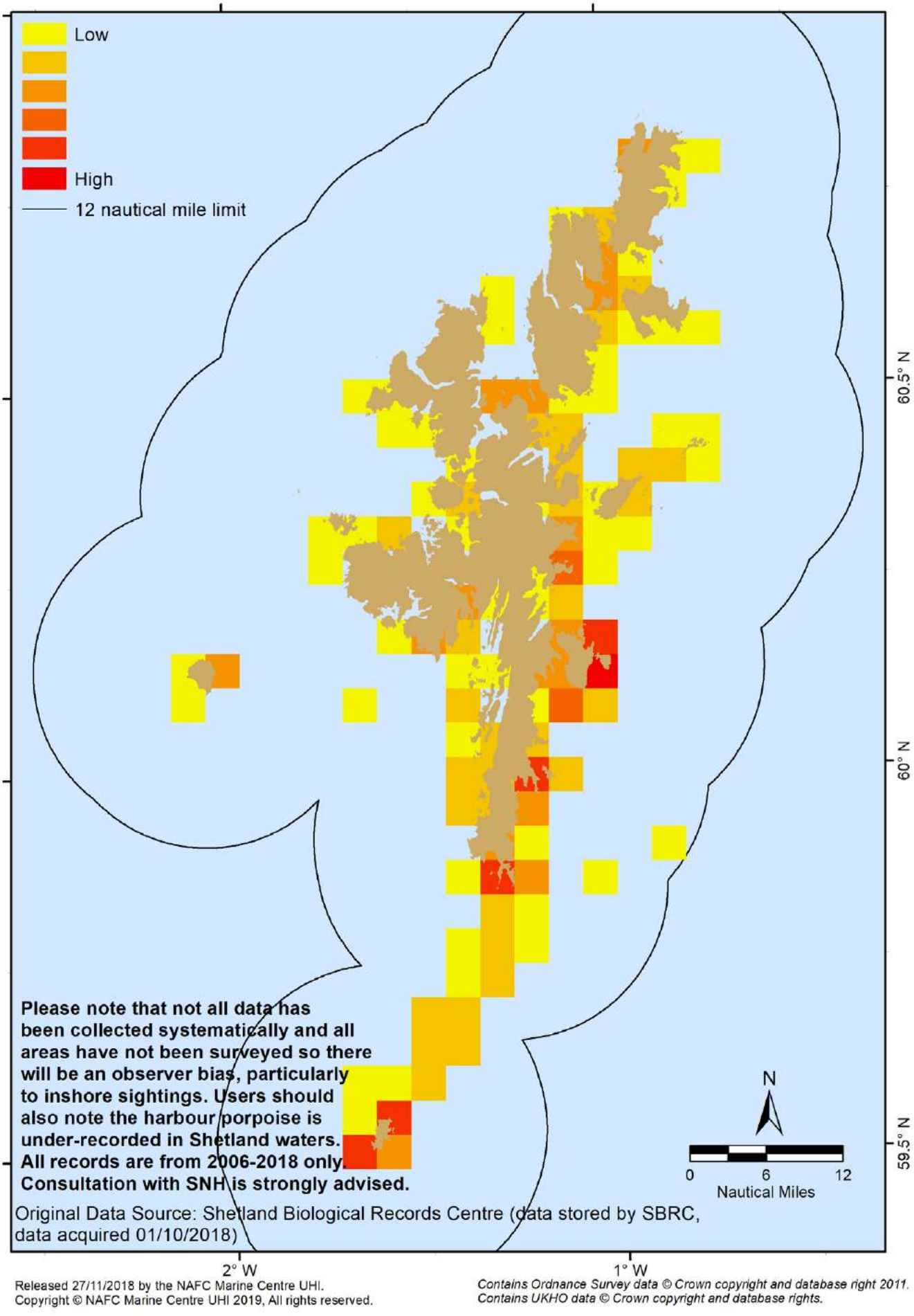
- Shetland Islands Council's Local Development Plan and Supplementary Guidance Natural Heritage
- RSPB. Wild Birds and the Law: Scotland
- Marine Scotland – Species Licensing
- Scottish Natural Heritage – Species Licensing
- Scottish Natural Heritage – European Protected Species
- Marine Scotland – The protection of marine EPS from injury and disturbance – Guidance for Scottish Inshore Waters



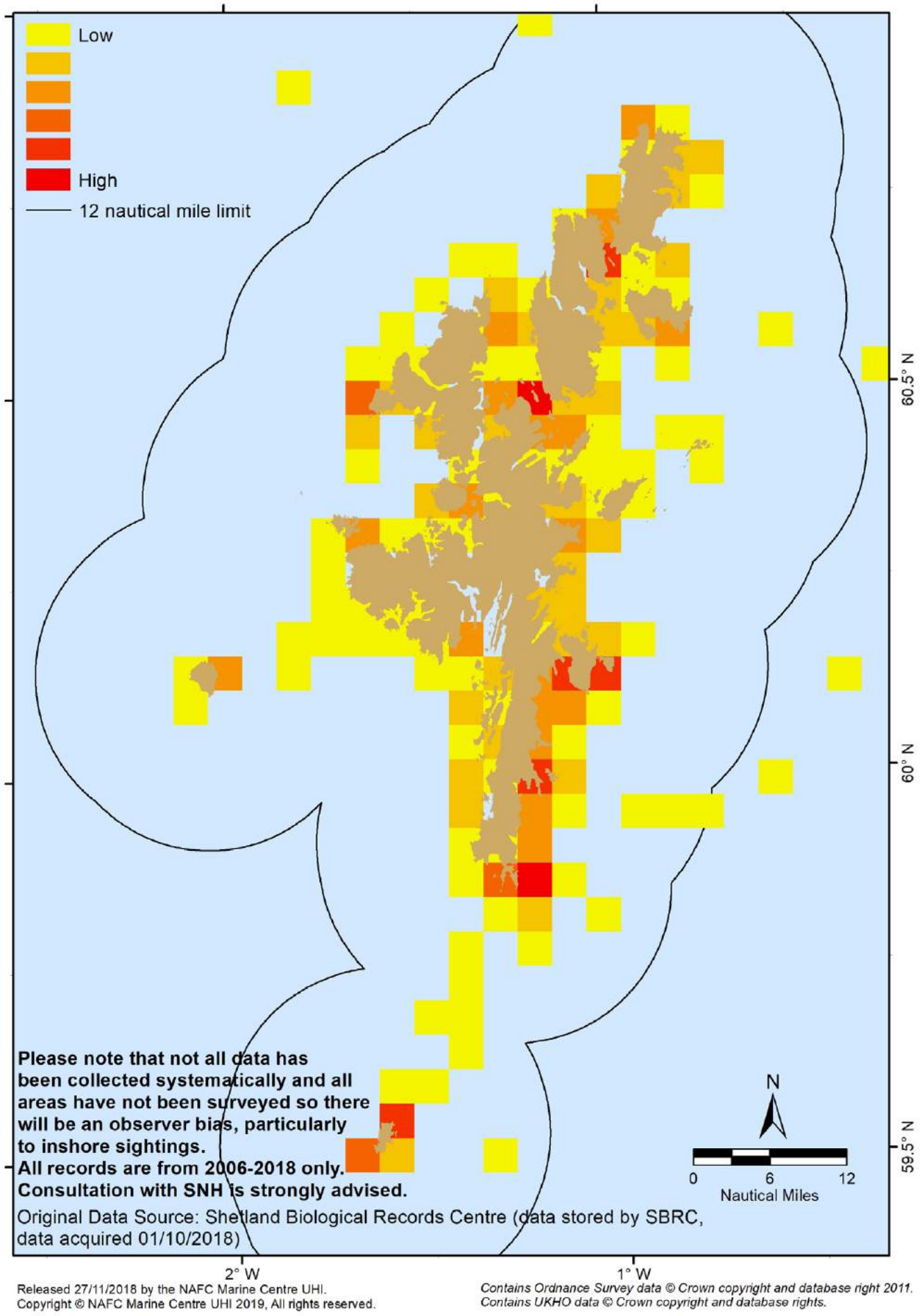
Map 13a: Public observations of vagrant cetacean species in the Shetland Islands Marine Region



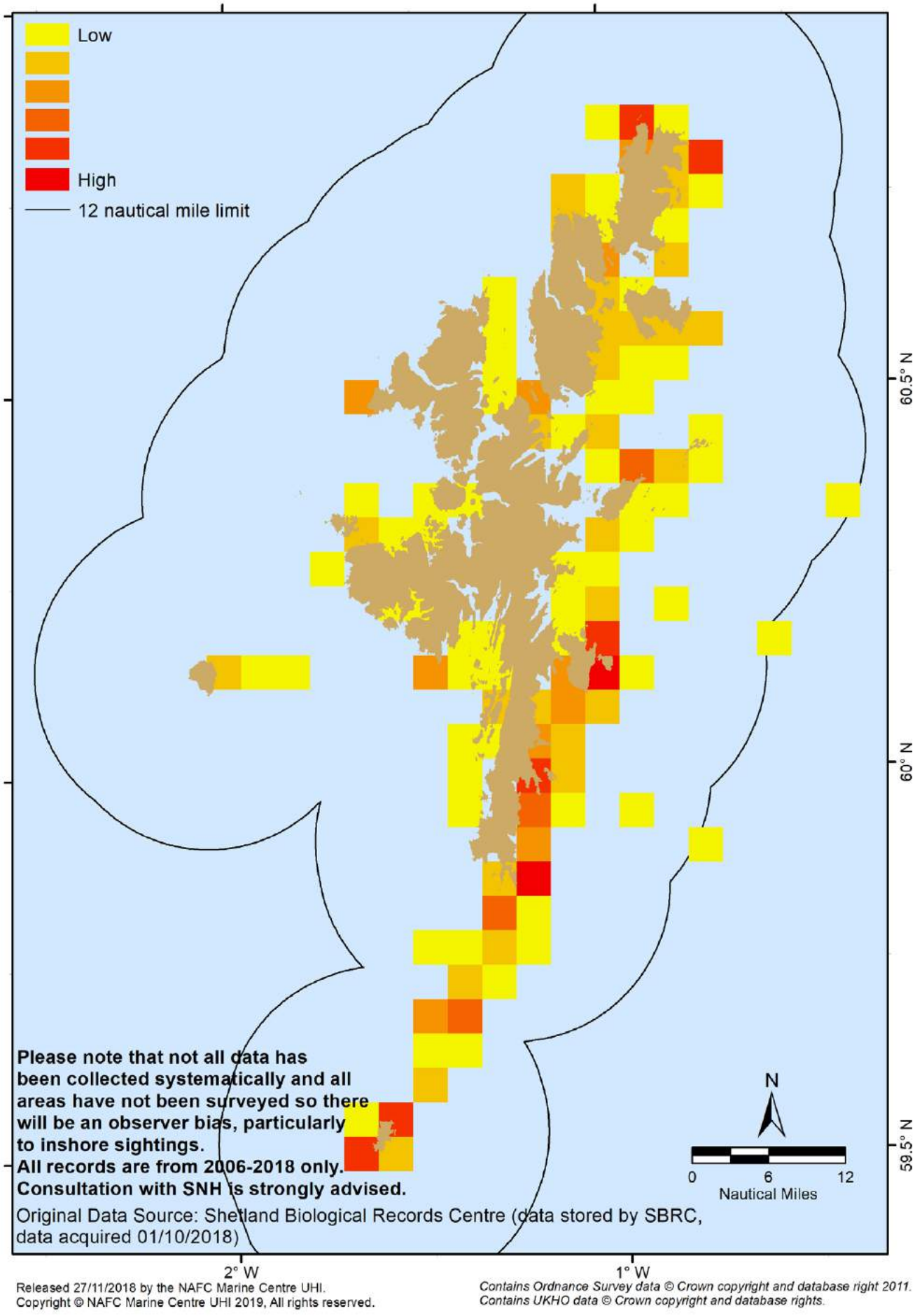
Map 13b: Public observations of Risso's dolphins and white-beaked dolphins in the Shetland Islands Marine Region



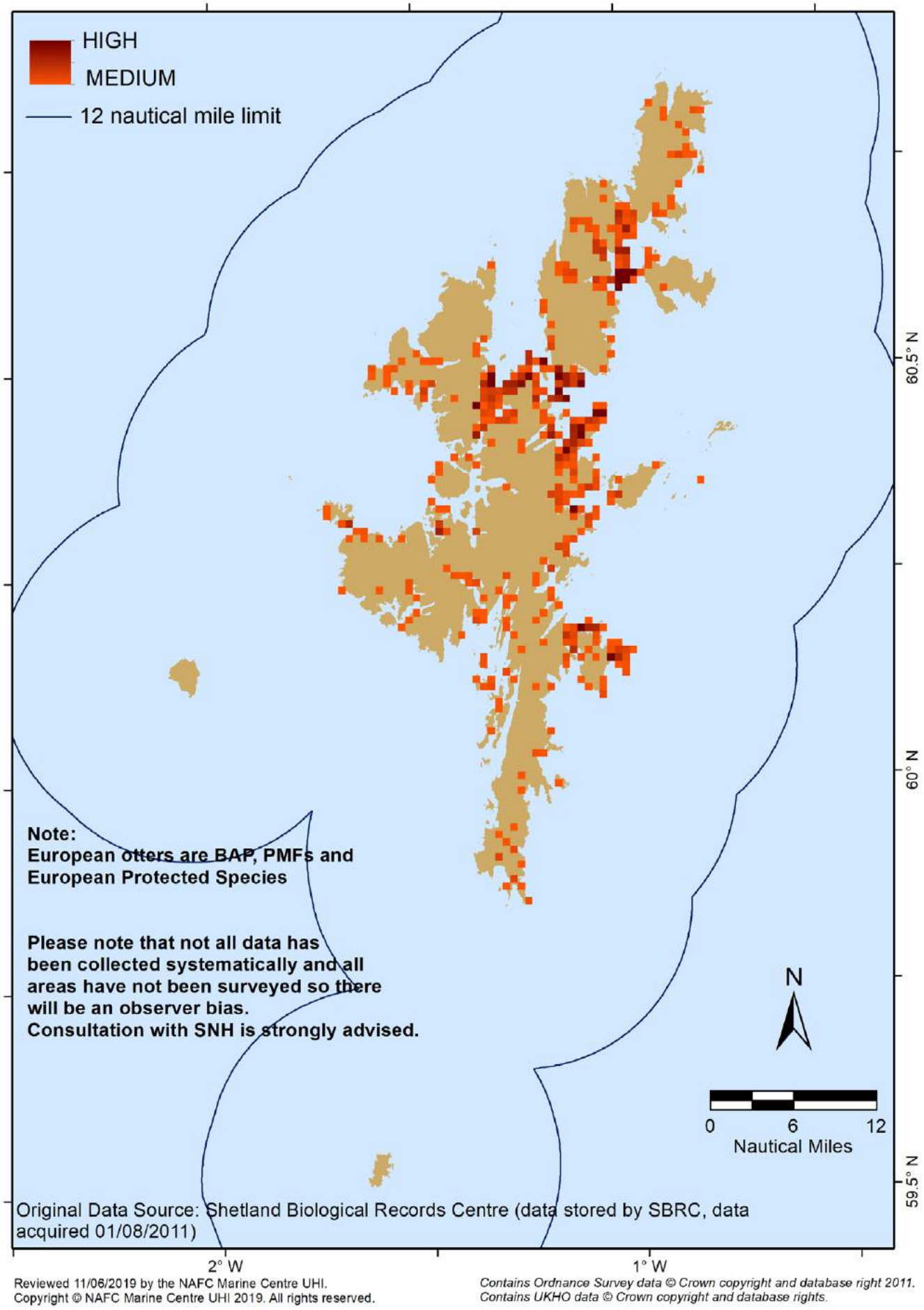
Map 13c: Relative intensity of public observations of harbour porpoise in the Shetland Islands Marine Region



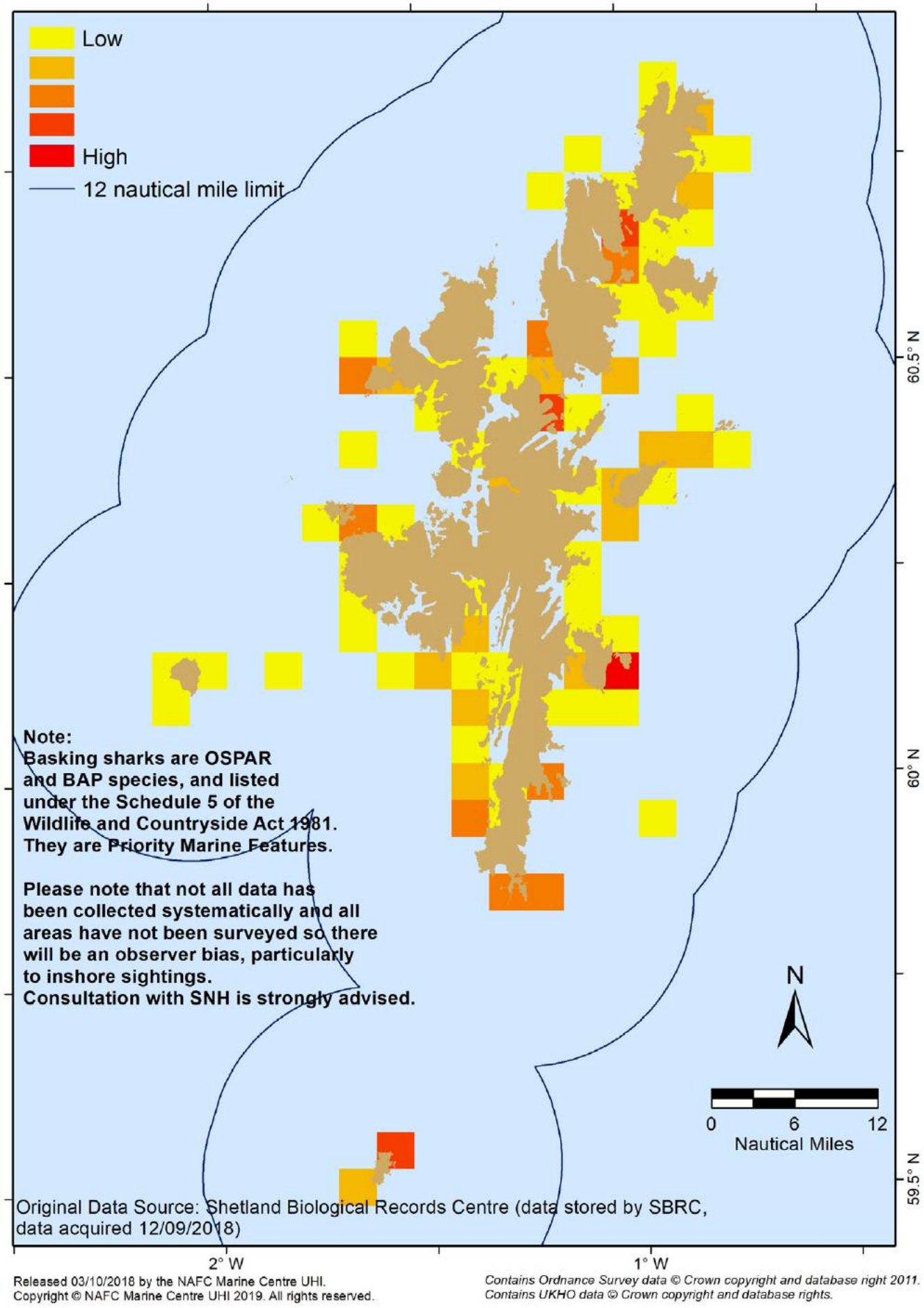
Map 13d: Relative intensity of public observations of killer whales in the Shetland Islands Marine Region



Map 13e: Relative intensity of public observations of minke whale in the Shetland Islands Marine Region



Map 14: Relative intensity of European otter sightings in the Shetland Islands Marine Region



Map 15: Public observations of basking sharks in the Shetland Islands Marine Region

Wild Birds

The Wildlife and Countryside Act 1981 (1981 Act), as amended and enhanced by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2011 (the 'WANE Act'), is the primary legislation which protects animals, plants and certain habitats in Scotland. The 1981 Act (as amended) details a large number of offences in relation to the killing, injuring and taking of wild birds, other animals and plants. It is an offence (subject to exceptions) to intentionally or recklessly kill, injure or take any wild bird; take, damage, destroy or interfere with the nest of any wild bird while that nest is in use or being built; at any other time takes, damages, destroys or otherwise interfere with any nest habitually used by any wild bird included in Schedule A1; obstructs or prevent any wild bird from using its nest; or take or destroys an egg of any wild bird.

Policy MP SPCON2: Protection of Wild Birds and Their Habitats Outside Designated Sites

Where there is good reason to suggest that a wild bird protected under the Wildlife and Countryside Act 1981 (as amended), the Nature Conservation (Scotland) Act 2004 or listed in Annex 1 of the EC Birds Directive is present on site, or may be affected by a proposed development, the consenting authorities will require any such presence to be established. If such a species is present, a plan should be provided to avoid or mitigate any adverse effects on the species, prior to determination of the relevant planning, works licence or marine licence application.

Development that directly threatens wild birds, the destruction of their nests or eggs will only be permitted where it can be demonstrated that:

a) the development is required for preserving public health or public safety; and

b) there is no other satisfactory solution.

Developers should also take into consideration any sensitive times of year for breeding within the area of the proposed development when planning construction, operation and decommissioning stages. Proposals should include avoidance measures or mitigation of disturbance during these sensitive times and within these sensitive locations.

If a species listed on Schedule 1 on the Wildlife and Countryside Act 1981 (as amended) is present either at the nest, or with dependent young, it cannot be disturbed without a licence from SNH.

Important areas for wintering and breeding seabirds, and common eiders are shown in Map 16 and Map 17. Locations of SPAs are shown in Map 7.

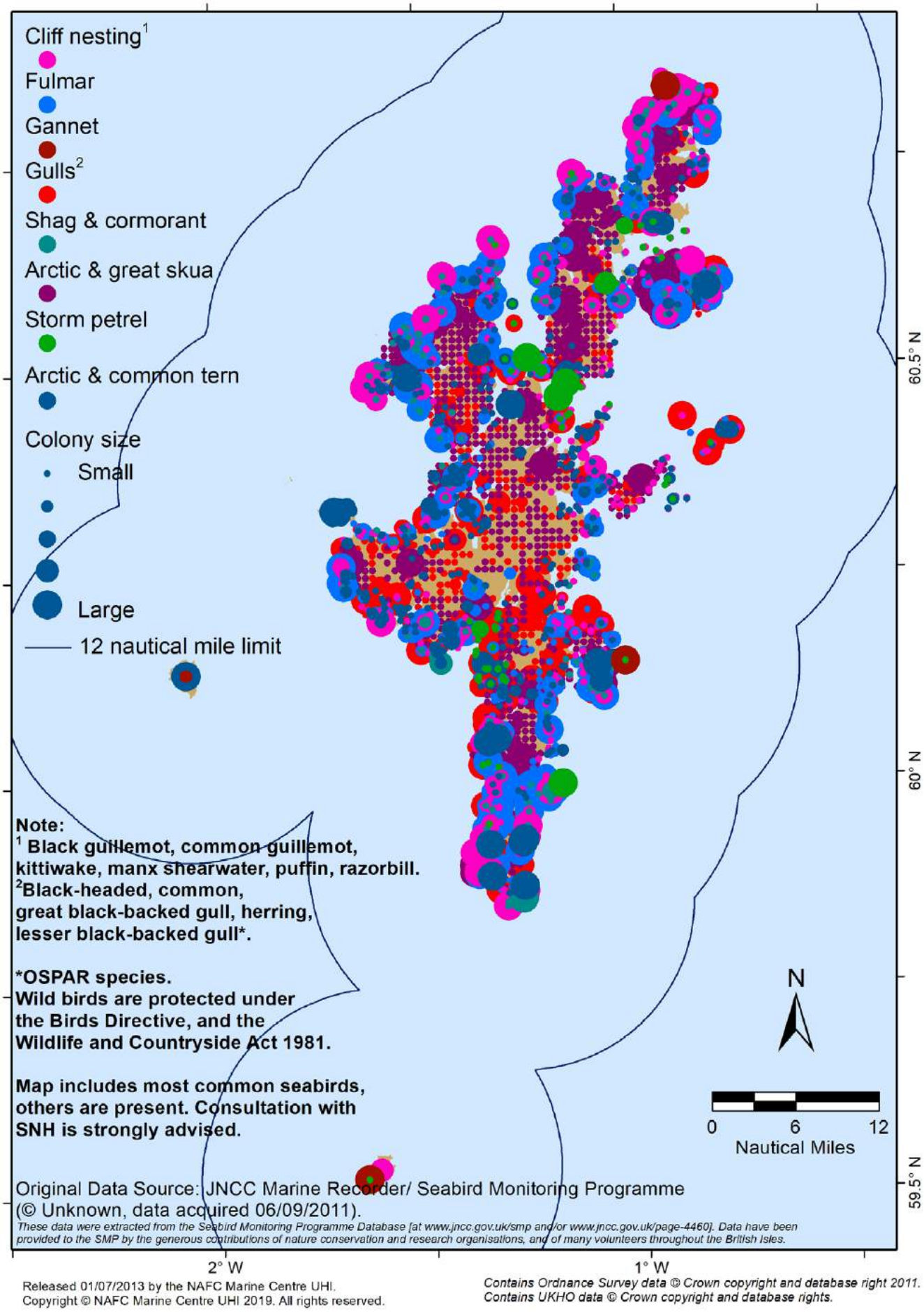
Applicants and planners should seek advice from SNH and RSPB Scotland on seasonal sensitivities of species. All new marine-related developments should have regard to the Shetland Islands Council Local Development Plan and, in particular, Supplementary Guidance – Natural Heritage, as well as Policy MP MPA1: Plans or projects that may affect SACs, SPAs (collectively known as Natura 2000 sites) and Ramsar Sites.

Key Consultees

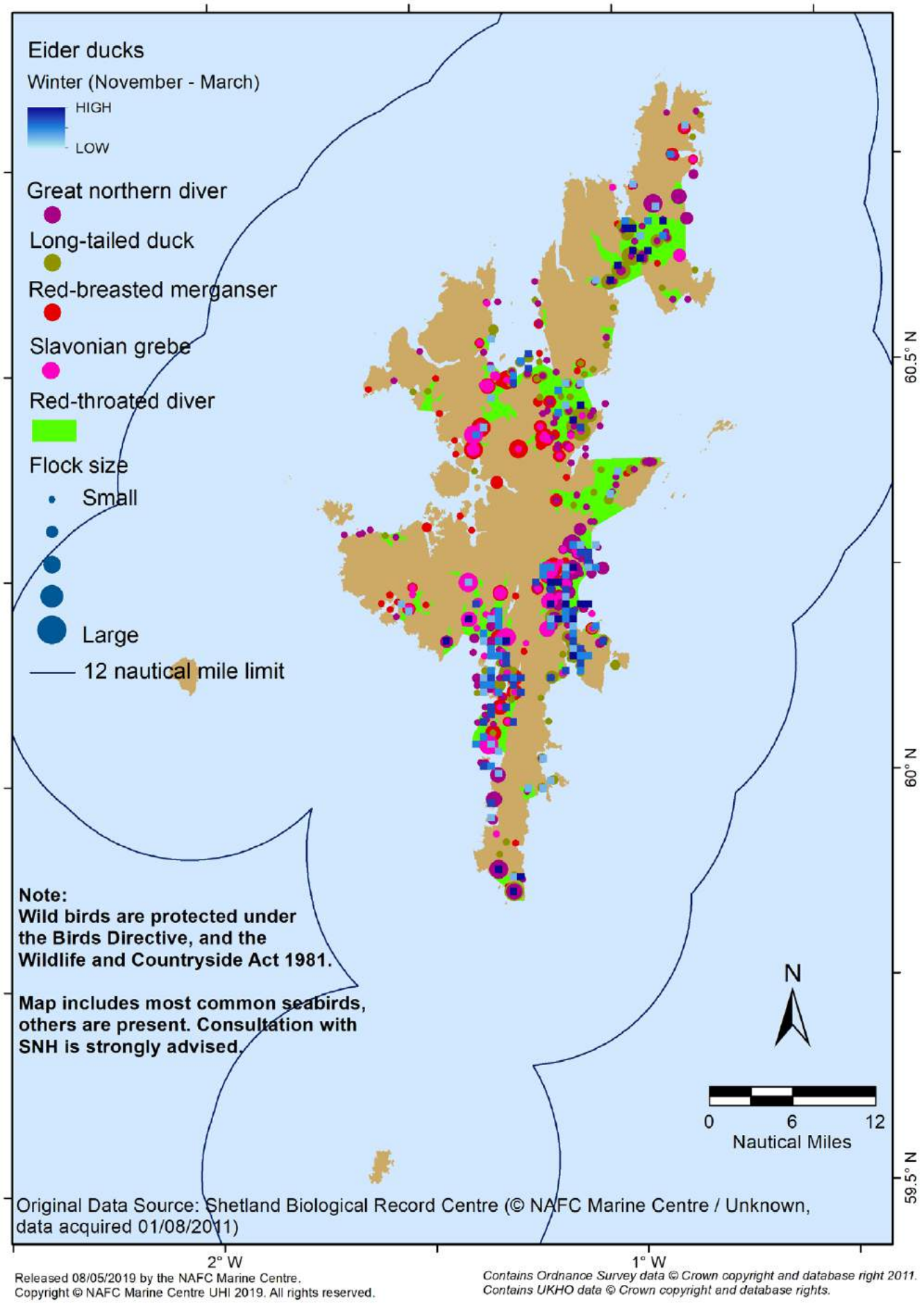
- RSPB Scotland
- SNH

Further Information

- Shetland Islands Council's Local Development Plan and Supplementary Guidance Natural Heritage
- RSPB. Wild Birds and the Law: Scotland
- Scottish Natural Heritage – Species Licensing
- Marine Scotland – Species Licensing



Map 16: Distribution of breeding bird colonies in the Shetland Islands Marine Region



Map 17: Distribution of wintering seabirds in the Shetland Islands Marine Region

Conservation of Seals and 'Seal licences'

In accordance with the Marine (Scotland) Act 2010, it is an offence to kill, injure or take a live seal (intentionally or recklessly) at any time of year except to alleviate suffering or where a licence has been issued to do so by Scottish Ministers. Marine Scotland, on behalf of Scottish Ministers may grant a licence (a 'seal licence') authorising the killing or taking of seals under certain circumstances including:

- For scientific, research or educational purposes;
- To conserve natural habitats;
- To conserve seals or other wild animals (including wild birds) or wild plants;
- In connection with the introduction of seals, other wild animals (including wild birds) or wild plants to particular areas;
- To protect a zoological or botanical collection;
- To protect the health and welfare of farmed fish;
- To prevent serious damage to fisheries or fish farms;
- To prevent the spread of disease among seals or other animals (including birds) or plants;
- To preserve public health or public safety; or
- For other imperative reasons of over-riding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.

It is strongly advised that consultation in relation to the conservation of seals is carried out with the Seal Licensing Team at Marine Scotland.

In addition, under Section 117 of the Marine (Scotland) Act 2010, Scottish Ministers, consulting with the Natural Environment Research Council (NERC), are permitted to designate specific seal haul-out sites to provide additional protection for seals from intentional or reckless harassment. In 2014 the Scottish Government identified 194 seal haul-out sites which were designated through The Protection of Seals (Designation of Haul-Out Sites) (Scotland) Order 2014, 47 of these are in Shetland.

Policy MP SPCON3: Development and Designated Seal Haul-Outs

Developments or uses which would result in an activity that harasses[16], pesters, torments, disturbs, troubles or attacks a seal on a designated haul-out site will not be permitted.

Designated seal haul-outs, nursing and pupping areas, and seal densities at sea are shown in Map 18.

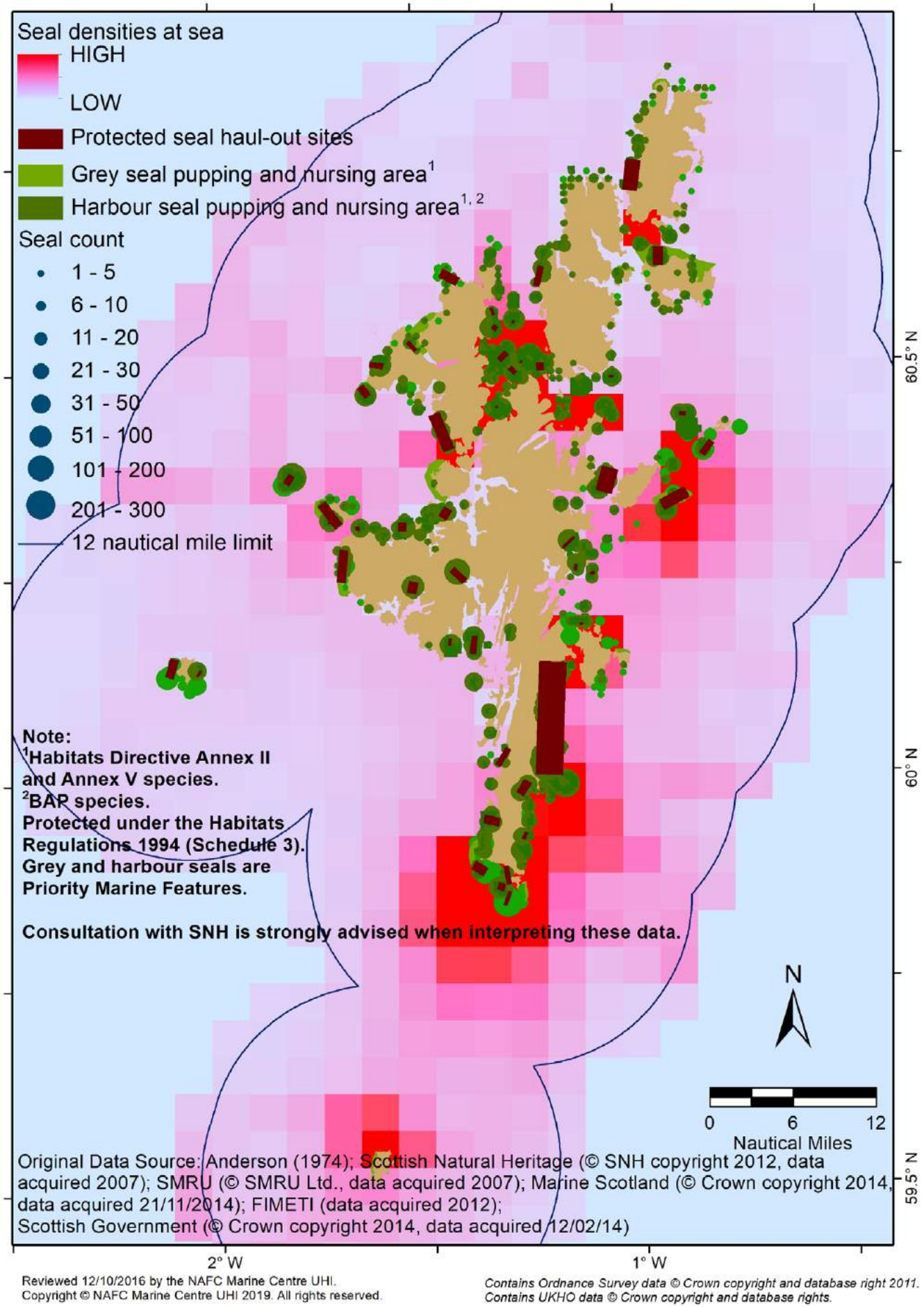
Key Consultees

- SNH
- Marine Scotland

Further Information

- Scottish Government Seal Haul-out Sites
- Sea Mammal Research Unit

[16] See Marine Scotland guidance on seal haul-outs.



Map 18: Distribution of seals at sea and on land and protected seal haul-outs within the Shetland Islands Marine Region

Priority Marine Features (PMFs)

Scottish Natural Heritage and Marine Scotland have identified the most important components of Scotland's marine biodiversity. Priority Marine Features (PMF) are a prioritized list of 81 marine habitats and species (including the marine phases of some diadromous fish species) considered to be of national conservation importance. They should be taken account of in Environmental Statements and through relevant licensing/ consenting decisions. All maps of important marine habitats and species (Maps 7 to 16) indicate whether a species is a PMF and whether it is protected under other designations or legislation.

In supporting the Scottish Government's three pillar approach to marine nature conservation, this SIRMP provides a mechanism to the protection of Priority Marine Features which lie both within and outside formally designated MPAs. These features are considered to be of both local and national importance and should be safeguarded in order that ecosystem health is maintained. Forty-four PMF species and habitats are known to be present in waters around Shetland.

Policy MP SPCON4: Priority Marine Features

Developments or uses likely to have a significant impact on a Priority Marine Feature (PMF) will only be permitted where it can be demonstrated that:

a) there will be no adverse direct or indirect effect to the feature's integrity or important physical features; or

b) mitigation measures are included to minimise the impacts to the priority marine habitat or species including species behaviour such as breeding, feeding, nursery or resting; or

c) there is no reasonable alternative or less ecologically damaging location; and

d) the reasons for the development clearly outweigh the value of the feature by virtue of social or economic benefits of national importance.

Records of PMFs are shown in Maps 13 to 22.

Applicants and planners should seek advice from Marine Scotland, the Shetland Biological Records Centre and SNH on sensitivity of species.

Justification

These policies aim to secure the conservation of Shetland's natural heritage through the protection of habitats at all levels from harmful development. This includes ensuring that species with protected status under British or European Law are not caused harm from developments that may affect their feeding, resting or breeding sites. These species and habitats provide a range of services, including acting as carbon sinks, providing nursery grounds for commercial species and reducing coastal erosion.

Developers should use the spatial information within the SIRMP and Shetland Islands State of the Environment Assessment on important natural heritage features in pre-consultation discussion. Whilst the SIRMP brings this information together, it is likely that data gaps remain. The SIRMP also uses predicative mapping commissioned for use by the SSMO, providing a useful indication of where specific habitats and species might occur.

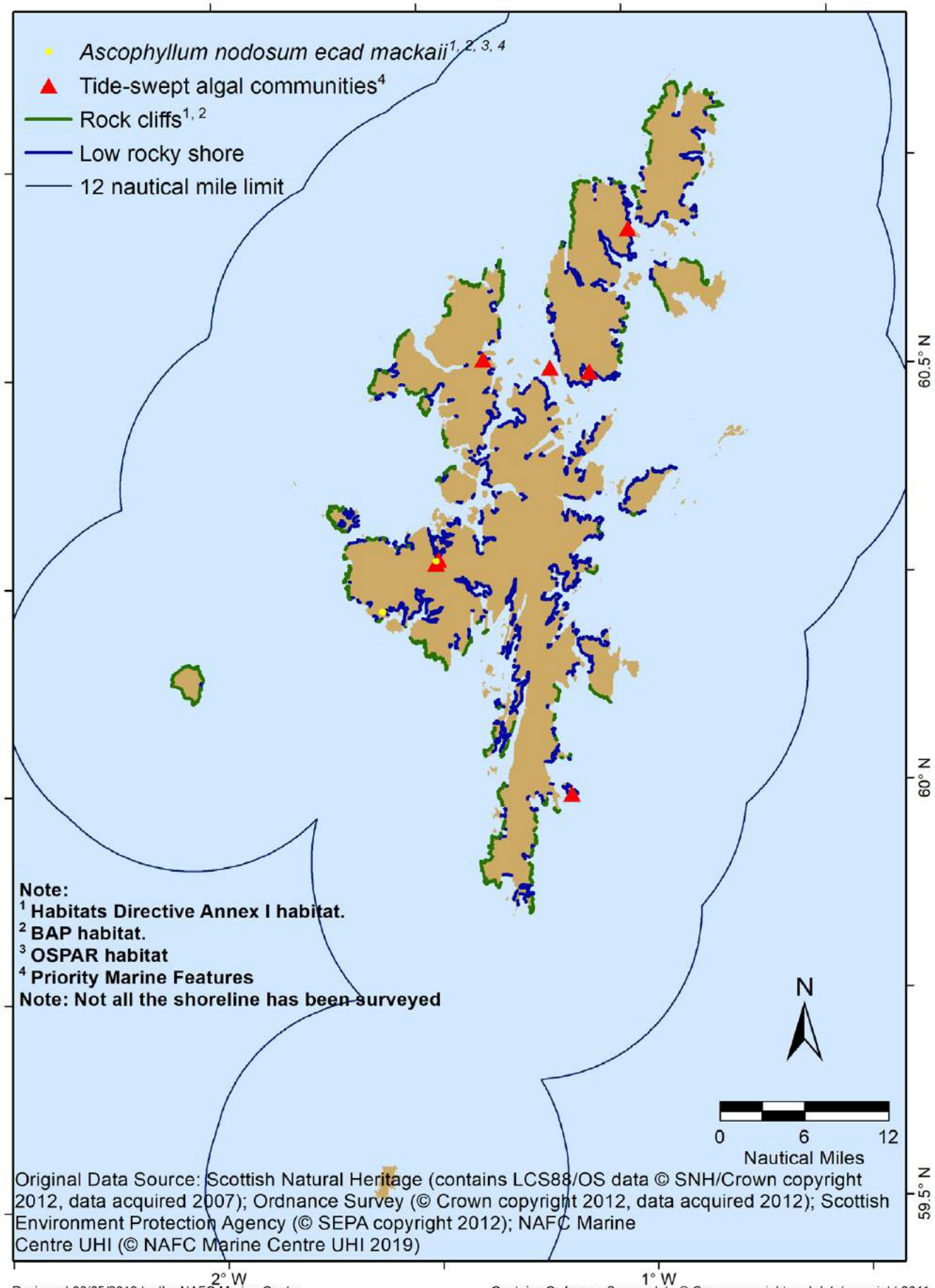
Key Consultees

- Marine Scotland
- SNH

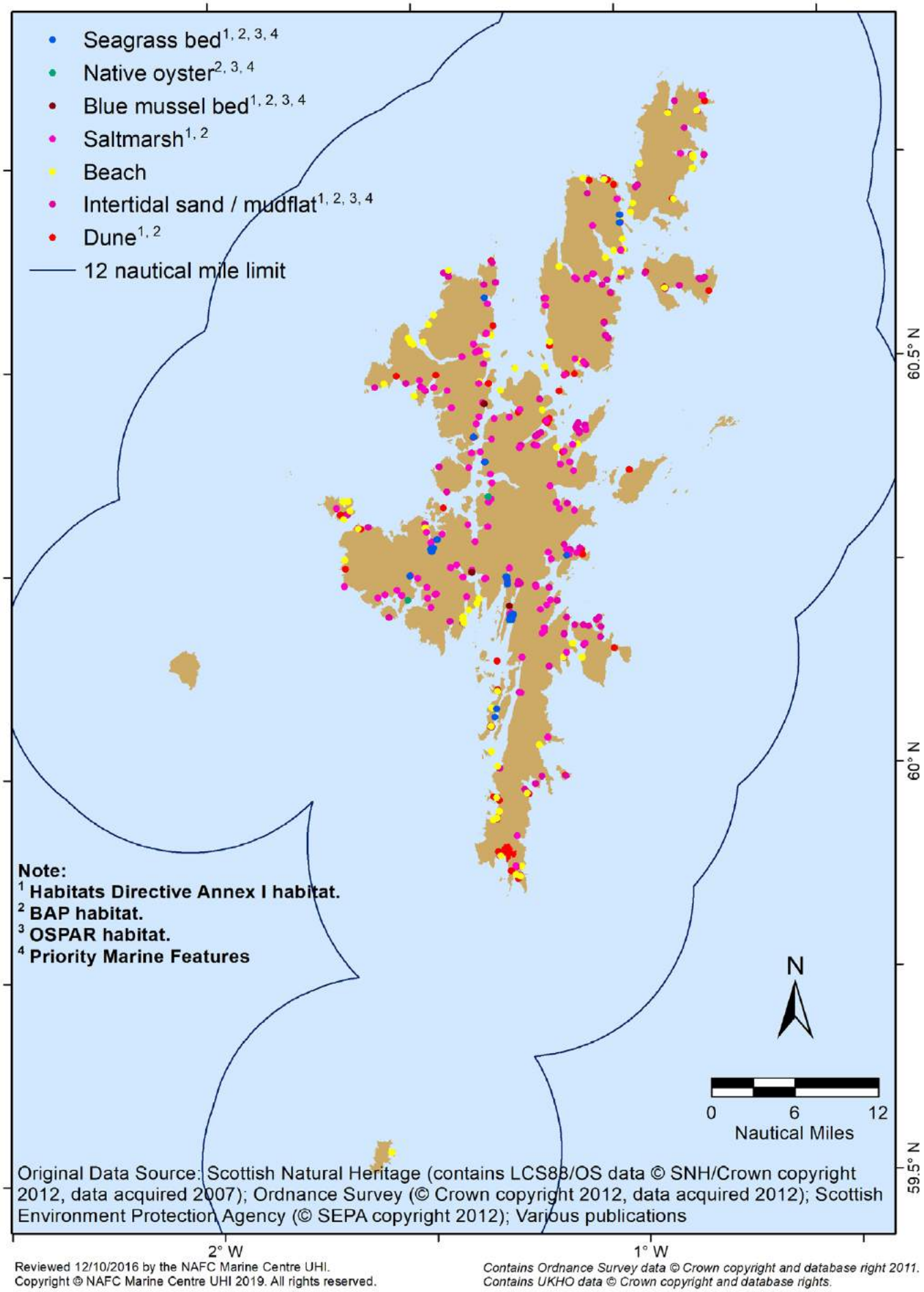
Further Information

- Shetland Islands Council's Local Development Plan and relevant Supplementary Guidance
- NAFC Marine Centre UHI

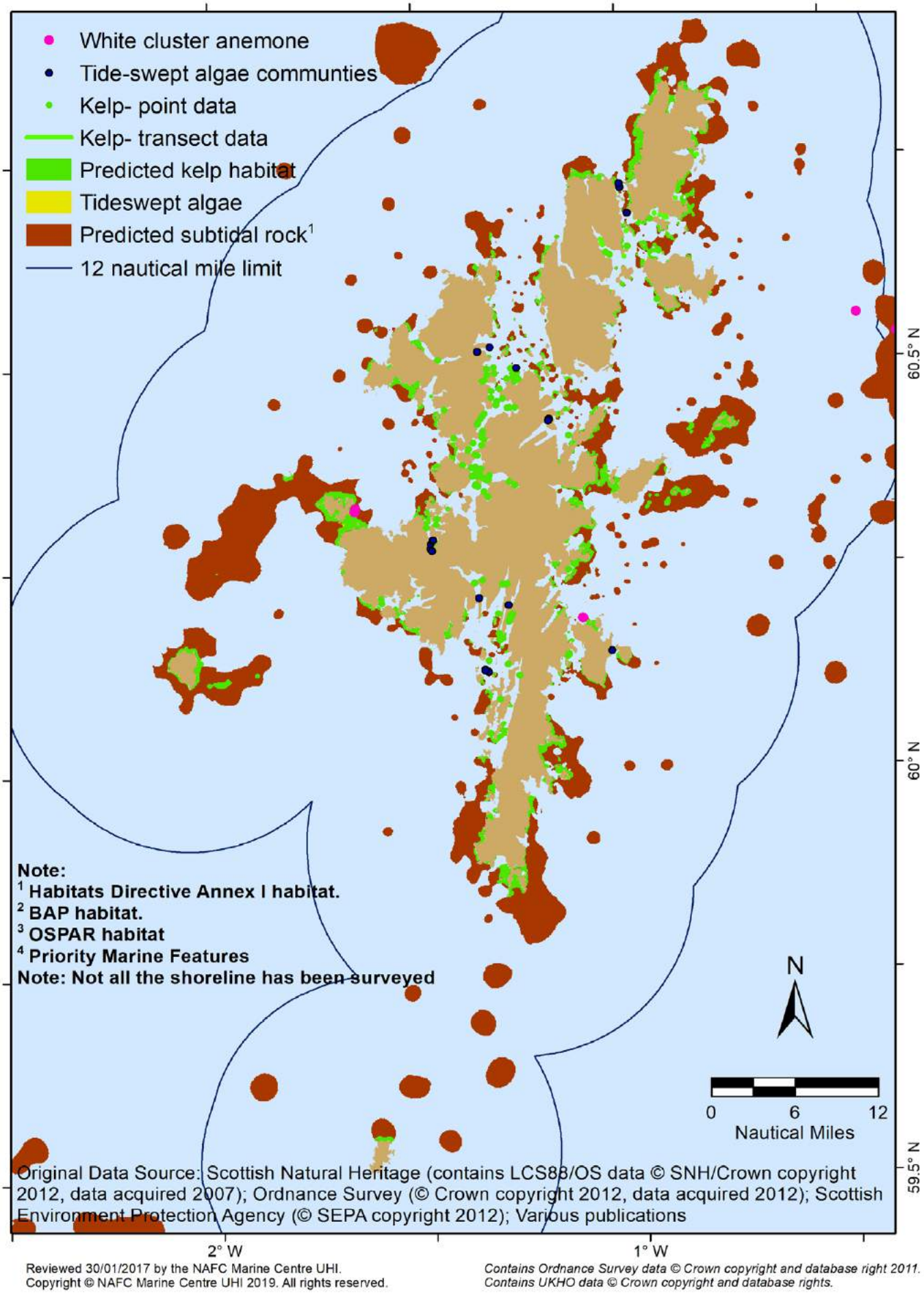
- Shetland Islands Council Natural Heritage
- Shetland Biological Records Centre
- Marine Life Information Network
- Scottish Biodiversity Strategy. Scotland's Biodiversity: It's in Your Hands - A strategy for the conservation and enhancement of biodiversity in Scotland



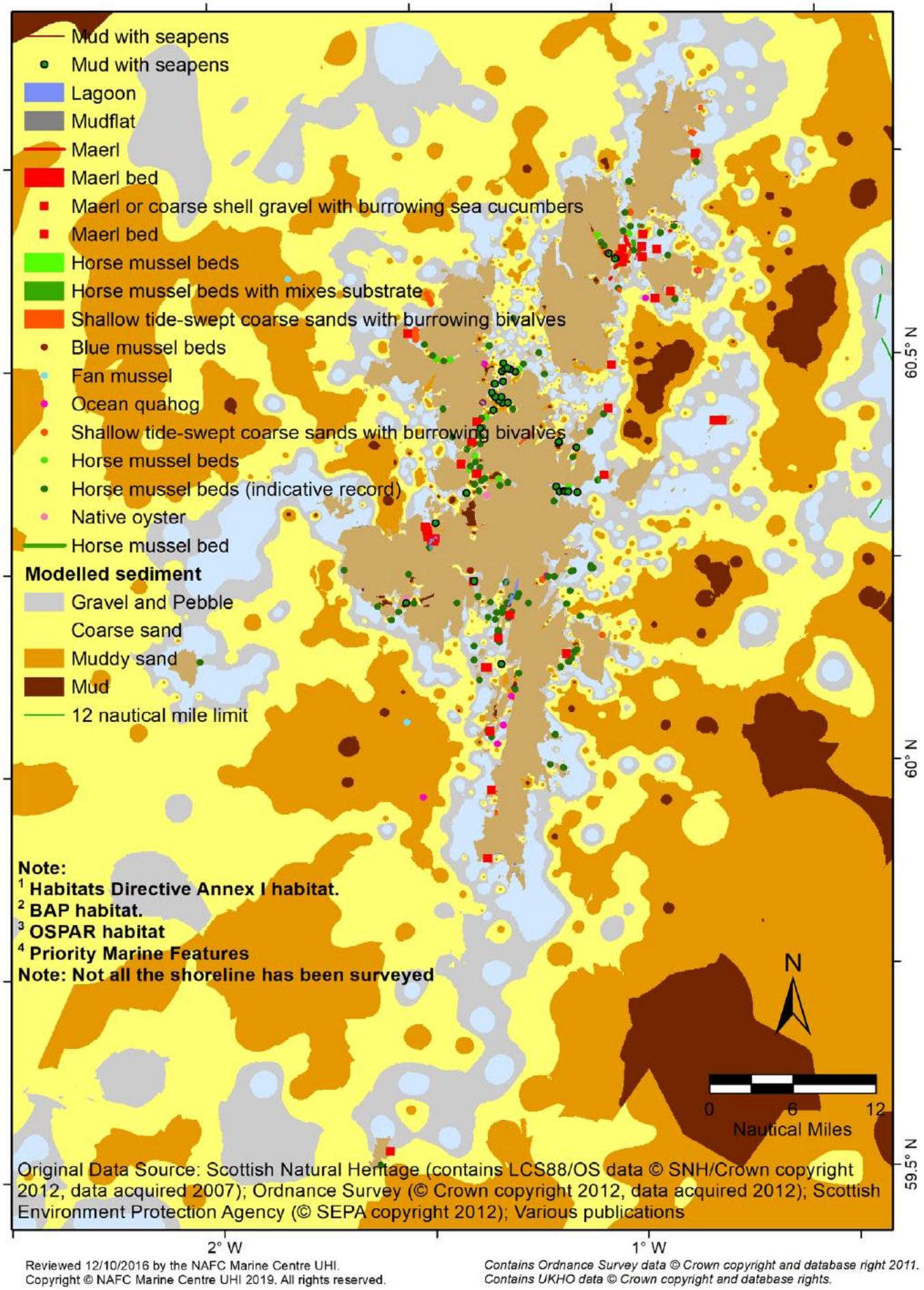
Map 19: Intertidal rock distribution and supported habitats within the Shetland Islands Marine Region



Map 20: Intertidal sediment distribution and supported habitats within the Shetland Islands Marine Region



Map 21: Subtidal rock distribution and supported habitats within the Shetland Islands Marine Region



Reviewed 12/10/2016 by the NAFC Marine Centre UHI.

Map 22: Subtidal sediment distribution and supported habitats within the Shetland Islands Marine Region

Eshaness Coast © Charlotte Slater

Wider Seas Measures

Biodiversity

Biodiversity is all of life: animals, plants, fungi and microorganisms and their interactions with their environment. Together, these form living systems, called ecosystems, which sustain nature and upon which our own survival depends.

Policy MP BIOD1: Furthering the Conservation of Biodiversity

Development and use of the marine environment will be considered against public bodies' obligation to further the conservation of biodiversity and the ecosystem services it delivers. Development and use of the marine environment must protect, and where appropriate enhance the health of the Shetland marine area. The extent of these measures should be relevant and proportionate to the scale of the development.

Proposals for development that would have a significant adverse effect on habitats or species identified in the PMF list, Shetland Local Biodiversity Action Plan, Scottish Biodiversity List, Annexes I and II of the Habitats Directive, Annex I of the Birds Directive (if not included in Schedule 1 of the Wildlife and Countryside Act) or on the ecosystem services of biodiversity, including any cumulative impact, will only be permitted where it has been demonstrated by the developer that:

a) The development will have benefits of overriding public interest including those of a social or economic nature that outweigh the local, national or international contribution of the affected area in terms of habitat or populations of species; and

b) Any harm or disturbance to the ecosystem services, continuity and integrity of the habitats or species is avoided, or reduced to acceptable levels by mitigation.

Developers should consider impacts on areas which are important to all aspects of a species life cycle including locations used for breeding, nesting, resting, foraging and seasonal use, including over-wintering.

Key Consultees

- SNH
- Shetland Biological Records Centre
- NAFC Marine Centre UHI

Further Information

- Shetland Islands Council's Local Development Plan and Supplementary Guidance Local Nature Conservation Sites
- Shetland Islands Council Supplementary Guidance Natural Heritage
- 2020 Challenge for Scotland's Biodiversity
- Shetland Biological Records Centre

Geodiversity

Geodiversity is the variety of rocks, fossils, minerals, natural processes, landforms and soils that underlie and determine the character of our landscape and environment. Geodiversity is literally all around us. It influences the way we live, the resources we need and use and how the world changes. Understanding and valuing geodiversity is critical to understanding the Earth and the decisions we make for the future of our environment.

Policy MP GEOD1: Safeguarding Marine Geodiversity

Development will only be permitted where appropriate measures are taken to protect or enhance important marine and coastal geological and geomorphological resources and sites, including protected features of SSSIs and MPAs, Geological Conservation Review sites, and Geosites identified by Geopark Shetland for their educational or research value.

Proposals that would have an unavoidable effect on marine geodiversity will be permitted only where it has been demonstrated that:

a) the development will have benefits of over-riding public interest, including those of a social or economic nature, that outweigh the local, national or international contribution of the affected area in terms of its geodiversity; and

b) any loss of marine geodiversity is reduced to acceptable levels by mitigation, and a record is made prior to any loss.

Geosites and an overview of Shetland's geology is shown on Map 23 and SSSIs for geological reasons are shown on Map 11.

Justification

Geodiversity has an important role to play in ensuring that the natural environment continues to provide important ecosystem services. Geodiversity contributes to the following ecosystem services:

- Provisioning services: fresh water (surface and ground water), mineral resources (including oil and gas, renewable energy);
- Regulating services: carbon sequestration and climate regulation, reducing erosion and natural hazards, such as flooding;
- Supporting services: soil formation, geomorphological processes, terrestrial and marine habitats;
- Cultural services: aesthetic values, landscape character, resources for recreation and outdoor activities, tourism, and education and lifelong learning.

The loss of geodiversity or its mismanagement, as a consequence of factors such as unsustainable development, changing land use or climate change, presents real threats to biodiversity and can result in significant economic and social costs. Conversely, the sustainable management of geodiversity can have positive economic, social, cultural and educational benefits. It is a misconception that geodiversity is robust enough not to require management and protection.

Shetland is one of 71 Geoparks in the European Geopark Network and one of 140 Geoparks in the Global Network. The Geopark label is about much more than just geology. One element of the Geopark is the suite of Geosites – sites important for their geology, see Map 23. Of the 107 Geosites, 47 are geological SSSIs or part of a geological SSSI and a further five are within biological SSSIs, see Map 11.

Key Consultees

- SNH
- Shetland Amenity Trust

Further Information

- Shetland Islands Council's Local Development Plan and Supplementary Guidance Local Nature Conservation Sites
- Shetland Biological Records Centre
- Geopark Shetland
- Scottish Geology
- Scottish Geodiversity Forum

Geopark Shetland

A Geopark is an area or territory with geological heritage of international significance. Geoparks use that heritage to promote sustainable development, primarily through tourism and education. Geoparks take a holistic approach to interpretation, highlighting the close links between geodiversity and cultural and natural heritage. They also raise awareness of key issues facing society in the context of the dynamic planet we live on, such as climate change and geological hazards like volcanoes, earthquakes and tsunamis. Geoparks seek to conserve the natural environment and encourage sustainable use of natural resources. They are supported by UNESCO.

Geopark Shetland aims to safeguard and increase the awareness and understanding of Shetland's rich geological heritage and to use this as a driver for sustainable development by:

- Conserving Shetland's rich geological heritage and demonstrating its clear links with natural and cultural heritage.
- Raising awareness and increasing understanding of Shetland's geological heritage.
- Enhancing the image of Shetland and promoting sustainable development linked to geological heritage and geotourism.

Benefits of the Geopark

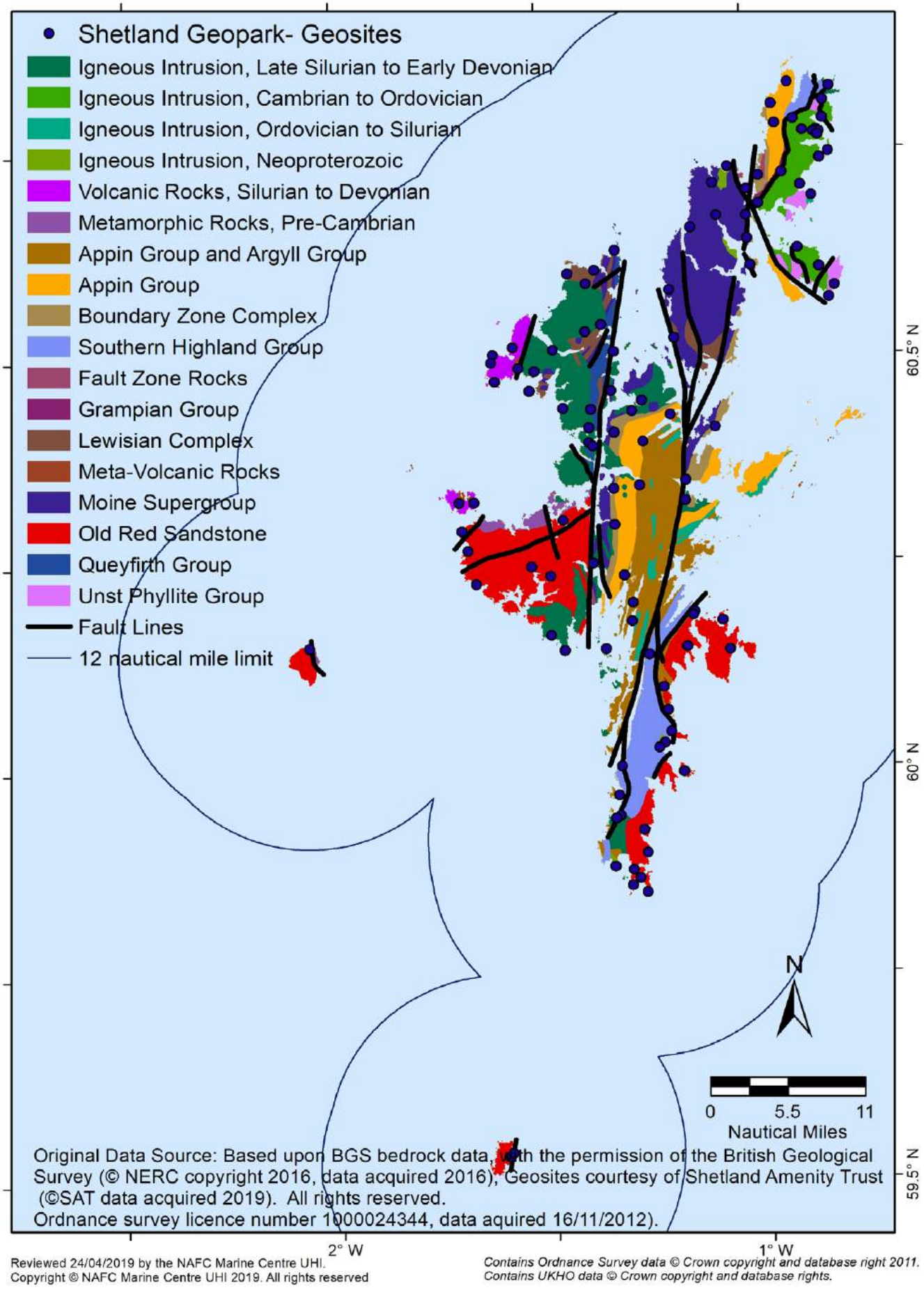
Supporting regional and national tourism:

- Natural and cultural heritage tourism, a major industry in the Highlands and Islands
- Geopark contributes to heritage tourism infrastructure in imaginative, innovative ways.
- Adds value to visitor experience and appreciation of natural and cultural heritage.
- Enhances the green tourism product with a knock on effect on whole industry and local SMEs
- Provides opportunities to develop spin off projects – e.g. intangible cultural heritage.

Supporting Scotland's schools and lifelong learning:

- Plays an important role in delivery of Curriculum for Excellence.
- Offers school activities in partnership with a range of environmental organisations.
- Delivers courses, workshops, lectures and activities to involve the wider community.

Geopark Shetland is supported by the Geopark Shetland Working Group (GSWG). The GSWG includes representatives from several partners including Shetland Amenity Trust, Shetland Islands Council, Scottish Natural Heritage, Highlands and Islands Enterprise, Visit Scotland, Promote Shetland, Shetland Tourism Association, the Association of Shetland Community Councils, Anderson High School and several community groups.



Map 23: Geology of the Shetland Islands and Geopark sites within the Shetland Islands Marine Region

Sandwick, Burra © Charlotte Slater

Landscape and Seascape

Marine developments and activities in the coastal zone have the potential to have both a positive and negative impact on the landscape including seascapes. The effects will be development-specific and dependent on the type of development activity, its location and setting. The definition of landscape, according to European Landscape Convention (ELC), is 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'[17]. However, there is no legal definition, as yet, of 'seascape' in the UK. 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[18].

The quality of Shetland's landscape has been recognised nationally by the designation of National Scenic Areas (NSAs), and locally by the designation of proposed Local Landscape Areas (LLAs). Seven separate areas of coastal landscape in Shetland have been identified as of outstanding scenic interest, and designated as NSAs. They lie principally in the south-west and northern extremities of the archipelago and include Fair Isle, Foula, the western flank of Dunrossness and the Deeps, part of Muckle Roe, Eshaness, Uyea Isle, Fethaland, and Hermaness. Proposed LLAs have been introduced locally to help protect and enhance some of Shetland's unique environment and may provide direction for access and tourism.

Policy MP VIS1: Safeguarding National Scenic Areas (NSAs) and Local Landscape Areas (LLAs)

Developments that affect a NSA or LLA will only be permitted where:

a) it will not adversely affect the integrity of the area or the qualities or protected features for which it has been designated, or

b) any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance for NSAs and local importance for LLAs.

NSA and proposed LLAs are shown in Map 24.

Justification

Some marine developments will have an impact on NSAs by virtue of their proximity, scale and design; therefore stricter planning control should be enforced as appropriate. Developers may be required to submit a Design Statement in support of a development application. It is recommended that consenting authorities should have regard to the NSA Special Qualities Statements for Shetland published by SNH.

Policy MP VIS2: Safeguarding Seascape Character and Visual Amenity

Any development or activity should demonstrate:

a) how the proposal takes into account existing character and quality of local landscape/ seascape;

[17] UK Marine Policy Statement

[18] UK Marine Policy Statement

how highly it is valued; and its capacity to accommodate change specific to any development.

b) a high standard of design, in terms of siting, scale, colour, materials and form to ensure the various types of development or coastal use change might best be accommodated within particular landscape and seascape types.

Seascape character assessment is shown in Map 25. Areas of wildness around Shetland's coast are shown in Map 26.

Justification

Landscapes including areas of coastal wild land or isolated coast are sensitive to inappropriate development, and consenting authorities should ensure that potential effects, including the cumulative effect of incremental changes, are considered when deciding planning applications, works licences and marine licences.

All new marine-related developments should have regard to the Shetland Islands Council's Local Development Plan and in particular, the proposed Supplementary Guidance for Local Landscape Areas. For developments that require an Environmental Impact Assessment (EIA), a Landscape and Visual Impact Assessment (LVIA) is usually required when there are likely to be negative effects on the landscape. It is recommended that developers consult with the relevant consenting authorities as early as possible when proposing any new or revised development.

Landscape including seascape is constantly changing; the aim of the SIRMP is to facilitate positive change whilst maintaining and enhancing distinctive character. Different landscapes will have a different capacity to accommodate new development, and the siting and design of development should be informed by local landscape character including wildness. Wild land character is displayed in some of Scotland's remoter upland, mountain and coastal areas, which are very sensitive to any form of intrusive human activity and have little or no capacity to accept new development[19]. Map 26 shows areas of wildness within the Shetland Marine Region. Wildness is a landscape quality which is experienced by an individual. Wild land is an area where extensive areas of wildness are best expressed. Scottish Planning Policy states *'In areas of wild land (see paragraph 200), development may be appropriate in some circumstances. Further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation[20].'*

Inappropriate development brings about change that can damage existing features, diminish wildlife in ecological areas and neglect traditional features, all of which have important implications for the landscape qualities of the Shetland Islands. Some change is not only inevitable, it is desirable and whilst the protection of the landscape and natural heritage may sometimes impose constraints on development, with careful planning, design conflict can be minimized and the potential for enhancement maximized.

Key Consultees

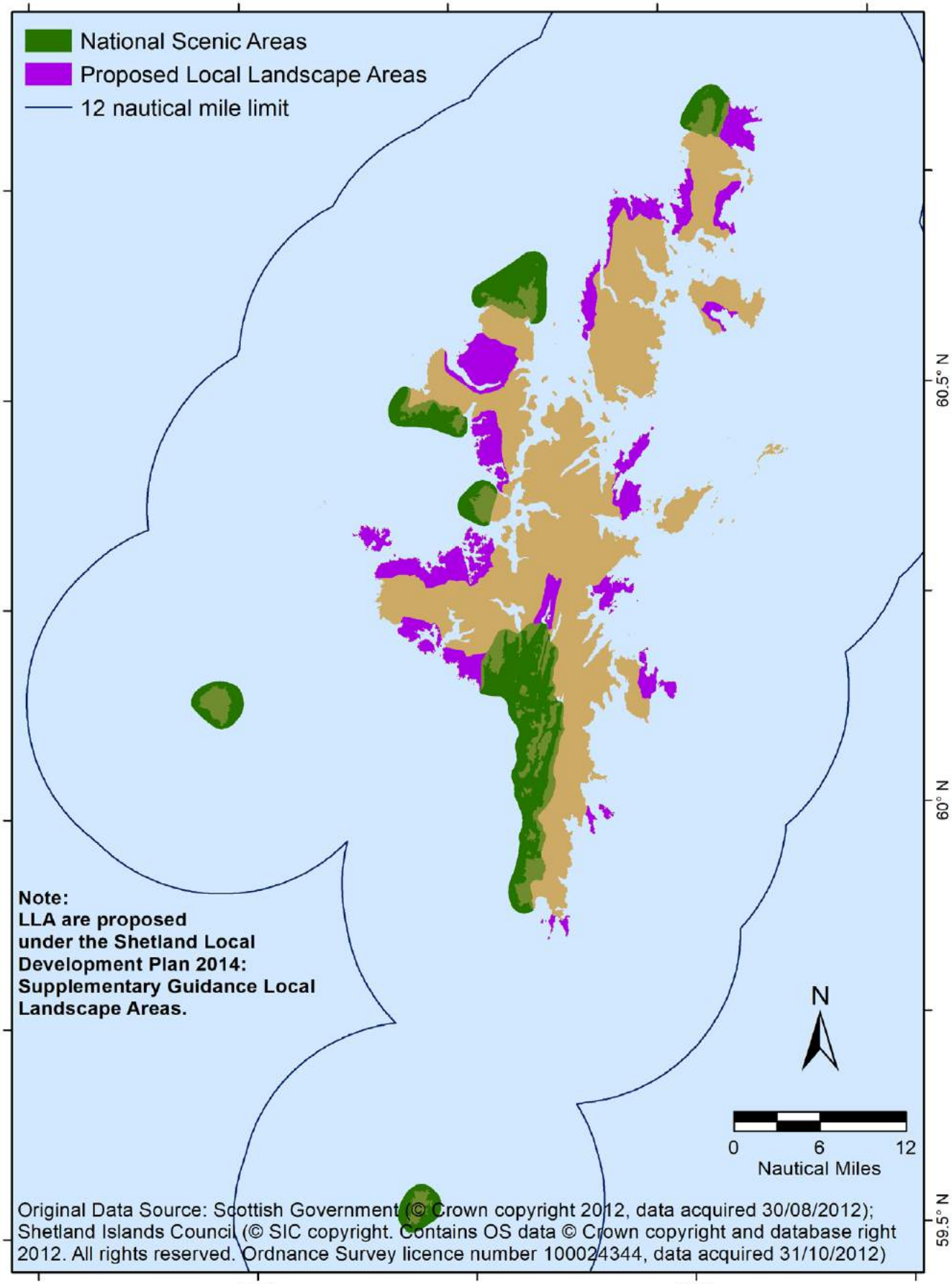
- SNH
- SIC

Further Information

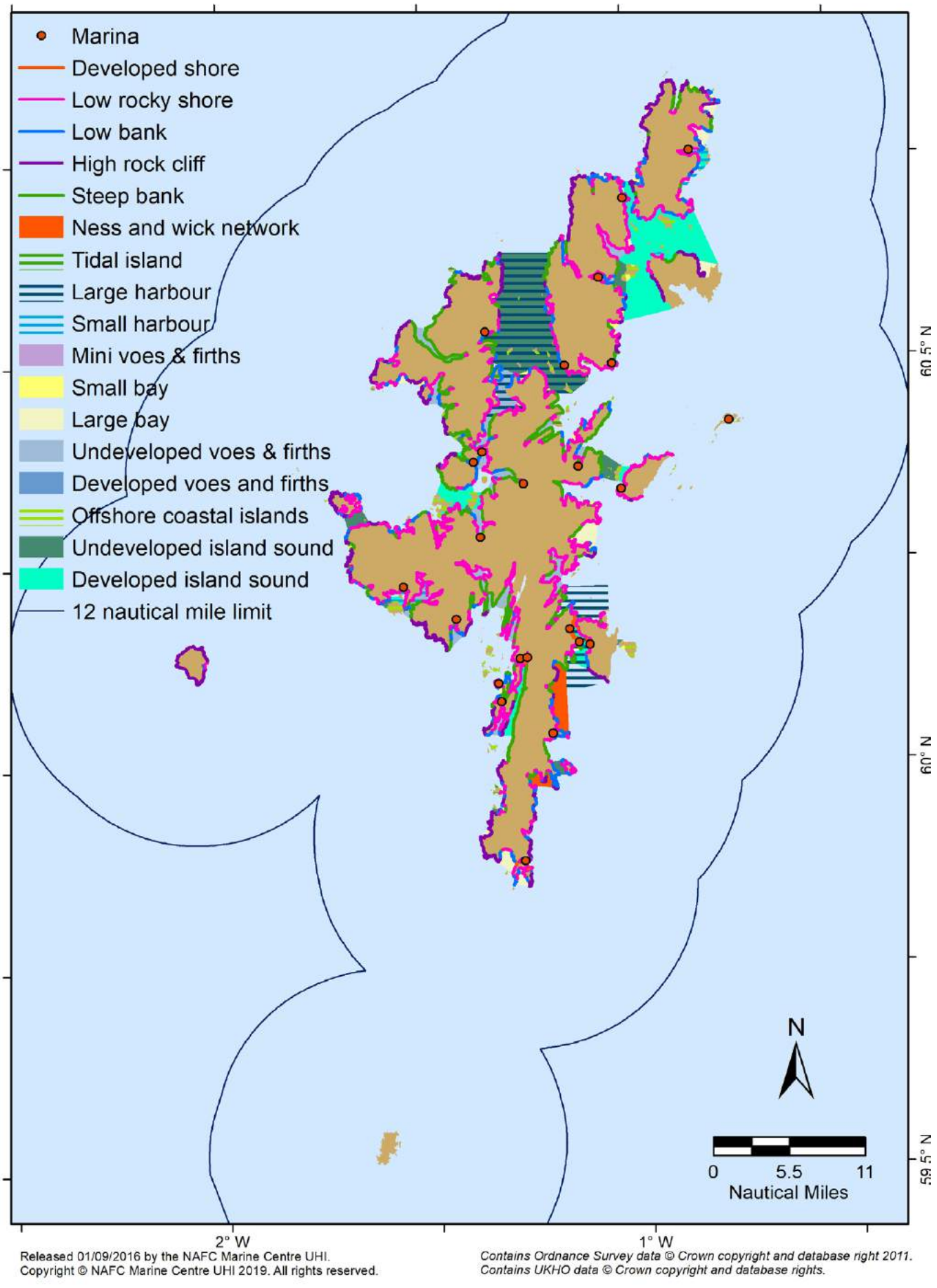
- Shetlands Coastal Character Assessment
- Shetland Islands Council's Local Development Plan and Supplementary Guidance Local Landscape Areas
- SNH – Landscape and Visual Impact Assessment
- SNH – Safeguarding protected areas and species
- Gillespies. 1998. A landscape assessment of The Shetland Isles. Scottish Natural Heritage Review No 93.

[19] Scottish Planning Policy Paragraph 200

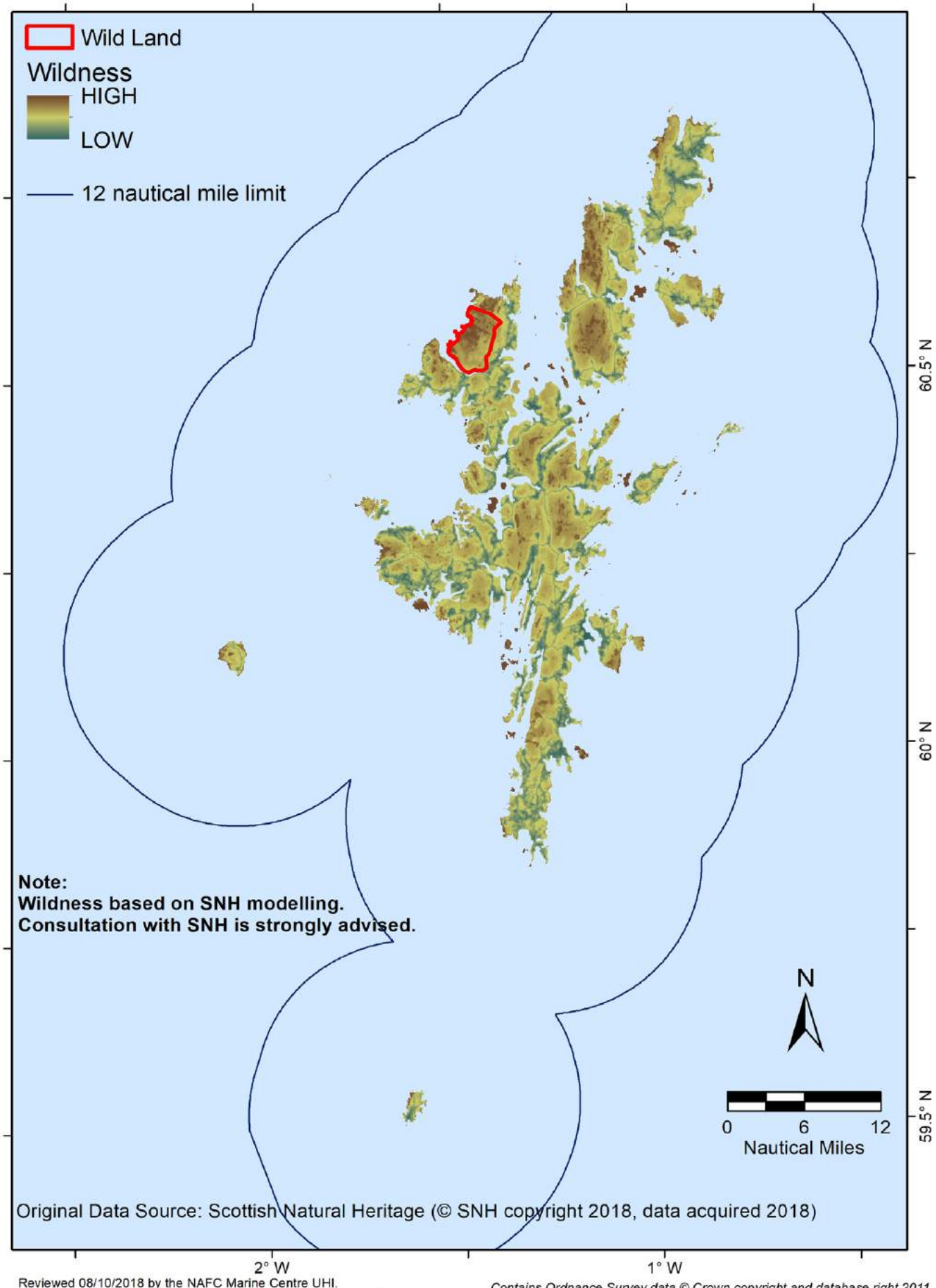
[20] Scottish Planning Policy Paragraph 215



Map 24: National Scenic Areas (NSAs) and proposed Local Landscape Areas (LLAs) in the Shetland Islands Marine Region



Map 25: Seascape character assessment of the Shetland Islands Marine Region



Map 26: Modelled relative wildness within the Shetland Islands Marine Region

Mousa Broch © Charlotte Slater

Historic Environment

The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged. It helps to give a sense of place, well-being and cultural identity and enhances regional and local distinctiveness. Shetland's coasts and seas are and have been an integral part of Shetland's cultural identity. It is important that this inheritance is managed and protected so that future generations will be able to enjoy it. Elements of the historic environment such as buildings, monuments, sites or landscapes which are deemed significant are sometimes collectively termed 'heritage assets'. Far less is known about heritage surviving on the seabed than about heritage assets on land. As our knowledge increases, it is becoming clear that Shetland's coasts and seas contain a rich cultural heritage that includes the remains of important heritage assets of all periods from prehistory to the recent past. 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 assets 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[21].

Some significant heritage assets are designated and protected under national legislation. Designated heritage assets may include scheduled monuments (designated under the Ancient Monuments and Archaeological Areas Act 1979) and Historic Protected Areas (designated under the Marine (Scotland) Act 2010). These assets can be found from the coast through to offshore areas.

Archaeology

The sea around the Shetland Islands hosts a rich and diverse cultural heritage. At the coast, there are numerous structures of archaeological and historical interest, shown in Map 27. There are around 1,490 known shipwrecks on the seabed, shown in Map 28, but only a small proportion are known in detail. Two wrecks are designated within a Historic Marine Protected Area, and the seabed around fourteen wrecks are leased by Shetland Islands Council as a means of protecting the resources within them[22], shown in Map 27. In addition, Historic Environment Scotland have initiated consultation on the Queen of Sweden becoming

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

[22] "*The council leased from the Commissioners of Crown Lands the seabed rights of specified areas where some of the more important wrecks are known to lie. Such a lease does not give the council any rights to the individual wrecks in question, but it would give that body control to prevent any person interfering with the seabed within the defined areas. And since the ships themselves are broken and scattered and their remains can only be reached by excavation the interference need not be stressed.*" Hendersons (1985).

designated a Historic Marine Protected Area.

The seabed is also of paleo-environmental interest, particularly areas that were once dry land during ice age conditions and where there is potential for a wide range of buried deposits of archaeological interest e.g. Bressay Sound (Lerwick).

Historic Environment Scotland, an executive agency of Scottish Government, takes the lead in providing statutory protection for nationally important elements of Shetlands coastal and marine historic environment through scheduling of ancient monuments, the listing of historic buildings, and the designation of historic shipwrecks. However, not all nationally important heritage assets have been designated and there is always the possibility of discovering new sites. In addition, Historic Environment Scotland directly manages several Properties in Care (PiC) that fall within the scope of the SIRMP (e.g. Jarlshof; Mousa Broch).

Shetland's archaeology is a key part of what gives the islands their distinctive and unique character. The archaeology includes Scheduled Sites but also includes many other sites which are of 'schedulable' quality, in addition to sites of regional and local importance. Shetland Amenity Trust provides the Regional Archaeology Service (RAS) on behalf of the local planning authority. They are responsible for maintaining an up-to-date record known as the Shetland Sites and Monuments Record (SMR). The SMR currently holds information on about 9,000 sites, a high proportion of which are coastal/marine. Archaeology, once designated at a site, designs the 'dominant use' for cultural and historic reasons.

Policy MP HIS1: Historic Marine Protected Areas

Development within or adjacent to the boundaries of any Historic MPA will only be permitted where it has been adequately demonstrated, to the satisfaction of both the consenting authority and Historic Environment Scotland, that the proposal has had due regard to the preservation objectives of the designated site and there will be no adverse direct or indirect effects on the objectives of the Historic MPA.

Development proposals should assess the likely impacts on hydrodynamic processes and any seabed biology/water chemistry over the protected area and, where appropriate, develop an archaeological mitigation strategy to minimise any potential impacts. Developers will be expected to arrange for appropriate archaeological investigation, at their own expense to take place prior to the commencement of work, in consultation with the local planning authority (and the Regional Archaeology Service) and Historic Environment Scotland.

Historic MPAs and proposed Historic MPAs are shown in Map 28.

Policy MP HIS2: Safeguarding Nationally Important Heritage Assets

Development which results in substantial loss or harm to a scheduled monument or the integrity of its setting should not be permitted unless it can be demonstrated that the harm or loss is necessary in order to deliver social, economic or environmental benefits that outweigh the harm or loss.

Where the loss of the whole or a material part of a heritage asset's significance is deemed justifiable, suitable mitigating actions will be required to be undertaken by the developer in agreement with the relevant regulator and advisors (e.g. the Regional Archaeology Service) to record and advance understanding of the significance of the heritage asset before it is lost.

Scheduled monuments are an important, finite and non-renewable resource and should be protected and preserved in situ wherever feasible. Where preservation in situ is not possible consenting authorities will, through the use of conditions or a legal agreement, ensure that developers undertake appropriate excavation, recording, analysis, publication and archiving before and/or during development. If archaeological discoveries are made during any development, a professional archaeologist should be given access to inspect and record them. All requirements should be based on advice from the relevant regulator and advisors.

Examples of nationally and locally important heritage assets around Shetland include:

- Scheduled ancient monuments
- Historic plane wrecks and designated ship wrecks
- Brochs and burnt mounds
- Any associated marine buildings such as bods, piers, sea walls
- Protected wrecks and unscheduled monuments with significant value.

Policy MP HIS3: Safeguarding Locally Important Heritage Assets

All other archaeological resources should be preserved in situ wherever feasible. Where preservation in situ is not possible the consenting authority will ensure that developers undertake appropriate archaeological excavation, recording, analysis, publication and archiving in advance of and / or during development.

Developments within the vicinity of heritage assets must respect the original structure in terms of design, scale and, where appropriate, setting.

Coastal archaeology is shown in Map 27 and submerged archaeological remains are shown in Map 28.

Justification

It is strongly advised that developers consult with the Regional Archaeology Service at pre-application stage and have regard to the Shetland Islands Council's Local Development Plan and Supplementary Guidance- Historic Environment. Shetland Amenity Trust holds the local Sites and Monuments Record (SMR), which contains details of all known monuments and archaeological sites and finds in Shetland.

The aim of these policies is to provide protection to marine heritage in accordance with current guidance and legislation. Marine archaeology makes a significant contribution to the character and amenity of Shetland. It is a valuable resource that can stimulate enjoyment of the wider environment and act as an important medium for education, recreation and tourism.

Key Consultees

- Historic Environment Scotland
- Shetland Amenity Trust- Regional Archaeologist

Additional Responsibilities

- Regional Archaeologist, Shetland Amenity Trust – provides advice to the Shetland Islands Council's Planning Department under a Service Level Agreement on the enforcement of the Ancient Monuments and Archaeological Areas Act, 1979. The Trust also holds the local Sites and Monuments Record (SMR), which contains details of all known monuments and archaeological sites and finds in Shetland.
- Historic Environment Scotland – activities or works which would have a direct impact on Scheduled Monuments or Designated Wrecks require the consent of Scottish Ministers through Historic Environment Scotland.
- Historic Environment Scotland and/or Northern Constabulary – enforce appropriate action in the event of damage to a Scheduled Monument.
- Maritime and Coastguard Agency (MCA) – all items of 'wreck' recovered from any area must, by law, be reported to the Receiver of Wreck, MCA.
- Northern Constabulary, MCA and Lerwick Port Authority in collaboration with Historic Environment Scotland – enforce the Protection of Wrecks Act 1973 in the event that unauthorised works/activities took place within a protected area.

Further Information

- Shetland Islands Council's Local Development Plan – Supplementary Guidance Historic Environment
- Planning Advice Note 2/2011 Planning and Archaeology
- Our Place in Time: The Historic Environment Strategy for Scotland. 2014. The Scottish Government
- Marine Scotland- Historic MPAs
- Historic Environment Scotland-Scotland's Historic Marine Protected Areas 2016
- Historic Environment Scotland Policy Statement 2016
- Historic Environment Scotland. Scotland's Scheduled Monuments 2016

Out Skerries Historic Marine Protected Area (MPA)

The marine historic assets located within the Out Skerries Historic MPA are the remains of two vessels lying wrecked on or in the seabed, the Dutch-East Indiaman Kennemerland and the Danish warship Wrangels Palais, all objects formerly contained in the vessels, and deposits or artefacts which evidence previous human activity on board the vessels. Designation was proposed to enhance appreciation of the significance of these sites and to encourage responsible approaches to their access, management and protection by sea users and relevant agencies and authorities.

These two wrecks, located within close distance of one another, are of national importance as arguably the best preserved and best recorded examples of the numerous wrecks of vessels of international origins that are known to have occurred in the waters around Shetland during the 16th-18th centuries.

Preservation objectives for a Historic MPA serve to guide the management of these important sites, depending on the specific needs of individual areas. The preservation objectives for the Out Skerries Historic MPA are focused around maintaining the extent of survival of marine historic assets in-situ and maintaining site condition. Additional objectives have been included in order to set out those instances where the recovery of marine historic assets (in whole or part) may be acceptable and to restrict commercial exploitation of marine historic assets for trade or speculation.

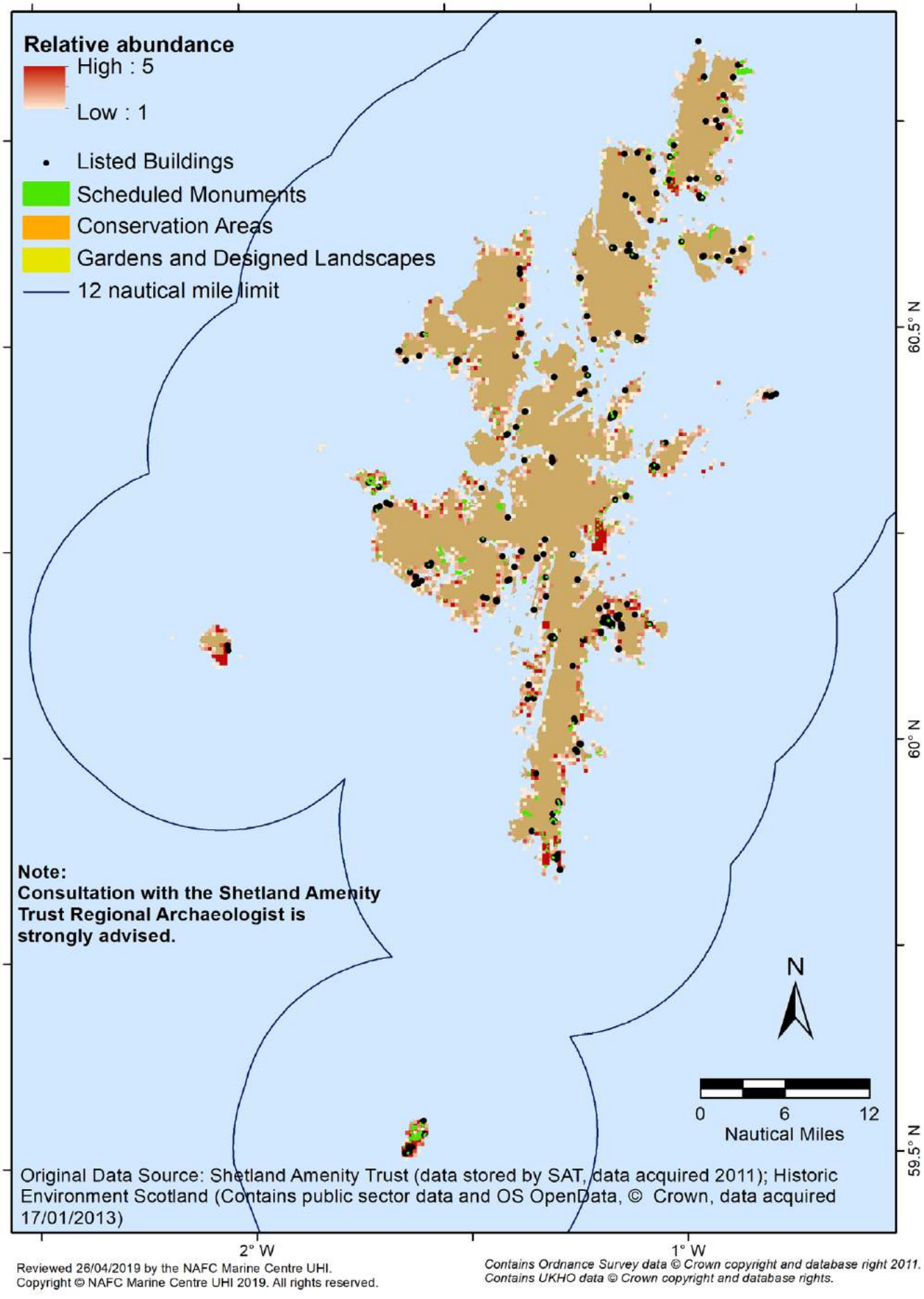
Queen of Sweden Historic Marine Protected Area (MPA)

The marine historic asset located within the proposed Queen of Sweden Historic MPA is the remains of a vessel, the Queen of Sweden, lying wrecked on or in the seabed, objects formerly contained in the vessel and deposits or artefacts which evidence previous human activity on board the vessel.

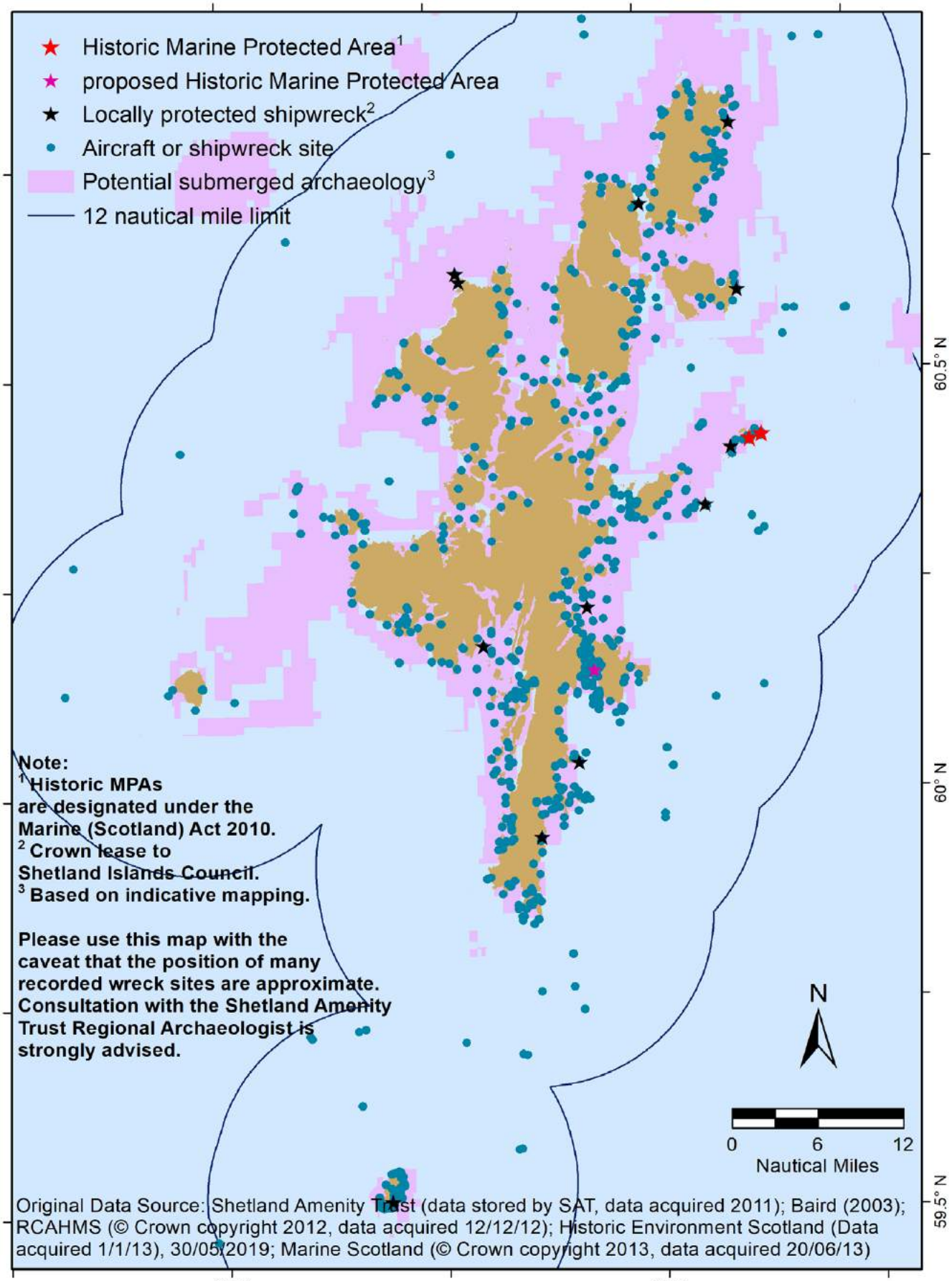
The wrecked vessel is believed to be the Drottningen af Swerige, or 'The Queen of Sweden', a Swedish East Indiaman (an armed merchant sailing vessel of the Swedish East India Company) which hit a rock off the rocky headland of the Knab, while seeking shelter in Bressay Sound, Shetland on 12 January 1745. The remains lie at a depth of approximately 14-25m below chart datum close to Twageos Point, at the southern entrance to Lerwick Harbour.

The wreck of the Queen of Sweden is of national importance as arguably the best preserved remains of a Swedish East Indiaman located in waters around Scotland. Although the wreck has been subject to historic salvage activity, key features are visible on the seabed and there is significant potential for further remains to be buried within the seabed sediments. Combined with study of documentation in company archives, records of the ship's loss and salvage, and an extensive collection of artefacts held by Shetland Museums, the remains of the wreck can significantly enhance our knowledge and understanding of vessels of the Swedish East India Company and its trading activity around Scotland's coasts during the 18th century. The vessel's loss in Bressay Sound bears testament to Shetland's strategically significant location on sea-routes linking northern Europe with the rest of the world. The loss of the Queen of Sweden was a significant event to local communities on Shetland at the time.

More information is available on the Historic Environment Scotland website.



Map 27: Coastal archaeology locations within the Shetland Islands Marine Region



Map 28: Submerged archaeology locations within the Shetland Islands Marine Region

Northmavine Up Helly Aa © Charlotte Slater

Quality of Life for Communities

The Scottish Government is committed to ensuring a strong, healthy and just society. The SIRMP supports this objective, and includes policies to maintain the diversity of the marine and coastal environment, its seascapes, and natural and cultural heritage.

The marine environment not only provides economic benefits but can also directly contribute to the quality of life and well-being of coastal communities. The SIRMP will enhance this benefit by safeguarding equitable access for those who want to use and enjoy the coast and seas, and their wide range of resources and assets.

Community councils are the most local tier of statutory representation in Scotland. Their primary purpose is to ascertain and express the views of the community to the local authority and other public bodies. There is a statutory requirement for local authorities to consult with them on planning applications.

In addition under Sections 22-24 of the Marine (Scotland) Act 2010 and the Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013[5], a public pre-application consultation will be required for certain large scale licensable marine developments with potential for significant impacts. Pre-application consultation will allow local communities, conservation groups and other interested parties to comment on and help shape proposals prior to the submission of an application to MS-LOT.

Policy MP COM1: Community Considerations

Applications for marine-related developments should demonstrate that there will be no adverse social impact on the local community and will only be considered where it has shown that:

a) there is no alternative location for this type of development;

b) all necessary mitigation measures have been included in the development proposal;

c) local stakeholders, community councils, groups and other marine and coastal users have been consulted and engaged in the development process; and

d) an assessment of social impacts of major developments has been carried out to the satisfaction of the consenting authority.

Community council areas are shown in Map 29.

Justification

The aim of this policy is to help the local communities of Shetland to achieve their full potential on a long term, sustainable basis. The Shetland community has a long affinity and connection with the coast and marine environment.

[23] Marine Scotland-Guidance on Marine Licensable Activities subject to Pre-application Consultation

The marine environment is a valuable asset in that it not only fulfils a provisioning and regulating role, but also a cultural and spiritual role. The non-material benefits people obtain from ecosystems include spiritual enrichment, cognitive development, reflection, recreation and aesthetic experience e.g. knowledge systems, social relations and aesthetic values. While these intangible benefits are difficult to evaluate, the social impacts from any development are a key consideration in any decision-making process.

Development can have social implications for the local community. Social impacts can be diverse and complex in their nature, but are most likely to be felt by individuals, families, or groups at a local rather than regional or national level. Development can restrict the choices available to users for safe and accessible recreation locations. Development therefore has the potential to affect the well-being of individuals and groups who value their use of the marine environment as integral to their 'way of life' and social identity. Certain developments may also cause equity issues within local communities, if some stakeholder groups feel marginalised in favour of other groups. For example, some locations may be of greater importance to those with restricted mobility (e.g. Eshaness, Sumburgh Head), families or for young people. The ability and/or willingness of local communities to absorb these impacts can, and does, directly affect the success or failure of marine developments. Understanding what people value about their living environment, and why they care about a particular place or region, can lead to a deeper understanding of potential conflicts that might be mitigated if addressed at an early stage of any development proposal.

Marine Recreation

The sea around Shetland provides a variety of sporting and recreational opportunities. These include swimming, sailing, rowing, coasteering, recreational snorkelling and SCUBA diving, sea angling, kayaking, canoeing, windsurfing and surfing, as well as exploration of underwater and coastal heritage assets. Coastal recreation activities include walking and hiking, cycling, climbing, visiting heritage assets and wildlife watching. The coast also provides inspiration for a range of artistic and cultural activities.

Policy MP REC1: Safeguarding Marine Recreation

Developments that are likely to result in the reduction or loss of a marine recreational amenity will only be considered where it can be demonstrated that the proposal is necessary in order to deliver social, economic or environmental benefits that outweigh the reduction or loss.

Developments should ensure that continued access rights to the marine and coastal resource for recreational use is maintained where reasonable and practical. Developments should not affect the physical infrastructure which underpins a recreational activity, any impacts should be appropriately mitigated.

Opportunities for co-existence should be maximised wherever possible.

Marine recreation areas are shown in Map 30 and 31.

Justification

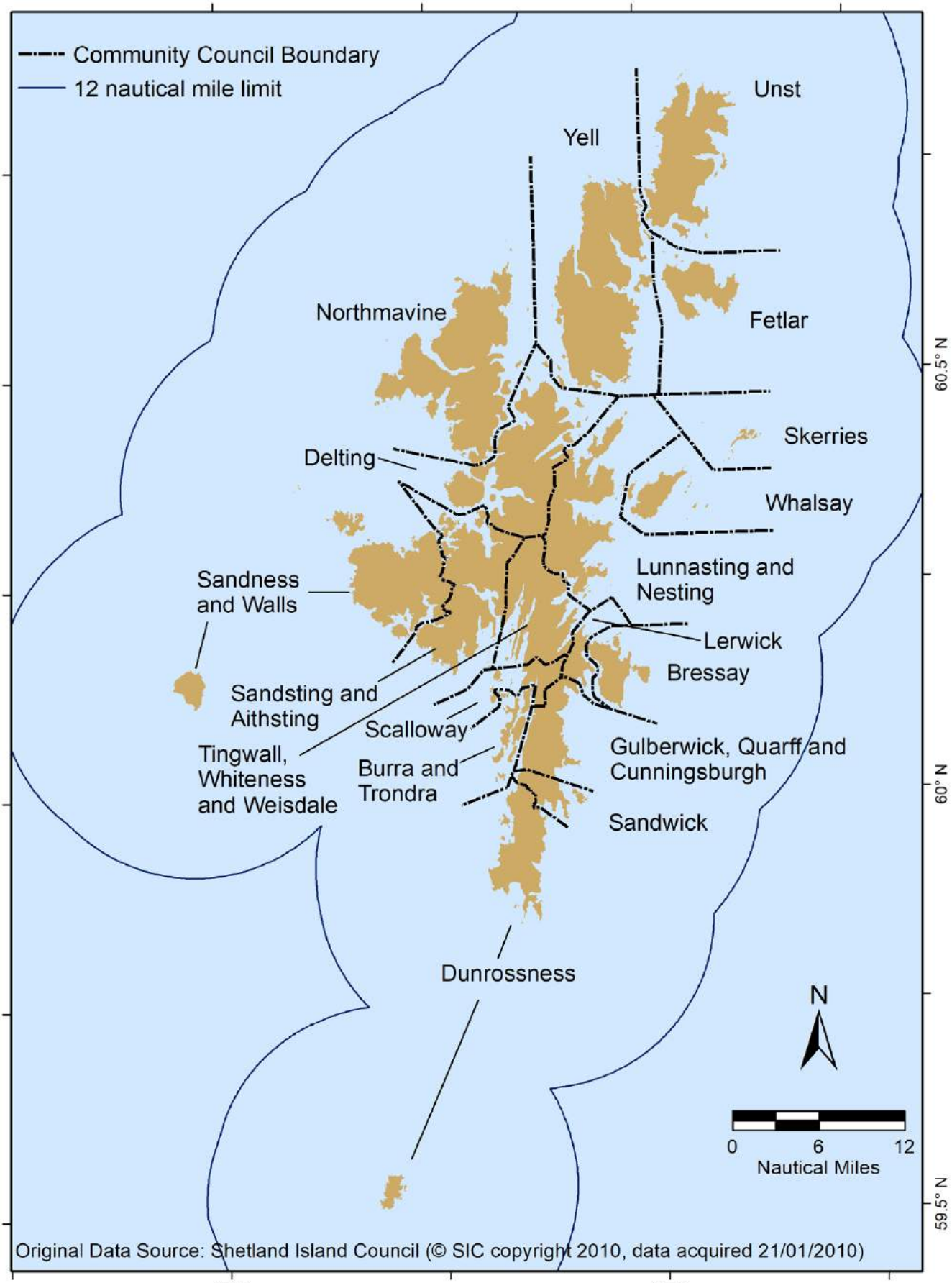
Marine recreational activities support and enhance the local community through social integration, improving quality of life, and providing benefits to physical and mental well-being. These activities will be enhanced by a well-managed and healthy marine environment, attractive and well-maintained beaches and seashore, and good water quality. It should be noted that marine recreation and associated facilities are also an economic asset, and these policies should be considered in conjunction with Policy MP TR1 for tourism and leisure development. In addition some localities, such as Lerwick and Scalloway harbours, and marinas act as recreational hubs, providing marine access to the wider sea area.

Key Consultees

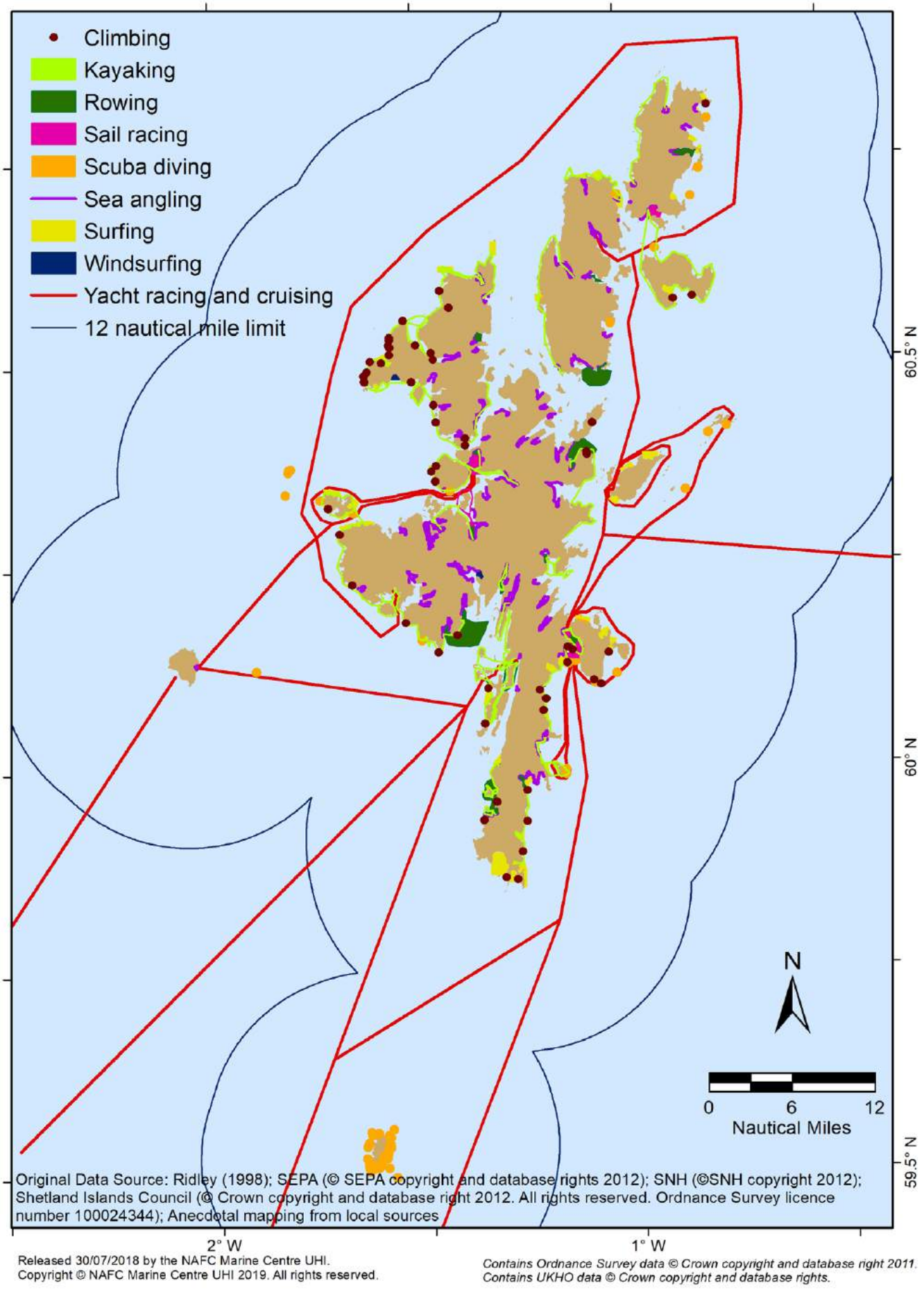
- Community Councils
- Visit Shetland
- Activity and area specific recreational groups- see Shetland Community Directory

Further Information

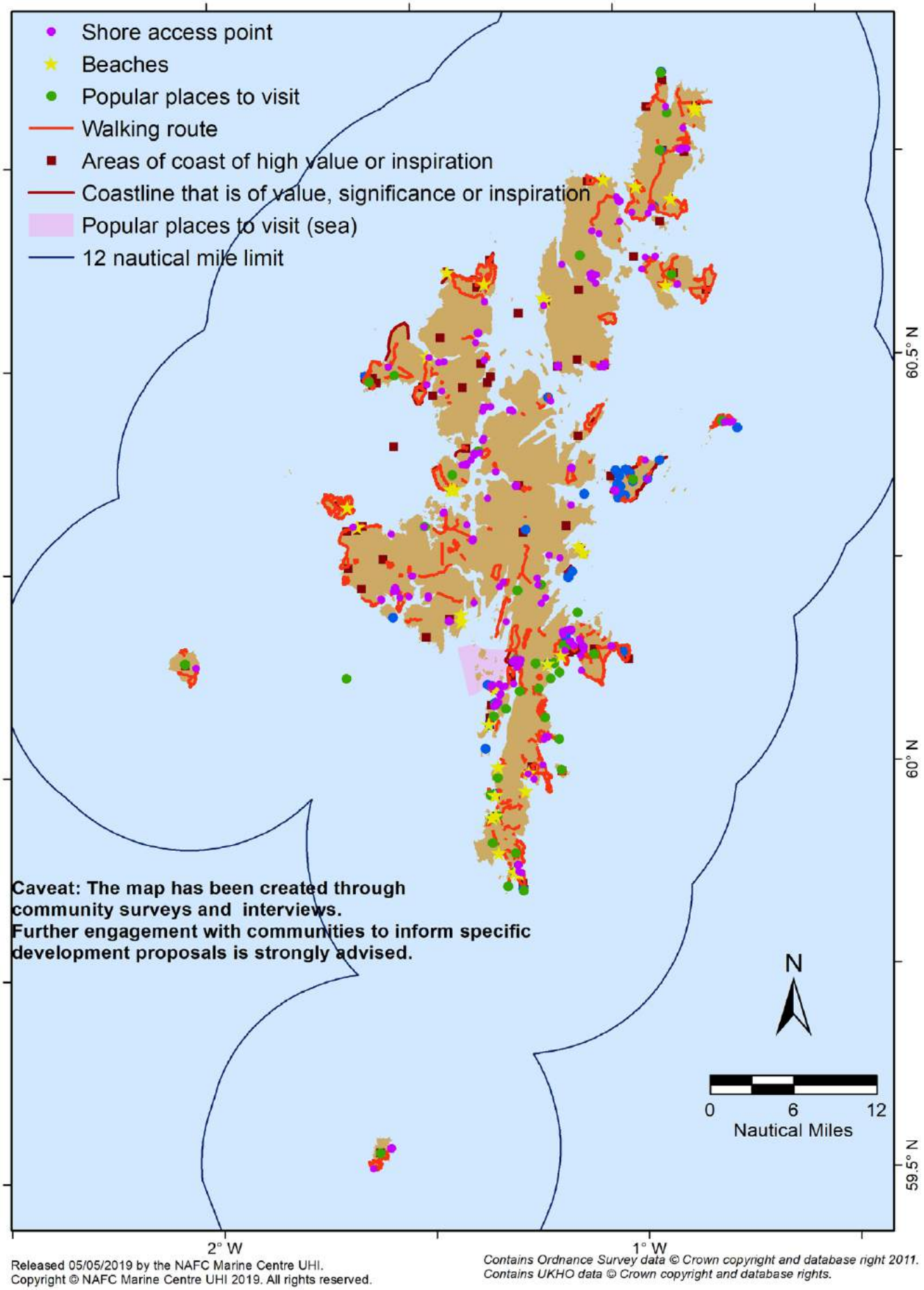
- Scottish Government Community Council background information
- Shetland Community Councils
- Shetland Community Groups and Clubs
- Shetland Cycling Routes
- Shetland Marinas
- Shetland Walks
- Shetland Countryside Access Strategy
- Shetland Countryside and Outdoor Access
- Land Reform Act (Scotland) 2003



Map 29: Community Council boundaries within the Shetland Islands Marine Region



Map 30: Formal or club based recreational use in the Shetland Islands Marine Region



Map 31: Informal recreational use in the Shetland Islands Marine Region

Policy Section C - Productive

Scalloway © NAFC Marine Centre UHI

Ronas Voe © Charlotte Slater

General Policies

There is a presumption in favour of sustainable development and use of the marine environment when consistent with the policies and objectives of the SIRMP. This approach to development should also help in attaining sustainable economic growth by providing greater certainty to businesses and investors utilising the marine resource.

One of the aims of the SIRMP is to ensure that marine waters are productive, as well as clean, safe and healthy. These aims are intrinsically linked and one is usually reliant on the other, i.e. if waters are unclean or unhealthy, they are unlikely to be productive. The key intention is to ensure that the use of marine waters is at a level which is sustainable, and that they maintain good environmental status.

The marine waters around Shetland are very productive, and contribute significantly to the local and national economy. It is imperative that the SIRMP includes policies that promote and manage this productivity through sustainable development and safeguard its potential for present and future generations. To achieve this goal, it is the intention of the SIRMP to promote the adoption of an integrated approach to the protection and enhancement of ecosystems.

Policy MP DEV1: Marine Developments

Proposals for marine-related developments must comply with all policies included in Policy Framework Section (a) and (b), Policies MP DEV1-DEV3 and Policy MP FISH1. The developer should ensure that they have:

a) engaged in pre-application discussions with the relevant consenting authorities and regulators, any adjacent marine user and the local community council;

b) taken into consideration the compatibility of the proposed development with existing marine users and have taken into consideration measures to minimise conflict and any potential adverse impacts;

c) taken into consideration co-existence options with other users in the design and location of the proposed development to maximise the efficient use of the marine space; and

d) taken into consideration the potential individual, in-combination and cumulative effects of the proposed development, and the development will be managed sustainably in terms of spatial and temporal overlaps.

Policy MP DEV2: Decommissioning of Assets

Applications for marine-related developments should, where directed by the consenting authority or regulator, be supported by a decommissioning plan to ensure the removal of redundant infrastructure. The plan should address the following:

a) a description of the development;

b) all proposed decommissioning requirements and measures;
c) the methods by which work will be carried out;
d) timescales for the carrying out and completion of the work.

The re-use of decommissioned assets will be supported where practicable.

Policy MP DEV3: Development Restricted Areas

Developments will not be permitted in:

a) Whiteness Voe, north of a line between Usta Ness and Grutwick, which reduce visual amenity, or adversely impact protected habitats and species;
b) the upper part of Weisdale Voe, between the Taing of Haggersta and Vedri Geo which reduce visual amenity; or
c) Busta Voe north of a line drawn between Hevden Ness (Mainland) and Green Taing (Muckle Roe) which restrict recreational opportunity.

Unless it can be demonstrated that the proposal is necessary in order to deliver social, economic or environmental benefits that clearly outweigh the projected impact.

Justification

Shetland industry figures indicate that the marine environment is a mainstay for local coastal communities, with many local businesses relying on this marine asset for their livelihoods. This economic dependency should be safeguarded to protect existent local jobs and ensure economic diversity. Policies MP DEV1-DEV3 seek to promote economic growth through a well-managed and healthy marine environment which considers equality, community cohesion, well-being and health, as well as implications for the marine environment. Developments which contribute to the overall marine environment and resource (i.e. demonstrate best practice in environmental and marine management) are encouraged and will be supported where feasible.

Policy MP DEV3 reflects established policy restrictions put in place by the Shetland Islands Council to protect visual amenity, recreational opportunity and important habitats.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Shetland Islands Council's Community Planning and Development
- Shetland Islands Council's Economic Development
- Scottish Government. 2010. Report on Social and Economic Objectives for a Scottish Marine Plan
- Shetland Islands' Community Councils
- Shetland Fishermen's Association
- Shetland Aquaculture (finfish aquaculture)
- Seafood Shetland (fish processing and shellfish growing)
- Shetland Renewable Energy Forum
- Shetland Islands Council Harbour Master & Port Operations
- Lerwick Port Authority
- Shetland Tourism


Lerwick Harbour © Christina Kelly

Commercial Fishing

- Department for Business, Energy and Industrial Strategy (BEIS)

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. The following species make up the bulk of Shetland catches of finfish and shellfish species: mackerel and herring (pelagic); haddock, cod, whiting, saithe, monkfish and megrim (demersal); squid, velvet and brown crabs, lobster, king and queen scallops, and whelks (shellfish).

Shetlanders have fished the waters around their islands for thousands of years, and fishing remains one of Shetland's most important industries. In 2016 there were 269 full time equivalent fishermen[24]. It has also been estimated that in 2016, there were 167 irregularly employed. In addition, over 250 jobs directly supported by the fishing industry including fish processing, transport, marketing, engineering and supply were identified in 2013. In 2016 there were 188 active commercial fishing vessels in Shetland[25]. Virtually all of them are owned by local shareholder crewmen, and many are based in rural areas of Shetland where there may be few alternative opportunities for economic activity.

More than £77 million worth of fish and shellfish were landed in Shetland in 2017, making Shetland one of the UK's leading fish ports (second only to Peterhead). One quarter of all finfish landed in Scotland and one fifth of all finfish landed in the UK are landed in Shetland, and more finfish are landed in Shetland than in all of England, Wales and Northern Ireland combined[26]. The conservation of local fisheries is therefore very important for socio-economic reasons.

The Shetland Fishermen's Association (SFA) and Shetland Shellfish Management Organisation (SSMO) respond to proposals for marine developments on behalf of the fishing industry. It should be noted that in some instances it may also be appropriate to contact the Scottish Fishermen's Federation (SFF) and the Scottish Pelagic Fishermen's Association (SPFA), particularly for large scale offshore development, e.g. pipelines and renewable energy devices, where non-Shetland vessels may be affected.

Safeguarding Marine Fisheries

Marine developments have the potential to prevent, displace and/ or discourage fishing activities and can damage fishing grounds and fish stocks, with far reaching social, economic and environmental consequences. These consequences include:

- loss of income;
- loss of jobs; and
- increased pressure on other fishing grounds.

Impacts on fisheries, fishing grounds and fish stocks may be temporary or permanent depending on the

[24] Shetland Islands Council- Shetland Employment Survey 2017
[25] Marine Scotland. (2017) Scottish Sea Fisheries Statistics 2016.
[26] Napier, I.R., (2018). Shetland Fisheries Statistics 2017. NAFC Marine Centre.

Policy MP FISH1: Safeguarding Fishing Opportunities

Developments will only be permitted where it can be demonstrated that:

a) there will be no significant negative impact or permanent significant obstruction to an important[27] fishing area;

b) there will be no significant environmental impact to a known/designated spawning, nursery area or habitats or species which are important for commercially important species of fish;

c) it will not cause a navigational hazard for commercial fishermen;

d) there will be no significant negative effect to the cultural importance of fishing, particularly for vulnerable coastal communities; and

e) there is no reasonable alternative and any such adverse effects are clearly outweighed by social, environmental or economic benefits of national importance.

nature of the development and the degree of disturbance.

It is strongly recommended that developers consider the types of fishing activity that may be affected by a proposed development, to consult with local fishermen and relevant organisations (e.g. the SFA, SSMO, SFF, SPFA), and to demonstrate that they have taken account of the advice, information and views received. Developers may refer to Maps 32-34 for information on important fishing grounds but as the distribution of fishing activity is liable to change over time, consultation with organisations and associations representing fishermen is strongly recommended. Consideration should be given to how proposed developments may affect fishing activity in both the short and long term, and to the cumulative effects of developments.

Developers should engage with other marine users in the regions to where activity is displaced, to ensure that a comprehensive picture of cumulative impacts is developed and unintended consequences are avoided. Wherever possible, developers and decision makers should seek to encourage opportunities for co-existence between fishing and other activities. In some circumstances, it may be possible for developments to enhance or otherwise positively influence fisheries through careful siting and design. There are a number of industry specific guidance documents (e.g. for the offshore and renewables sectors) which provide industry specific guidance on potential impacts on fisheries and best practice liaison information.

Justification

Policy MP FISH1 seeks to safeguard fishing opportunities and the socio-economic benefits they bring to the local economy. Marine developments can restrict access to fishing grounds. They can also damage important habitats, and consequently the commercial species that live there. Similarly, the displacement of fishing effort can cause disruption beyond the development area. Increased fishing in other grounds can place additional pressure on the viability of fish stocks, for example:

- reductions in fishing activity;
- redistribution of fishing effort; and
- knock on effects on related businesses.

These may have potential negative implications on local viability and Shetland as a whole.

Key Consultees

- Shetland Fishermen's Association (SFA)
- Shetland Shellfish Management Organisation (SSMO)
- Scottish Fishermen's Federation (SFF)
- Scottish Pelagic Fishermen's Association (SFPA)

[27] Fishing areas may be 'important' in relation to the species caught, gear(s) used, the size or type of fishing vessels that operate in the area, and/or the communities where those vessels are based.

Further Information

- Scotland's National Marine Plan: Chapter 6 Sea Fisheries
- Batts, L., Shucksmith, R.J., Shelmerdine, R.L., Macdonald, P., Mouat, B. (2017) Scotland's Fishing Industry - Guidance for Decision Makers and Developers. Report for Fisheries Innovation Scotland, project FIS014. Pp21
- Batts, L., Shucksmith, R., Shelmerdine, R.L., Macdonald, P., Mouat, B. (2017) Understanding and influencing the marine management and development processes - Best practice guidance for fishers. Report for Fisheries Innovation Scotland, project FIS014. Pp11
- Sea Fish (Conservation) Act 1967
- Inshore Fishing (Scotland) Act, 1984
- Marine Scotland – Cod and Haddock spawning grounds
- Marine Scotland – Cod and Haddock nursery grounds
- Marine Scotland – Herring and Mackerel spawning grounds
- Marine Scotland – Herring and Mackerel nursery grounds
- Fisheries Sensitivity Maps
- A Fishing Industry Guide to Offshore Operators
- Best Practice Guidance for offshore renewable development
- SNH – Marine Fisheries
- SeaFish
- KIS-ORCA- Offshore Renewable and Cables Awareness
- Kimo International

Shetland Shellfish Management Organisation (SSMO)

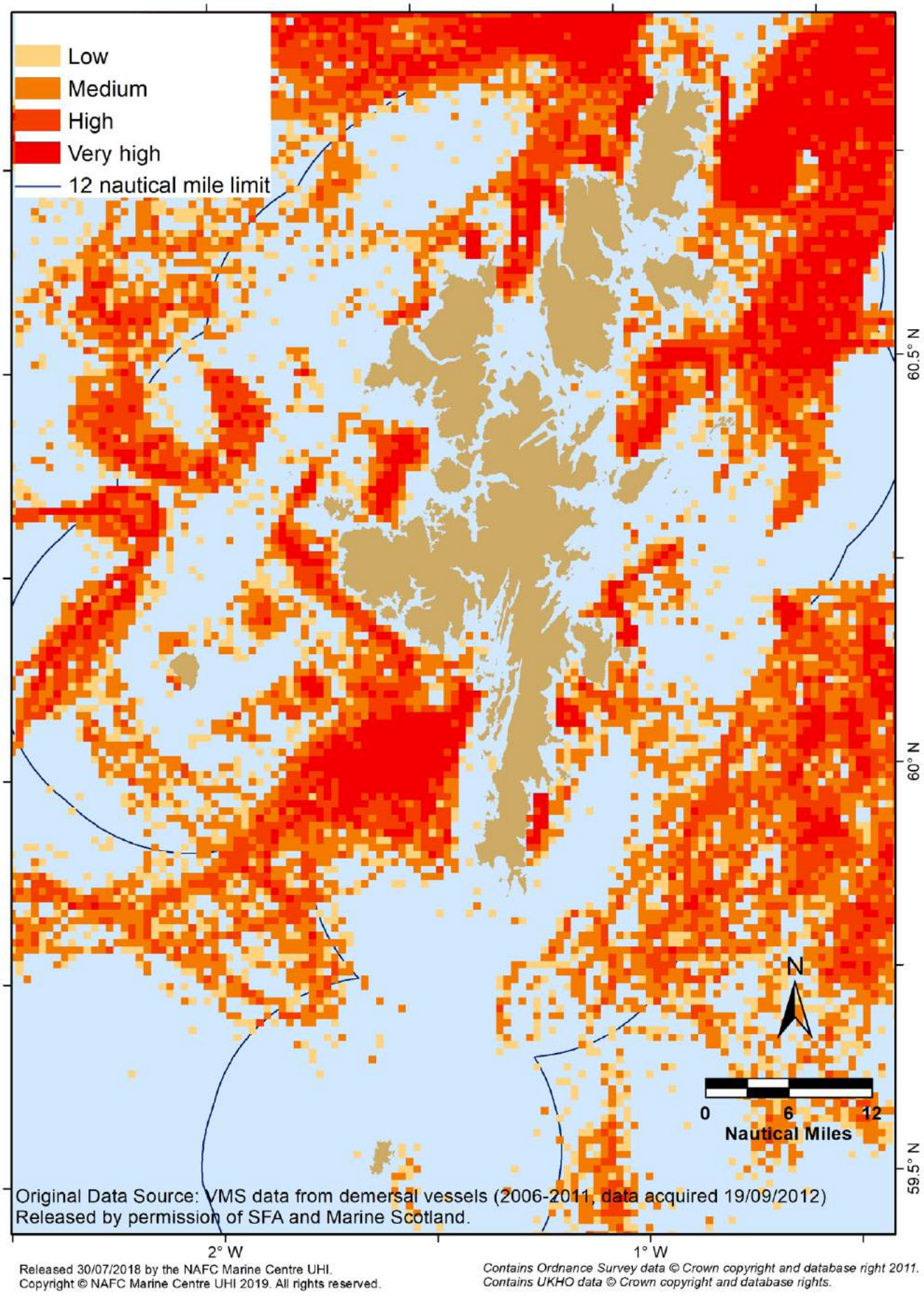
Within 6 nautical miles of the Shetland coast, shellfish fishing is managed by the Shetland Shellfish Management Organisation (SSMO) via the Shetland Regulated Fishery (Scotland) Order 2012. The SSMO manages fishing methods and fishing gear, restricts fishing seasons, sets minimum sizes for shellfish and manage shellfish beds for stock conservation. The SSMO also undertakes the collection of data which allows a comprehensive stock assessment to be developed year on year. This allows fisheries management to be based on best possible data and analyses.

Since 2010 the SSMO has implemented a spatial management framework that prohibits dredge fishing for shellfish in designated areas where specific 'Priority Marine Features' (maerl, horse mussels, sea grass) have either been confirmed or are suspected of occurring.

Local sustainable fisheries management

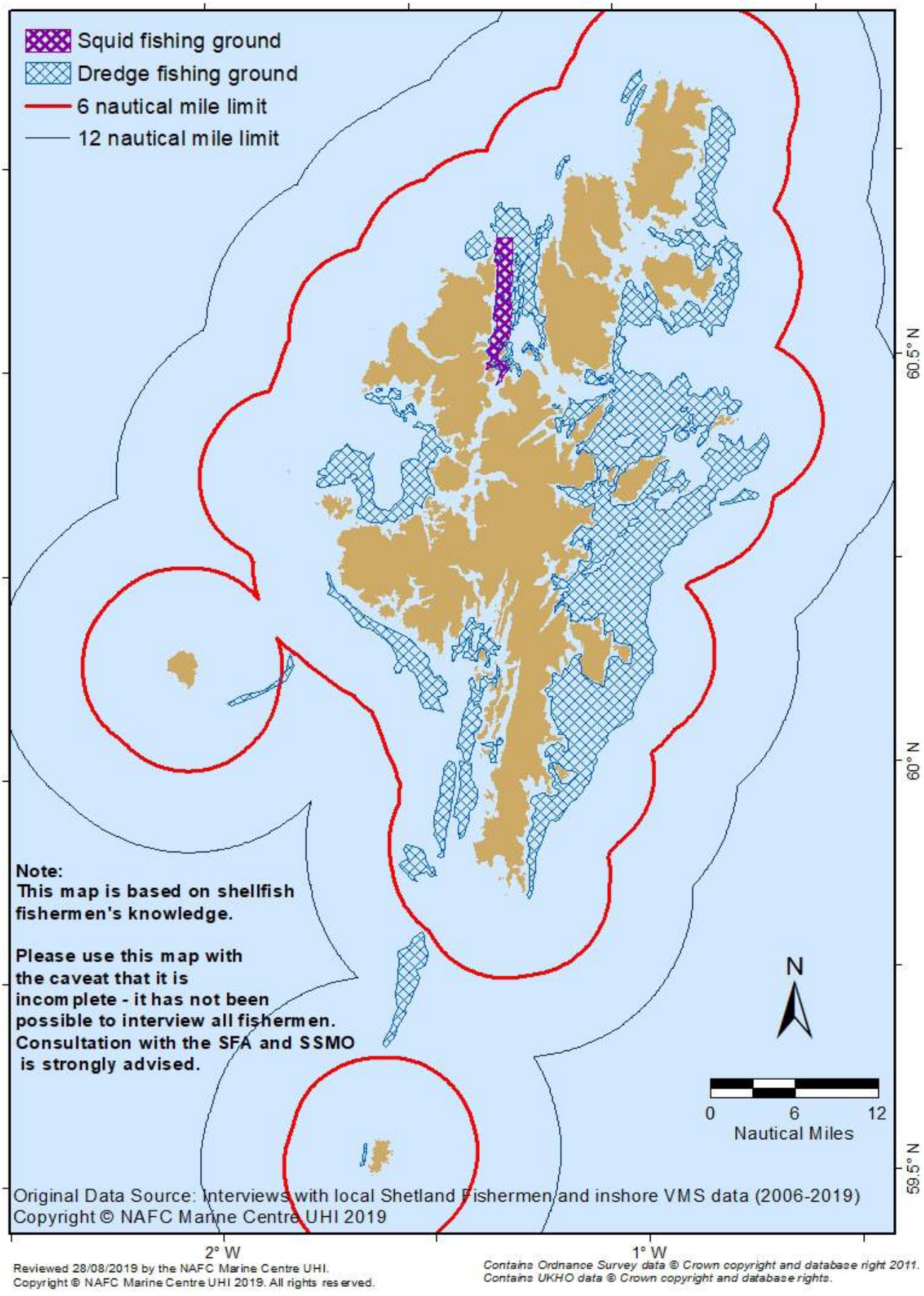
Fishing provides significant economic and social benefits to Shetland. The Shetland fishing industry is committed to sustainability and has proactively implemented measures to reduce the potential for negative impacts on non-target species and habitats.

The SSMO in partnership with the Shetland shellfish fleet has implemented management measures, including shellfisheries closures to reduce the potential impacts on important seabed habitats, shown in Map 20. These locations were based on data provided by the SIRMP on the distribution of important seabed habitats including maerl, horse mussel beds and eel grass. In 2012, the Shetland shellfish fleet gained Marine Stewardship Council (MSC) accreditation for a number of shellfish stocks and is an example of how the local Shetland inshore fishing industry has endorsed conservation measures to gain potential market advantage.

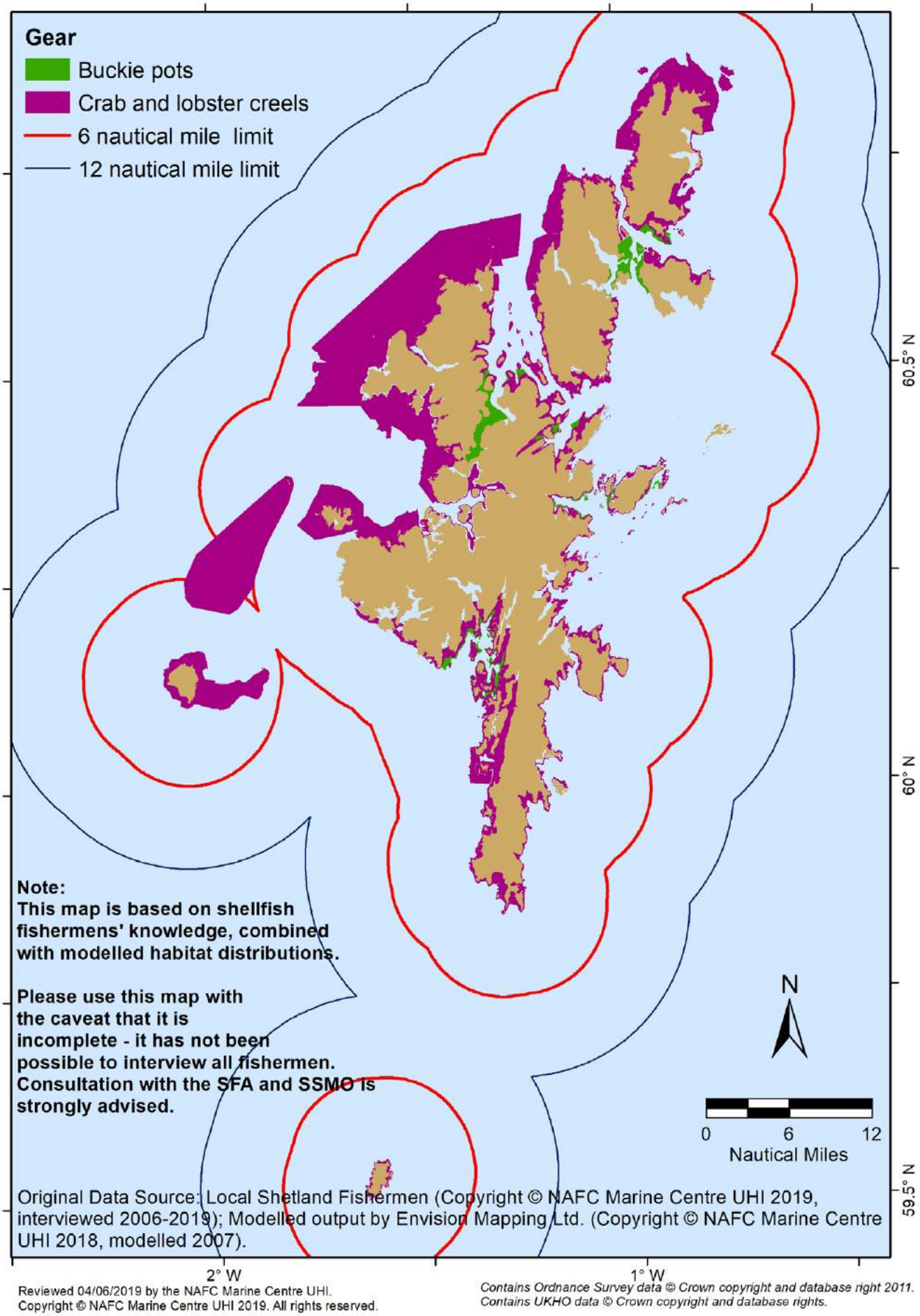


Released 30/07/2018 by the NAFC Marine Centre UHI.

Map 32: Relative demersal fishing effort in the Shetland Islands Marine Region



Map 33: Important inshore dredging areas in the Shetland Islands Marine Region



Map 34: Important creel (potting) areas in the Shetland Islands Marine Region


Mussel Harvesting © Ian Napier

Aquaculture- Finfish and Shellfish

- Safeguarding our seas – A Strategy for the Conservation and Sustainable Development of our Marine Environment (DEFRA)

The aquaculture industry in Shetland has two major components: finfish farms and the cultivation of shellfish. The aquaculture industry is a major component of the Shetland economy, worth £156.3 million in 2011[28]. In 2017 it provided 414 full time equivalent jobs[29]. In addition, in 2013 it provided over 200 jobs in fish processing, marine engineering and transportation. Shetland is a major finfish producer, yielding over 23% of Scotland's farmed salmon in 2016[30]. In addition, small quantities of sea trout, cod and halibut have been produced in the past. Shellfish cultivation is dominated by mussel farming, with Shetland producing over 80% of Scotland's farmed mussels in 2017, supporting 69 full time and 39 part time/casual jobs[31].

This section of the SIRMP covers the legislative framework at the coast and on the seabed for development consent for aquaculture. Currently, there is limited potential for new shellfish or finfish sites within Shetland's voes due to the developed state of the industry. There may however be potential for increased productivity through site consolidation or reorganisation, and as technology advances there is the potential for the growth of offshore aquaculture.

Planning Application Jurisdiction

Proposals for aquaculture development are considered under the scope of the Town and Country Planning (Scotland) Act 1997. The Shetland Islands Council's Local Development Plan (LDP) sets out the policies and criteria against which planning applications submitted in Shetland will be considered. All applications for new or modified marine and freshwater farming developments shall be assessed against the LDP's Supplementary Guidance – Aquaculture Policy. It applies to the placement of equipment in the sea, on the seabed or on the foreshore, i.e. from below Mean High Water Spring (MHWS) out to 12 nautical miles, or in freshwater bodies.

All applications for aquaculture development shall also be assessed against Policy CST1 Coastal Development in the Shetland Islands Council's LDP.

Planning Application Process

Permissions for fish farming are granted after an informed judgement is based on the best available evidence, through the application, consultation and Environmental Impact Assessment (EIA) procedures. Shellfish farm applications are not subject to EIA regulations but the local authority will consider the potential environmental consequences of the proposed development prior to granting planning permission.

[28] Shetland Islands Council-Shetland Regional Accounts 2011. NB- these are the most recent figures available, the next set of accounts is due to be released in 2019.

[29] Shetland Islands Council-Shetland Employment Survey 2017

[30] Marine Scotland Science. (2017). Scottish Fish Farm Production Survey 2016

[31] Marine Scotland Science. (2018). Scottish Shellfish Farm Production Survey 2017

On receipt of a planning application, Shetland Islands Council determines the application in accordance with the Supplementary Guidance – Aquaculture Policy, following consultation with relevant consultees identified in Annex II of the Aquaculture Policy, and also listed in Appendix B of this document.

Potential developers should use the Supplementary Guidance – Aquaculture Policy while they consider the siting of the proposal using the SIRMP policies and maps provided.

Most planning applications for local developments are determined under delegated powers. However, where a consultee (SNH, SEPA, Historic Environment Scotland, the Health and Safety Executive, Scottish Water or the Community Council) specifically objects to a proposal, and conditions cannot address those issues, and the recommendation is for approval, the application is required to be determined by the Planning Committee of Shetland Islands Council. As part of the decision-making process both applicants and objectors are offered the opportunity of addressing the committee, in the interests of open, fair and transparent governance.

Marine Licence

Aquaculture farms also require a marine licence from Marine Scotland prior to the instillation of farm equipment. A marine licence for a finfish or shellfish farm is usually required for navigational purposes. After receiving your application, the Marine Scotland Licensing Team will consider if the farm will impact on navigation and may require the installation of navigational markings.

Depending on how a farm is run it may be necessary to apply for further licences from Marine Scotland. These may include a wellboat discharge licence to discharge sea lice treatments from a wellboat or a seal licence to manage seal predation.

Further information on all the licences issued by Marine Scotland can be found on the Licensing pages.

Policy MP AQ1: Aquaculture - Key Conditions

Aquaculture development applications must comply with:

a) all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 and MP AQ2;
b) Shetland Islands Council's Supplementary Guidance - Aquaculture Policy;
c) Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters (for finfish farming only); and
d) it can be demonstrated that there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site.

Existing aquaculture sites are shown in Map 35, Locational Guidelines areas are shown in Map 36 and disease management areas are shown in Map 37.

Justification

The purpose of this policy is to highlight the key conditions that restrict the placement of new aquaculture proposals as per the Council's Supplementary Guidance – Aquaculture Policy.

Developers should have regard to 'A Code of Good Practice for Scottish Finfish Aquaculture', in addition, finfish developers should refer to the voluntary 'Protocol for Preparing Planning Applications for Aquaculture Development'. All marine aquaculture proposals must demonstrate that anti-predator measures deter or prevent predation through the use of methods which are non-lethal and do not cause any significant harm. For the avoidance of doubt, the use of mono-filament nets for such purposes is not permitted.

Locational Guidelines area classifications are determined on the basis of predictive models developed by Marine Scotland Science which assess the relative sensitivity of a sea loch/voe system to additional nutrient

loading by fish farm developments. As a result, there will be areas outwith classification which are or could be sensitive to aquaculture development, but have not been specifically highlighted as they do not contain aquaculture development presently.

Policy MP AQ2: Finfish farm Management Agreements

All finfish aquaculture developments should seek agreement with other operators in the area to reduce the potential for disease transmission, increase fish welfare, or control and manage sea lice numbers. This can be achieved through a Farm Management Agreement (FMA), an Area Management Agreement (AMA) or Farm Management Statement (FMS) which;

a) reflects (as far as possible) the recommendations of the Code of Good Practice;
b) includes a stocking and fallowing plan; and
c) is formally reviewed between signatories at least every 2 years.

Finfish disease management areas are shown in Map 37. Section 4A of the Aquaculture & Fisheries (Scotland) Act 2013 sets out the requirement on fish farm operators to be party to FMA or prepare an FMS, and prescribes the content of the agreement or statement.

Policy MP AQ3: Aquaculture Development Management Plans

Area wide Aquaculture Development Management Plan proposals will be supported and encouraged where they comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 and aim to:

a) increase separation distance between developments;
b) reduce overall environmental impacts and/ or reduce potential impact on protected species or habitats;
c) safeguard or improve fishing opportunity;
d) produce community benefits i.e. reduced visual impact, noise or impact on recreation/ access; or
e) increase socio-economic benefit i.e. from job creation or increased economic viability; and
f) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site.

Subsequent developments which reverse the gains made by a management plan may not be permitted.

Justification

Development Management Plans and Fish Farm Management Agreements are plans that adopt a holistic, multiple site approach to management which aim to bring benefits to industry and/or other users and interests. This may be through the development of disease control and prevention measures, optimizing production, minimise the impacts to the fishing industry, benefit recreational users, the community, or natural heritage interests.

It is important that when these plans are being developed the potential impacts, both positive and negative, are fully considered. It is also important that the aims of the plans are not undermined by subsequent applications. This may be of particular relevance where space for new developments has only been made available by actions of a Development Management Plan. Conflict resolution opportunities have worked successfully in the past in Shetland (such as Yell Sound Coast SAC Seal Plan).

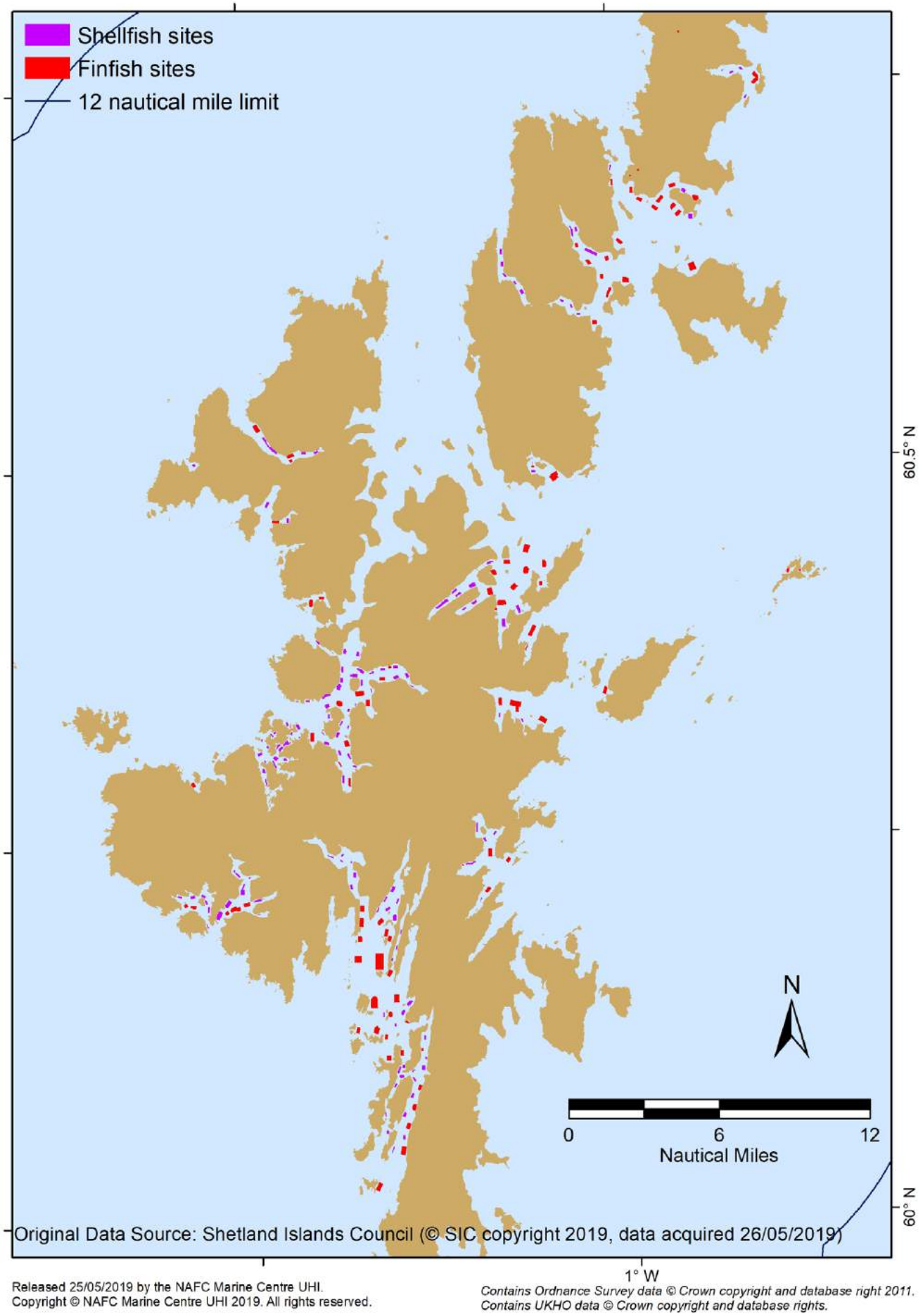
Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

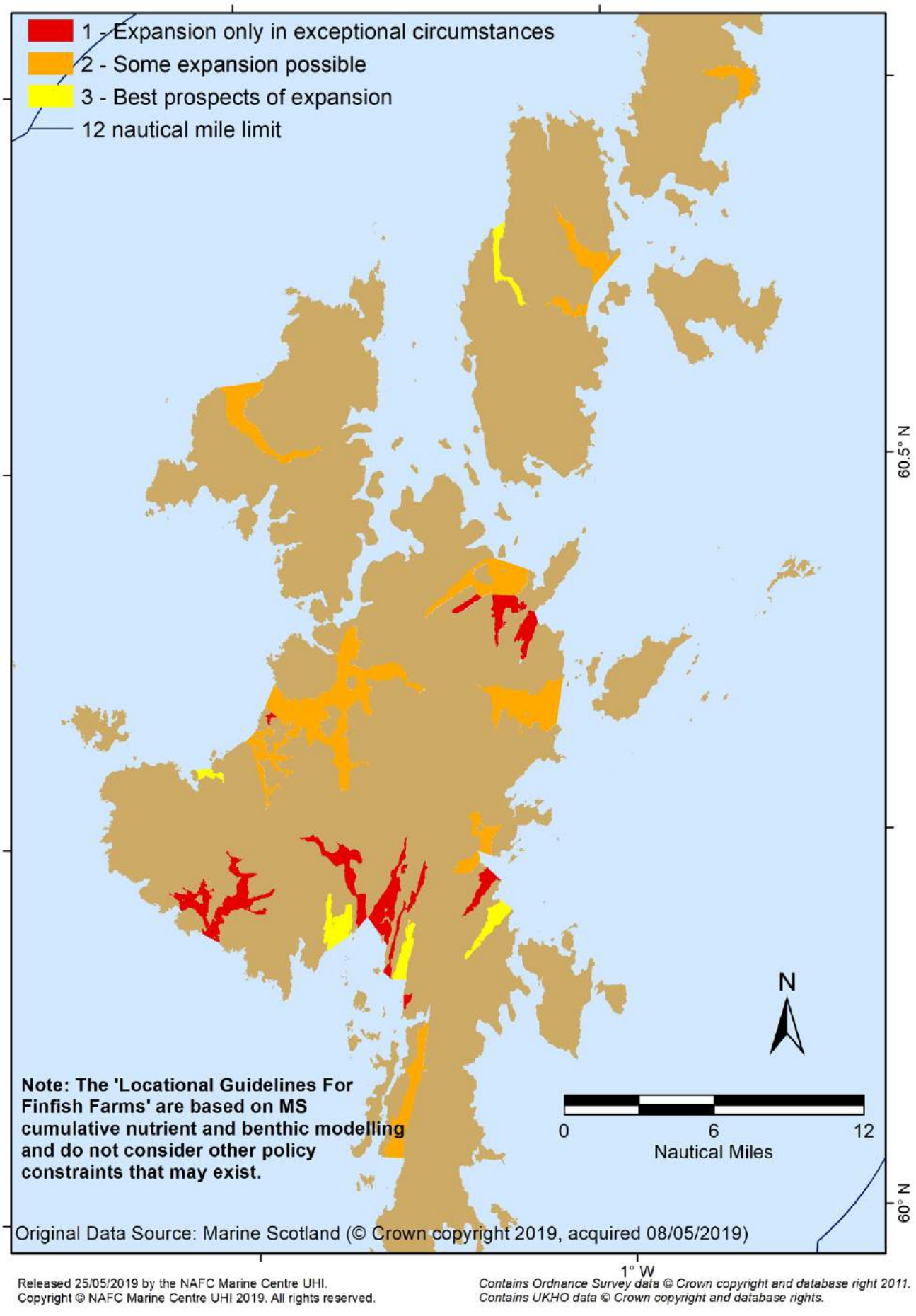
Further Information

- Shetland Islands Council's- Local Development Plan and Supplementary Guidance-Aquaculture Policy

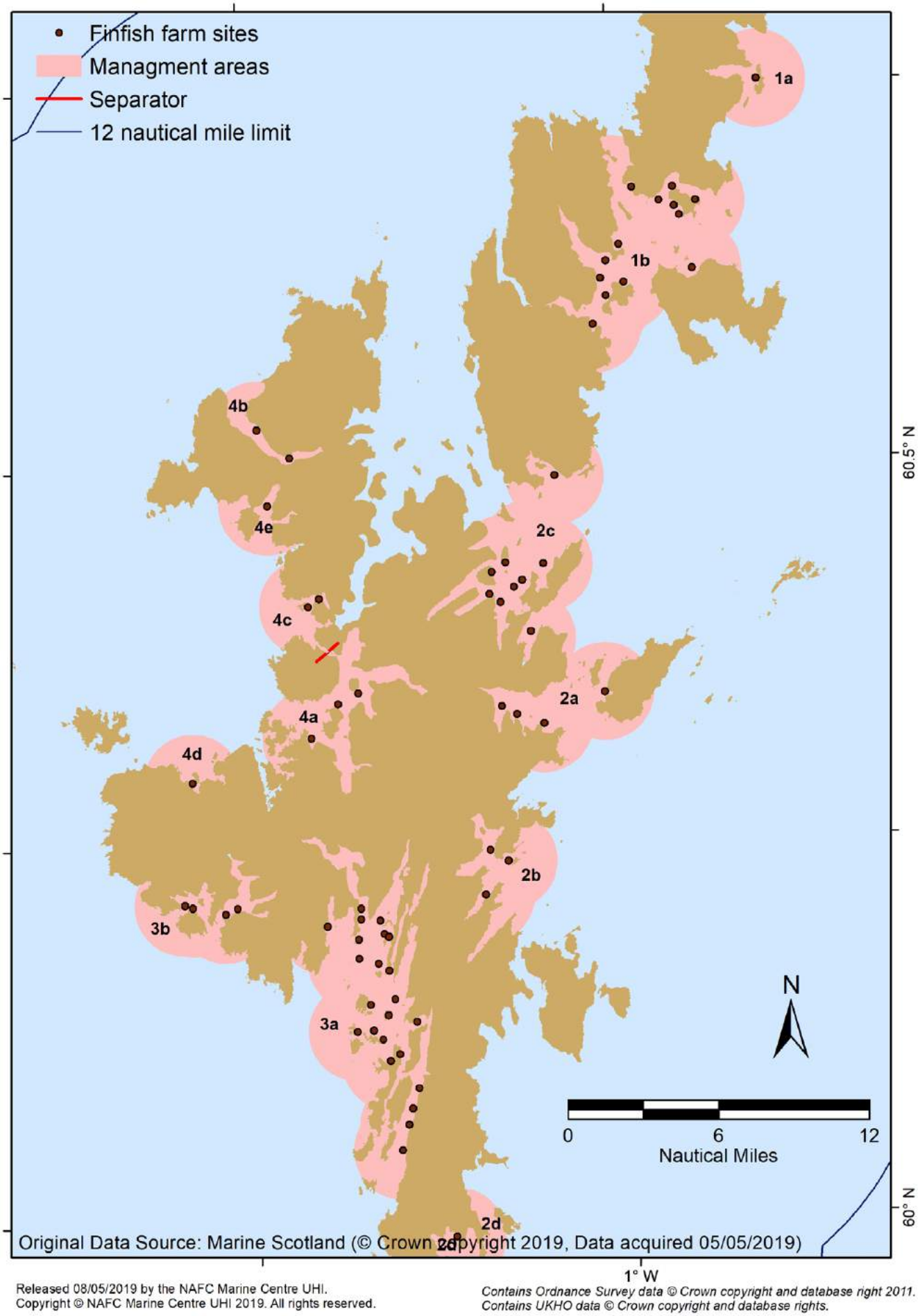
- Scotland's National Marine Plan: Chapter 7 Aquaculture
- Marine Scotland – Running a Fish Farm
- The siting and design of aquaculture in the landscape: visual and landscape considerations (2011) Scottish Natural Heritage.
- Crown Estate Scotland – Aquaculture
- SEPA – Aquaculture
- Delivering Planning Reform for Aquaculture, 2010
- Aquaculture and Fisheries (Scotland) Act 2013
- A Fresh Start: The renewed Strategic Framework for Scottish Aquaculture
- Scottish Planning Series: Planning Circular 1 2007: Planning Controls for Marine Fish Farming
- The EC Regulation on Alien Species in Aquaculture (708/2007 as amended)
- A Code of Good Practice for Scottish Finfish Aquaculture
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011
- NetRegs Environmental Guidance For Your Business in Northern Ireland and Scotland
- Association of Scottish Shellfish Growers (ASSG) Code of Good Practice, 2005.
- Scotland's Environment - Marine Fish Farms
- Scotland's Aquaculture
- Marine Scotland Science - Scotland's 10 year Farmed Fish Health: strategic framework, 2018
- Marine Scotland - A Technical Standard for Scottish Finfish Aquaculture, 2015
- Aquaculture Joint Ministerial Statement - Supporting Aquaculture Growth and Protecting Scotlands Environment, 2017
- Aquaculture - Marine Licences



Map 35: Finfish and shellfish sites in the Shetland Islands Marine Region



Map 36: Locational Guidelines areas in the Shetland Islands Marine Region



Map 37: Disease management areas in the Shetland Islands Marine Region

Seaweed Cultivation © NAFC Marine Centre UHI

Seaweed Cultivation

Seaweed is cultivated for both food and non-food uses, including as a source of biofuels. Seaweed cultivation is a relatively new industry in Shetland and across Scotland, there is continued work to develop opportunities in this field.

Seaweed cultivation is currently a small scale industry in Shetland, with the NAFC Marine Centre UHI working with industry to develop commercial opportunities. Species suitable for cultivation include *Laminaria digitata, Saccharina latissima, Alaria esculenta, Laminaria hyperborea* and *Palmaria palmata*, all of which are Shetland native species. Seaweed production requires high nutrient levels and good water quality. One of the main benefits of seaweed cultivation is that seaweed, being a primary producer, does not require feed. They can also be beneficial to the local marine environment by increasing local fish populations through providing shelter and food for herbivorous fish, and acting as a 'nutrient sink' by taking up inorganic nutrients from the water.

Policy MP SWD1: Seaweed Cultivation

Applications for the development of seaweed cultivation should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) only seaweed species native to Shetland will be grown;

d) measures are included to prevent the introduction and spread of non-native species; and

e) there is no artificial enrichment of the marine environment to aid production.

Seaweed cultivation sites are shown in Map 38.

Justification

The Scottish Government's Seaweed Policy Statement 2017 provides an overarching framework for the management and regulation of seaweed cultivation in Scottish territorial waters (0-12nm), and facilitates the sustainable development of the seaweed cultivation industry in Scotland. The Scottish Government encourages the growth of seaweed production as a sector as well as supporting the development of multi-trophic aquaculture. The co-existence of seaweed cultivation should be explored in relation to other aquaculture uses and marine renewable energy developments. The Scottish Government recognises the potential for synergies to exist between these sectors and continues to work with the industry to ascertain possibilities in this regard. The SIRMP supports these objectives, encouraging the sustainable development of seaweed cultivation and harvesting in harmony with other marine developments, where there are no significant adverse impacts to the environment, other marine users and to their operations.

It should be noted that seaweed cultivation does not require planning permission from the SIC but does require a works licence issued by the Shetland Islands Council (or the LPA in Lerwick Harbour) as well as a marine licence and a Crown Estate Scotland lease.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Scottish Government's Seaweed Policy Statement 2017
- Shetland Islands Council's Local Development Plan and Shetland Islands Council's Works Licence Policy
- The siting and design of aquaculture in the landscape: visual and landscape considerations. (2011). Scottish Natural Heritage.
- Scottish Planning Policy
- Crown Estate Scotland – Aquaculture
- The EC Regulation on Alien Species in Aquaculture (708/2007 as amended)
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011
- SNH – seaweed harvesting
- BioMara Research
- The Scottish Government - Seaweed Cultivation Policy Statement 2017

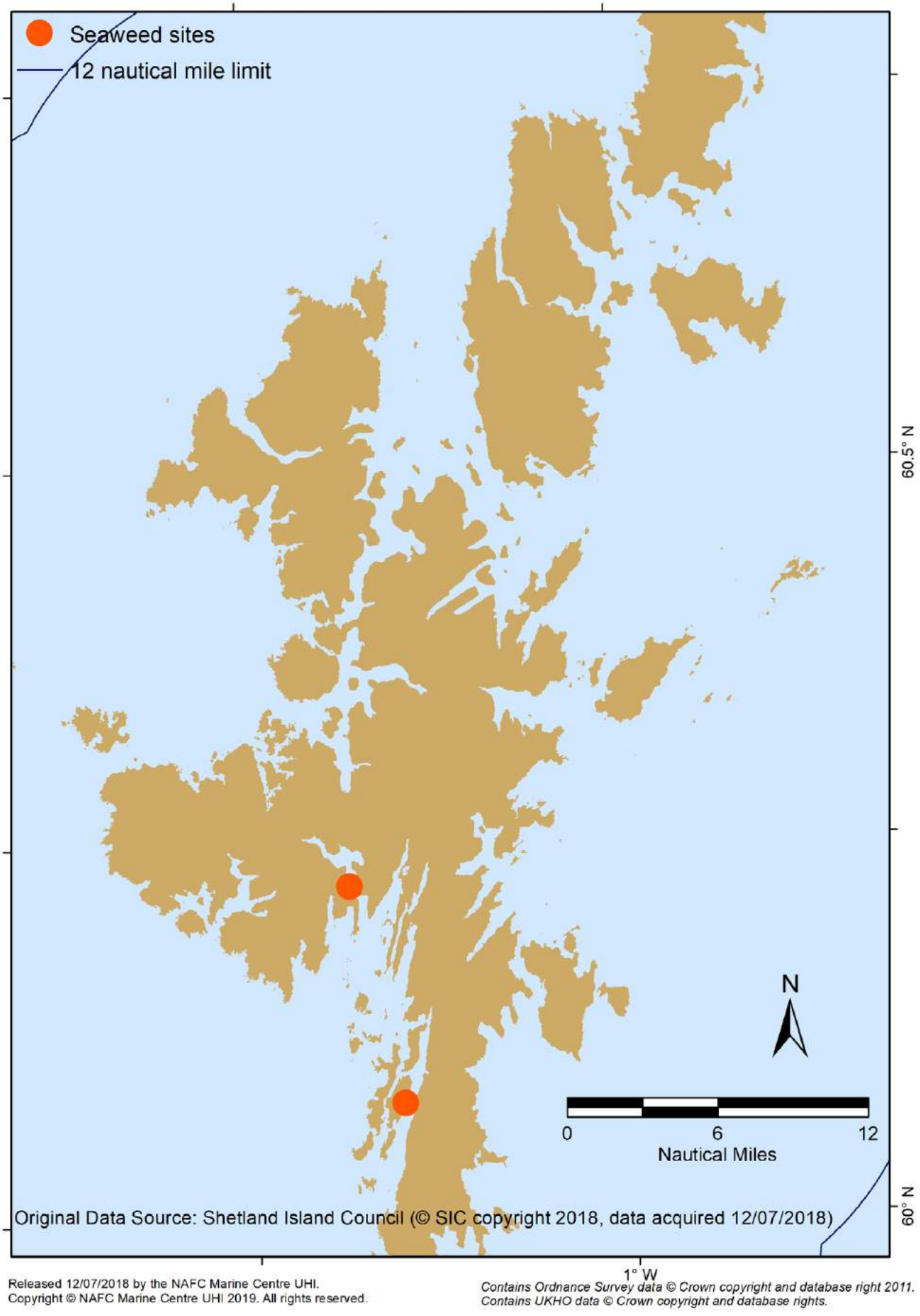
Integrated Multi-Trophic Aquaculture (IMTA)

Integrated Multi-Trophic Aquaculture (IMTA) involves the integration of fed cultivated species (e.g. finfish) together with extractive species (marine invertebrates and/or seaweed). The extractive species feed on the waste products generated from the fed species[1]. This creates a more balanced system for greater efficiency in resource use: feedstuffs, space, labour and a reduction in the adverse environmental impact of the aquaculture process.

IMTA can be undertaken offshore with the use of buoys with lines on which the seaweed grows, placed adjacent to fish cages where the fish are grown. This method is currently used commercially in Canada and is under development in Norway, Scotland and Ireland. In a typical IMTA set up, finfish occupy higher trophic levels whereby they excrete soluble ammonia and phosphorus. Seaweeds and similar species can extract these inorganic nutrients directly from their environment. Finfish also release organic nutrients which feed shellfish species.

For more information on Scottish IMTA see the Scottish Government's Seaweed Cultivation Policy Statement 2017.

[1] Alexander, K.A. and Hughes, A.D. (2017). A problem shared: Technology transfer and development in European integrated multi-trophic aquaculture (IMTA). Aquaculture. 473: pp. 13-19.



Map 38: Seaweed cultivation sites in the Shetland Islands Marine Region

Productive

Oil Tanker © NAFC Marine Centre UHI

Oil and Gas

The licensing, exploration, regulation and decommissioning of the oil and gas industry is the responsibility of the UK Government, through the Oil & Gas Authority (OGA). From April 2015, the Oil & Gas Authority (OGA) replaced the Department for Energy and Climate Change (DECC) as this entity. DECC was subsequently merged with the Department for Business, Innovation and Skills (BIS) to create the Department for Business, energy and Industrial Strategy (BEIS). In 2016 the OGA was vested as a separate Government company, limited by shares under the Companies Act 2006, with the Secretary of State for Business, Energy and Industrial Strategy the sole shareholder. The OGA covers:

- oil and gas licensing;
- oil and gas exploration and production;
- oil and gas fields and wells;
- oil and gas infrastructure; and
- carbon storage licensing.

Decommissioning of offshore oil and gas instillations is controlled via the Petroleum Act 1998. The responsibility for ensuring the requirements of the Petroleum Act 1998 are complied with rests with the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) which sits within the Department for Business, Energy and Industrial Strategy (BEIS).

Under Section 113 of the Marine and Coastal Access Act 2009, the Secretary of State is the licensing authority in Scottish offshore waters for oil and gas related matters. The Secretary of State is the licensing authority for a similar range of reserved matters (e.g. defence) in Scottish inshore waters, except that the Scottish Ministers have responsibility for oil and gas related activities (i.e. pipelines) within 3nm of the coastline. Similarly, Scottish Ministers have responsibility within 3nm of the coastline for issuing licences for deposits associated with oil and gas related activities. A works licence from Shetland Islands Council will be required for oil and gas exploration activity and associated developments within 12nm of the coast or from the Lerwick Port Authority within Lerwick Harbour.

Shetland is strategically located to service and support the offshore industries decommissioning activity in the northern and central North Sea, as well as to the west of Shetland. Lerwick Harbour has become Shetland's main decommissioning area and the Lerwick Port Authority is seeking to expand these facilities.

Policy MP OAG1: Oil and Gas Proposals

Exploration and extraction for oil and gas within 12-nautical miles of the coast will only be permitted where it is demonstrated that:

a) the proposal complies with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) an acceptable Emergency Response Plan in agreement with the appropriate consenting authority for any accidental release of oil or gas and related hazardous substances is provided;
d) the proposal includes all elements such as connections to shore base and infrastructure; and
e) an appropriate monitoring programme and detailed restoration and maintenance proposals are included.

Existing oil and gas infrastructure is shown in Map 39. Decommissioning and shore based activities are preferred in existing developed areas.

Justification

The oil and gas industry has made a significant contribution to the economy of Shetland since the Sullom Voe Oil Terminal and latterly, Shetland Gas Plant was established; it is anticipated it will maintain its role as a major oil landing facility for at least the next 30 years. The precise time-scales will depend on both the development of the Atlantic fields to a point where a pipeline landfall is initiated, but also on the location and success of new exploration and development areas.

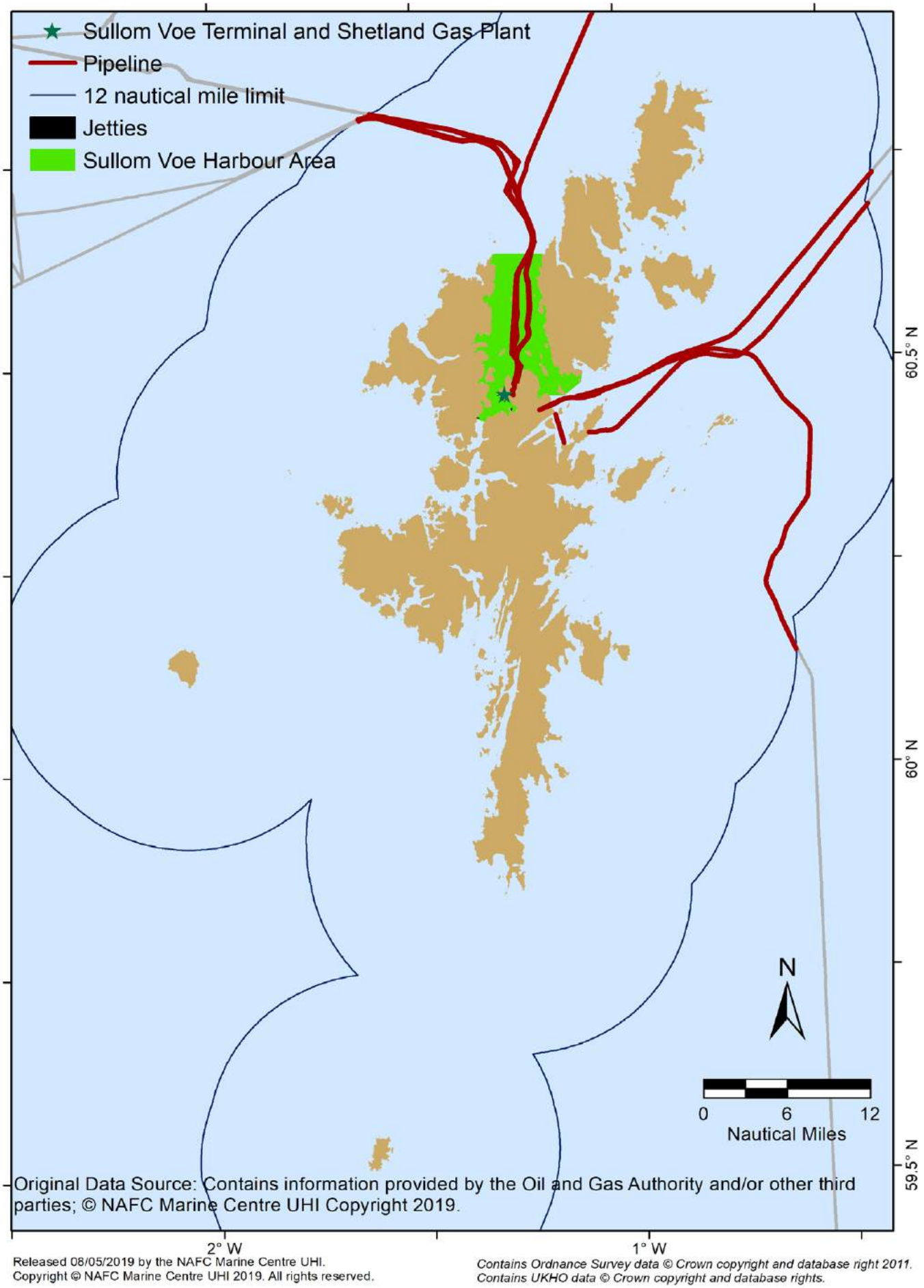
There are a number of environmental risks and potential adverse impacts associated with oil and gas extraction. The most notable of these being the risk of oil spill, noise from exploration (e.g. seismic survey) and production, historical oil based cutting piles, and inputs of exploration and production chemicals. Dependent on the location, manner of installation and size of pipeline there are potential impacts from pipeline installation on seabed and coastal habitats. However, these impacts are generally localised, minor and short term relating to noise and disturbance impacts. A developer will be required to include a detailed monitoring programme and an acceptable Emergency Response Plan due to the risk of accidental spills on wildlife. Sites within 12nm of the coast have little or no time to contain spills before they reach the shore.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Scotland's National Marine Plan: Chapter 9 Oil and Gas
- Shetland Islands Council's Local Development Plan
- The Oil and Gas Authority
- Maritime and Coastguard Agency
- IMO Guidelines and standards for the removal of offshore installations and structures on the continental shelf and in the EEZ. (1989)
- SNH – Oil and Gas
- A Fishing Industry Guide to Offshore Operators
- Petroleum Act, 1998
- Shetland Decommissioning



Map 39: Oil and gas infrastructure within the Shetland Islands Marine Region


Offshore Wind © Marine Scotland

Renewable Energy

Shetland's coastline and climate mean that the Islands have potential for the generation of renewable energy. While the offshore technology required to withstand the elements in the open seas around Shetland is still in its infancy, renewable energy sources and technology are now being developed and tested with the intention of developing them on a commercial scale.

The Scottish Government has identified potential opportunities for wave, wind and tidal devices in their 2013 Draft Sectoral Marine Plans for Offshore Wind, Wave and Tidal Energy. The Scottish Government is in the process of preparing a new sectoral marine plan for Offshore Wind Energy which will go to consultation in autumn 2019 'Sectoral Marine Plan for Offshore Wind Energy'.

Policy MP NRG1: Exploratory, Appraisal or Prototype Renewable Energy Proposals

Exploratory, appraisal or prototype energy proposals should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) they include details of any associated infrastructure required to service the site including connections to the electricity grid if relevant;

d) they have complied with all relevant terrestrial policies detailed in the Shetland Islands Council's Local Development Plan in relation to shore connections and connections to the National Grid; and

e) they include an appropriate monitoring programme and detailed decommissioning proposals.

The planning authority will normally specify a time period when granting a works licence for exploratory, appraisal or prototype proposals, which will be without prejudice to any subsequent application to develop fully operational projects at that location. Depending on generation capacity a marine licence and s36 consent may also be required under the Marine and Electricity Acts.

Justification

It is acknowledged that a significant level of exploratory work (including the building of prototypes) may be required to establish the optimum locations and long-term viability of energy projects. It would be beneficial to engage with Crown Estate Scotland, Marine Scotland, SNH, the Shetland Renewable Energy Forum (SERF), local industries, such as fishing and aquaculture, and the local community council at the early stages of the project design. Accordingly, temporary permissions or licences will normally be granted for exploratory proposals so that a proper assessment can be made of a particular site in terms of viability, cost effectiveness and impact on marine biodiversity. Trials of renewable energy devices (tidal) have been licensed in Bluemull Sound, Shetland.

The assessment of efficiency, and appropriate monitoring to determine any impacts, must be transparent and be demonstrated to the satisfaction of the Local Authority and Marine Scotland. This will allow an informed decision to be made should the developer wish to apply for a more permanent site.

Policy MP NRG2: Renewable Energy Development Proposals

Renewable energy developments should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) they have facilitated or considered in their design all elements, such as connection to shore base and National Grid Connections;

d) the development will not cause significant harm to the safety or amenity of any sensitive receptors;

e) there is an appropriate monitoring programme specific to the design, scale and type of the development, that meets the satisfaction of the consenting authority; and

f) detailed decommissioning and maintenance proposals are provided.

Policy MP NRG3: Wind, Wave and Tidal Development Proposals

Prior to submitting an application, developers should consult the Regional Locational Guidance for Wind, Wave and Tidal Energy in the Shetland Islands (RLG) which identifies potential constraints to development.

Applications for the development of wind, wave and tidal devices should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 and MP NRG2;

b) they have shown due regard to development constraints by proposing devices and associated infrastructure in areas of low constraint as identified in the RLG;

c) in areas of medium-very high constraint identified in the RLG, the development has incorporated adequate design and operational measures to the satisfaction of Marine Scotland and the local authority which avoid any potential adverse effects on Natura 2000 sites, any adverse effects on other important (natural and historic) sites, features and other sea users.

d) where commercial scale offshore wind and renewable energy development are proposed they are within areas identified through the Sectoral Marine Plan process.

Potential wave and tidal resources around Shetland are shown in Maps 40 and 41. Constraints for wind, wave and tidal development at the coast for cable landing points are shown in Map 43, with constraints for the placement of devices at sea shown in Map 42. It should also be noted that siting development in areas of low constraint does not guarantee development success. Scottish Government draft sectoral marine plan wave, tide and offshore wind areas are shown in Map 44.

Justification

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. Marine renewable energy development has the potential to create significant community benefits, as well as contributing to Shetland's wider sustainable economic development.

Despite the obvious advantages of renewable energy, it is also important to ensure that the Shetland environment, existing industries and the quality of life of residents is not compromised. Therefore, it would be beneficial to engage with SNH, local industry (especially the fisheries) and the local community in the early stages of the project design.

The Regional Locational Guidance for Wind, Wave and Tidal Energy in the Shetland Islands (RLG) has been developed with the support of local stakeholders including advisors, planners, regulators, communities and developers. The guidance integrates local environmental, social and economic considerations, as well as incorporating local datasets into the site selection process for marine renewable energy. It is designed as a decision support tool for developers, councils and government to help to ensure a consistent, streamlined approach to wave and tidal applications. It is acknowledged that the RLG should not be used to rule out development in particular areas if it can be accommodated in a sustainable manner consistent with the approach set out in this policy and the SIRMP as a whole.

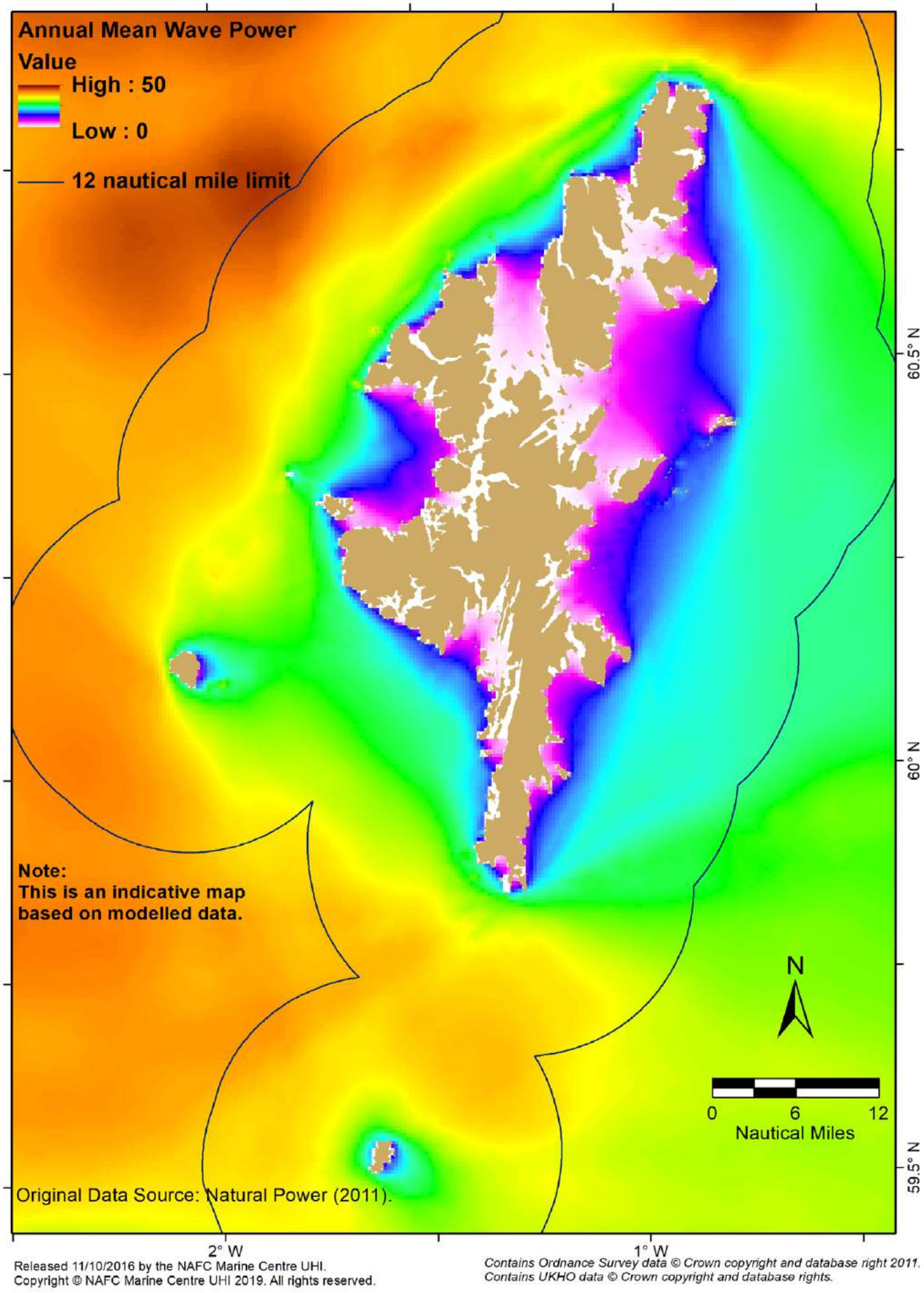
As well as ensuring compliance with these policies, and those of the National Marine Plan, developers should ensure that they understand and meet the legal requirements under Section 36 consenting, The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, EIA (Scotland) Regulations 2017, Marine Works (EIA) Regulations 2017 and European Protected Species Licensing (EPS). The Scottish Government documents 'Consenting and Licensing Guidance' and 'Survey, deploy and monitor licensing policy guidance' provides information to developers, with the latter providing an efficient risk based approach for taking forward wave and tidal energy proposals.

Legislative Requirements and Key Consultees

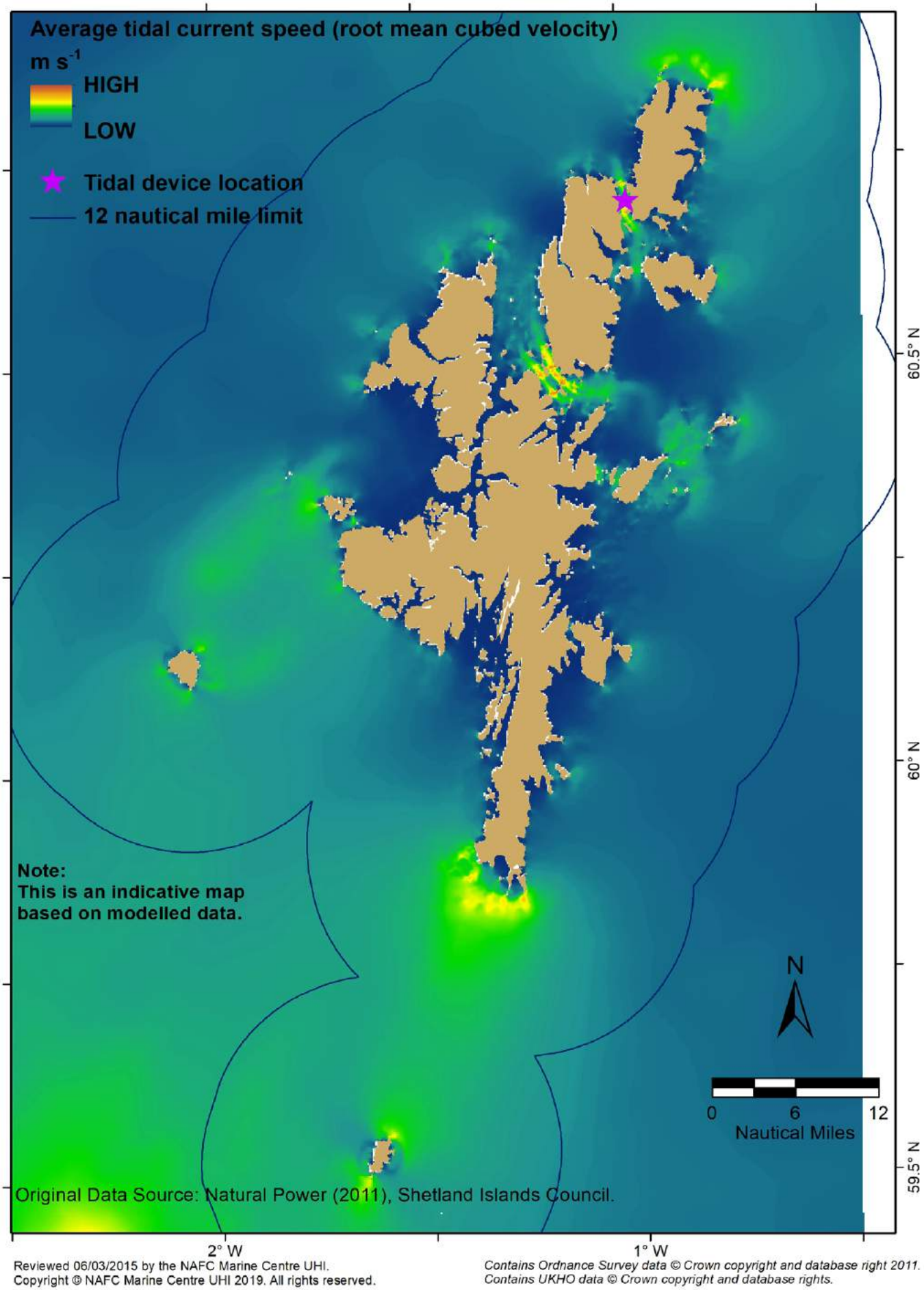
Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Scotland's National Marine Plan: Chapter 11 Offshore Wind and Marine Renewable Energy
- Marine Scotland Consenting and Licensing Guidance For Offshore Wind, Wave and Tidal Energy Applications
- Draft Sectoral Marine Plans for Offshore Renewable Energy in Scottish Waters, 2013
- Sectoral Marine Plan for Offshore Wind Energy - Consultation
- Marine Scotland- Marine Energy
- Regional Locational Guidance for Wave and Tidal Energy in the Shetland Islands, 2013
- Shetland Islands Council's Local Development Plan
- Low Carbon Scotland-meeting the emissions reduction targets 2013-2027
- Department of Energy and Climate Change. UK Renewable Energy Roadmap Update 2013
- SNH – marine renewables
- Shetland Renewable Energy Forum
- Wave and Tidal Consenting Position Paper – Marine Mammal Impacts
- Wave and Tidal Consenting Position Paper – Ornithological Impacts

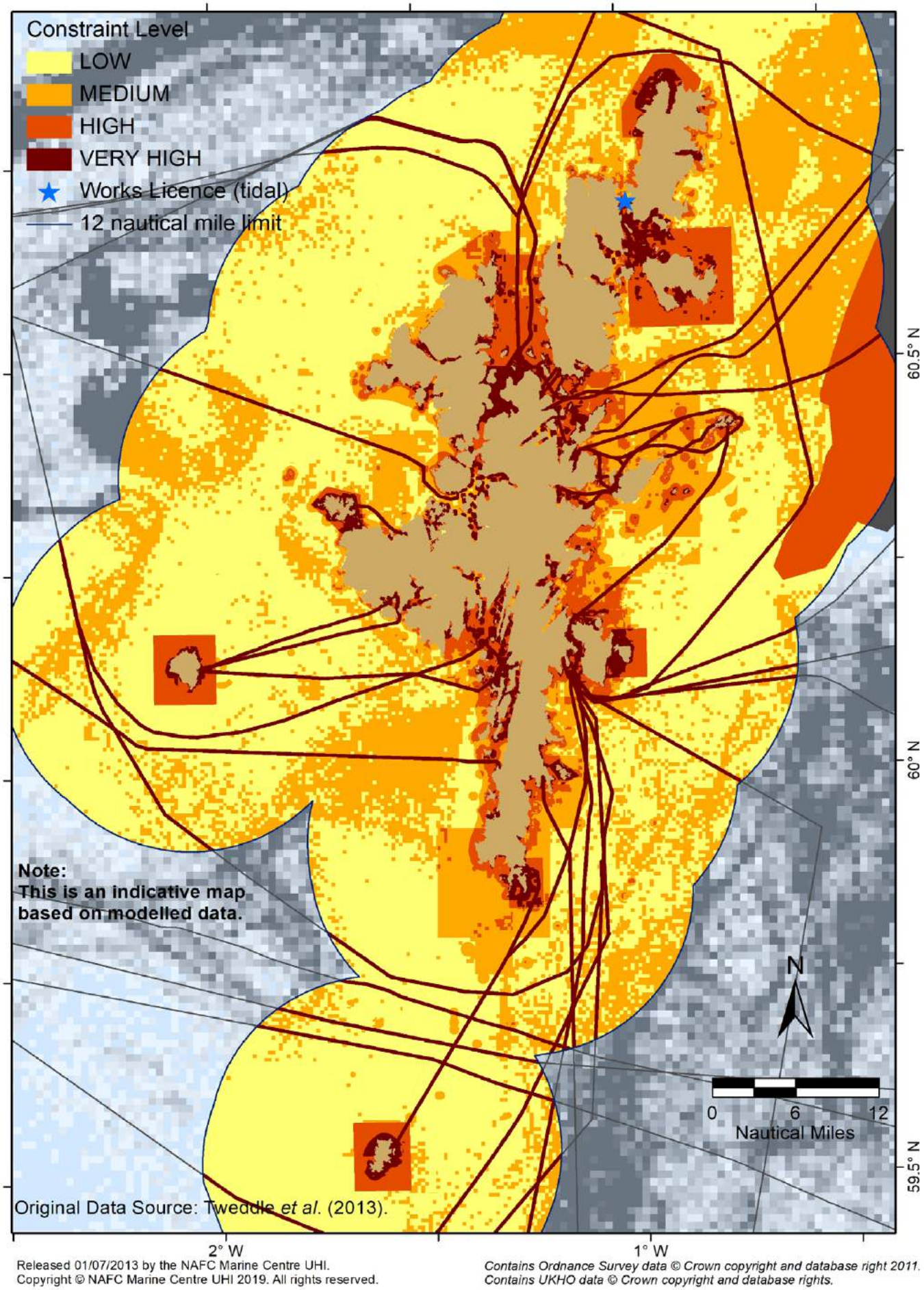


Map 40: Wave resource within the Shetland Islands Marine Region

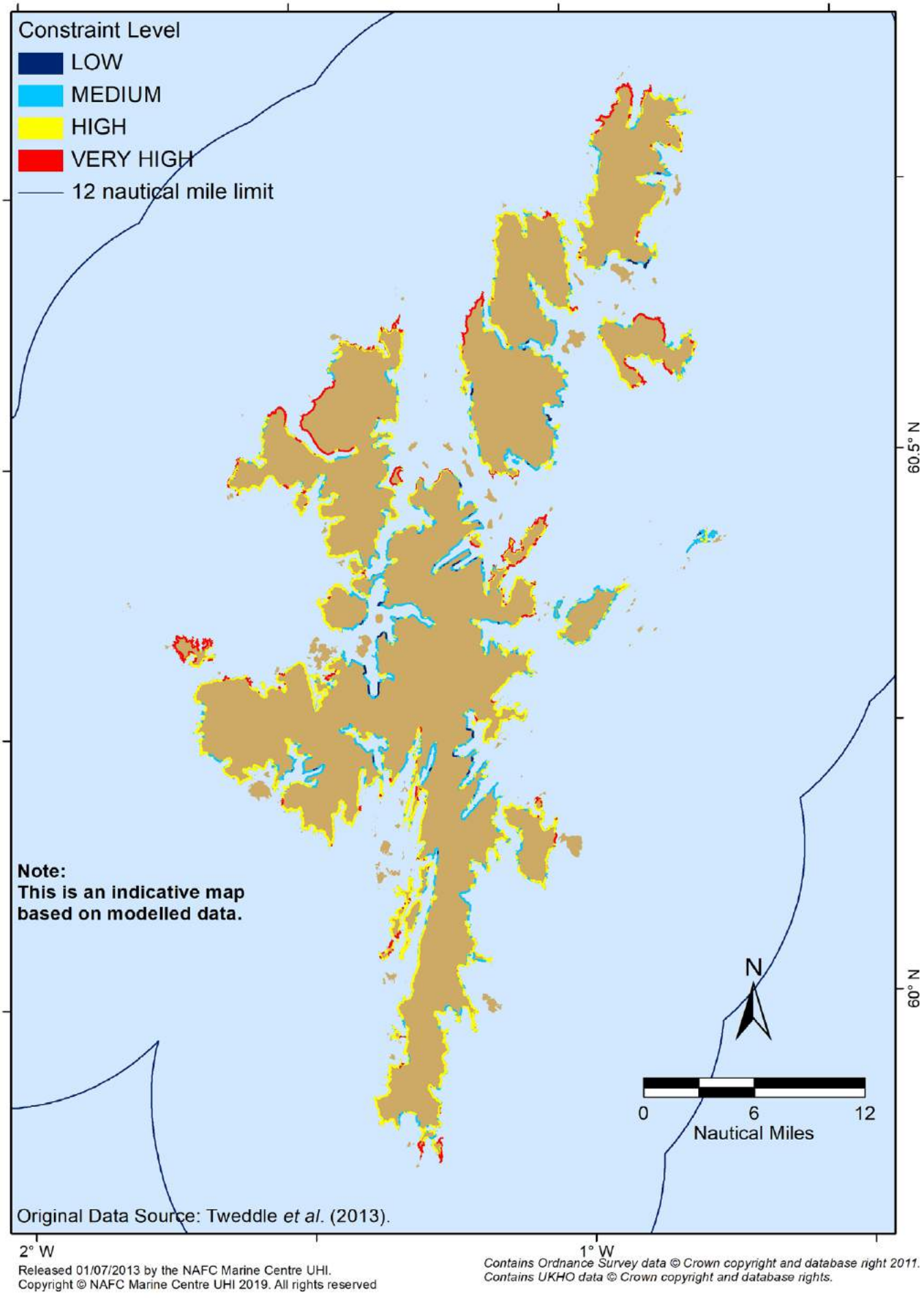


Productive

Map 41: Tidal resource within the Shetland Islands Marine Region

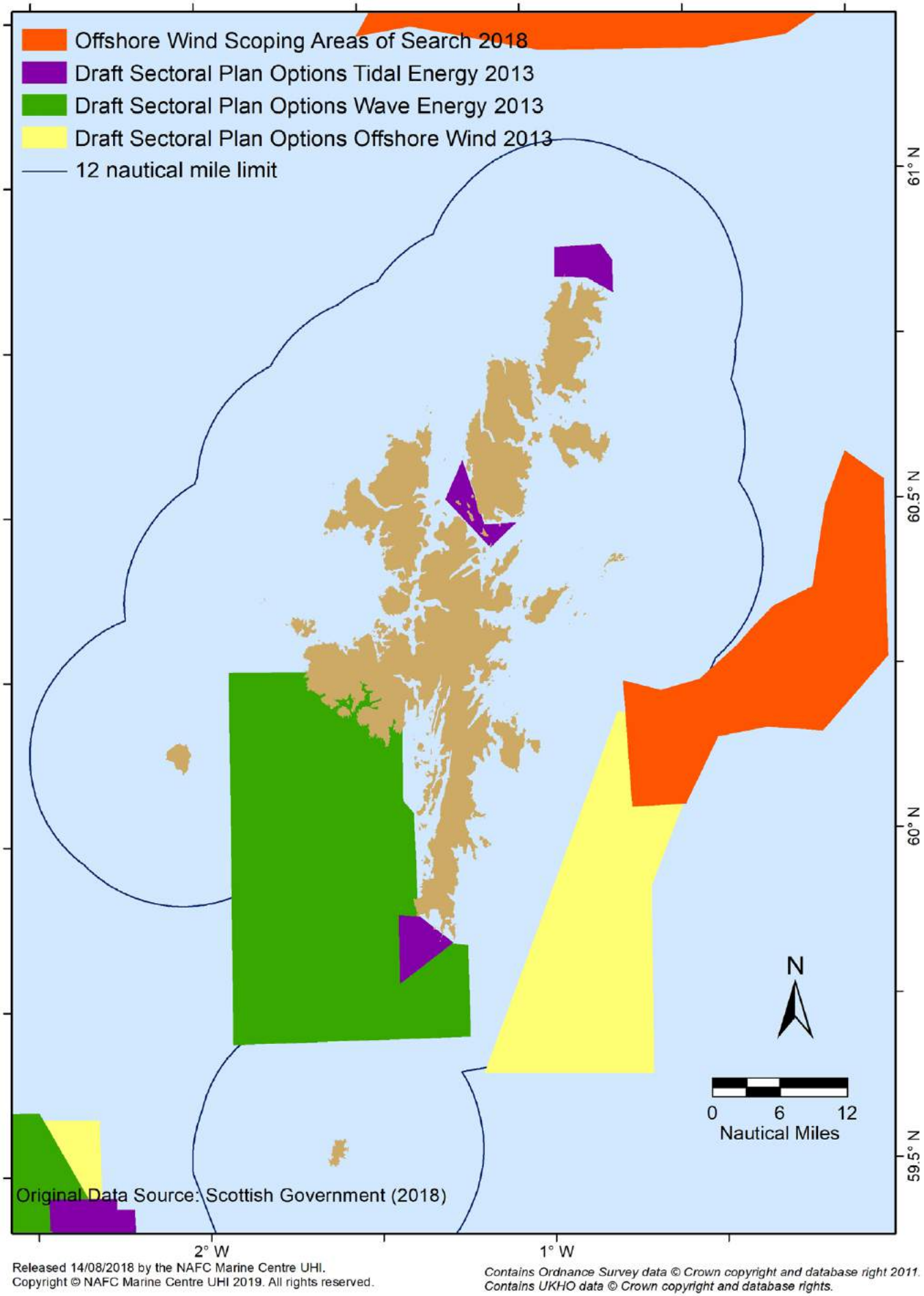


Map 42: Relative constraint level for marine renewables within the Shetland Islands Marine Region



Map 43: Relative coastal constraint within the Shetland Islands Marine Region

Productive



Map 44: Sectoral Plan Options for wave, tide and offshore wind (2013) and Offshore wind scoping areas of search (2018) identified by Marine Scotland within the Shetland Islands Marine Region

Sands of Breckon © Charlotte Slater

Marine Aggregate Extraction

Marine aggregate extraction is the process of taking sand, gravel and shingle from the seabed for use as construction aggregate (principally for concrete production), or for providing sand and gravel for land reclamation. Traditionally, the industry in Shetland has been very small, and in Scotland generally due to an adequate land supply and a lack of suitable and easily accessible resources on the seabed.

Policy MP EX1: Extraction of Sand, Gravel and Shingle

Proposals for the extraction of sand, gravel or shingle from beaches and dunes and below the Mean High Water Spring (MHWS), including coastal quarrying, should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) a description of the alternatives that have been considered is provided. This should include:

i. alternative sources (both within and outside Shetland - bearing in mind the most sustainable option may actually be sourced material from outside Shetland);

ii) alternative materials such as recyclate or secondary aggregate;

iii) using dredged material; and

iv) doing nothing.

d) they have detailed how sand/gravel extraction is an essential part of the proposed project;

e) they have provided details of all works (including ancillary equipment, storage, access, use of vehicles etc.); and

f) where an Environmental Impact Assessment (EIA) is required for the proposed dredging operation, it includes an assessment of physical effects of the operation and its implications for coastal erosion.

Justification

The aim of this policy is to protect the seabed and coastline from damaging extraction. The extraction of marine aggregate primarily impacts the seabed, on bottom substrata and associated benthic communities that burrow below the surface of the deposits, sometimes to depths of more than 10cm.

Sand, gravel or shingle extraction can have impacts well away from the extraction site if it interferes with the movement of sediment along the coastline – very small changes to beach composition can lead to knock on effects and flooding risk. The quarrying of active beach material reduces its capacity to respond to storm events. Research into sediment supply on open beaches suggests that a very minor fall in lateral sediment supply e.g. 0.1% fall in sediment from adjacent sections of beach, would result in rates of beach erosion comparable to a 0.5m increase in mean sea level.

Given the sea level changes experienced since the last ice age, Shetland has experienced rising sea levels for the last 13,000 years. This has a profound effect on the coastline and the location of sediment

stores. Unlike much of mainland Scotland, which has glacially derived sediments (known as fluvioglacial sediments) held in river terraces and other features, Shetland's fluvioglacial sediments are below sea level. This combined with the thousands of years of submergence mean that Shetland's coastline has rolled back on itself, leaving very little of the 'old' coastal zone, where these sediments would remain. This means that the sediment stores at the coast of Shetland, which currently provide a 'natural coastal defence' role, are limited, and unlikely to be replaced.

The Crown Estate Commissioners own the material rights to the seabed extending to the edge of the UK continental shelf, and issue agreements for non-exclusive sampling and commercial aggregate extraction. The planning, licensing and consenting process is the responsibility of Scottish Government, via Marine Scotland, who, through a consultation process, determines whether an area can be used for aggregate extraction on the grounds of its potential environmental impact. Marine aggregate extraction requires a marine licence and must adhere to the legal requirements of the Marine Works (EIA) Regulations 2017.

Shetland Islands Council also licence the extraction of sand, gravel and shingle, and coastal quarrying under the Zetland County Council Act 1974 and licence dredging below MHWS in all areas except the Lerwick Harbour area (under the jurisdiction of the Lerwick Port Authority).

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Scotland's National Marine Plan: Chapter 16 Aggregates
- Mineral Resources of Scottish Waters and the Central North Sea
- Zetland County Council Act 1974
- Ware, S.J. & Kenny A.J. (2011). Guidelines for the Conduct of Benthic Studies at Marine Aggregate Extraction Sites (2nd Edition). Marine Aggregate Levy Sustainability Fund, 80 pp.

Cruise Liner © Grant Anderson

Tourism

The special qualities the Shetland Islands provide as a tourist destination are primarily the large areas of unspoilt wildness, its potential for marine recreation, and its cultural and environmental assets. The mixture of formal and informal activities organised by individuals, clubs or commercial ventures takes advantage of some of the most attractive coastal scenery and most demanding marine conditions in Europe. As an island community, Shetland has always relied heavily on the sea; as a result it has been well looked after and the facilities available for recreational users and visiting boats are excellent. Clean, healthy seas are fundamental to a successful marine tourism and recreation industry in Shetland.

Tourist activities and leisure facilities around the coast of the Shetland Islands provide the opportunity for a wide range of commercial ventures. The diversity of tourism assets and opportunities are included on Map 45.

Marine recreation is also a tourism asset and includes: SCUBA diving, sea kayaking, sailing, yacht events, fishing, sea angling and coasteering as shown in Map 30.

Marinas and piers often form the heart of Shetland's districts. There are visitor berths at most of the 23 marinas and the community enjoys over 300 points of access to the shore in the form of jetties, piers and slipways. Yachting also takes prominence: there are numerous regattas held every year throughout the Islands, as well as the annual international Bergen-Shetland Races. All these activities and tourism attractions can generate income for the local economy. Shore access points are shown in Map 4 and Map 31.

Tourism was worth approximately £23.1m to the Shetland economy in 2017[32], employing 865 FTE in 2017[33]. It is considered that there is significant scope for growth. Visit Scotland is the lead organisation managing existing and new opportunities for tourism in Shetland. The Shetland Tourism Association and Promote Shetland also support the growth and management of the tourism sector. These three organisations play an important role in promoting investment that encourages the creation of tourist facilities around appropriate attractions and activities, both on and offshore. Local cultural facilities, such as the Shetland Museum and Archives, have also been developed to attract visitors all year round, which is important given that some marine activities will of necessity, be restricted by the weather and times of the year.

Developments associated with water sport uses, such as slipways and marinas, require a works licence from Shetland Islands Council, or from Lerwick Port Authority for projects within Lerwick Harbour, and a marine licence from Marine Scotland. It is the general intention of Shetland Islands Council to conserve the

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

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

character of the coast and to protect it, and its surroundings, from development which may be detrimental to this character.

Policy MP TR1: Tourism and Leisure Developments

Proposals for marine-related tourism and leisure development need to demonstrate that they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1 and there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site.

Proposals for marine-related tourism and leisure development can promote employment opportunities, community benefits and rural diversification in a sustainable manner. Proposals for marine-related tourism and leisure development should demonstrate that they have considered the potential for sharing and enhancing existing infrastructure with other marine users.

Justification

Shetland's economy is becoming increasingly reliant on its service sector, tourism has the greatest potential for growth in this sector. The purpose of this policy is to increase the present levels of tourism in Shetland, without damaging the resource on which it is based. Clean, safe and healthy seas are fundamental to a successful marine tourism and leisure industry in Shetland.

It is strongly advised that developers and consenting authorities engage with local tourism stakeholders, tourism destination management organisations, heritage and environmental management bodies and other marine and coastal users early in the development proposals and before any decisions are taken forward.

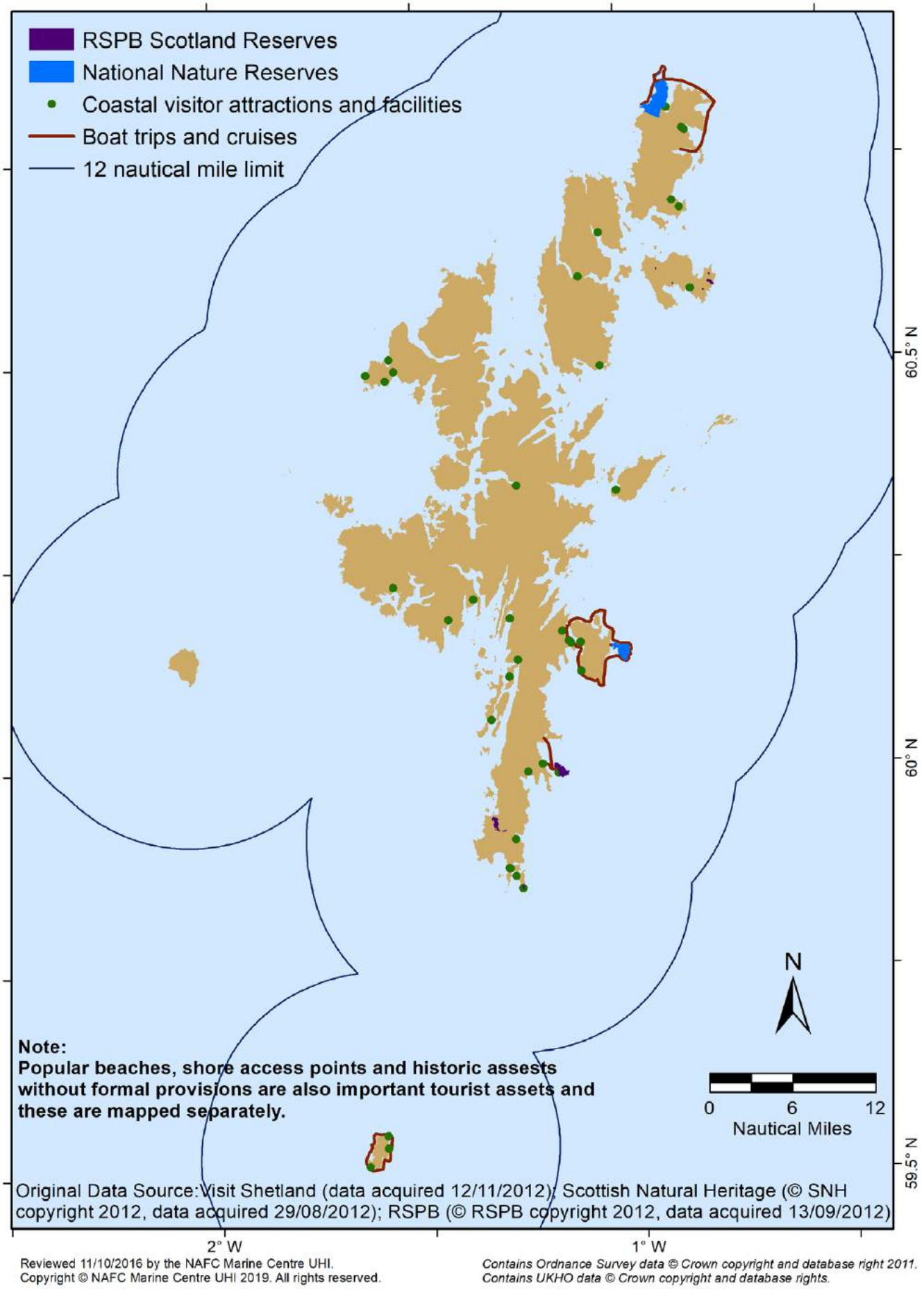
Licence requirements will be specific to the development type. Developers should contact Marine Scotland Licensing Team and the Shetland Islands Council to determine licence requirements.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Scotland's National Marine Plan: Chapter 12 Recreation and Tourism
- Visit Scotland - Shetland
- Shetland Islands Council's Local Development Plan
- Promote Shetland – Tourism Information
- Shetland Museum and Archives
- SNH- Scottish Marine Wildlife Watching Code



Map 45: Formal marine and coastal tourism provision within the Shetland Islands Marine Region

Aith Voe Marina © Charlotte Slater

Infrastructure and Services- Shore Access and Moorings

Shore access is defined here as including piers, jetties, slipways, marinas and their access tracks. There are very few single mooring point agreements in Shetland. The majority of boats are kept in small community marinas for which the Crown Estate Scotland charge £2 per berth per year.

Policy MP SA1: Shore Access and Moorings

Shore access developments and proposals for moorings should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) they have detailed the level of impact of construction and increased access and traffic both on land and at sea and mitigation measures required to ensure the development is acceptable;

d) there is need for their facility to have moorings;

e) they have clearly demonstrated the implications for existing users and planned future use; and

f) they can adequately show there will not be an increase in the likelihood of erosion or tidal inundation.

Shore development proposals are encouraged where activity already exists. The mooring of individual boats is encouraged at designated marinas and ports.

Justification

The purpose of this policy is to protect the character of the coastal zone from inappropriate development. In addition, its purpose is to direct development requiring a coastal location to areas with existing development, or sites where the character of the coastal zone may accommodate such a development. Developers should be aware of the need for compliance with the Shetland Islands Council's Local Development Plan.

Poorly placed moorings can hinder a number of other uses in the performance of their functions. In addition, the cumulative impacts of numerous mooring chains have the potential to cause substantial damage to marine habitats. For this reason, the mooring of boats is encouraged at designated ports and marinas, which are designed and sited to integrate with the landscape and complement the character and scale of the surrounding area.

Proposals should consider the potential impacts of climate change. Globally, it is likely that sea levels will rise over the next hundred years, and that storms will become more severe. It is estimated that sea level rise in Shetland will be 30 cm by 2050 and 50 cm by 2100[34]. In addition storm surges of 1.5 metres have already been recorded.

[34] Lambeck, K (1991) *Glacial rebound and sea level rise in the British Isles.* Terra Nova 3 379-389.

This change in sea level will have consequences for all existing and proposed jetties, piers and marinas.

Licence requirements will be specific to the development type. Developers should contact Marine Scotland Licensing Team and the Shetland Islands Council to determine licence requirements.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Shetland Islands Council's Local Development Plan
- Zetland County Council Act 1974

Solitare, pipe laying vessel © Simon Allan

Infrastructure and Services- Cables and Pipelines

A number of oil and gas pipelines, telecommunication and power submarine cables exist within the SIRMP area, which form a vital part of the Islands' socio-economic infrastructure. Power and telecommunication cables provide lifeline services to communities in most of the islands around Shetland. Similarly, oil and gas extraction has been a significant contributor to the Shetland economy, and this will continue for at least another 30 years.

Policy MP CBP1: Placement of Utility Cables and Pipelines

The laying or replacement of utility cables and pipelines should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site; and

c) they have taken account of the implications for landing points including any seasonal sensitivities and impacts to existing land use.

Where possible, cables and pipelines should use existing routes and landing points.

New cables and pipelines should have regard to Policy MP ACBP1: Avoidance of Cables and Pipelines (Policy Framework Section a), shown in Map 6.

Justification

The purpose of this policy is to ensure developers explore a range of options open to them in laying cables and pipelines. There are a variety of methods and innovative ways for a developer to engineer the route for the placement of cables and pipelines. In all cases the best environmental option, notwithstanding safety considerations, will be favoured.

The consenting of submarine cables and oil and gas pipelines between MHWS and 12nm requires a marine licence. Associated protection requires a marine licence from 0-200nm. A local works licence is also required from Shetland Islands Council from the MHWS out to the 12nm limit, and from the Lerwick Port Authority within Lerwick Harbour.

As well as ensuring compliance with this policy, and those of Scotland's National Marine Plan, developers should ensure that they understand and meet the legal requirements under Section 36 consenting, The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 and Marine Works (EIA) Regulations 2017.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements

and Appendix B for Key Consultees.

Further Information

- Scotland's National Marine Plan: Chapter 14 Submarine Cables
- Shetland Islands Council's Local Development Plan
- Shetland Islands Council's Supplementary Guidance Works Licence Policy
- Zetland County Council Act 1974
- Submarine Telegraph Act, 1885
- UNCLOS (United Nations Convention on the Law of the Sea), 1982
- Telecommunications Act, 1984
- Electricity Act, 1989
- Communications Act, 2003
- European Subsea Cables Association Guidelines

Policy MP CBP2: Placement of New Domestic and Trade Wastewater Pipelines

There will be a general presumption against the laying of new wastewater pipelines from the land entering the sea. These will only be permitted where:

a) it has complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) it can be demonstrated that any development proposal will have no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) a public wastewater system is not already present; and

d) a suitable soakaway is unachievable.

In situations where a new pipeline is acceptable, the proposal needs to demonstrate that:

e) the seaward end of the pipe is sited well below the MLWS to the satisfaction of the consenting authority and does not impact on any other marine structure or development.

Justification

The purpose 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, and in areas served by wastewater schemes, new developments are connected to the existing system. This policy also aims to ensure that infrastructure is in place and maintained for necessary disposal activity to be carried out in compliance with legislative requirements.

Current Shetland Islands Council policy on the placement of wastewater pipes stipulates that they extend to below the tide level at MLWS and comply with dilution requirements. Water pipelines will therefore also require a marine licence for the proportion below MHWS. As part of the authorisation process, SEPA assesses the dilution requirement for effective effluent dispersal. Although there are no specific buffer zones placed around aquaculture sites, discharges directly to or impinging on Identified Waters may require further mitigation.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Shetland Islands Council's Supplementary Guidance Works Licence Policy
- Shetland Islands Council's Local Development Plan
- SEPA - water regulations

Waverider Buoy © NAFC Marine Centre UHI

Infrastructure and Services- Commercial Moorings

Commercial moorings are structures attached to the seabed which can hold: individual boats, weather and radar masts, and buoys.

Policy MP MO1: Commercial Moorings

Proposals for commercial mooring structures or the licence renewal of existing structures will only be permitted where:

a) they comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) it can be demonstrated that there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) the need has been demonstrated;

d) no other practical alternatives exist;

e) other users have been taken into account; and

f) the appropriate regulatory body has been consulted e.g. mooring within a Natura 2000 site requires contact with SNH.

Justification

Sporadically placed moorings can hinder a number of other users in the performance of their functions. This, combined with the cumulative impact of numerous mooring chains, can do substantial damage over a wide area.

Lerwick Port Authority (LPA) or Shetland Islands Council (SIC) receives works licence applications for commercial moorings, weather and radar masts, and buoys. It is strongly advised that any applicant for these activities consult with Marine Scotland as the consenting authority for marine licences, and Crown Estate Scotland for seabed leases.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Shetland Islands Council's Supplementary Guidance Works Licence Policy
- Shetland Islands Council's Local Development Plan
- Lerwick Port Authority

Breakwater, Fair Isle © Charlotte Slater

Infrastructure and Services- Coastal Defence

Primary responsibility to protect land lies with the landowner who may undertake flood prevention works, or coast protection works, with the written consent of the Coast Protection Authority (which is Shetland Islands Council).

The nature and scale of the works may mean that planning permission, a works licence, a marine licence or a combination of these is required. Requirements of any coastal works should be carried out in line with the UK Marine Policy Statement and Scottish Planning Policy. Both policies stipulate that all activities and developments must be resilient to risks of coastal change and flooding, and will not have an unacceptable impact on coastal change. Inappropriate development should be avoided in areas of highest vulnerability to coastal change and flooding.

The Coast Protection Act 1949 and the Flood Risk Management (Scotland) Act 2009 allow local authorities (identified as Coast Protection Authorities in the 1949 Act) to promote appropriate schemes on land not in their ownership when the need for coast protection works or flood protection works (for non-agricultural land) is deemed necessary in the wider public interest. Such schemes require ministerial approval regardless of size. Coast Protection Authorities are permitted to undertake maintenance and emergency work under the terms of the 1949 Act and certain public bodies are expected to take a proactive role in managing and, where achievable, lowering overall flood risk. Local Authorities have powers as the Coast Protection Authority to carry out emergency coastal defence works and are exempted from the need for consent to carry out emergency operations on a SSSI.

The UK Climate Impacts Programme (UKCIP) provides scenarios that show how our climate might change, and co-ordinates research on dealing with our future climate. The implications of climate change for coastal hazards on Shetland are documented in 'Climate Change and Coastal Hazards on Shetland'. The development of a Flood Risk Management Strategy and a Local Flood Risk Management Plan for the Shetland Islands will provide overarching guidance for the sustainable mitigation and adaptation to the impacts of climate change.

In accordance with the LDP, proposals to build below the 5m contour (5m above Ordnance Datum, Newlyn) or in other areas shown to be at risk of flooding or coastal erosion, will not be permitted unless a suitable flood risk assessment is submitted with the licence application. It is therefore strongly advised that any developer considering proposals to develop within the coastal zone has regard to the LDP and, in particular, the policies on flooding avoidance and the accompanying Supplementary Guidance Water and Drainage.

Policy MP CD1: Coastal Defence Construction

The installation of new flood defences and coastal protection works will be considered if coastal erosion or flooding threatens existing public infrastructure and important built development, and where there is a significant safety risk. Where this has been demonstrated, the planning authority and coast protection authority will ensure the construction of flooding or coastal defence developments:

a) have complied with all policies in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) will have no adverse effects on the integrity of a Natura 2000 site or a proposed site;

c) have provided detail of relocation options;

d) have detailed the design and assessed the risks and impacts, ensuring the retention or enhancement of the ecological characteristics, landscape character and popular coastal views; and

e) can demonstrate the wider implications of exacerbating flooding or coastal erosion have been considered and that potential impacts have been mitigated so far as possible. Where coastal defence is deemed necessary, there should be an overall presumption in favour of soft rather than hard defences. The use of managed realignment of coastal defences where appropriate will be promoted.

Policy MP CD2: Coastal Defence Demolition

Permission for the demolition of coastal defence materials will only be granted when it can be demonstrated that there are no adverse impacts for the environment, landscape or land use. All proposals should:

a) comply with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1; and

b) have no adverse effects on the integrity of a Natura 2000 site or a proposed site;

In addition, when considering the demolition of coastal defence structures, the following should be taken account of:

c) historic value of the structure in its surroundings;

d) potential to re-use the material;

e) implications for reinstatement; and

f) value to species and habitats, such as providing a substrate for an important rocky shore habitat, or shelter for European otters.

Justification

As a result of cliff and beach erosion the shoreline of Shetland is naturally receding. Indeed, there would be no beaches if erosion were not to occur. Many of the defences against erosion or flooding have traditionally been 'hard engineering' works. Hard coastal defence works include dykes and groynes, rock armour, seawalls and gabions. However, these are initially expensive and utilise large quantities of raw materials for concrete.

Soft coastal defence works include beach nourishment and beach re-enforcement by dune fencing, recharging, planting Marram grass, etc. Unofficial attempts at 'soft' defences (such as beach re-enforcement by means of nets over dunes) are now discouraged, with a focus currently being placed on using methods such as dune fencing to direct wind deposited sand where required.

Shetland Islands Council have created a Local Flood Risk Management Plan for Shetland as required by the Flood Risk Management (Scotland) Act 2009. The plans detail coastal areas which are prone to coastal flooding, as well as areas subject to erosion.

The installation of flood defences should consider the needs of public health and safety as well as the wider implications of the work and the potential environmental effects. Coastal defence works will need to meet the legal requirements under the Marine Works (EIA) Scotland Regulations 2017, and subsequently may

require an Environmental Impact Assessment (EIA) to assess the impacts of the proposed works. Flood and coast protection plans, policies and proposals will only be supported where they account for wider marine interests.

Legislative Requirements and Key Consultees

The lead authority will normally be the Shetland Islands Council, but please refer to page 13 'Legislative Requirements' and Appendix A for a Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Shetland Islands Council – Flood and Coast Protection
- Shetland Islands Council- Local Development Plan
- Shetland Islands Council – Strategic Flood Risk Assessment
- Shetland Islands Council- Local Flood Risk Management Plan
- Scotland's Coastal Change Assessment
- UK Climate Change Projections
- UK Climate Change Risk Assessment (CCRA)
- Scotland's Climate Change Adaptation Framework 2009
- Scotland's Climate Change Adaptation Framework. Sector Action Plans 2011
- Marine Climate Change Impacts Partnership
- SEPA – Flood Risk Management
- Coast Protection Act 1949
- Flood Risk Management (Scotland) Act 2009
- Transport and Works Act 1992
- Zetland County Council Act 1974

Yell ferry © Charlotte Slater

Transport

Marine transport by ship includes the transport of both freight and passengers, whether for commercial or recreational purposes. Marine transport is supported by a diverse range of ancillary activities including shipbuilding and repair, the construction of ports and marinas, and activities associated with navigation, including dredging. Marine transport is a significant contributor to national and regional economics, acting as a major intermediary for Scottish and Shetland imports and exports. Ports and harbours also provide key transport infrastructure between land and sea.

In Shetland the sea transport industry[35] alone was worth £18.4 million in 2011[36]. The industry employed 175 people (FTE) in 2017[37]. The Shetland Islands ports and harbours industry was worth £23.4 million in 2011[37] and employed 149 people (FTE) in 2017[37]. Marine transport in Shetland is therefore very important both economically and socially. The importance of international trade through Shetland's ports is also important for sustaining modern island living, in terms of distribution of raw materials such as coal, timber and oil, as well as other goods not available naturally or locally on the Islands.

Ports and harbours also play a significant role in domestic freight and passenger travel by providing infrastructure and facilities to support lifeline ferry services to island communities. Their role is crucial not only in supporting the projected future growth of freight traffic, but also supporting more fragile and remote communities.

Ports and harbours in Shetland support the oil and gas industry, but are also essential in supporting emerging industries such as renewable energy development, and in mitigating the effects of climate change by facilitating the increased movement of freight by sea rather than road.

Positive impacts from port and harbour development include job creation and benefits to local fishermen, in addition to wider local, regional or national economic benefits. Potential adverse impacts from the development of new ports and harbours are similar to those from any coastal development and will primarily result from the construction phase. However, associated impacts, such as increases in shipping traffic and maintenance dredging, can cause impacts during the operational phase. These impacts will be taken into consideration for any port or harbour development, and are considered in line with sustainable development principles.

[35] Includes boat tour operators and charter companies

[36] Shetland Islands Council-Shetland Regional Accounts 2011. NB- these are the most recent figures available, the next set of accounts is due to be released in 2019.

[37] Shetland Islands Council. Shetland Employment Survey 2017

Future Ferry and Harbour Development

The Scottish Government's National Marine Plan (NMP) seeks to maintain efficient and economically viable vessel movements within and around Scotland's marine area. The NMP supports essential maritime transport links to and from island and remote mainland communities. The SIRMP will facilitate these objectives and providing up-to-date information on ferry links and include policies supporting the sustainable development of ferry links and associated infrastructure.

In making a decision on a proposal for a large port development, the consenting authority should have regard to the extant 'National Planning Framework' which identifies known large-scale port developments. Individual decisions should also take account of cumulative environmental, social and economic effects, and be in compliance with international maritime law.

Policy MP TRANS1: Port and Harbour-related Development

Proposals for port and harbour-related development should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site; and

c) the potential individual and cumulative effects of the proposed development have been addressed.

Policy MP TRANS2: Future Fixed Links/Ferry Terminals

The construction of fixed link developments and new ferry terminals should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) there will be no adverse effects on the integrity of a Natura 2000 site or a proposed site (i.e. Yell Sound Coast SAC, Sullom Voe SAC, Bluemull and Colgrave Sounds proposed SPA or East Mainland Coast proposed SPA); and

c) the potential individual and cumulative effects of the proposed development have been addressed.

The main shipping and ferry routes are included on Map 5.

Justification

Positive impacts from port and harbour related development include job creation and benefits to local communities, as well as having national, regional or local economic benefits. Negative impacts will vary depending on the local conditions, ecosystems and other factors. Impacts might include:

- impacts to local hydrodynamic and sedimentary regime;
- loss of intertidal habitat;
- disturbance of historical contamination during capital dredging works;
- impacts on migratory and/or juvenile fish;
- impacts on important bird species; and
- impacts on heritage assets.

Port development may also result in an increase in shipping to that area. When considering any potential increase in shipping activity, decision-makers should ensure that the socio-economic benefits and environmental impacts are taken into account, and that impacts are considered in line with sustainable development principles.

Whilst consideration is currently being given to the replacement of one or more of the ferry services with fixed links, the inter-island ferry service will continue to be the main lifeline link to the isles. Ferry terminals are shown on Map 4 and ferry routes have been included on Map 5; however, it is most likely that any future fixed links will be located close to the shortest crossing points. The aim of policy MP TRANS2 is to

make developers and users of the marine and coast aware of the possibility of fixed link developments.

It should be noted that large scale port and harbour works are likely to require an Environmental Impact Assessment (EIA), and should adhere to relevant legislation, including but not limited to, the Marine Works (EIA) Scotland Regulations 2017. Any marine development will require a Crown Estate Scotland lease, a works licence (either from the SIC or the LPA) and a marine licence. Any terrestrial component is likely to require planning permission from the SIC.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Scotland's National Marine Plan: Chapter 13 Shipping, Ports, Harbours and Ferries
- Shetland Islands Council's Local Development Plan
- Shetland Islands Council's Supplementary Guidance Works Licence Policy
- Shetland's Transport Strategy
- Transport Scotland - Ports and Harbours
- SEPA - water regulations
- Lerwick Port Authority
- Harbours Act, 1964
- Lerwick Harbour Act, 1994
- Pilotage Act 1987

Bressay Sound © Charlotte Slater

Dredging and Disposal

Dredging and the marine disposal of dredged material are activities necessary for the viability of the marine shipping industry of the Shetland Islands. Without adequate depths within harbours, shipping and trade would be severely restricted. 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 legitimate users of the sea. Sustainable management of the activity is needed to minimise potential harm.

The removal and disposal of marine dredged material at sea requires a marine licence under the Marine (Scotland) Act, 2010. Shetland Islands Council can permit dredging under the Zetland County Council Act 1974 by issuing a dredging licence in all areas except Lerwick Harbour area which is under the jurisdiction of the Lerwick Port Authority.

Certain sea disposal operations are licensed annually as major ports require an annual maintenance dredge. Other ports undertake dredging operations when required, either to maintain channels or berths or in connection with construction works to upgrade or replace existing port facilities.

Policy MP DD1: Dredging and Disposal of Dredged Material

Proposals for dredging and the disposal of the dredged material should demonstrate that:

a) they have complied with all policies included in Policy Framework Section (a) and (b) and Policy MP DEV1;

b) they have used, where possible, recognised marine disposal sites;

c) the suitability of the dredge material for sea disposal has been assessed, including contamination levels;

d) at the existing Ulsta or Samphrey disposal sites there will be no adverse effects on the integrity of the Yell Sound Coast SAC or East Mainland Coast proposed SPA;

e) at the existing Foula disposal sites there will be no adverse effects on the integrity of the Foula SPA or Seas off Foula proposed SPA;

f) at the existing Bluemull Sound disposal sites there will be no adverse effects on the integrity of the Bluemull and Colgrave Sound proposed SPA;

g) at the existing disposal site within the Lerwick Harbour area there will be no adverse effects on the integrity of the East Mainland Coast proposed SPA;

h) new dredging activity or the use of new disposal locations will have no adverse effects on the integrity of a Natura 2000 site or a proposed site; and

i) they have detailed the level of impact from suspension of materials and disturbance to the seabed.

Dredging and disposal areas are shown in Map 46.

Justification

Most of the voes in Shetland which are used by large vessels are deep, and therefore have never required dredging operations. However, dredging has occurred in Lerwick and Scalloway Harbours, as indicated on Map 46.

The UK Marine Policy Statement 2011 requires the re-use, recycle or treatment of dredged waste over disposal, where there are no undue risks to either human health or the environment, or disproportionate costs. It should be noted that the disposal of dredged material to land for beneficial use is also an option. Such proposals need to be registered with SEPA under a waste management exemption. The licensing authority works with applicants, SIC, SEPA, SNH and others to identify potential uses for dredged material. The 'Best Practicable Environmental Option Assessment' (BPEO)[38] should be used to determine whether there are practicable alternatives to sediment disposal.

Legislative Requirements and Key Consultees

Please refer to page 13 'Legislative Requirements' and Appendix A for Checklist of Legislative Requirements and Appendix B for Key Consultees.

Further Information

- Marine Licence- Dredging Activity
- Shetland Islands Council's Local Development Plan
- Zetland County Council Act 1974
- UK Marine Policy Statement
- Revised OSPAR Guidelines for the Management of Dredged Material
- SEPA - Activities exempt from waste management licensing
- Marine Scotland- Provide monitoring and advice on fisheries impacts of extraction activities with real time monitoring and modelling sediment plume density and dispersion for impact assessment before, during and after extraction.

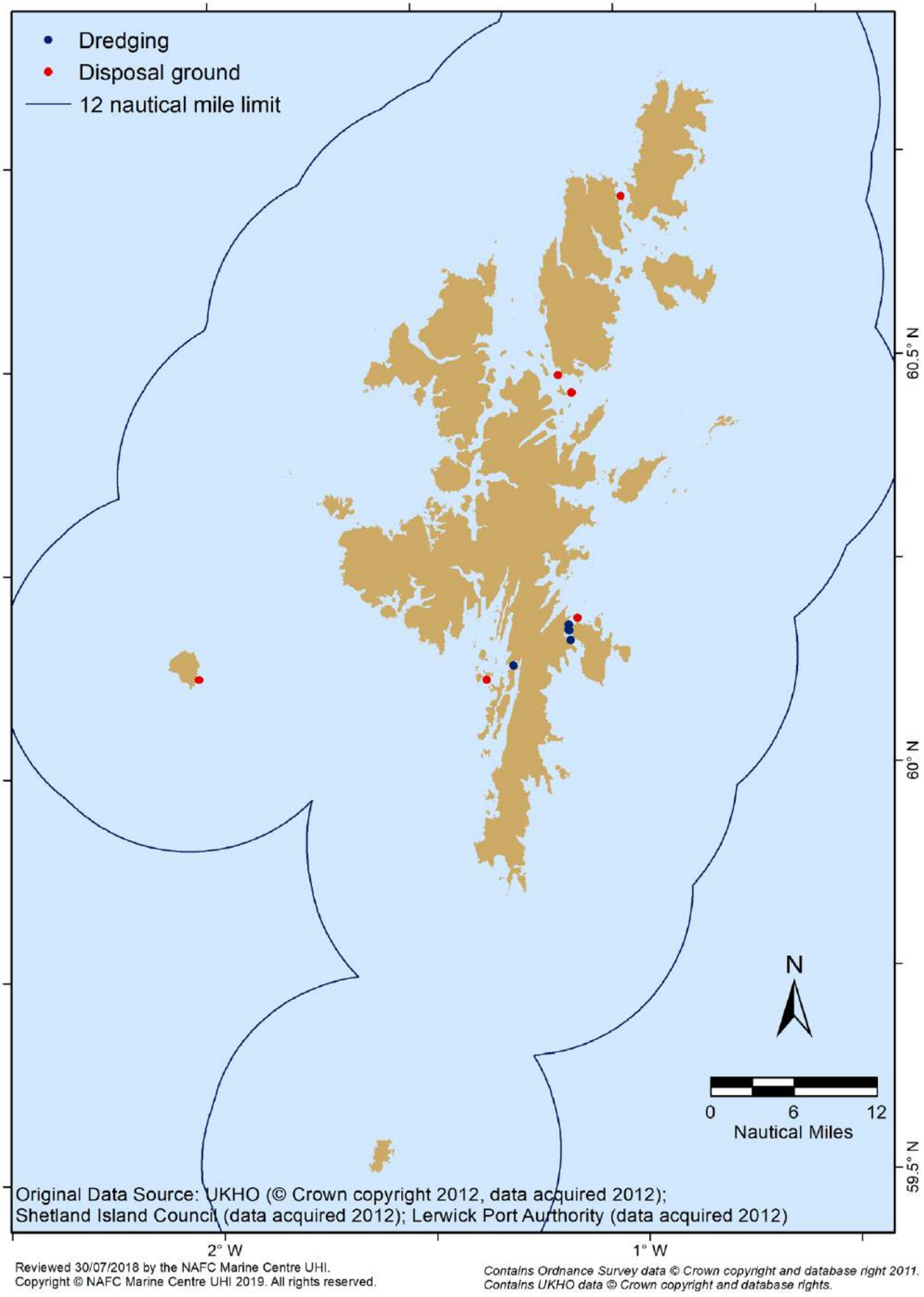
Capital and Maintenance Dredging

Capital dredging is defined as the initial dredging of a channel. This is normally in an area or down to a level (relative to Ordnance Datum) not previously dredged during the preceding seven years. Capital dredging is often permitted under the terms of the harbour legislation (the Zetland County Council Act 1974).

Maintenance dredging is defined as dredging activities following the capital dredging operations to keep the channel at the defined depth. Maintenance dredged material is derived from an area where the level of the seabed to be achieved is not lower (relative to Ordnance Datum), than it has been at any time in the preceding seven years, or from an area where there is evidence that dredging has previously been undertaken to that level (or lower) during that period. Provision is normally included in the harbour legislation or in a Revision Order if one is sought.

In certain circumstances, maintenance dredging will be exempt from requiring a marine licence. However, this exemption is subject to certain conditions and only applies to dredging activity, not to the deposit of the dredged material which will require a marine licence for disposal at-sea. An application should always be submitted to the Marine Scotland Licensing Team for assessment for the need for licensing.

[38] BPEO assessment is a method used to identify the option that provides the 'most environmental benefit' or 'least environmental damage'. It assesses the 'performance' of different options in a range of criteria such as environmental impact, safety risk, technical feasibility and cost. It uses a combination of qualitative and quantitative assessments of the performance in each criterion, and a weighing of the relative influence or importance of the criteria in order to derive an overall score or ranking of options.



Map 46: Dredge and dredge disposal locations within the Shetland Islands Marine Region

Glossary

Activity: a current or future use that is covered by a public right of use (e.g. navigation) and/or does not require a statutory consent to utilise a defined area from a competent authority to proceed (e.g. a Works Licence, Planning Permission, CAR Authorisation).

Acustic deterrents: technologies which use noise to keep animals away from a specific area.

Adaptation: the action or process of adapting.

Amenity: the physical and social features of settlements and countryside that contribute to creating a comfortable and desirable living environment.

Anthroprogenic noise: noise originating from human activity.

Appropriate Assessment (AA): The purpose of Appropriate Assessment is to ensure that protection of the integrity of European sites is a part of the planning process at a regional and local level. The requirement for Appropriate Assessment of plans or projects is outlined in Article 6(3) and (4) of the European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("Habitats Directive").

Benthic (noun: benthos): the plants and animals which live on the seabed.

Biodiversity: the variety (within and between species) of living things from all sources (terrestrial, marine, aquatic).

Biofuel: a fuel derived directly from living matter.

Biological Production: the amount and rate of production which occur in a given ecosystem over a given time period. It may apply to a single organism, a population, or entire communities and ecosystems.

Biological Records Centre: the core element of the Shetland Biological Records Centre (SBRC) is a comprehensive database containing up-to-date information about Shetland's wildlife. The information is available to everyone.

Biosecurity: procedures or measures designed to protect populations against harmful biological or biochemical substances or species (for example, invasive non-native species).

Birds of Conservation Concern (BoCC): bird species suffering decline in the European and global context. The RSPB have identified and classified these species by the rate of decline into a red list and an amber list.

Breeding area: a site used by one or more species mainly for the purpose of reproduction and birthing.

Carbon sequestration: the process in which carbon sinks remove carbon dioxide from the atmosphere.

Carbon sink: A carbon sink is a natural or artificial reservoir that absorbs and stores the atmosphere's carbon

Cetacean: marine mammal of the order *Cetacea*; a whale, dolphin or porpoise.

Character: A combination of features which distinguish an area. These each include architectural styles,

main uses, landscape type, etc. A proposal would be 'out of character' if it introduced features not in keeping with those which make up an area's existing character.

Competent Authority: Under the Habitats Regulations a 'competent authority' is defined as anybody that has the power to undertake or give any consent, permission or other authorisation for a plan or project. Competent authorities include the Shetland Islands Council, Lerwick Port Authority, SEPA, Marine Scotland and the Northern Lighthouse Board.

Conservation: action(s) resulting in the preservation of the natural environment.

Cumulative: created by successive additions (for example of impacts).

Designated Sites: these are sites that are designated for their value for nature conservation or their landscape value.

Design Statement: sets out the design principles which determine the design and layout of the development proposal.

Development: a use that requires a statutory consent to utilise a defined area from a competent authority to proceed. This can include new developments or alterations, extensions or changes in material use to existing developments that require a statutory consent.

Diadromous fish: a general category describing fish that spend portions of their life cycles partially in fresh water and partially in salt water.

Dyke: a wall built to prevent the sea from covering an area.

Ecological balance: A stable balance in the numbers of each species in an ecosystem.

Ecosystem: structure, process, functions and interaction among organisms, including humans, and their non-living environment.

Ecosystem approach: the integrated management of multiple human activities based on knowledge of ecosystem dynamics to achieve sustainable use of ecosystem resources and maintenance of ecosystem integrity. Managed within the ecological constraints on which the environment depends.

Ecosystem function / ecological processes: dynamic biological and physical processes, for example natural cycles, currents, sediment movements, nutrient cycling, community and trophic structures and migratory species movements.

Environmental Impact Assessment (EIA): a study based on expert professional opinion which gives a detailed assessment of a particular development and its impact upon the social and physical environment of the surrounding area.

Environmental Statement: A developer's assessment of the likely environmental effects of their proposed development.

European Protected Species (EPS): species listed in Annex IV of the Habitats Directive and protected under the Habitats Regulations Marine EPS include european otters, whales, dolphins and porpoises.

Fishing effort: Fishing effort limits restrict the size of the fleet that sets to sea, and the amount of time it can spend fishing. Fishing effort is calculated by multiplying the fishing capacity deployed by the period of

time for which it is active. The EU uses two ways of measuring fishing capacity, one based on the size of the boat in gross tonnes, the other on the power of its engines in kilowatts. Effort limits are then set either as GT/days or KW/days.

Gabion: a cage filled with rocks used for erosion control.

Geodiversity: the variety of earth materials, forms and processes that constitute and shape the Earth (either whole, or in part). Materials include minerals, rocks, sediments, fossils, soils and water.

Geomorphology: the study of landforms (in this case the coastline), including their origin and evolution, and the processes that shape them.

Geotourism: tourism that sustains or enhances the distinctive geographical character of a place- its environment, heritage, aesthetics, culture, and the well-being of its residents.

Good Environmental Status (GES): The environmental status or marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive.

Groyne: a low wall or sturdy barrier built out into the sea to prevent the repeated movement of the waves from removing parts of the land.

Habitat: the environment in which a species lives at any stage in its life cycle.

Heritage: denoting or relating to things of special architectural, historical or natural value that are preserved for the nation.

Historic Environment Scotland: the body responsible for safeguarding Scotland's built heritage.

Identified Waters: are designated Shellfish and Bathing Waters that are sampled and monitored by SEPA to meet specific microbiological standards.

Impact: a human disturbance which causes a change in a population's composition, abundance, or distribution. Examples of impacts include: effect of waste discharge on eelgrass and scouring of vegetation from boating activities in shallow water.

Infrastructure: pipelines, cables, wrecks, archaeological remains, shore access, barges, pontoons, shellfish growing equipment, offshore renewable energy structures, weather and radar masts, buoys and anchorage.

In-situ: in the natural, original, or appropriate position.

Intertidal: the area of coast between the mean high water level and mean low water level.

Local Biodiversity Action Plan (LBAP): a document for use by all kinds of organisations to help sustain biodiversity.

Local Development Plan: a detailed land-use planning document prepared a local authority. In Shetland this is the Shetland Islands Council.

Managed Realignment: one of several 'soft' engineering options available. In most cases it involves breaching an existing coastal defence, such as a sea wall or an embankment, and allowing the land behind to be flooded by the incoming tide. This land is then left to be colonised by saltmarsh vegetation. When established, the vegetation disperses wave energy during storm events, reduces erosion rates and provides

an important habitat for coastal flora and fauna. If the newly breached area is backed by low-lying land, a new embankment is usually constructed beforehand on the landward side of the site to reduce the risk of flooding. Although a relatively new idea, it is widely recognised that managed realignment can reduce the costs of coastal defence whilst offering numerous environmental benefits.

Marine Mammal Observers (MMOs): professionals in environmental consulting who specialise in whales and dolphins

Marine Protected Areas (MPAs): include Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Sites of Special Scientific Interest (SSSIs), Ramsar sites, Nature Conservation MPAs (NCMPAs), Demonstration and Research MPA or a Historic MPA.

Marine renewables: refers to marine renewable energy devices such as wave, wind and tidal.

Marine Stewardship Council (MSC): The Marine Stewardship Council's (MSC) fishery certification programme and seafood ecolabel recognise and reward sustainable fishing and seafood traceability. They ensure that MSC labelled seafood comes from, and can be traced back to, a sustainable fishery.

Maritime and Coastguard Agency (MCA): an executive agency working to prevent the loss of lives at sea and is responsibe for implementing British and international maritime law and safety policy.

MHWS (Mean High Water Spring): predicted high water heights of Spring Tide over a period of approximately 19 years.

Mitigation: To take measures to moderate or alleviate an impact.

Multi-trophic aquaculture: Where the by-products from one species are recycled to become inputs for another. For example, finfish aquaculture can be combined with seaweed aquaculture to create balanced systems with benefits to both species.

National Scenic Areas (NSAs): areas that are nationally important for their landscape quality. There are stricter planning controls within NSAs and planning authorities have to take care that new development does not detract from the scenic quality of the area.

Nursery area: habitats providing shelter and food to marine fauna during the vulnerable, juvenile stages of life (for example eelgrass habitats are nurseries for many species of fish).

OSPAR: Convention for the Protection of the Marine Environment of the North-East Atlantic (Oslo and Paris Commissions).

Paleo-environmental: an environment of a past geological age.

Passive Acoustic Monitoring (PAM): the use of underwater microphones (hydrophones) to detect and monitor vocalising marine mammals.

Precautionary principle: A principle adopted by the UN Conference on the Environment and Development (1992) that in order to protect the environment, a precautionary approach should be widely applied, meaning that where there are threats of serious or irreversible damage to the environment, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation. The precautionary principle permits a lower level of proof of harm to be used in policy-making whenever the consequences of waiting for higher levels of proof may be very costly and/or irreversible.

Priority Marine Feature (PMF): comprises habitats and species which are considered to be marine nature conservation priorities in Scottish waters.

Protect: to shield from harm.

Ramsar Sites: wetland areas of high ecological value. Designated under the Convention on Wetlands of International Importance.

Reef: subtidal and intertidal rocky outcrops supporting diverse assemblages of marine flora and fauna.

Saltmarsh: coastal wetland plant community dominated by herbs and low shrubs and located in the upper intertidal areas of the coast (often on the landward side). Saltmarsh areas are usually waterlogged and frequently flooded with saltwater by the tide. Saltmarsh assemblages may extend inland for several hundred kilometres and can contain other terrestrial salt tolerant plants.

Scottish Environment Protection Agency (SEPA): the public body responsible for environmental protection in Scotland. Its main aim is to provide an efficient and integrated environmental protection system for Scotland that will both improve the environment and contribute to the Scottish Ministers' goal of sustainable development.

Scottish Natural Heritage (SNH): an independent body responsible to the Scottish Government whose task it is to secure the conservation and enhancement of Scotland's natural heritage. SNH aims to help people to enjoy Scotland's natural heritage, understand it more fully and use it wisely so that it can be sustained for future generations.

Scottish Planning Policy (SPP): is the statement of the Scottish Government policy on nationally important land use and other planning matters, supported where appropriate by a locational framework.

Seabird: aerial birds (such as Gannets) and swimming birds (such as Puffins) usually seen at, and deriving most or all of their food from, the sea.

SERF: Shetland Renewable Energy Forum.

SFA: Shetland Fishermen's Association.

SFF: Scottish Fishermen's Federation.

Shetland Biological Records Centre (SBRC): Run by the Shetland Amenity Trust to gather information on Shetland's biodiversity; to develop an understanding of its importance, and to make it easily accesible to a wide range of people and organisations.

Sites of Special Scientific Interest (SSSIs): areas of special interest by reason of their flora, fauna, geological or physiographical features. Notified under the Wildlife and Countryside Act, 1981.

SME: small to medium-sized business.

Spawning area: habitats critical to the spawning stage of the reproductive cycle. Spawning areas are often geographically distinct from nursery areas; for example, Monkfish spawn in deeper waters but their larvae drift into sheltered coastal areas around Shetland.

Special Areas of Conservation (SACs): protected area identified as supporting rare, endangered and vulnerable habitats or species.

Special Protection Areas (SPAs): protected area important habitats for rare, threatened or migratory birds.

SPFA: Scottish Pelagic Fishermen's Association.

SSMO: Shetland Shellfish Management Organisation.

Strategic Environmental Assessment (SEA): the process of assessing policies, plans and programmes (rather than individual projects) for their environmental impacts.

Subtidal: benthic area from the low tide line to the seaward edge of the continental slope.

Sustainable development: this means enabling development that meets today's needs without compromising the ability of future generations to meet their own needs. In other words, it means promoting better quality of life and better quality environments for ourselves and for our children and grandchildren. Sustainable development is a key aim of Shetland Islands Council and the UK Government.

Sustainable use: the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

Transitional Waters: are bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to coastal waters but which are substantially influenced by flows (Water Framework Directive (2000/60/EC))

Use: economic, recreational, social or cultural activities in the marine and coastal environment that may not be directly associated with development, and as such, may not be subject to regulation, for example, commercial and recreational fishing.

Wastewater: usually refers to the discharge of sewage, or effluent from a process.

Appendix A- Key Legislative Requirements

Marine Scotland

Licence Type	Activity
Marine Licence	Licensable marine activity – see s.21 of the Marine (Scotland) Act 2010 and s.66 of the Marine and Coastal Access Act 2009
Pre-application Consultation Requirements	Prescribed classes of activity as listed in the Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013
Section 36	Offshore renewable energy development with a capacity greater than 1 megawatt (0-12nm), or greater than 50 megawatt (12-200nm)
European Protected Species Licence	Certain marine activities which have the potential to capture, injure or kill, or deliberately or recklessly disturb, a marine European Protected Species (EPS) e.g., whales, dolphins or porpoises
Seal Licence	For the killing or taking of seals for purposes listed in s.110 of the Marine (Scotland) Act 2010

Shetland Islands Council

Licence Type	Activity
Works Licence	All marine works within 12nm of the Shetland Coast (excluding marine fish farming and Lerwick Port Authority area)
Planning Permission	Aquaculture development (excluding seaweed cultivation and harvesting) out to 3nm
Terrestrial Planning Permission	Marine developments with a land-based element i.e. above MLWS

Lerwick Port Authority

Licence Type	Activity
Works Licence	All marine works within with Lerwick Port Authority harbour area

SEPA

Licence Type	Activity
CAR Authorisation	Discharges to water including from fish farms
CAR Authorisation	Abstraction of water

SNH

Licence Type	Activity
European Protected Species Licence (European otters only)	Certain marine activities which have the potential to capture, injure or kill, or deliberately or recklessly disturb, a marine European Protected Species (EPS)
Nationally protected species licence (birds, basking sharks)	National legislation (Wildlife and Countryside Act (as amended)) provides for the protection of animals, plants, and certain habitats in Scotland and details a large number of offences in relation to the killing, injuring and taking of wild birds, other animals and plants. For example, any activity with potential to kill, injure or take wild birds; take, damage, destroy or interfere with a bird's nest or egg; kill, injure, take or disturb a basking shark, is an offence and will require a licence

Assessment Requirements	
Environmental Impact Assessment (EIA)	**Examples of Marine Development**
Shetland Islands Council	Oil and gas pipelines, harbour and port construction, marinas, intensive fish farming, offshore renewables (Annex I &II EIA Directive)
Marine Scotland	
BEIS (reserved matters)	
Habitat Regulations Appraisal (HRA)/ Appropriate Assessment (AA)	**Examples of Marine Development**
Shetland Islands Council	Marine development likely to have a significant effect on a Natura 2000 site.
Marine Scotland	
BEIS (reserved matters)	
SEPA (CAR)	
SIRMP Policy Requirements	
Marine developments may also have to provide details on any potential impacts on habitats, species and ecology through the following:	
INNS biosecurity plan	Development or activities involving the movement of equipment, boats or live stock from one water body to another, or introducing structures suitable for the settlement of INNS
Waste/ litter minimisation strategy or plan**	Development or activities with the potential to produce waste.
Noise impact assessment or supporting information**	Development or activities with the potential to produce noise
Navigational risk assessment **	Development or activities with the potential to have an effect on navigation
Flood risk assessment**	Development below the 5m OD contour or within an area at risk of flooding or coastal erosion
Visual impact assessment or design statement**	Developments with the potential to be seen and the potential impacts on the character of the surrounding landscape/ seascape
Archaeological assessment **	Developments or activities with the potential to have an impact on any heritage asset
Social/ cultural assessment **	Developments or activities with the potential to have an impact on the local community or any cultural asset
Economic assessment**	Developments or activities with the potential to have an impact on the local economy
Emergency response plan	Developments or activities involving hazardous substances

***** For developments subject to EIA, these requirements may be included in the Environmental Statement (ES)***

Disclaimer: This Appendix is intended for guidance purposes only and is not a legal interpretation of the Zetland County Council Act 1974; the Town and Country Planning (Scotland) Act 1997; or Marine Scotland Act, 2010. The onus remains with the applicant to ensure that any application for marine works/ development is in full accordance with the Shetland Islands Council's Local Development Plan, Scotland's National Marine Plan and all relevant legislative provisions. Please also refer to the Shetland Islands Council's works licence application guidance notes and planning permission guidance notes for the submission of a marine-related development application and Marine Scotland's marine licence general guidance for applicants. Please note it is strongly advised that developers consult with the appropriate consenting authorities as early as possible in the process to identify key stakeholders (including other marine users) and their relevant responsibilities.

Appendix B - Consultees

Key Consultees for licence applications

Shetland Islands Council in relation to planning permission and works licence within their area of jurisdiction. Internal consultees include Environmental Health, Flood and Coastal Protection and Ports and Harbour Operations

Shetland Islands Council, Development Services, 8 North Ness, Lerwick, ZE1 0LZ. (01595 744293) / Harbour Master & Port Operations; Port Administration Building, Sella Ness, Sullom Voe, Shetland, ZE2 9QR (01806 244200)

Marine Scotland consenting authority for marine licences. Also responsible for EPS licences and seal licences; site registration and navigational consent and discharge of sea lice treatments from well boats; authority for both marine licence and energy consent under Electricity Act, 1989; administer marine licence on behalf of Scottish Government for capital dredging and disposal of dredged material outside of SHA area; and acts as monitoring/ enforcement agency for the monitoring of tonnage removal/ deposit and compliance with licence conditions

Licensing Operations Team, 375 Victoria Road, Aberdeen AB11 9DB (0300 244 5046)

Marine Scotland Science (MSS) is the scientific division of Marine Scotland. MSS plays an integral part in supporting the Scottish Government's vision of marine and coastal environments that are clean, healthy, safe, productive, biologically diverse and are managed to meet the long-term needs of both nature and people. The purpose of science within Marine Scotland is to:

- provide expert scientific, economic and technical advice and services on issues relating to marine and freshwater fisheries, aquaculture, marine renewable energy, and the aquatic environment and its flora and fauna
- provide the evidence to support the policies and regulatory activities of the Scottish Government through a programme of monitoring and research
- perform regulatory and enforcement activities
- represent the Scottish Government at national and international meetings

MSS respond to SIC led aquaculture consultations on behalf of Scottish Ministers

Lerwick Port Authority for a works licence within the Lerwick Harbour limits

Albert Building, Lerwick, Shetland, ZE1 0LL (01595 692991)

Scottish Environment Protection Agency (SEPA) Scotland's environmental regulator and provides advice on flood risk

Esplanade, Lerwick, Shetland, ZE1 0LL (01595 696926)

Scottish Natural Heritage (SNH) statutory adviser on natural heritage and responsible authority for wildlife licensing

Stewart Building, Alexandra Wharf, Lerwick, Shetland, ZE1 0LL (01463 667600)

Crown Estate Scotland for seabed lease agreements

6 Bell's Brae, Edinburgh, EH4 3BJ (01312 606070)

Historic Environment Scotland statutory consultee for historic environment

Longmore House, Salisbury Place, Edinburgh, EH9 1SH (01316 688600)

Northern Lighthouse Board navigational safety

84 George Street, Edinburgh, EH2 3DA (01314 733100)

Community Council within which the application lies represents community interests
The Association of Community Councils, Lerwick, Shetland, ZE1 0JP (01595 743906)

Shetland Fishermen's Association (SFA) represents fishermen in Shetland
Stewart Building, Lerwick, Shetland, ZE1 0LL (01595 693197)

Shetland Shellfish Management Organisation (SSMO) manages Shetland's shellfish fisheries
Stewart Building, Lerwick, Shetland, ZE1 0LL (01595 693644)

RSPB Scotland protection of wild birds and their environment, and RSPB reserves
Sumburgh Head Nature Reserve, East House, Sumburgh Head Lighthouse, Shetland, ZE3 9JN (01950 460800)

Shetland Amenity Trust maintains heritage assets records (SMR) and biological records from around Shetland
Regional Archaeologist/ Shetland Biological Records Centre, Garthspool, Lerwick, Shetland, ZE1 0NY (01595 694688)

Additional Consultees and Contacts

Department for Business, Energy and Industrial Strategy (BEIS) responsible for licensing of reserved matters on behalf of the Secretary of State i.e. oil and gas exploration and decommissioning
AB1 Building, Crimon Place, Aberdeen, AB10 1BJ

Fair Isle Marine Environment and Tourism Initiative sub-committee of the Fair Isle Community Association caring for and safeguarding Fair Isle's heritage
Fair Isle, Shetland, ZE2 9JU (01595 760250)

Maritime and Coastguard Agency (MCA) maritime safety and emergency response
Also have powers to prosecute for a pollution incident from shipping (out to 200 miles)

Ministry of Defence (MOD) enforces the Protection of Military Remains Act, 1986

NAFC Marine Centre UHI manages the Shetland Islands Regional Marine Plan and undertakes marine research, commercial services, education and training
Marine Spatial Planning Team, NAFC Marine Centre UHI, Port Arthur, Scalloway, Shetland, ZE1 OUN (01595 772000)

Scottish Fishermen's Federation (SFF) national organisation promoting the collective interests of Scotland's fishermen's associations
24 Rubislaw Terrace, Aberdeen, AB10 1X (01224 646944)

Scottish Salmon Producers Association (SSPO) represents Shetland's finfish aquaculture industry
Shetland Office, Stewart Building, Lerwick, Shetland ZE1 0LL (01595 695579)

Seafood Shetland incorporating Shetland Fish Processors and Shellfish Growers
Stewart Building, Lerwick, Shetland, ZE1 0LL (01595 693644)

Shetland Tourism Association trade association for the tourism industry in Shetland
C/o VisitShetland, Market Cross, Lerwick, Shetland, ZE1 0LU

Appendix C- Advisory Group Membership

Shetland Islands Marine Planning Partnership Advisory Group Members

Shetland Islands Marine Planning Partnership

Chair

Shetland Islands Council Coastal Zone Manager

Vice Chair

NAFC Marine Centre UHI - Marine Spatial Planning Manager

Membership

Environment

Scottish Environment Protection Agency (SEPA)
Scottish Natural Heritage (SNH)
Shetland Amenity Trust
Royal Society for the Protection of Birds, Scotland (RSPB Scotland)

Commercial

Shetland Fishermen's Association (SFA)
Shetland Shellfish Management Organisation (SSMO)
Scottish Salmon Producers Organisation (SSPO)
Seafood Shetland
Shetland Islands Council, Harbour Master & Port Operations
EnQuest (formerly BP)

Community

Shetland Islands Council Development Planning
Association of Shetland Community Councils
Community Planning

Recreation

Visit Scotland

Interest Groups

Shetland River Basin Management Planning Advisory Group
Shetland Oil Terminal Environmental Advisory Group (SOTEAG)
Shetland Islands Council Heritage Officer
Lerwick Port Authority (LPA)
Marine Scotland Compliance
Fair Isle Marine Environment and Tourism Initiative (FIMETI)
Shetland Islands Council Outdoor Access Officer