

# Scottish Sustainable Marine Environment Initiative



## Sound of Mull Marine Spatial Plan

August 2010

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## **Foreword**

As chairman of the Sound of Mull Working Group, it is my pleasure to present the final Sound of Mull Marine Spatial Plan for this area of great natural beauty and historic significance. For the first time a stakeholder partnership of local regulators, developers, and users of the area, has produced a comprehensive view of what we believe will assist in decision making for the future of the Sound of Mull.

The Sound is a busy waterway utilised by vital ferry services, both locally and to the western isles, and a range of commercial shipping. Additionally for the communities in the area the wellbeing of the Sound provides crucial economic benefits through local inshore fisheries, aquaculture activities, tourism and a wide range of recreational activities that take place in the area. The Sound of Mull Marine Spatial Plan provides a comprehensive picture of these aspects of marine and coastal resource use that are so important to the local communities, and aims to ensure the sustainable usage of the area without compromising the natural environment.

This pilot project is one of a number around Scotland, set up under the Scottish Government's Scottish Sustainable Marine Environment Initiative (SSMEI). Results from these pilots will help inform the future development of Strategic Marine Regions, the localised statutory planning system under the Marine (Scotland) Act. Therefore the experiences from the production of this final plan, based on voluntary organisation, regulators and public consultation will greatly benefit the future of this diverse marine area and the communities that it supports.

Over three years have elapsed since this project began, and my thanks go to all the members of the Working Group and project team who have contributed their time and effort into producing this document.



A handwritten signature in blue ink that reads "John Wilson M.B.E." The signature is written in a cursive style.

**John Wilson, MBE**

Chairman, Sound of Mull Working Group

## **Summary**

The Sound of Mull Marine Spatial Plan provides an authoritative guide for regulators, developers and recreational users, on current marine and coastal activities and interests present in the Sound of Mull. It outlines a policy framework, a range of identified spatial opportunities, and localised area priorities. These aim to guide sustainable use and development of the area whilst safeguarding important natural, historical and cultural areas. The Plan has been developed through the collation and analysis of a wide range of information, and via consultation with the key stakeholders and regulators with interests in the area.

The Plan aims to complement and support the local authority development plans for the adjacent terrestrial areas, as well as the operational plans and policies of other organisations such as the SEPA led River Basin Management Plan. By doing so it seeks to integrate current understanding of marine management, as well as promoting the economic and community benefits of a healthy and productive marine and coastal environment.

By outlining a framework of policies that promote integrated management of the marine and coastal environment, the Plan forms a component of the Scottish Government's commitment to achieve 'sustainability in the marine environment', outlined in "Seas the Opportunity" (Scottish Government, 2005). Additionally, as one of the four pilot projects conducted under the Scottish Sustainable Marine Environment Initiative (SSMEI), the Sound of Mull Marine Spatial Plan will also be used to inform the current debate on future marine policy and management framework options.

The Sound of Mull Marine Spatial Plan is an advisory document and therefore not absolutely prescriptive about what can occur in the Sound of Mull. However, it has systematically identified opportunities and priorities in the area, and developed policy guidelines through a broad-based forum of local stakeholders. The information in the Plan should therefore help both developers and regulators to make integrated and better informed decisions for the benefit of all users in the Sound of Mull.

# **1 Setting the Scene – Background and Context of the Sound of Mull Project**

## **1.1 Why Marine Spatial Planning?**

Marine spatial planning is a process which normally involves consultation with multiple users of the marine area concerned. By analysing both spatial and temporal information collected through consultation, a more holistic, integrated strategy can be developed to allocate marine space. This ensures that demands for economic development do not compromise ecological and social objectives, providing a sustainable outcome that maximises the benefits available from a healthy and productive marine environment.

Recognition of the need for marine spatial planning has grown as a result of policy decisions made at global, European and national levels. It is now seen as a key tool for clarifying management goals, pre-empting conflicts of interest, and enabling sustainable use of marine resources.

## **1.2 Context for Marine Spatial Planning**

### **1.2.1 International**

Marine environmental policy is an important and developing aspect of the current U.K. and Scottish environmental agenda, and marine spatial planning will be heavily involved in delivering the objectives required from a variety of strategies. At a global level, the Convention on Biological Diversity and agreements made at the World Summit on Sustainable Development (Johannesburg, 2002) require management measures to ensure sustainable ecosystems and social values. Important EU commitments include the OSPAR Convention's Biodiversity Strategy (1992), the EC biodiversity strategy (1998), the EU Natura 2000 network and the Marine Strategy Framework Directive (MSFD, 2008). The MSFD aims are to achieve good environmental status of EU marine waters by 2020, and to protect marine resources so that current marine-related economic and social activities can continue sustainably. The MSFD was transposed into domestic law on the 15<sup>th</sup> of July 2010.

### **1.2.2 National**

The first Marine (Scotland) Act received royal assent on the 10<sup>th</sup> of March, 2010, and it provides a statutory requirement for marine planning in Scottish waters. From this legislation it is proposed that there will be a National Marine Plan for Scotland, which will set out the policies and priorities for the sustainable use, development, management and protection of Scotland's marine and coastal resources. The National Marine Plan will be the first dedicated strategic mechanism for planning and managing Scotland's marine environment. At the time of writing, existing planning for the marine area is restricted to non-statutory guidance or arrangements for certain types of activity. An example of this is the Scotland River Basin Management Plan (SEPA, 2009), prepared by the Scottish Environment Protection Agency (SEPA) under the terms of the EC's Water Framework Directive (2000). Covering transitional (estuarine) and coastal water bodies, as well as internal river basins, the development process requires an integrated assessment of pressure and impacts on water bodies.

### **1.2.3 Regional/ Local**

The Marine (Scotland) Act has also proposed a regional level of planning, and Marine Scotland aims to develop Strategic Marine Regions (SMR's) for this purpose. The number and scale of SMR's are yet to be decided. Additionally, as Marine Scotland develops SMR's there will be necessary consideration and adjustments to the level of planning required within each region, as SMR's are likely to include some localised high-activity areas which may require more detailed planning. Regional planning is also being undertaken by SEPA under the EC's Water Framework Directive (2000), through supplementary river basin plans. The Argyll and Lochaber Area Management Plan covers the Sound of Mull area, and was published in July 2010. Integrated coastal plans have already been prepared at a local level for other parts of Highland and Argyll & Bute under the leadership of the respective local authorities (e.g. the Two Brooms area in Wester Ross and Loch Fyne in Argyll). However, the plan for the Sound of Mull is one of the first cross-border projects of this type.

### **1.2.4 Context for the Sound of Mull Marine Spatial Plan**

The Sound of Mull Marine Spatial Plan (SoMMSP) has been developed under the Scottish Sustainable Marine Environment Initiative (SSMEI). The SSMEI consists of four pilot projects (Berwickshire, Firth of Clyde, Shetland and Sound of Mull) initiated by the Scottish Government, to test new management framework options and to inform future marine policy. This national approach has ensured that parallel work such as the United Kingdom and Scotland Marine Acts have been fully taken into account.

The SoMMSP provides an example of how a local-level plan could be set out. Because of the small geographic area the plan covers, it is unlikely to be used in a regional context, such as being an SMR in its own right. However the process of plan development and the methodology used could be readily applied to an SMR, and lessons learned from the development of this project have been used to inform the Marine (Scotland) Act legislation.

## **1.3 Process of Developing the SoMMSP**

### **1.3.1 Sound of Mull Working and Liaison Groups**

The Sound of Mull SSMEI has employed a succession of project officers to co-ordinate the development of the SoMMSP. To provide local steer and a decision making process for the Plan, the Sound of Mull Working Group was established. An agreed set of criteria selected a wide range of stakeholders and regulators that have local interest in the marine and coastal environment of the Sound of Mull (see section 8 for organisations represented on the Working Group). A chair for the group was subsequently nominated and elected by the Working Group.

To enable the wider community to feed into the SoMMSP development, a comprehensive network of contacts was established and maintained, through publicity, meetings and mailing lists. The Sound of Mull Liaison Group provides feedback and information through a representative on the Working Group, at community meetings and/or by contacting the project officer directly.



### **1.3.2 Constructing the SoMMSP**

Structure and content of the SoMMSP were developed by the project officer and agreed in conjunction with the Sound of Mull Working Group, through input from the Sound of Mull Liaison Group, and at stages from public consultation events. An extensive process of engaging with a broad range of stakeholders to document and collect relevant information was undertaken. Sub-groups were formed for each of the main sectors to assess the extent of the various interests in the Sound of Mull, their pattern of use of the area, and their potential for sustainable development. Baseline knowledge of the area was significantly improved by the project commissioning a landscape/seascape capacity study for Aquaculture and Coastal Infrastructure development (Grant, 2008), and a report profiling the socio-economic characteristics of the Sound of Mull and surrounding areas (Magill *et al.* 2009). Assistance was also provided to a range of small projects, which improved knowledge of species and habitats in the area.

SoMMSP development embraced the Ecosystem Approach, defined by “Sustainable Seas for All” (Scottish Government 2005) as “integrating and managing the range of demands place on the natural environment in such a way that it can indefinitely support essential services and provide benefits for all”. The application of Strategic Environmental Assessment (SEA) to assess the potential environmental performance of the SoMMSP, and the recognition of environment as a major theme throughout SoMMSP content, are examples of how the ecosystem approach has been incorporated.

### **1.3.3 Integration with other Plans and Policies**

The SoMMSP provides a document which informs developers, users, and regulatory authorities on current marine and coastal activities in the Sound of Mull, and presents information to allow a clearer decision-making pathway for authorities which have responsibility for marine and coastal planning. As a voluntary plan, its guidance and recommendations are advisory only, because for most purposes, planning controls only extend to the low water mark of ordinary spring tides. However, for most types of aquaculture installation, statutory planning control extends out to three nautical miles. It is therefore hoped that the contents of the SoMMSP will be adopted as supplementary planning guidance by the local authorities on both sides of the Sound of Mull. To help realise this aim, the SoMMSP has taken into account many of the relevant policies and plans which relate to the terrestrial areas adjacent (see Appendix 16).

## **2 Introduction to the Sound of Mull**

### **2.1 Location of the Sound of Mull**

The Sound of Mull lies between the north-east shore of the Isle of Mull and the Morvern peninsula on mainland Scotland. For the purposes of this Plan, the project area limits the Sound of Mull with northern and southern boundaries. The southern boundary is defined as a line running between Duart Point on Mull, and Rubha an Ridire on Morvern, and the northern boundary is defined as a line between Auliston Point on Morvern and Ardmore Point on Mull. The Plan covers all marine areas up to mean high water springs within the project boundary displayed on Map 1.

### **2.2 Physical Setting**

#### **2.2.1 Landscape/ Seascape**

The landscape surrounding the Sound of Mull has a generally mountainous backdrop, with more developed activities taking place on the lower-level slopes. However, particularly on the Morvern side, semi-native woodlands extend down to the shore in various locations. The area is a largely rural region with land use dominated by low-intensity agriculture and forestry, and settlement areas are generally confined to the coastal fringes in discrete locations. The coastline of the Sound of Mull is diverse, comprising small bays, promontories, tidal flats, and some dramatic tall sea cliffs at its south-western end.

The marine environment is relatively sheltered and acts as a major through-route from the inner stretches of North Argyll and the Lynn of Lorne out to the Outer Hebrides and the Atlantic. The seascape is also diverse, a profusion of small bays and inlets are present around the coast, and narrow channelled sections of the Sound open out into broad stretches of water mid-Sound around Salen, and at both the northern and southern borders of the study area.

Detailed information on landscape/seascape can be found in the Sub-area sections of the Plan and in the landscape/seascape capacity study for aquaculture and coastal infrastructure which was commissioned by the project (Grant, 2008).

#### **2.2.2 Hydrography**

As the Sound of Mull is an important through route for shipping, the hydrographic information available for the area is quite detailed. The bathymetry shows a deep, mainly central channel, ranging between 40-140 m. The slope of the seabed from the shoreline to this central channel is highly variable. In some areas (e.g. on the east side of Calve Island) there are steep underwater cliffs where the depth drops dramatically, whilst in other areas tidal flats and bays have far gentler gradients. The whole area is a reasonably sheltered body of water. The UK Hydrographic Office (UKHO) charts only list significant tidal flows where the Sound of Mull opens into Loch Linnhe and the Lynn of Lorne, and through the mouth of Loch Aline. There are a range of navigational aids present in the Sound of Mull including lights, a buoyed shipping route and navigation markers. Map 1 displays bathymetry in the Sound of Mull, whilst navigational markers are displayed in Map CMI1 and in the Sub-area maps.



Map 1: Project Area and Bathymetry in the Sound of Mull

### **2.2.3 Natural & Historic Environment**

The Sound of Mull is an attractive location due to the diversity and quality of the natural environment, and a number of habitats and species present in the area are recognized under international and national conservation agreements. Ancient oak woodlands, fish populations in the rivers and eelgrass beds are some examples of important habitats, and iconic species such as Otter, White-tailed Sea Eagle, Harbour Porpoise and Basking Shark provide the basis for considerable wildlife watching, diving and other recreation and tourism activities which are present. The cultural heritage of the region is no less impressive, a wealth of sites, monuments, buildings and wrecks of historic significance provide a major draw for visitors. The Natural and Historic Environment section of the Plan (section 5.6) contains full details of listed sites, species and habitats in the area.

### **2.3 Population and Economy**

A socio-economic study of the Sound of Mull (Magill *et al.* 2009) was commissioned as part of the SoMMSP, and the following summary information was extracted from this report.

The resident population of the Sound of Mull was approximately 2172 according to 2001 census figures. The population density of 3 persons/sq. km is considerably lower than the national average of 65 persons/sq. km, and the population age structure is comparable to the national average, with a slightly higher percentage in the 45-59 age group. Between 1981 and 2001, overall population increased in the study area by 21%, although this increase was limited to the Mull side (30%) as opposed to the Morvern population, which experienced a 3% decrease. The proportion of residents born outside of the local area (31%) is significantly higher than the national average (13%), which may be due to work or quality of life factors. Additionally 13.4% of dwellings around the Sound of Mull are second homes, far in excess of the national average (1%).

The economy of the Sound of Mull relies on a number of key sectors, and many of the influences on the local economy originate from outside the direct locality. Employment figures taken from 2006 show that public services are the largest employer (17% of workforce). Hotels and Restaurants account for 14%, the retail industry 11%, manufacturing 7%, agriculture/forestry 7%, and fisheries/aquaculture 6% making these sectors also significant employers. Tourism, both marine and land-based, is considered to be an important economic contributor to the area. Although direct employment figures for this sector were not readily available, high levels of visitor numbers are recorded seasonally at sites around the Sound of Mull. Overall employment figures for the area also show a higher level of unemployment during winter months, demonstrating the seasonality of tourism-related employment.

### **2.4 Water Quality**

The quality of water environment in the Sound of Mull is highly important, as much of the water resource use in the area depends on a pristine water supply. Pressures on the water environment include point-source pollution from sewage outfalls or aquaculture discharges, diffuse pollution arising from the run-off from agricultural land or oil leaks from coastal water transport, and physical pollution from marine litter.

Water quality is determined under the legislative framework of the Water Environment and Water Service Act (WEWS, 2003). Under this act, a Scotland River Basin Management Plan was published in December 2009 (SEPA, 2009), and the Argyll and Lochaber Area Plan, which includes the Sound of Mull, was completed in July 2010 (SEPA, 2010a). WEWS also has a register of protected areas which have been established. Of these, the Sound of Mull contains one designated shellfish growing water at Tobermory (Shellfish Growing Waters, Directive 79/923/EEC), and both drinking water protected areas & rivers (see Scotland Area River Basin Management Plan) at Tobermory, Scallastle, Bunavullin and Loch Aline (Scottish Government 2010a).

Although there is no formal water quality sector described in the SoMMSP, the Plan has incorporated water quality into policy and into the constraints and interactions tables which are presented for each sector. Spatial information on discharges, such as pipelines and outfall sites, is mapped for each Sub-area and is incorporated in the section dealing with the Marine & Coastal Infrastructure sector.

## **2.5 Future Effects of Climate Change**

The current and future impacts of climate change have the potential to cause significant changes in the environmental conditions present in the Sound of Mull. Although these impacts are poorly understood, there is strong evidence that in the short term, climate change can directly affect weather patterns increasing the frequency of storm and flooding events, and in the longer term, possible outcomes include sea level rises and temperature increases. In 2009, the Department for Environment, Food and Rural Affairs (DEFRA) launched the latest projections for the U.K. climate. Sea level rises were estimated at 13-76 cm by 2095 (DEFRA, 2009).

Potential implications for the Sound of Mull of increased sea levels and temperatures include higher occurrences of storm events and coastal flooding, increases in coastal erosion rates and wave heights, and localized sea level rises. How these outcomes will actually impact the waters and coastal fringes of the Sound of Mull cannot be accurately predicted however coastal habitats, homes, infrastructure and businesses may be at risk. The SoMMSP acknowledges that potential climate change effects need to be accounted for when developments are considered (see Policy SOM G1). Coastal areas that at risk from flooding in the Sound of Mull can be displayed through SEPA's online flood maps (SEPA, 2010b)

### **3 Guide to Using the Marine Spatial Plan**

#### **3.1 Vision, Aim and Objectives of the Sound of Mull Marine Spatial Plan**

##### **3.1.1 Vision**

The Sound of Mull will be a healthy and productive marine and coastal environment which will support and maintain a rich variety of habitats and species, a diverse and sustainable economy and benefit the communities surrounding it.

##### **3.1.2 Aim**

Develop and deliver more integrated and sustainable management of the Sound of Mull through the preparation and implementation of a marine spatial plan which is sensitive to local needs, provides clear guidance, and is effective, adaptable and transparent.

##### **3.1.3 Objectives**

- i. Provide guidance and recommendations for current and future planning, regulation and management of marine and coastal activities.
- ii. Identify, safeguard and promote areas important for natural and cultural heritage.
- iii. Encourage a diverse, balanced mix of sectors to operate and develop sustainably with consideration for other interests and environmental capacity.
- iv. Enable a better understanding of the socio-economics of the area and incorporate this into management and planning.
- v. Provide an example which can contribute to the development of best practice for ICZM and marine spatial planning nationally.

## **3.2 Outline structure of the Sound of Mull Marine Spatial Plan**

The previous sections of this document provide the background to SoMMSP and the Sound of Mull Area. The three main sections following this guide deal with general policies, the main sectoral interests present in the area, and area specifics (characteristics, opportunities, and priorities in the main area subdivisions). Together, these are designed to inform and guide developments and activities. The subsequent section, on Monitoring, Review and Recommendations, outlines how the Plan's effectiveness will be reviewed to further improve its usability. It also contains a list of recommendations, which if implemented, should further improve the sustainable use and management of the Sound of Mull.

### **General Policies**

Two all-embracing general policies have been developed to provide a policy backbone to the SoMMSP. Policy SOM G1 (Community) encourages activities and developments in the Sound of Mull area to account for the needs and aspirations of the local communities. Policy SOM G2 (Development and Activity) provides a comprehensive list of 'Local Features of Importance' which need to be safeguarded. These must be given due consideration by all interests within the Sound of Mull to ensure the use of the area is sustainable.

### **Sectors**

There are seven main sectors or interests which have been identified as relevant to the management of the Sound of Mull project area: Inshore Fishing; Aquaculture; Recreation and Tourism; Shipping and Transport; Coastal and Marine Infrastructure; Natural and Historic Environment; and Marine and Offshore Renewable Energy. Each of these sectors has their own chapter in the SoMMSP, and an accompanying technical appendix. These include (where appropriate):

- A description of current activities and associated socio-economic information.
- Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis.
- A map showing the geographic extent of the sector's interests/activities and the location of key opportunities.
- Area-wide policies for development and activity and voluntary/statutory management.
- A summary of opportunities for development and activity.
- "Hard" and "soft" constraints
- Positive and potential negative Interactions with other sectors/interests.

### **Sub-areas**

To deliver location-specific guidance, the Sound of Mull was divided into six geographic sub-areas. Two of these are large areas – the North and the South – which result from a division of the Sound either side of a line between Salen on the Mull side and Beinn Dubh on the Morvern side. The Ardtornish Bay/ Inninmore Bay area was identified as a third sub-area (see map 3.1) as it has a distinctive blend of landscape characteristics and

recreational interests. Three smaller areas were also identified on account of the relatively high levels of activity within them - Loch Aline, Tobermory and Craignure.

The division of the Sound of Mull into Sub-areas was driven by two main factors:

- To allow easier consideration of spatial constraints, interactions and opportunities within a more manageable area. This helps to avoid cumulative effects of multiple opportunities identified by the SoMMSP on other interests, and to examine the spatial constraints present for a sector's development/activity within a certain area to assist in future planning.
- To allow an improved description and spatial presentation of existing activities, interests, opportunities and constraints for all sectors.

For each Sub-area the following information is provided:

- maps: displaying current uses and interests, designations, seabed and intertidal habitats and the locations of specific opportunities within the Sub-area;
- summary descriptions of landscape/seascape character and existing activities;
- a summary of priorities for the sub-area and policy guidance to steer developments and activities
- opportunities for development and activity for each of the sectors.
- an overview of hard and soft constraints for development and activity for each sector provided as a quick reference table.
- listings of local authority development plan designations present, and local contacts/consultees for development and activity liaison

Accompanying each Sub-area is a technical appendix which contains more detailed information on landscape/seascape activities that are present.

### **3.3 Links within the SoMMSP: General Policies, Sectors and Sub-areas**

A diagram showing how the General Policies, Sectors and Sub-areas are linked is outlined in Figure 3.1.



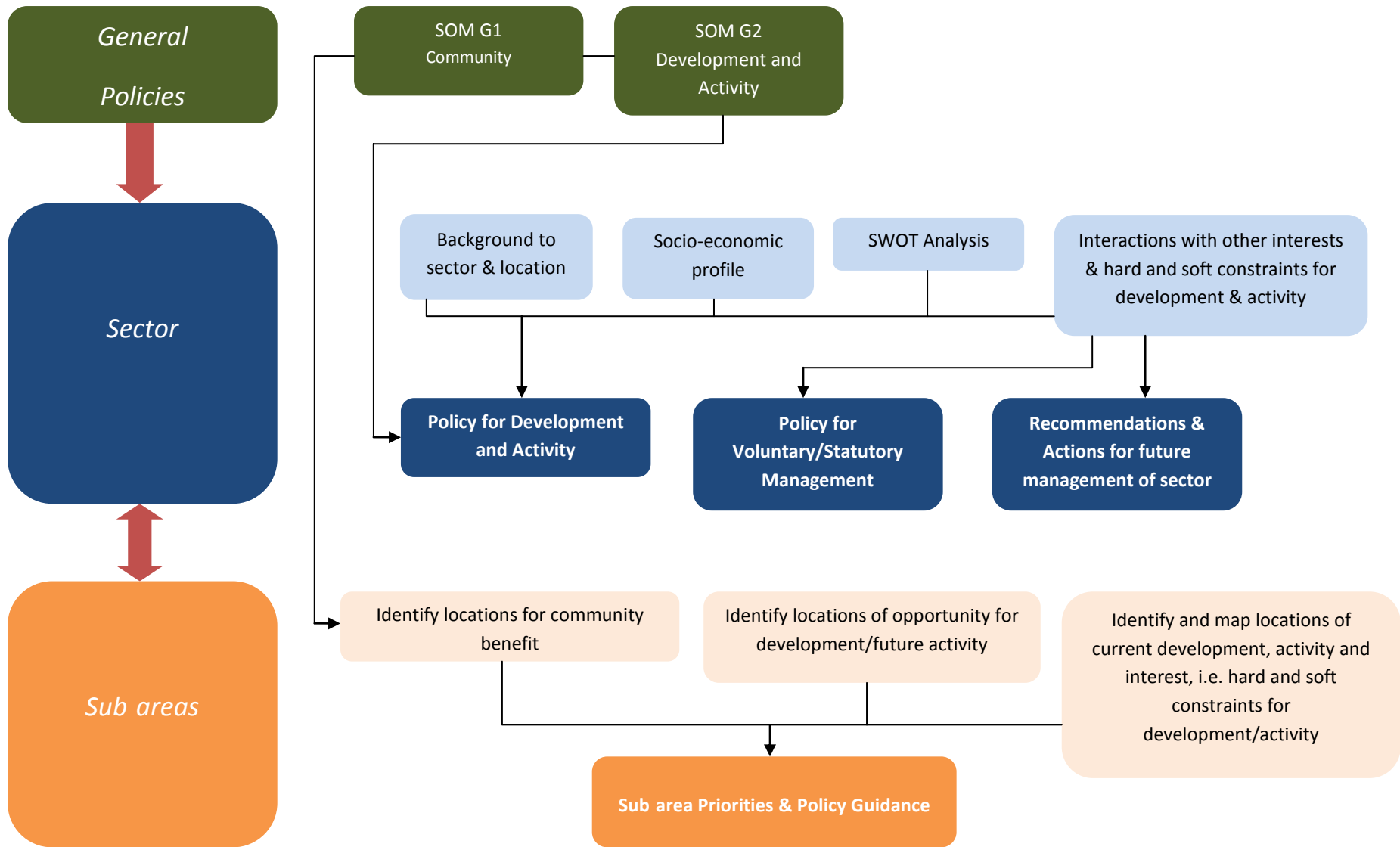
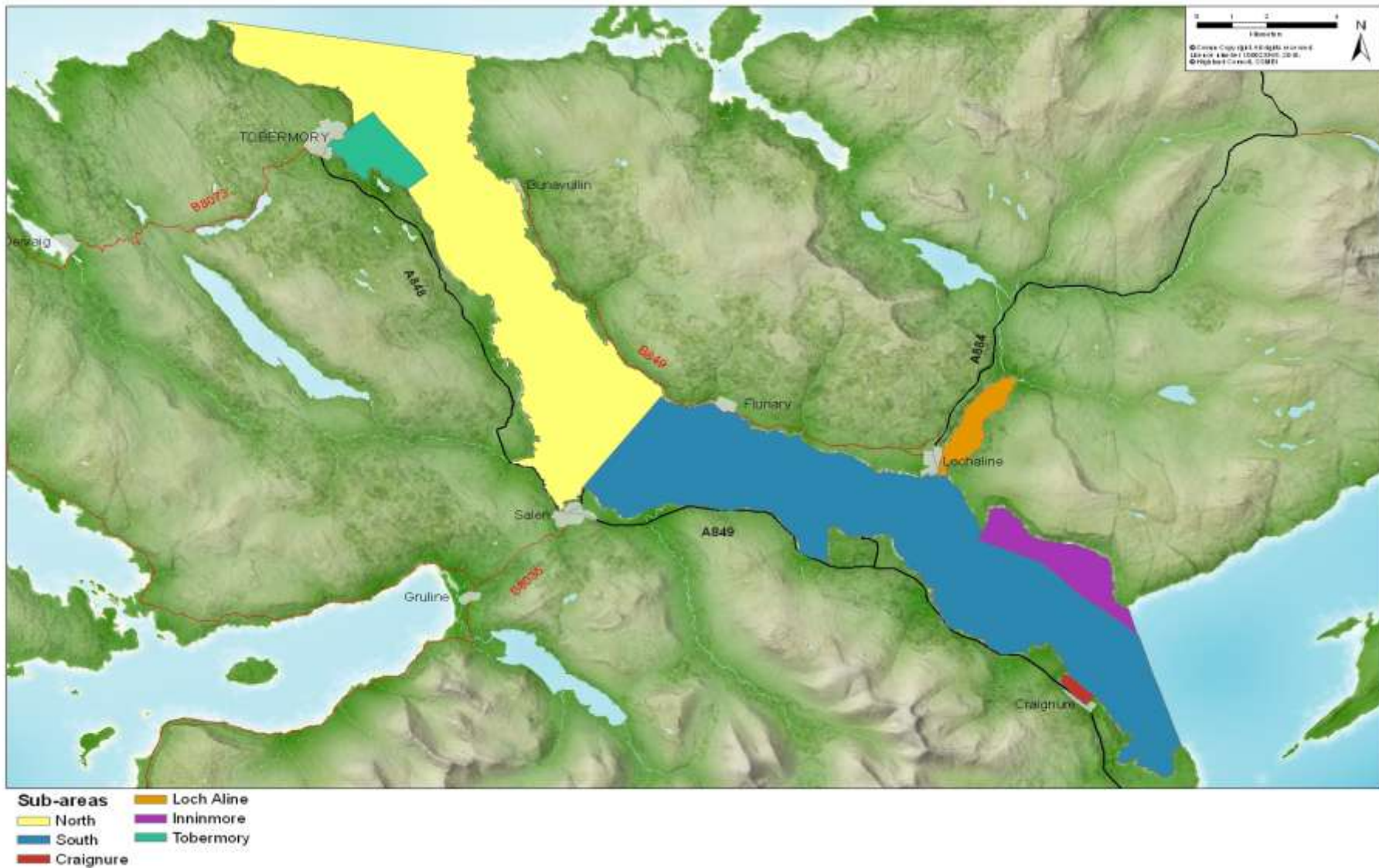


Figure 3.1 Links between General Policies, Sectors and Sub-areas.



Map 3.1 Spatial Planning Sub-areas for the SoMMSP.

### 3.4 How can I use the Sound of Mull Marine Spatial Plan?

The SoMMSP provides guidance to assist in making decisions regarding developments and activities within the marine and coastal environment of the Sound of Mull. It encompasses all sectors of activity and is therefore intended for use by all stakeholders with an interest in the area.

The flow chart in Figure 3.2 outlines how the SoMMSP can be used as guidance for developments and activities by developers or users. The flow chart in Figure 3.3 outlines how the SoMMSP can be used as guidance for local planning officers or regulators dealing with applications.

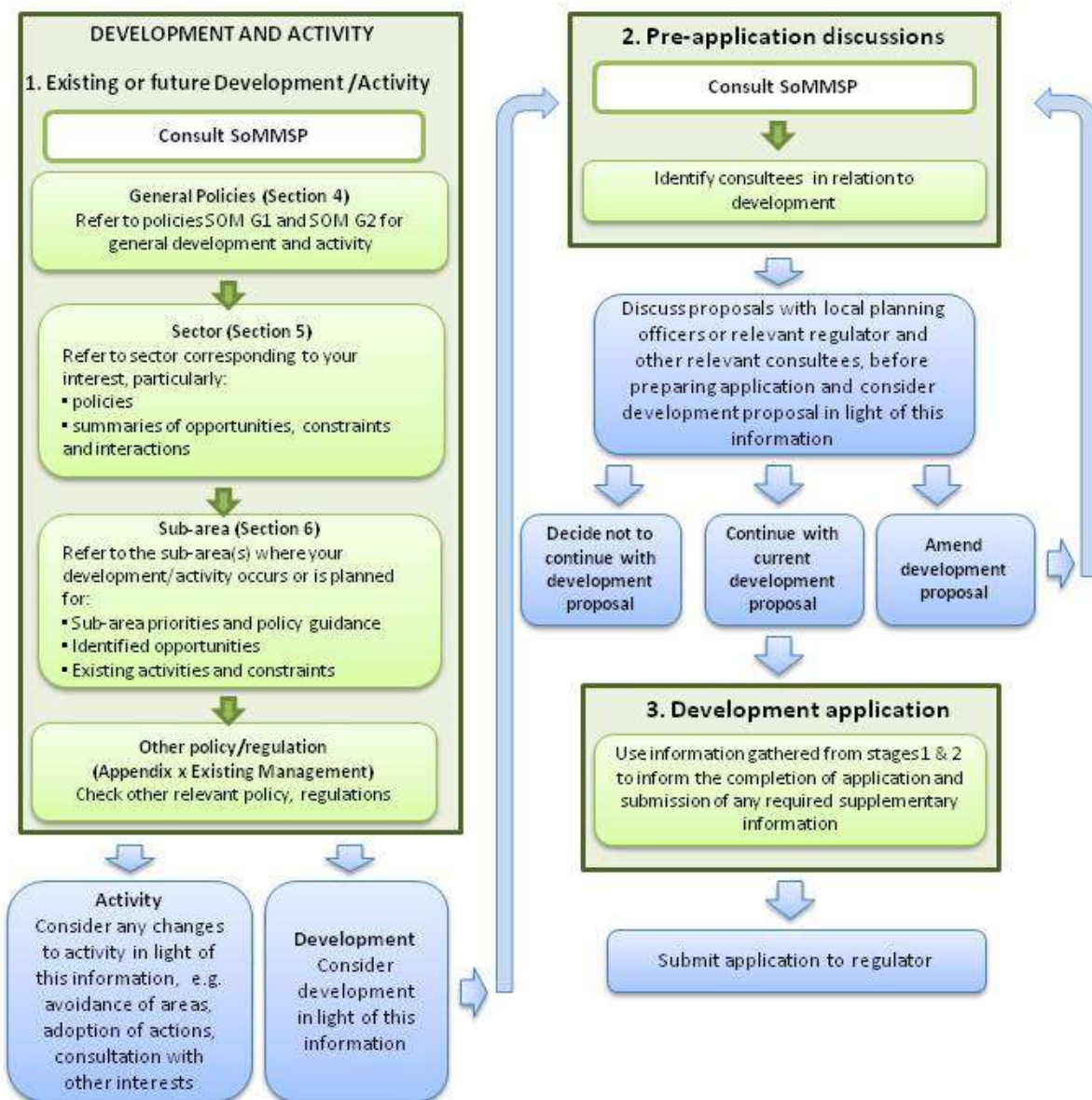


Figure 3.2 Flow chart outlining how to use the SoMMSP for Development or Activity for a developer or marine user. Note stage 1 applies to both development and activity where as stages 2 and 3 only apply to development. Green boxes indicate where the SoMMSP can be used for guidance and blue boxes where consideration is required by the developer/user.

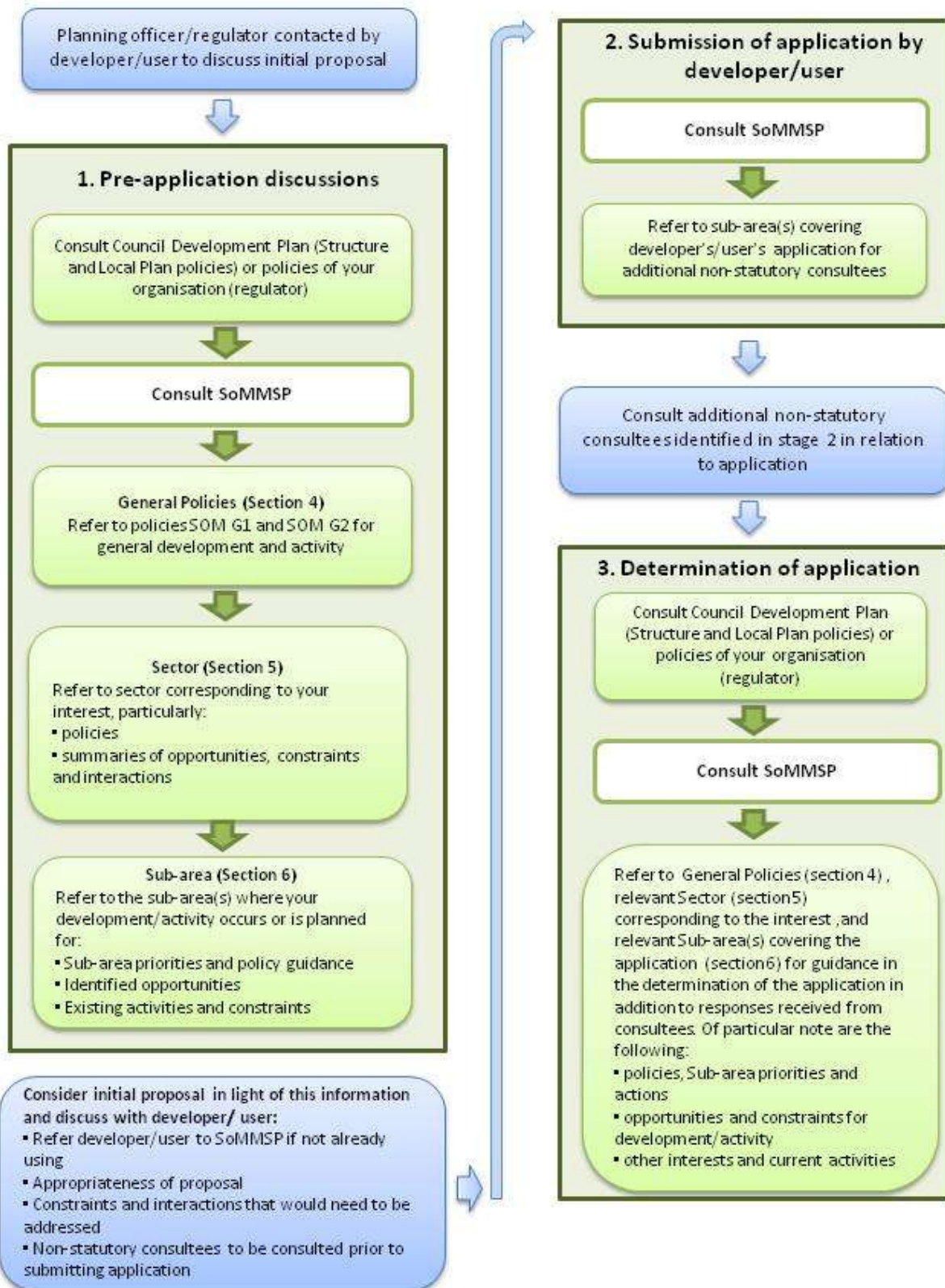


Figure 3.3 Flow chart outlining how to use SoMMSP for Development or Activity for a planner or regulator. Green boxes indicate where the SoMMSP can be used for guidance and blue boxes where consideration is required by the developer/user.

## **4 General Policies**

Two general policies have been developed to provide an over-arching policy framework for the SoMMSP, and they apply to all sectoral developments and activities. The policies encourage appropriate development and the involvement of local communities in the planning process. They also aim to safeguard features of interest which have been recognised as important to the area.

### **SOM G1 COMMUNITY**

#### **PART A COMMUNITY CONSULTATION**

Developers and competent authorities should seek to involve communities during the planning process, to make better informed decisions based on community input.

#### **PART B COMMUNITY DEVELOPMENT**

Developments, activities and facilities which meet the following criteria are encouraged:

- highlight the natural and cultural assets of the area and the communities which make it distinct;
- assist in achieving sustainable development aspirations for the area and its communities;
- promote a culture of enterprise and provide conditions for sustainable business growth.

#### **Justification**

The SoMMSP was developed in conjunction with two stakeholder groups (the Sound of Mull Working Group and Liaison Network) and through sectoral sub-group workshops, to meet local requirements. Many of the commercial activities around the Sound of Mull are marine or coastal related and can play an important role in the sustainable development of the area. The aim of this policy is to assist these activities within the Sound of Mull, to achieve their full potential through sustainable growth in line with the needs and aspirations of local communities.

#### **Complies with Relevant Policies/Plans/Strategies**

Argyll and Bute Development Plan Policies – Appendix 16

Highland Council Development Plan Policies – Appendix 16

## SOM G2 DEVELOPMENT AND ACTIVITY

### PART A LOCAL FEATURES OF IMPORTANCE

Developments and activities will be considered favourably, provided they can demonstrate that they will not have any significant adverse effects on the following features of interest:

#### Natural and Historic Environment

- designated sites (e.g. **Special Protected Area, Special Area of Conservation, Site of Special Scientific Interest, Areas of Great Landscape Value/ Special Landscape Areas**);
- species and habitats which have statutory protection;
- UK, Argyll & Bute, and Highland Local Biodiversity Action Plan species and habitats;
- other sensitive sites, habitats and species specified in the Natural and Historic Environment section of this plan;
- wider impacts on ecosystem function that may adversely affect good environmental status of marine waters (DEFRA, 2010)<sup>1</sup>.
- landscape/seascape character, scenic quality and visual amenity;
- water quality;
- designated historic assets (scheduled ancient monuments, listed buildings, wreck sites);
- historic or archaeological sites of interest.

#### Community

- community settlements, their setting and their amenity;
- public health and safety.

#### Existing activity

- tourism and recreation interests (including anchorages, shore access, dive sites, viewpoints, areas used for tours and current attractions and facilities);
- aquaculture sites;
- commercial inshore fishing grounds;
- shipping routes and navigational interests.

#### Infrastructure

- cables and pipelines;
- buoys and navigational aids;
- moorings and coastal infrastructure (including piers, slipways, jetties and pontoons) and access to these.

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<sup>1</sup> At the time of printing this Plan, indicators to determine Good Environmental Status were still a work in progress. The noted citation provides a list of descriptive indicators that should be referenced in the first instance.



**Justification**

Marine spatial plans should provide policies for the existing and future use and development of a defined marine area to assist day-to-day planning decisions and management of interactions within the area. Policy SOM G2 provides an overarching framework of guidance for all sectoral ‘Development and Activity’ policies within the plan to ensure that use of the area is sustainable. Specifically it seeks to ensure that the various interests:

- give due consideration to other users and uses of the Sound of Mull, its natural and historic environment interests, infrastructure and its communities; and
- operate at an appropriate standard, generate developments of satisfactory quality, and make the best use of resources.

All future marine development and future activity decisions should consider as a minimum, the features of interest identified in the plan. These either have statutory weight which must be considered by regulators or are otherwise agreed as being important by the Sound of Mull Working Group and its sectoral sub-groups.

Policy SOM G2 also recognises that wider impacts from climate change, sea level rise, flooding and increased storminess may affect the location and type of development in the future. Developers should address these impacts.

**Complies with Relevant Policies/Plans/Strategies**

Argyll and Bute Development Plan Policies – Appendix 16

Highland Council Development Plan Policies – Appendix 16

NPPG 5 and 18

Scottish Planning Policy

National Planning Framework

Local Biodiversity Action Plans – Argyll and Bute and Lochaber

Water Framework Directive River Basin Management Plan for Scotland River Basin District, and Argyll and Lochaber Area Management Plan



## **5 Sectors**

Each of the sectors and their accompanying technical appendix in the SoMMSP provide the following information:

- Description of the current activities, and a map displaying activities and the spatial opportunities relevant to each sector within the Sound of Mull;
- Two Policies that provide guidance on Development and Activity and Voluntary/Statutory Management relevant to each sector; and
- Supporting information for policies. This includes a description of the hard and soft constraints referred to in SOM G2 and the sectoral policies for Development and Activity, and a SWOT analysis used to derive aspects of policies.

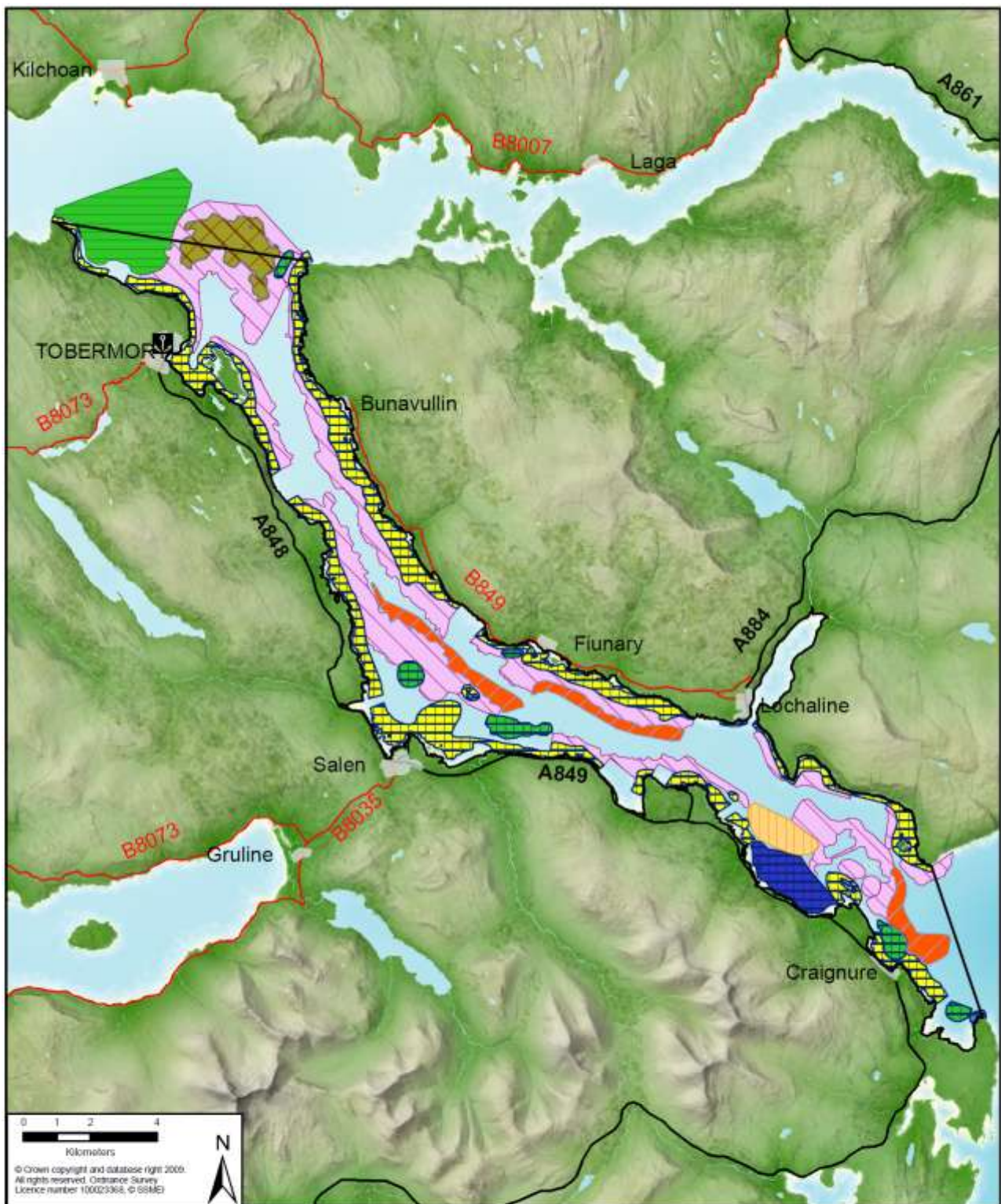
## **5.1 Inshore Fishing**

### **5.1.1 Introduction**

Traditionally the Scottish sea fishing industry has been a major player in the social and economic fabric of Scotland's coastal communities, particularly in the remote areas of the west coast of Scotland (Argyll, Highland and Islands). However dramatic changes have taken place in the industry over recent decades. Once dominated by herring and whitefish fleets (cod and haddock), significant reductions in landings and falling stocks of these species has meant the inshore fleet has shifted to concentrate largely on shellfish (mainly *Nephrops*) species. A number of measures have been introduced by the EU in an attempt to preserve whitefish stocks, including a quota system for whitefish landings and restrictions on the number of days spent at sea. Nationally this has caused a contraction of the fleet, with many fishing boat owners opting to take advantage of the vessel decommissioning scheme. However in the Sound of Mull vessel numbers have remained relatively stable in recent years (Mull Aquaculture and Fisheries Association comments), and this is most likely due to the fact that the majority of local boats are less than 10m in length (see Appendix 1 for local fleet details). Nationally figures show that the under 10m vessel category has contracted far less than the over 10m (9% and 37% respectively from 1997-2007).

### **5.1.2 Overview of Sector Activities**

Providing an accurate assessment of fishing activity and the home fleet in the Sound of Mull is difficult as it is a small area that is fished by both local and non local vessels. Information on the activities of local fishing vessels was sought through the Mull Aquaculture and Fisheries Association (MAFA), and suggests that at least one local prawn trawler uses the Sound of Mull regularly during the summer months. Additional trawlers and scallop dredgers visit the area on a seasonal basis, particularly from the east coast and during bad weather as the area is regarded as an option when conditions are unfavourable elsewhere. Two scallop diving vessels are based in Tobermory and one is occasionally based in Lochaline. The area is also regularly visited by scallop diving vessels from Oban, west Mull, Salen and Loch Sunart (S. Barlow pers. comm.). There are five local prawn creelers (four based in Tobermory and one in Lochaline). One non local creeler fishes the area on a fairly regular basis and there may be additional boats that fish less regularly. Velvet crabs and lobsters are also targeted, most probably from the same fleet vessels that fish for prawns. Landing of catch generally takes place outside the area at the ports of Oban and Mallaig, although some landings take place in Tobermory and Lochaline. The location of all known Inshore Fisheries activities where spatial data were available is presented in Map IF 1 and in the Sub-area maps.



Gear	Target Species	Fishing ports
Creel	Lobster	Fishing ports
Creel/Dive	Nephrops norvegicus	Sound of Mull Project Area
Dredge/Creel	Queenies	
Dredge/Trawl	Scallop and Prawn	
Trawl	Velvet crab and lobster	
Dredge	Velvet crab and lobster/ Scallop	
	Velvet crab and prawn	
	Scallop	

**Map IF1: Fishing areas, gear types and target species in the Sound of Mull. The spatial accuracy of the information is variable and these maps should not be used for navigation.**

### 5.1.3 Summary of Strengths, Weaknesses, Opportunities and Threats for Inshore Fishing

The information presented in the following SWOT analysis was collated from the socio-economic profile for this sector provided by Magill *et al.* (2009) and the working group and Inshore Fishing subgroup. It has been used to inform the Features of Interest for this sector outlined Policy SOM G2, the Additional Criteria in policy IF1 and the Actions presented for this sector.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Marine environment in the Sound of Mull is clean and of good quality.</li> <li>• Sound of Mull offers fishing grounds in bad weather.</li> <li>• Industry brings vital economic and social benefits to the communities of Sound of Mull.</li> <li>• Fishing supports a range of onshore business sectors, although not all will be located in the study area.</li> <li>• Industry dominated by shellfish capture which has a high value and in high demand, both at home and abroad, particularly for live high quality products.</li> <li>• Scottish shellfish in particular is recognised for high quality.</li> <li>• Seafood consumption is generally associated with a healthy diet and has a good image within the general public.</li> </ul>	<ul style="list-style-type: none"> <li>• Stock protection and recovery plans have led to a contraction of the fishing fleet both nationally and regionally.</li> <li>• Lack of skilled crew.</li> <li>• Young people may not see fishing as a good career choice – it may be seen as an unstable employment there are not as many possibilities for formal training and qualifications, and it may be seen as a dangerous career.</li> <li>• Area regularly utilised by visiting boats particularly in bad weather, therefore full economic benefits of the fishing grounds are unlikely to be felt at the local level.</li> <li>• Fishing grounds in Sound of Mull are well utilised and there is little room for expansion into new grounds.</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Improved training and recognised qualification routes could improve image of fishing to young people as a career option.</li> <li>• The seafood market is increasing but more could be done to promote seafood products at the local, regional and international levels. Regional branding or certification schemes such as the Marine Stewardship Council could increase profile and increase demand.</li> <li>• A scheme to secure Sound of Mull stocks for local vessels could only increase economic benefits to the local community and raise the profile of the industry. Such a scheme could involve spatial and temporal management for different gears/vessels and local fishermen being involved in overseeing/managing the scheme.</li> </ul>	<ul style="list-style-type: none"> <li>• The industry is heavily reliant on the shellfish industry – particularly <i>Nephrops</i>. A reduction in stock numbers, quota restrictions or fluctuations in market prices could have significant impacts on the industry.</li> <li>• Climate change – may bring new (and potentially unwanted) species and we may see some species decrease in abundance.</li> <li>• Many shellfish markets are reliant on international markets which in the current financial climate may experience decline. There is a need to increase local, regional and national markets to maintain the industry.</li> <li>• Current and future of fuel prices are prohibitive.</li> <li>• Decrease in home-grown skilled crew.</li> </ul>

## 5.1.4 Policies

### IF1 INSHORE FISHING DEVELOPMENT AND ACTIVITY

#### *Priorities*

The SoMMSP encourages sustainable Inshore Fishing developments and activities, particularly those that support local ports and vessels. Specifically it recommends:

- the support of plans and recommendations presented by the Mull and Small Isles Inshore Fisheries Group; and
- encouraging schemes to reserve a portion of stock for vessels based in the Sound of Mull.

#### *Criteria*

Inshore Fishing developments will be considered more favourably and encouraged if they:

- i. Support the community consultation and community development principles in SOM G1;
- ii. comply with the sustainability principles in Policy SOM G2;
- iii. in locations where soft constraints or potential negative interactions are identified for Inshore Fishing, the proponents can demonstrate satisfactory negotiation and mitigation in relation to the relevant interests
- iv. encourage positive interactions with other sectors/interests listed for Inshore Fisheries;
- v. accommodate the multiple use of space and physical developments e.g. infrastructure;
- vi. promote and utilise effective working relationships between sectors/businesses/community groups with and outwith the Sound of Mull;
- vii. encourage sustainable business development.

Developments and activities that are located where hard constraints are identified for Inshore Fishing are discouraged.

#### **Justification**

Policy IF1 provides a sectoral policy for Development and Activity for Inshore Fishing encompassing Policy SOM G1 and SOM G2. It promotes favourable consideration of development and future activities that contribute towards the Additional Criteria outlined as being of value to the area. Additional Criteria were identified from the SWOT analysis which was formed from input by the Sound of Mull Working Group, Inshore Fisheries Subgroup, Liaison Network and socio-economic report as areas for future development focus.

The Supporting Information for Policies includes hard and soft constraints, and positive and potential negative

interactions between Inshore Fishing and other sectors. Hard and soft constraints were informed by Policy SOM G2, the Sectoral Interactions Report (Sound of Mull SSMEI, 2009) and factors considered by regulators for development applications. Positive and potential negative interactions were informed from the Sectoral Interactions Report (Sound of Mull SSMEI, 2009).

## IF2 VOLUNTARY/STATUTORY MANAGEMENT FOR INSHORE FISHING

Developments and activities are encouraged to adopt the following voluntary codes of conduct during their operation and contact local management organisations (where applicable) before undertaking activities.

- Inshore Fishing Groups (IFGs), particularly the Mull and Small Isles IFG.
- Code of conduct between Mallaig and North West Fisherman's Association (including the Scallop Association) and Mull Aquaculture and Fishing Association.
- Mull Aquaculture and Fishing Association.

(See Appendix 19 for website links)

### Justification

Interaction management and recommendations for improvements to voluntary and statutory management measures were discussed and agreed by the Sound of Mull Working Group and Inshore Fishing Subgroup.

### 5.1.5 Supporting Information for Policies

#### Summary of Opportunities Identified for Inshore Fishing

There were no opportunities identified for the development for the Inshore Fishing sector. However indirect benefits to Inshore Fishing may be realised from Coastal & Marine Infrastructure improvements, particularly in the Tobermory Sub-area.

#### Hard and Soft Constraints affecting Development and Activity

Soft constraints were identified as being competitive interactions with another sector for a resource e.g. species and space, and hard constraints as incompatible interactions with another interest, i.e. where the two interests cannot coexist and this is not manageable. Hard constraints for this sector are mainly where existing activities are already present, and listed protected wreck sites. Soft constraints include competition between fishing gear types, with other sectors at existing infrastructure and disturbance to the natural and historic environment from activities. Full details of the constraints in terms of other sectors and interests for Inshore Fishing can be found in Appendix 1, and are detailed in each Sub-area.

## **Positive and Potential Negative Interactions**

Positive Interactions were identified as interactions between Inshore Fishing and other sectors and interests that resulted in a mutually productive outcome. Examples include the potential sharing of new infrastructure, and the benefits of aquaculture facilities and wreck areas acting as protected habitats for species targeting by creel fishermen. Potential Negative Interactions were identified as interactions that may result in adverse effects on other sectors and interests. Examples include competition for space with many other sectors, damage to fishing gear at wreck sites if interactions occur, and catch degradation if water quality is poor. Full details of the interactions in terms of other sectors and interests for Inshore Fishing can be found in Appendix 1.

### **5.1.6 Actions**

Actions and recommendations were identified and agreed by the Sound of Mull Working Group and Sector Subgroups as means to improve the current management of the sectors, their interactions with one another and other interests and to assist in the delivery of Policies SOM G1, SOM G2 and Sectoral Policies. Full details on these actions including links to relevant SoMMSP objectives and policies, relevant bodies for implementation, prioritisation and timescale are provided in Section 7.3.

## **5.2 Aquaculture**

### **5.2.1 Introduction**

The seas around Scotland are some of the most productive in the world, and the economic importance of fishing and aquaculture to Scotland's rural and island communities is reflected by the higher proportion of these jobs when compared to overall national figures. In total Scottish marine and coastal areas support 16,000 fishing and aquaculture-related jobs, and aquaculture in Scotland accounts for 90% of the UK's farmed finfish and shellfish. Aquaculture provides year-round jobs which are important for coastal communities. However, the increase in automation means that employment levels have tended to remain fairly steady in recent years, despite production increasing.

As a whole, the aquaculture industry is well established in the Sound of Mull with salmon farms having operated since the late 1980's. Shellfish production in the Sound of Mull itself is however relatively underdeveloped when compared with surrounding areas which have large oyster and mussel farms. There may therefore be potential for expansion of new and existing shellfish sites.

### **5.2.2 Existing Activities**

#### **Finfish Farming**

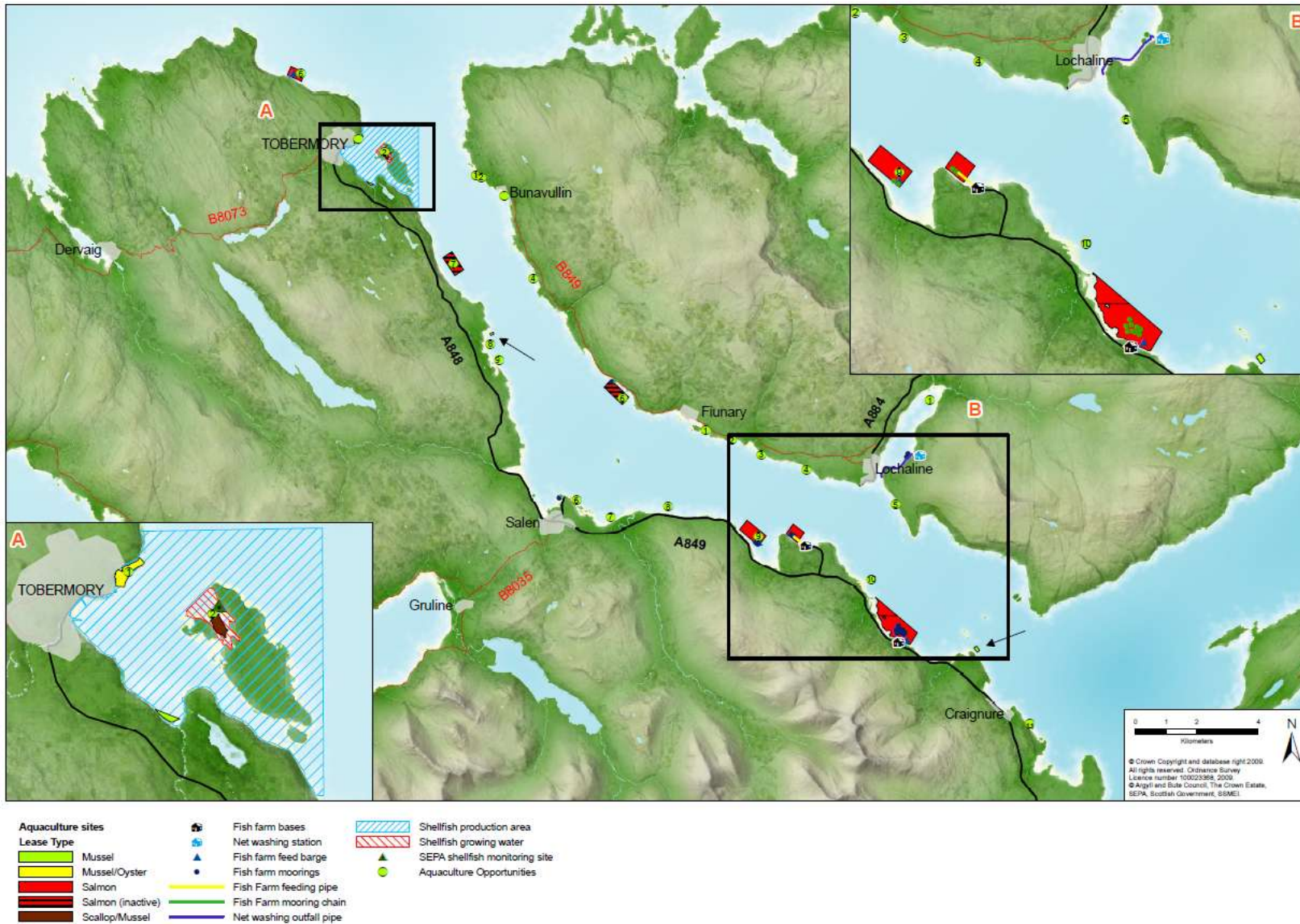
Atlantic Salmon is the only species of finfish farmed in the Sound of Mull and the farming is conducted by two Norwegian companies, Scottish Salmon Company and Scottish Sea Farms. Scottish Salmon Company holds the lease on a site at Scallastle Bay, but Scottish Sea Farms (SSF) currently operates this and all other sites. At the time of writing, the sites at Ardnacross and Fiunary are lying fallow with Fiunary expected to return to production in 2011. SSF also operates a net-washing station at Lochaline, two hatcheries (Knock and Ardtornish) and three freshwater sites which are slightly outside the study area on Mull and Morvern. These facilities supply smolts for the marine farms.

#### **Shellfish Farming**

Despite there being considerable shellfish production in the local region surrounding the Sound of Mull, at the time of writing there is only one small commercial mussel farm operating in the Sound itself. This is situated in Tobermory Bay. So far, mussels have not been produced there in great numbers, but the current owners believes that Tobermory Bay does have potential for further development in terms of mussel cultivation based on experimental results. Oysters are also cultivated experimentally in a number of places – Tobermory Bay, Aros Bay and Torosay. The site at Tobermory Bay has not produced oysters for the market yet, while the latter two sites have not been assessed for commercial viability. Sites at Arle, Ardnacross, Fishnish and Scallastle have been identified as having potential for oyster cultivation (Mull Aquaculture and Fisheries Association). There is no reported shellfish cultivation activity on the Morvern



side of the Sound of Mull. There are a number of shellfish farm leases in Loch Sunart but none are active at this time.



Map AQ1: Current known Aquaculture activities, supporting infrastructure designations and opportunities. The spatial accuracy of mapped information on activities is variable and these maps should not be used for navigation.

### 5.2.3 Summary of Strengths, Weaknesses, Opportunities and Threats for Aquaculture

The information presented in the following SWOT analysis was collated from the socio-economic profile for this sector provided by Magill *et al.* (2009) and input from the working group and Aquaculture subgroup. It has been used to inform the Features of Interest for this sector outlined in the General Policy SOM G2, the Additional Criteria in Aquaculture Policy AQ 1, and the Opportunities and Actions presented for this sector.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Sound of Mull has a number of dispersive sites which are not excessively exposed and which could be suitable for finfish farms.</li> <li>• Accessible with good links to processing plants.</li> <li>• Good relationships with the community and year-round employment with investment in skills.</li> <li>• Industry in Sound of Mull has good communication with local government and Scottish agencies.</li> <li>• Existing infrastructure and successful shellfish farming takes place elsewhere on Mull.</li> <li>• Sound of Mull recognised as a high-quality marine environment.</li> <li>• Scottish salmon has a good image and is recognised for quality.</li> <li>• Strong markets both at home and abroad</li> <li>• Strong support from Scottish Government</li> <li>• Shellfish farming is a relatively low-impact farming method.</li> </ul>	<ul style="list-style-type: none"> <li>• Competition with other marine resource users.</li> <li>• Requirement for a firebreak between certain areas, may restrict use of certain sites. At present Ardnacross is a recognised firebreak area.</li> <li>• Potential for fish escapes, disease and sea lice to damage industry.</li> <li>• Shellfish farms can be a significant source of marine litter if inappropriately managed</li> <li>• Improved automation may not result in increases in employment.</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Global demand for seafood is increasing as it is seen as a healthy protein source.</li> <li>• Potential for increasing production at existing sites and exploring new sites.</li> <li>• Areas close to Morvern are seeing increasing interest in shellfish production.</li> <li>• Assessment of existing experimental shellfish sites could take advantage of the increasing production and strength of the shellfish production industry on Mull.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of the sound by large cargo vessels is of some concern due to the risk of oil or chemical spill (e.g. Lysfoss vessel's grounding).</li> <li>• Obtaining start-up money for setting up new aquaculture businesses is difficult.</li> <li>• Downward pressure on the market prices for salmon and shellfish and/or increases in costs which affect the economic viability of farms .</li> </ul>

## 5.2.4 Policies

### AQ1: AQUACULTURE DEVELOPMENT AND ACTIVITY

#### *Priorities*

The SoMMSP supports sustainable aquaculture developments and activities which enhance the viability of local communities and provide year round employment opportunities. It supports in principal:

- expansion of existing finfish sites at Bloody Bay, Fishnish and Fiunary, subject to proposals meeting the relevant regulatory standards and compatibility with other interests; and
- encouraging new finfish and shellfish developments in locations identified for each Sub area, subject to proposals meeting the relevant regulatory standards and compatibility with other interests.

#### *Criteria*

Aquaculture developments will be considered more favourably and encouraged if they:

- i. support the community consultation and community development principles in SOM G1;
- ii. comply with the sustainability principles in Policy SOM G2;
- iii. can demonstrate satisfactory negotiation and mitigation in relation to the relevant interests in locations where soft constraints or potential negative interactions are identified for Aquaculture;
- iv. result in positive interactions with other sectors/interests;
- v. accommodate the multiple use of space and physical developments e.g. infrastructure;
- vi. promote effective working relationships between sectors/businesses/community groups within the Sound of Mull area;
- vii. encourage sustainable business development.

Developments and activities which are located in areas where hard constraints are identified for Aquaculture will be discouraged.

#### **Justification**

Policy AQ1 provides a policy for Development and Activity which is specifically tailored for Aquaculture but encompasses Policy SOM G1 and SOM G2. It promotes favourable consideration of aquaculture-related development and future activities which can take advantage of, and help to realise the specific Spatial Opportunities identified in the plan, and which can contribute towards the Additional Criteria outlined as being of value to the area. Spatial Opportunities are identified based on information on constraints, current activities/interests, and areas for safeguarding. Additional Criteria were identified from the SWOT analysis which was based on input from the Sound of Mull Working Group, the Aquaculture Sub-group, the wider Liaison Network, and the socio-economic report.

The Supporting Information for Policies and the Sub-areas outlines the hard and soft constraints for

Aquaculture to guide development and existing/future use. Hard and soft constraints were informed by Policy SOM G2, the Sectoral Interactions Report (Sound of Mull SSMEI, 2009) and factors considered by regulators for development applications.

## AQ2: VOLUNTARY/STATUTORY MANAGEMENT OF AQUACULTURE

Developments and activities are encouraged to adopt the following voluntary codes of conduct during their operation, in addition to any statutory codes or requirements:

- Association of Scottish Shellfish Growers Code of Good Practice;
- Code of Good Practice for Scottish Finfish Aquaculture;
- SNH Landscape/Seascape Guidance for Aquaculture (2008) and Siting and Design of Aquaculture (2001).
- Area Management Agreement between finfish farms and wildfish interests.

(See Appendix 19 for website links)

### Justification

Interaction management and recommendations for improvements to voluntary and statutory management measures were discussed and agreed by the Sound of Mull Working Group and Aquaculture Subgroup.

### 5.2.5 Supporting Information for Policies

#### Summary of Opportunities identified for Aquaculture

Opportunities identified include the potential for expansion of a number of existing finfish sites, and some potential new sites that which appear to be compatible with the landscape/ seascape capacity of the area. The landscape/ seascape capacity study (Grant 2008) also identified sites which appear suitable for the combined development of both mussel and oyster farming. The location-specific opportunities identified for aquaculture can be seen on Map AQ 1 as indicative point symbols, with a reference number linking the opportunity to a detailed description in the text for the relevant Sub-area.

#### Hard and Soft Constraints affecting Development and Activity

Soft constraints were defined as those where there are competitive interactions with another sector for a resource (e.g. species or space). Hard constraints were identified as those where the interaction with another interest would be incompatible, i.e. where the two interests cannot coexist and this is not manageable. Hard constraints for the aquaculture sector are mainly where existing activities are already present, and in locations occupied by listed habitats, species and wreck sites. Soft constraints include the requirement for areas of good water quality and shoreline access, and the proximity of existing aquaculture developments which could make fish disease and parasite transfer more likely if a new fish farm site were to be developed and a firebreak were to

be compromised. Full details of the constraints in terms of other sectors and interests for Aquaculture can be found in Appendix 2, and are detailed in each Sub-area.

### **Positive and Potential Negative Interactions**

Positive Interactions were identified as interactions between aquaculture and other sectors and interests which normally result in a mutually productive outcome. Examples include the potential sharing of new infrastructure, and the benefits of aquaculture facilities as protected habitats for species targeted by creel fishermen. Potential Negative Interactions were identified as interactions which may result in adverse effects on other sectors and interests. Examples include loss of good fishing grounds, and the potential degradation of water quality which could result from the release of nutrients and medicines. Full details of the interactions in terms of other sectors and interests for Aquaculture can be found in Appendix 2.

### **5.2.6 Actions**

Actions and recommendations were identified and agreed by the Sound of Mull Working Group and the sectoral Sub-groups as means to improve the current management of the sectors, their interactions with one another and other interests, and to assist in the delivery of the general and sector-specific policies. Full details of these actions, including links to the relevant SoMMSP objectives and policies, relevant bodies for implementation, prioritisation and timescale are provided in Section 7.3.

## **5.3 Recreation and Tourism**

### **5.3.1 Introduction**

Recent decades have seen substantial growth nationally in marine based leisure activities. The Sound of Mull is no exception to this trend, supporting a range of recreational and tourism activities such as wildlife watching and skate angling that have gained in popularity over the last 30 years. Several local businesses are orientated around recreation and tourism activities and they are important to the wellbeing of those living by and visiting the Sound of Mull.

Activities in the sector can roughly be grouped into recreational or leisure based pursuits, and more dedicated tourism operations. However in practice there is some overlap between the two which makes obtaining accurate statistics on participants and economic spend somewhat difficult. Figures quoted in this section are taken from the report by Magill *et. al.* (2009) unless specified, and more detailed information on individual sector activities and socio-economics can be found in the Recreation & Tourism Technical Appendix 3.

### **5.3.2 Existing Recreational Activities**

#### **Sailing**

The Sound of Mull is popular both as a passage route and calm sailing area with sheltered anchorages in Craignure, Loch Aline, Salen and Tobermory. In addition, it is a race location used by the Western Isles Yacht Club. Local events include the Tobermory Regatta, Round Calve Island, Salen Regatta, and most notably the West Highland Yachting Week. The numbers of vessels visiting the Sound of Mull is increasing, and figures from the Tobermory Harbour Association show the sailing season has extended well outside the main summer season. The number of yachts using the pontoon berth increased over threefold from 2004 - 2007, and 423 yachts used the facilities between January and March 2007.

#### **Scuba Diving**

The Sound of Mull is one of the most popular Scuba diving destinations in the UK due to its waters being reasonably sheltered and the concentration of easily accessible ship wrecks in close proximity to one another. The most popular dive sites are the wrecks of the Hispania, Thesis, Rondo and the Shuna. Many of the deep wreck sites are ideally suited to technical diving which has seen an increase in recent years. Popular scenic sites are: Auliston Point, Rubha Dearg, Fuinary Rocks, Lochaline Pier, Pennygowan Quarry, Glas Eilean and Ardtornish Point. Several charter vessels and the Lochaline Dive Centre cater locally for the dive market. Approximately 8000 dive days annually have been estimated for the area, although accurate assessment of the number of divers using the Sound of Mull is difficult as it is accessible from outwith the area and not all use local charter boats and facilities.

## **Salmon and Sea Trout Angling**

The main rivers for wild fish are the Aros and Forsa on Mull and the River Aline on Morvern. The Rivers Aros and Forsa on Mull are managed and monitored by the Mull District Salmon Fisheries Board in conjunction with the Argyll Fisheries Trust.

The River Aline and its catchment are owned by Ardtornish Estate who are part of the Lochaber District Salmon Fishery Board and are responsible for the management of the river. It can be fished with suitable permits from the shore for salmon and sea trout. One company organises wild fishing in Lochaline.

## **Sea Angling**

Most fishing is by boat as it is hard to access good shore angling areas along the Sound of Mull, although some fishing is possible off the Lochaline timber pier. Species targeted include common skate, thornback ray, conger eel, spurdog, tope, mackerel and pollack.

Common skate (*Dipturus batis*) is the main target species for sea angling in the Sound of Mull. Tagging of this species has been undertaken in the Sound of Mull and Firth of Lorn since 1974 in conjunction with local anglers and Glasgow Museum (see Natural & Historic Environment section 5.6). Approximately 2060 anglers participate in common skate angling per year in the Sound of Mull/Firth of Lorn area, around 300 charter trips.

## **Other Activities**

There are a variety of footpaths, picnic areas, viewpoints and interpretation displays around the shores of the Sound of Mull, and in neighbouring hills and forested areas. The most popular sites are near major settlements, e.g. the Tobermory – Aros Park path, and the track from the village of Lochaline to Ardtornish Estate.

### **5.3.3 Existing Tourism Activities**

#### **Leisure cruise ships**

The leisure cruising sector is rapidly growing globally, and the UK is the second largest cruise ship market worldwide. Cruise ships frequent the Sound of Mull, in particular Tobermory, from May to September. The local market also appears to be expanding. A two-fold increase in cruise liner passengers visiting Tobermory was recorded between 2005 and 2007.

#### **Boat based wildlife tourism**

Marine wildlife tourism is growing rapidly and whales and dolphins are Scotland's top wildlife attraction, with an estimated 0.25 million tourists part-taking in cetacean tourism annually on the west coast of Scotland (Hebridean Whale and Dolphin Trust, 2009). Mull was the first UK location to be used for commercial tourist whale watching expeditions.

The Sound of Mull is largely used as a transit route to the Inner Minch and Outer Hebrides and as a destination in



bad weather, although operators in Oban have recently started to utilise it as a destination. Charters using the Sound of Mull as transit may use Tobermory or Lochaline as an overnight stop. Boats vary from small day trip craft to large vessels taking trips from 6-10 days duration. The season is from March to October and species regularly seen include minke whale, bottlenose dolphin, porpoise, and a variety of sea birds.

### **Land based wildlife tourism**

Three operators offer year round tours which include the Sound of Mull, with seals, otters, porpoise and sea eagles the attractive species. Lochaline Dive Centre also offers wildlife holidays (3/5 days) which are mainly land based, but do include some boat based excursions.

### **Visitor attractions**

A variety of tourist attractions exist around the Sound of Mull, several of which are common on coach holiday excursion itineraries. Numbers are notable: the An Tobar Visitor Center, Ardnamurchan Lighthouse, Tobermory Distillery and Duart Castle all report in excess of 18,000 visitors per annum.



### 5.3.4 Summary of Strengths, Weaknesses, Opportunities and Threats for Recreation and Tourism

The information presented in the following SWOT analysis was collated from the socio-economic profile for this sector provided by Magill *et al.* (2009), and the Sound of Mull Working Group and Recreation & Tourism subgroup. It has been used to inform the Features of Interest for this sector outlined Policy SOM G2, the Additional Criteria in policy RT 1 and the Opportunities and Actions presented for this sector.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Area well known for scenic qualities</li> <li>• Sheltered waters for recreational boating</li> <li>• Area renowned nationally for wreck and scenic dive sites</li> <li>• Rich marine, coastal and land based biodiversity</li> <li>• Variety of historic heritage sites</li> <li>• Recognised route to Outer Hebrides and Inner Minch area</li> <li>• Existing attractions, viewpoints, access points and interpretation</li> <li>• Low impact industry with potential high returns</li> <li>• Increasing visitors and scope for expansion</li> <li>• Good working relationships between sectors/interests and community groups in Sound of Mull allows potential for co-operation to develop shared facilities e.g. pontoons</li> </ul>	<ul style="list-style-type: none"> <li>• Weather in the West Highlands tends to be wetter and somewhat less predictable than in lowland parts of the UK.</li> <li>• Remoteness from main population centres in Scotland and the rest of UK.</li> <li>• No direct ferry service Oban-Tobermory-Lochaline-Morvern-Ardnamurchan.</li> <li>• Public transport tends to be limited and relatively high cost e.g. ferry fares.</li> <li>• Strong seasonality in some sectors .</li> <li>• Lack of infrastructure and limited shoreline access – especially facilities for boat launching and yachting on the Morvern/Ardnamurchan coast.</li> <li>• Lack of low cost holiday accommodation for visitors.</li> <li>• Deterioration of wreck sites due to natural processes and impacts of mobile fishing gear</li> <li>• Lack of visitor facilities at historic and natural heritage sites (e.g. parking, viewpoints, interpretation) and facilities for wet weather</li> <li>• Land ownership sometimes constrains development</li> <li>• Liability issues for infrastructure e.g. pontoons, moorings</li> <li>• No project officers to take forward opportunities</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Potential for coastal villages to take advantage of yachting increases by developing mooring/berthing e.g. Sail West Project has funded the development of new pontoon in Lochaline</li> <li>• Link developments with planned Oban Bay marina</li> <li>• Potential within UK tourism increase as economic downturn curtails international travel</li> <li>• Extension of tourist season to stabilise employment</li> <li>• Provision of alternative employment for traditional</li> </ul>	<ul style="list-style-type: none"> <li>• Tourism market competitive.</li> <li>• Fuel prices in remote, rural areas.</li> <li>• Road Equivalent Tariff scheme on ferries may result in more visitors to locations in the scheme and less to those outside i.e. Mull, Morvern.</li> <li>• Down-turn in economy.</li> <li>• Increased pressure on marine wildlife.</li> <li>• Oil spills within or nearby Sound of Mull could impact marine and coastal wildlife</li> <li>• Finance difficult to obtain for</li> </ul>

industries and links to supply chain

- Improved marketing for existing and new recreation/tourism opportunities e.g. angling, kayaking

business/infrastructure development and marketing

### 5.3.5 Policies

## RT 1 RECREATION AND TOURISM DEVELOPMENT AND ACTIVITY

### *Priorities*

The SoMMSP supports activities and developments that will maintain and increase the attractiveness of the area for both visitors and local residents. Specifically the Plan:

- Recommends the provision of new or improved berthing and onshore facilities for visiting sail vessels and other recreational boating users;
- recommends safeguarding of important wreck dive sites;
- encourages incorporation of the many historical, archaeological and natural sites that are present in the Sound of Mull, into tours and/or trails; and
- supports in principle, developments and activities that are identified as opportunities for Recreation & Tourism in each Sub area.

### *Criteria*

Recreation & Tourism developments and activities will be considered more favourably and encouraged if they:

- i. Support the community consultation and community development principles in policy SOM G1;
- ii. comply with the sustainability principles in policy SOM G2;
- iii. in locations where soft constraints or potential negative interactions are identified for Recreation & Tourism, the proponents can demonstrate satisfactory negotiation and mitigation in relation to the relevant interests;
- iv. encourage positive interactions with other sectors/interests listed for Recreation & Tourism;
- v. accommodate the multiple use of space and physical developments e.g. infrastructure;
- vi. promote and operate effective working relationships between sectors/businesses/community groups within and outwith the Sound of Mull;
- vii. lengthen the tourist season and encourage sustainable business development;
- viii. provide environmentally friendly visitor facilities at sites of interest e.g. parking, waste disposal, interpretation and/or wet weather facilities;
- ix. enhance or improve the use of existing attractions and facilities; and
- x. enhance local transport services.

Developments and activities that are located where hard constraints are identified for Recreation & Tourism

are discouraged.

### Justification

Policy RT1 provides a sectoral policy for Development and Activity for Recreation & Tourism encompassing Policy SOM G1 and SOM G2. It promotes favourable consideration of development and future activities that fulfil the Opportunities identified for Recreation & Tourism, and contribute towards the Additional Criteria outlined as being of value to the area. Opportunities were identified based on information on constraints, current activities/interests and areas for safeguarding. Additional Criteria were identified from the SWOT analysis which was formed from input by the Sound of Mull Working Group, Recreation & Tourism Subgroup, Liaison Network and socio-economic report as areas for future development focus.

The Supporting Information for Policies includes hard and soft constraints, and positive and potential negative interactions between Recreation & Tourism and other sectors. Hard and soft constraints were informed by Policy SOM G2, the Sectoral Interactions Report (Sound of Mull SSMEI, 2009) and factors considered by regulators for development applications. Positive and potential negative interactions were informed from the Sectoral Interactions Report (Sound of Mull SSMEI, 2009).

## RT 2 VOLUNTARY/ STATUTORY MANGEMENT FOR RECREATION AND TOURISM

Developments and activities are encouraged to adopt the relevant voluntary codes of conduct during their operation, in addition to any statutory codes or requirements:

- British Sub Aqua Club Dive Code of Conduct;
- Code of Best Practice for the capture and release of common skate by recreational anglers;
- Maritime and Coastguard Agency Codes of Practice;
- Scottish Canoe Association Paddlers Access Code;
- Scottish Marine Wildlife Watching Code;
- Wild Scotland Best Practice Guidelines; and
- Tobermory Bay/ Harbour Association Guidelines

(See Appendix 19 for website links)

### Justification

Interaction management and recommendations for improvements to voluntary and statutory management measures were discussed and agreed by the Sound of Mull Working Group and Recreation & Tourism Subgroup.

### **5.3.6 Supporting Information for Policies**

#### **Summary of Opportunities Identified for Recreation & Tourism**

Opportunities identified include better coastal, sailing and kayaking trails which incorporate the many historical, archaeological and natural sites that are present in the Sound of Mull. The development of new onshore facilities, and the expansion of existing facilities for recreational boating users is seen as desirable given the increasing number of participants both locally and nationally in activities such as yachting and angling. Popular dive sites in the Sound of Mull would benefit from the installation of permanent shot lines, as this would provide easier access for divers, and reduce the deterioration of the wrecks which may be caused by many temporary shot lines being dropped onto, or fixed to them. Locations of Opportunities identified for Recreation & Tourism can be seen on Map RT 1 as indicative points, with a reference number linking the opportunity to a detailed description in the relevant Sub-area.

#### **Hard and Soft Constraints affecting Development and Activity**

Hard constraints identified for this sector are areas where other legitimate interests likely to be incompatible with recreation and tourism are already present. Their identification aims to ensure that natural and historic sites of significance are not damaged. Soft constraints were identified as zones of competitive (but potentially manageable) interaction with another sector for a resource e.g. species or space. Soft constraints include competition between sectors for the use of existing infrastructure and disturbance to the natural and historic environment from users. Full details of the constraints in terms of other sectors and interests for Recreation & Tourism can be found in Appendix 3, and are detailed in each Sub-area.

#### **Positive and Potential Negative Interactions**

Positive Interactions were identified as interactions between Recreation & Tourism and other sectors and interests that resulted in a mutually productive outcome. Examples include the potential sharing of new infrastructure, the management of natural and historic areas for tourism purposes, and the potential creation of artificial reefs from marine renewable installations. Potential Negative Interactions were identified as interactions that may result in adverse effects on other sectors and interests. Examples include competition for space with other users, inappropriate behaviour from individuals undertaking activities, and the potential for the introduction of non-native species and pathogens. Full details of the interactions in terms of other sectors and interests for Recreation & Tourism can be found in Appendix 3.

### **5.3.7 Actions & Recommendations**

Actions and recommendations were identified and agreed by the Sound of Mull Working Group and Sector Sub-groups as means to improve the current management of the sectors, their interactions with one another and other interests, and to assist in the delivery of the general policies SOM G1 and SOM G2 and the Sectoral Policies. Full details on these actions, including links to relevant SoMMSP objectives and policies, relevant bodies for implementation, prioritisation and timescale, are provided in Section 7.3.

## **5.4 Shipping and Transport**

### **5.4.1 Introduction**

The Sound of Mull is a relatively sheltered waterway, and is a major route for shipping and ferries from the inner stretches of North Argyll and the Lynn of Lorne out to Coll, Tiree, the Outer Hebrides and beyond. The route is utilised by Caledonian MacBrayne ferries and vessels of a wide variety of sizes that carry a host of different cargoes. Because of the remoteness and island nature of the area, there is a heavy reliance on shipping and transport for vital lifeline services.

### **5.4.2 Existing Shipping Activities**

The majority of vessels traversing the Sound of Mull carry general cargo, and use the waterway as a transit route to destinations outside the local area. More specialised cargo includes bulk aggregate transport from the Yeoman Glensanda Quarry on Morvern, and from the silica sand mine (Tarmac Ltd) in Lochaline (although this mine is currently mothballed). Timber from Mull for Iggesund Timber is currently taken over to Lochaline on lorries onboard the Calmac ferry and then shipped out from the pier operated by Iggesund Timber in Lochaline. The pier also receives timber from the Morvern region, and due to a commitment from the Forestry Commission and Iggesund Timber to move as much timber by sea as possible due to lower economic and environmental costs, this may increase in the future. Fish farm vessels utilise the Sound of Mull when moving feed between the farms and their well boats, which transport live fish between farms and to processing plants. Some of the vessels passing through also carry specific hazardous cargoes, generally category C and D (which may present hazards to the environment, human health and other users e.g. benzene, styrene, acetone. AIS, 2009).

Leisure cruise vessels utilise the area for transit and overnight stops e.g. Hebridean Princess (see Recreation & Tourism section), as do enforcement vessels from HM Revenue and Customs vessels and Marine Scotland Compliance.

### **5.4.3 Existing Transport Activities**

#### **Ferry & Water Taxi Services**

Ferry services are critical for the Sound of Mull. The area is served by a number of ferry routes outlined in the Ferry Routes table, and the Sound of Mull is also a transit route for ferries to the outer Hebridean Islands. Caledonian MacBrayne (Calmac) is the main ferry operator with year round services that provide a key transport link between the area, the mainland and central Scotland. A small passenger service also operates between Laga Bay (Ardnamurchan), Tobermory and Drimnin on behalf of the Sound of Mull Transport Group. Additionally a fast RHIB vessel water taxi service is available from Oban to Tobermory in the summer months.

## Ferry Routes

Route	Operator	Traffic Type	Details
Oban Craguere	CalMac	Passenger/private car/commercial/coach	Year round /daily
Fishnish Lochaline	CalMac	Passenger/private car/commercial/coach	Year round/daily
Kilchoan Tobermory	CalMac	Passenger/private car/light commercial	May - Oct/daily Nov - Feb/Mon - Sat
Tobermory/ Drimnin/Laga	Sound of Mull Transport Group	Passengers/bicycles	Feb- Nov/Mon-Fri Dec- Jan/Fri only
Ardgour/Nether Lochaber <sup>2</sup>	Highland Council	Passenger/private car/commercial/coach	Year round/daily

### 5.4.4 Other Shipping and Transport Activities

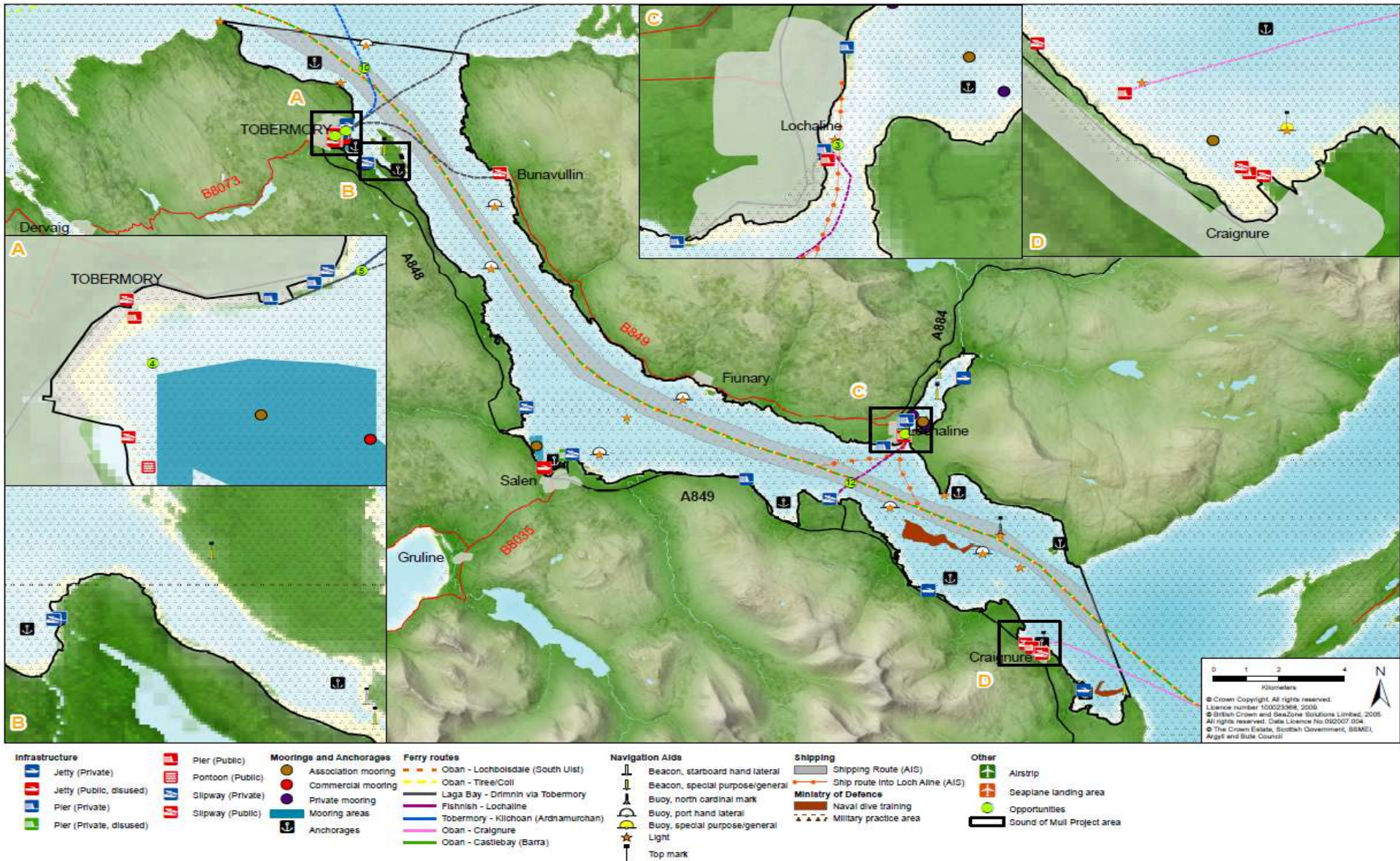
The only commercially operating flights to the area are via a seaplane service from Glasgow and/or Oban to Tobermory, run by Loch Lomond seaplanes. This service is available regularly from spring to autumn. An airstrip on the Isle of Mull, situated at Glenforsa, near Salen handles small private flights, but has no commercial traffic.

The Ministry of Defence uses the Sound of Mull for naval operations, for between 120 and 150 days per annum. The majority of this activity is for the training of military divers although the area is also used for surface ship operations for at least 4 weeks per annum. Submarines do not routinely use the area but retain it as one of their many options.

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<sup>2</sup> This service is outside the study area, however it provides an important connection with Morvern and Mull





Map ST 1. Current known Shipping & Transport activities, supporting infrastructure and opportunities. The spatial accuracy of mapped information on activities is variable and these maps should not be used for navigation.

### 5.4.5 Summary of Strengths, Weaknesses and Opportunities for Shipping and Transport

The information presented in the following SWOT analysis was collated from the socio-economic profile for this sector provided by Magill *et al.* (2009), the Sound of Mull working group and Shipping & Transport subgroup. It has been used to inform the Features of Interest for this sector outlined Policy Sound of Mull G2, the Additional Criteria in policy ST 1 and the Opportunities and Actions presented for this sector.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Relatively sheltered route offering access to western coast of Scotland and beyond.</li> <li>• Established shipping route with buoyage.</li> <li>• Lower impact on climate compared to moving passengers and cargo by land vehicles.</li> <li>• Some existing infrastructure that could be further utilised and developed to support increases in shipping.</li> </ul>	<ul style="list-style-type: none"> <li>• Number and size of vessels currently unable to support increase in ferry routes or frequency.</li> <li>• Existing shore facilities and infrastructure may not be suitable or available for loading and discharging vessels.</li> <li>• Poor transport links, i.e. road and rail.</li> <li>• Low residential population size may be unable to justify cost of increased passenger services.</li> <li>• Volume of goods requiring shipment may not be great enough to justify increased investment.</li> <li>• No designated shipping lane in Sound of Mull to safeguard best route, environment and other users.</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Potential for increased transportation of goods on and off Mull and Morvern (e.g. forestry, aggregates) to both national and international destinations by sea, to reduce economic and environmental costs.</li> <li>• Increased frequency of ferry sailings at peak or popular times.</li> <li>• Fast ferry services between Mull, Morvern, Ardnamurchan, Coll/Tiree and Oban.</li> <li>• Possibility of trade between sectors at sea e.g. supply of fish/seafood and other products to shipping in transit.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for lack of support for increases in shipping activity due to public perception of risks and impacts.</li> <li>• Potential for increases in shipping to result in an unacceptable increase in the risk of pollution, grounding, collision and interaction with other marine sectors and the natural environment.</li> <li>• Road equivalent tariff scheme on ferries may result in more visitors to locations in the scheme and less to those outside i.e. Mull, Morvern.</li> <li>• Finance difficult to obtain for business/infrastructure development and marketing.</li> <li>• Fuel prices.</li> </ul>

## 5.4.6 Policies

### ST1 SHIPPING AND TRANSPORT DEVELOPMENT AND ACTIVITY

#### *Priorities*

The SoMMSP supports activities and developments that enhance passenger and cargo transport access, both into and within the Sound of Mull. Specifically it recommends:

- investigating the viability of fast ferry services that link communities within the area to each other, and directly with Oban and Coll/ Tiree;
- encouraging further transport of goods by sea to reduce environmental impacts;
- further development of special round trip ferry fares in conjunction with tourist trails for the region

#### *Criteria*

Shipping & Transport developments and activities will be considered more favourably and encouraged if they:

- i. support the community consultation and community development principles in policy SOM G1;
- ii. comply with the sustainability principles in policy SOM G2;
- iii. in locations where soft constraints or potential negative interactions are identified for Shipping & Transport, the proponents can demonstrate satisfactory negotiation and mitigation in relation to the relevant interests;
- iv. encourage positive interactions with other sectors/interests listed for Shipping & Transport;
- v. accommodate the multiple use of space and physical developments e.g. infrastructure;
- vi. promote and utilise effective working relationships between sectors/businesses/community groups with and outwith the Sound of Mull;
- vii. enhance or improve the use of existing infrastructure facilities;
- viii. enhance local water based passenger transport services; and
- ix. enhance water based cargo transport services.

Developments and activities that are located where hard constraints are identified for Shipping and Transport are discouraged.

#### **Justification**

Policy ST1 provides a sectoral policy for Development and Activity for Shipping & Transport encompassing Policy SOM G1 and SOM G2. It promotes favourable consideration of development and future activities that fulfil the Spatial Opportunities identified for Shipping & Transport, and contribute towards the Additional Criteria outlined as being of value to the area. Spatial Opportunities are identified based on information on constraints, current activities/interests and areas for safeguarding. Additional Criteria were

identified from the SWOT analysis which was formed from input by the Sound of Mull Working Group, Shipping & Transport Subgroup, Liaison Network and socio-economic report as areas for future development focus.

The Supporting Information for Policies and the Sub-areas outline the hard and soft constraints for Shipping & Transport to guide development and existing/future use. Hard and soft constraints were informed by Policy SOM G1, the Sectoral Interactions Report (Sound of Mull SSMEI, 2009) and factors considered by regulators for development applications. Spatial opportunities are identified based on information on constraints, current activities/interests and areas for safeguarding.

## **ST2 VOLUNTARY/ STATUTORY MANAGEMENT FOR SHIPPING AND TRANSPORT**

Developments and activities are encouraged to adopt the relevant voluntary codes of conduct during their operation, and contact local management organisations (where applicable) before undertaking activities

- Maritime and Coastguard Agency Codes of Practice; and
- Tobermory Bay/ Harbour Association

(See Appendix 19 for website links)

### **Justification**

Interaction management and recommendations for improvements to voluntary and statutory management measures were discussed and agreed by the Sound of Mull Working Group and Shipping & Transport Subgroup.

### **5.4.7 Supporting Information for Policies**

#### **Summary of Opportunities Identified for Shipping & Transport**

Opportunities identified include additional sailings on the Tobermory – Kilchoan route in conjunction with developing a special round trip ticket and tourist trail that covers the Lochaline – Fishnish ferry route; and a passenger ferry service that directly links settlements in the area with Oban and the nearby islands of Coll and Tiree. Locations of Opportunities identified for Shipping & Transport can be seen on Map ST 1 as indicative points, with a reference number linking the opportunity to a detailed description in the relevant Sub-area.

#### **Hard and Soft Constraints affecting Development and Activity**

Hard constraints identified for this sector are areas where other legitimate interests likely to be incompatible with Shipping & Transport are already present. These include aquaculture leases. Soft constraints were identified as zones of competitive (but potentially manageable) interaction with another

sector for a resource e.g. species or space. Soft constraints include competition between sectors for the use of existing infrastructure, competition with existing shipping services for space, and disturbance to the natural environment from noise and proximity to wildlife. Full details of the constraints in terms of other sectors and interests for Shipping & Transport can be found in Appendix 4, and are detailed in each Sub-area.

#### **Positive and Potential Negative Interactions**

Positive Interactions were identified as interactions between Shipping & Transport and other sectors and interests that resulted in a mutually productive outcome. Examples include the potential sharing of new infrastructure created to service the Shipping & Transport sector. Potential Negative Interactions were identified as interactions that may result in adverse effects on other sectors and interests. Examples include competition for space with other users, potential impacts from groundings such as pollution, and introduction of non-native species. Full details of the interactions in terms of other sectors and interests for Shipping & Transport can be found in Appendix 4.

#### **5.4.8 Actions and Recommendations**

Actions and recommendations were identified and agreed by the Sound of Mull Working Group and Sector Sub-groups as means to improve the current management of the sectors, their interactions with one another and other interests, and to assist in the delivery of the general policies SOM G1 and SOM G2 and the Sectoral Policies. Full details on these actions, including links to relevant SoMMSP objectives and policies, relevant bodies for implementation, prioritisation and timescale, are provided in Section 7.3.

## 5.5 Coastal and Marine Infrastructure

### 5.5.1 Introduction

Both historically, and up to the present day the Sound of Mull has relied on marine transport and services to sustain the communities and economic activities that take place in the region. Ferry services, fishing vessels, aquaculture service craft, tourist cruise ships, and recreational sail boats are just some of the many types of activities that require supporting coastal and marine infrastructure. Whilst the advent of modern roll on/ roll off ferries has seen upgrading of infrastructure at several sites around the Sound of Mull, many other locations still use buildings, slipways, jetties and piers that date back to the 19<sup>th</sup> century.

### 5.5.2 Existing Coastal Infrastructure

Unsurprisingly, given the propensity of marine activities in the Sound of the Mull, there are numerous piers, jetties and slipways supporting activities throughout the Sound of Mull. However, the vast majority of these are privately owned, and publically accessible infrastructure is only present at Tobermory, Craignure, Lochaline and Drimnin. The following table provides details on type and management of existing infrastructure.

Management Authority (Site Name)	Publicly Accessible Infrastructure				Private Infrastructure		
	Pier	Slipway	Jetty	Pontoon	Pier	Jetty	Slipway
<b>TOBERMORY</b>							
Tobermory Harbour Association.		✓		✓			
Mull Fisherman's Association, (Fishermans Pier).	✓						
Argyll & Bute Council.		✓					
Caledonian Maritime Assets <sup>3</sup> .					✓		✓
RNLI					✓		
Jean Flockhart (Port na Coite oyster lease).						✓	
Forestry Commission Scotland (Aros Park).						✓	✓
<b>LOCHALINE</b>							
Caledonian Maritime Assets <sup>12</sup>					✓		✓
Tarmac Ltd (Sand Mine Pier).					✓		
Old Pier	✓						
Ardtornish Estate.						✓	

<sup>3</sup>The infrastructure managed by this organisation can be used with prior arrangement

CRAIGNURE							
Argyll & Bute Council (Ferry Terminal).	✓	✓					
Torosay Estate.	✓	✓ x 2					
NORTH							
Drimnin Estate.		✓					
White House of Aros.					✓		✓
Salen Pier House.					✓		✓
SOUTH							
Iggesund Timber (Lochaline) <sup>4</sup> .					✓		
Forestry Commission Scotland.					✓		
Lighthouse Caledonia.						✓	
Torosay Estate.						✓	
Caledonian Maritime Assets.							✓

### 5.5.3 Existing Marine Infrastructure

#### Moorings

Public (association) moorings are available at Lochaline and Tobermory. Additionally there are some private and commercial moorings near sites of various activities.

#### Navigation Aids

As the Sound of Mull is a major shipping area for ferries and cargo vessels the route is well delineated with buoys and lights. Additionally shore based beacons and lit marks identify navigation hazards present in the area. The Northern Lighthouse Board is responsible for the maintenance of all navigation installations.

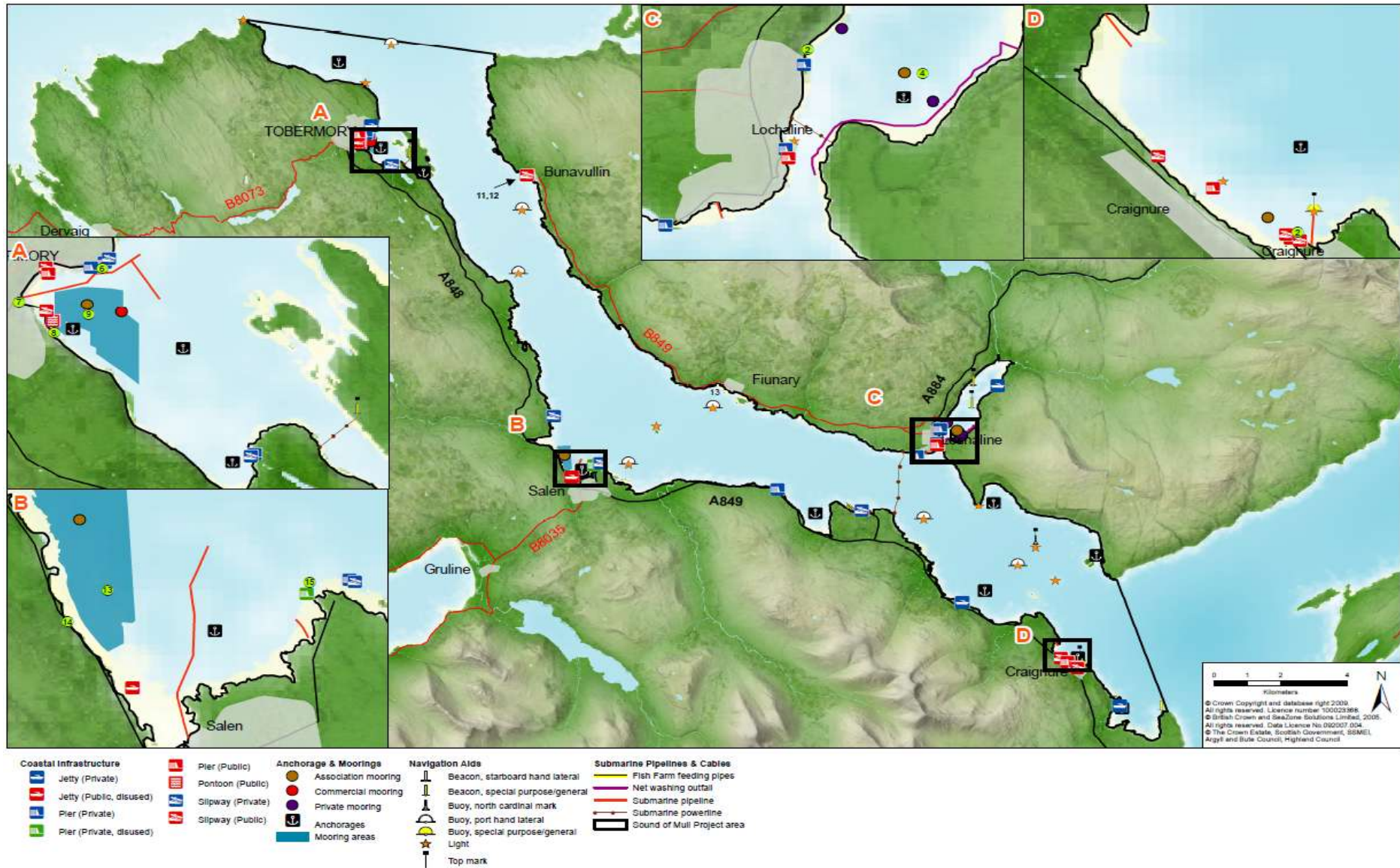
**Pipelines:** Most of the pipelines present in the Sound of Mull are used for effluent discharge and are located near the settlements of Tobermory, Salen, Craignure, Lochaline and Java. Additionally a net washing effluent pipeline runs along the shoreline on the east site of Loch Aline, and a feed pipe services the fish farm present next to the Fishnish ferry slip.

**Cables:** Submarine power lines are present from across the Sound of Mull from Rubha Leth Thorcall to Lochaline, across Caolas na h-Airde from the north to south coasts of Loch Aline, from Aros Park to Calve Island across Doirlinn á Chailbhe, and adjacent to the feed pipe servicing the fish farm next to the Fishnish ferry slip.

<sup>4</sup> The infrastructure managed by this organisation can be used with prior arrangement

The locations of pipelines and cables have implications for developments in their vicinity as strict buffer zones are applied. The full list of terms and conditions can be obtained online from the Crown Estate (The Crown Estate, 2009).





Map CMI 1. Current known Coastal & Marine Infrastructure facilities and opportunities. The spatial accuracy of information is variable and these maps should not be used for navigation

## 5.5.4 Summary of Strengths, Weaknesses and Opportunities for Coastal and Marine Infrastructure

The information presented in the following SWOT analysis was collated from the socio-economic profiles for sectors described in Magill *et al.* (2009), the Sound of Mull working group and Marine & Coastal Infrastructure subgroup. It has been used to inform the Features of Interest for this sector outlined Policy SOM G2, the Additional Criteria in policy CMI 1 and the Opportunities and Actions presented for this sector.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>Established navigation aids.</li> <li>Some existing infrastructure can be utilised and</li> </ul>	<ul style="list-style-type: none"> <li>Existing shore facilities and infrastructure may not be suitable or available for loading and discharging vessels.</li> <li>Volume of goods requiring shipment may not be great enough to justify increased</li> <li>No designated shipping lane in Sound of Mull to safeguard best route, environment and other</li> <li>Lack of infrastructure for boat launching and yachting especially on Morvern/Ardnamurchan coast.</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>Existing infrastructure allows for a potential increase in transportation of goods on and off Mull and Morvern e.g. forestry, aggregates, nationally and internationally by sea to reduce economic and environmental costs.</li> <li>Existing infrastructure could support increased frequency of ferry sailings at peak or popular times and/or fast ferry services between Mull, Morvern, Ardnamurchan, Coll/Tiree and Oban.</li> <li>Potential for coastal villages to take advantage of yachting increases by developing mooring/berthing e.g. Sail West Project has funded the development of new pontoon at Lochaline.</li> </ul>	<ul style="list-style-type: none"> <li>Finance difficult to obtain for infrastructure development and marketing.</li> <li>Fuel prices may discourage infrastructure users.</li> <li>Climate change may result in sea level rises and flooding, which could damage existing and</li> </ul>

## 5.5.5 Policies

### CMI 1 COASTAL AND MARINE INFRASTRUCTURE DEVELOPMENT AND ACTIVITY

#### *Priorities*

The SoMMSP supports Coastal & Marine Infrastructure developments that enhance access and usability of the Sound of Mull. Specifically it recommends:

- the development of infrastructure that allows for greater transportation of goods by sea;
- the development of new or existing infrastructure to improve commercial access to the area;
- the development of infrastructure that results in improved public access to the Sound of Mull;
- the development of appropriate onshore facilities to take advantage of the growing leisure cruising market.

#### *Criteria*

Coastal & Marine Infrastructure developments will be considered more favourably and encouraged if they:

- i. Support the community consultation and community development principles in SOM G1;
- ii. comply with the sustainability principles in Policy SOM G2;
- iii. in locations where soft constraints or potential negative interactions are identified for Coastal & Marine Infrastructure, the proponents can demonstrate satisfactory negotiation and mitigation in relation to the relevant interests;
- iv. encourage positive interactions with other sectors that utilise Coastal & Marine Infrastructure;
- v. accommodate the multiple use of space and physical developments;
- vi. promote and utilise effective working relationships between sectors/businesses/community groups with and outwith the Sound of Mull;
- vii. encourage sustainable business development.

Developments and activities that are located where hard constraints are identified for Coastal & Marine Infrastructure are discouraged.

#### **Justification**

Policy CMI1 provides a sectoral policy for Development and Activity for Coastal & Marine Infrastructure encompassing Policy SOM G1 and SOM G2. It promotes favourable consideration of development and future activities that fulfil the Spatial Opportunities identified for Coastal & Marine Infrastructure, and contribute towards the Additional Criteria outlined as being of value to the area. Spatial Opportunities are identified based on information on constraints, current activities/interests and areas for safeguarding. Additional Criteria were identified from the SWOT analysis which was formed from input by the Sound of Mull Working Group, Coastal & Marine Infrastructure Subgroup, Liaison Network and socio-economic report as areas for

future development focus.

The Supporting Information for Policies and the Sub-areas outline the hard and soft constraints for Coastal & Marine Infrastructure to guide development and existing/future use. Hard and soft constraints were informed by Policy SOM G1, the Sectoral Interactions Report (2009) and factors considered by regulators for development applications. Spatial opportunities are identified based on information on constraints, current activities/interests and areas for safeguarding.

## **CMI 2 VOLUNTARY/ STATUTORY MANAGEMENT FOR COASTAL AND MARINE INFRASTRUCTURE**

Developments and activities are encouraged to contact the following local management organisations (where applicable) before undertaking activities:

- Tobermory Harbour Association
- Mull Fisherman's Association
- Mooring Associations
- Caledonian Maritime Assets

(See Appendix 19 for consultee details)

### **Justification**

Interaction management and recommendations for improvements to voluntary and statutory management measures were discussed and agreed by the Sound of Mull Working Group and Coastal & Marine Infrastructure Subgroup.

### **5.5.6 Supporting Information for Policies**

#### **Summary of Opportunities Identified for Coastal & Marine Infrastructure**

Opportunities identified include pontoon and slipway developments at multiple sites around the Sound of Mull to improve access and cater for the leisure cruising market, a dedicated pontoon for the private passenger ferry at Drimnin to allow access at all states of the tide, and extra visitor moorings at several sites to allow casual access for transiting vessels. Locations of Opportunities identified for Coastal & Marine Infrastructure can be seen on Map CMI 1 as indicative points, with a reference number linking the opportunity to a detailed description in the relevant Sub-area.

#### **Hard and Soft Constraints affecting Development and Activity**

Hard constraints identified for this sector are areas where other legitimate interests likely to be incompatible with Coastal & Marine Infrastructure are already present. These include existing aquaculture operating, shipping and ferry routes, and listed species, habitats and historic sites. Soft constraints were identified as zones of competitive (but potentially manageable) interaction with another sector for a

resource e.g. species or space. Soft constraints include works restriction areas around pipelines and cables, and landscape/ seascape considerations. Full details of the constraints in terms of other sectors and interests for Coastal & Marine Infrastructure can be found in Appendix 5, and are detailed in each Sub-area.

### **Positive and Potential Negative Interactions**

Positive Interactions were identified as interactions between Coastal & Marine Infrastructure and other sectors and interests that resulted in a mutually productive outcome. Examples include the potential for new infrastructure to service many sectors. Potential Negative Interactions were identified as interactions that may result in adverse effects on other sectors and interests. Examples include competition for space with other users, inappropriate behaviour of uses at infrastructure sites, and potential impacts on coastal and marine habitats due to changes in water flow. Full details of the interactions in terms of other sectors and interests for Coastal and Marine Infrastructure can be found in Appendix 5.

### **5.5.7 Actions and Recommendations**

Actions and recommendations were identified and agreed by the Sound of Mull Working Group and Sector Sub-groups as means to improve the current management of the sectors, their interactions with one another and other interests, and to assist in the delivery of the general policies SOM G1 and SOM G2 and the Sectoral Policies. Full details on these actions, including links to relevant SoMMSP objectives and policies, relevant bodies for implementation, prioritisation and timescale, are provided in Section 7.3.

## 5.6 Natural & Historic Environment

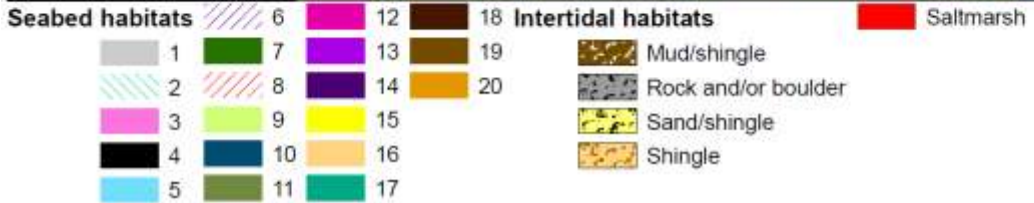
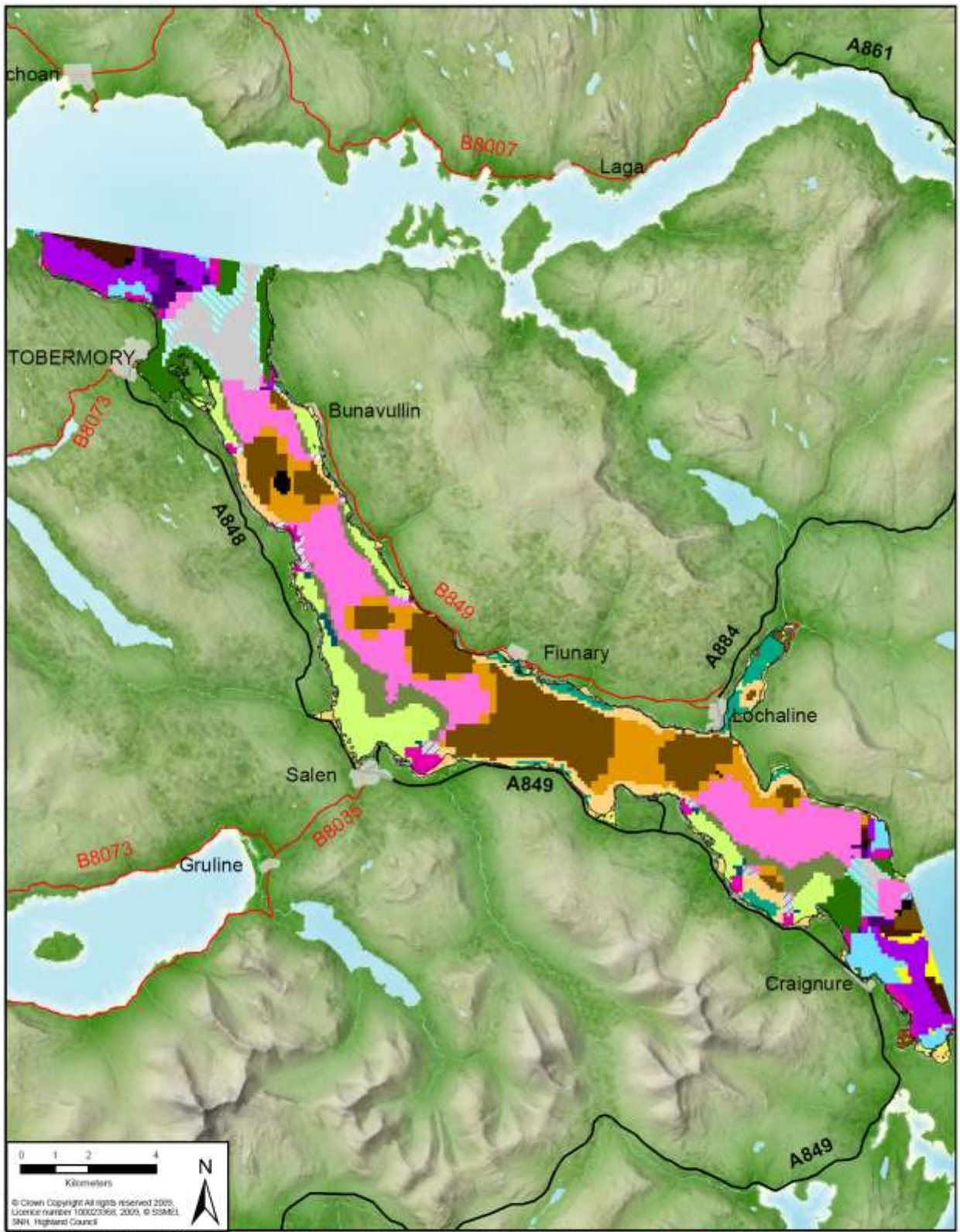
### 5.6.1 Introduction

The Sound of Mull is an area rich in scenery, and has a diversity of habitats and wildlife which attract visitors to the area to appreciate its natural qualities. The historic heritage of the area is arguably the most impressive feature of the Sound of Mull, with two designated wreck sites present, and an expansive collection of buildings, monuments, historic sites and ancient landscapes spread throughout the area. For many activities in the Sound of Mull a healthy and viable natural and historic environment is essential to ensure long term stability and prosperity.

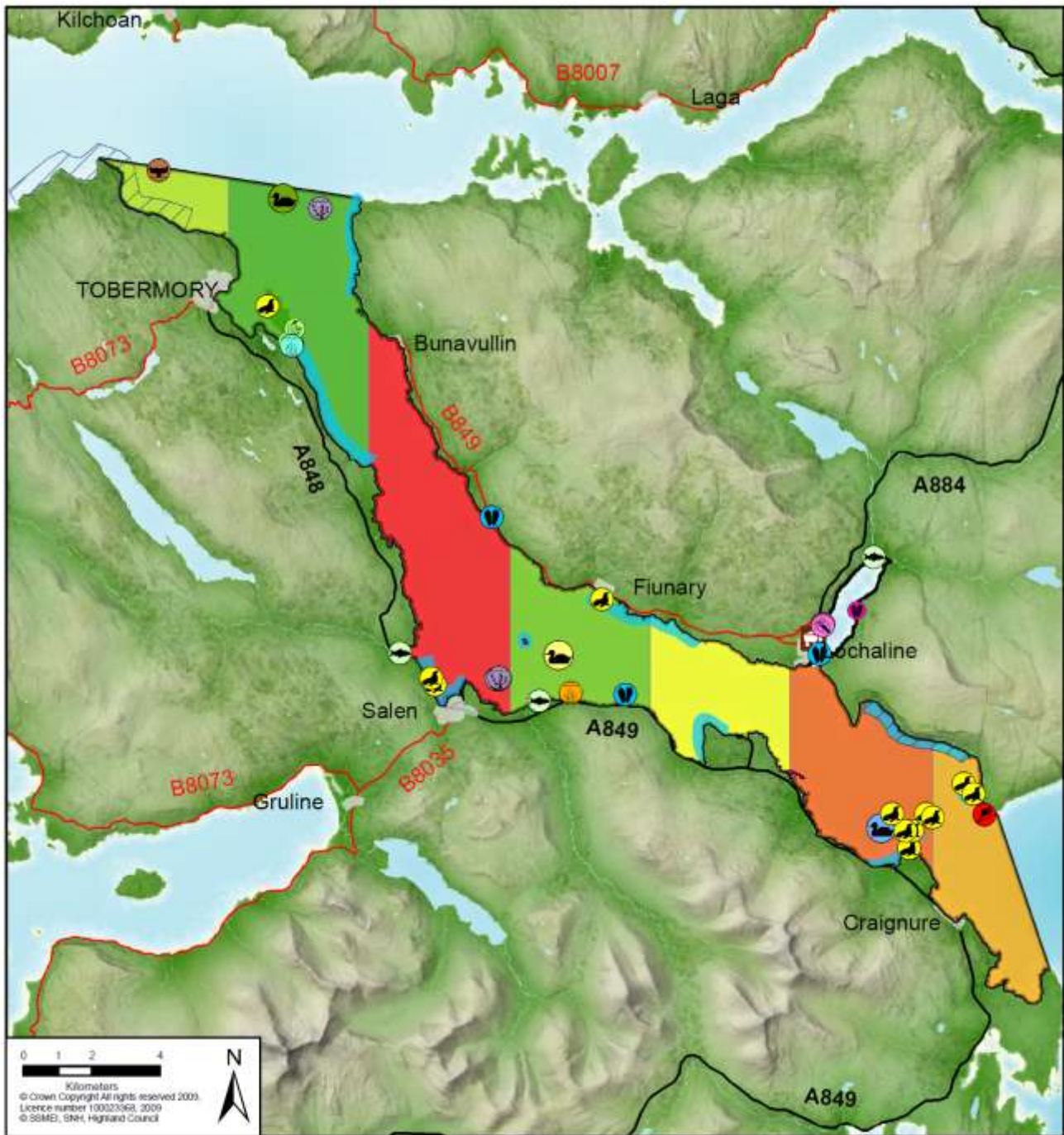
The following sections give an overview of seabed habitat types, habitats and species either protected under European designated sites or identified in national or local Biodiversity Action Plans; existing terrestrial designations/ planning guidance areas that are present in the Sound of Mull, sensitivity of sites, habitats and species to sectoral activity effects, and sites of environmental and historical significance. Several maps display natural and historical environment spatial information as follows:

- Map **NHE1** - Seabed and intertidal habitats.
- Map NHE 2- Species records and areas of significance.
- Map NHE 3- Local and national terrestrial designations for the Sound of Mull.
- Map NHE 4- Historical areas and sites of significance.


Please note that due to the large spatial scale of the maps, details may be more appropriately viewed in the Sub-area section maps.






**Map NHE1: Seabed and intertidal habitats in the Sound of Mull. See the Natural and Historic Environment Technical Appendix for seabed habitat types descriptions from reference numbers. The spatial accuracy of the information is variable and these maps should not be used for navigation.**










**Sites, habitats & species**

-  Wildfish river
-  Common Seal haul out
-  Seabird breeding sites
-  Fossil burn
-  Silica sand deposits
-  *Zostera sp.*
-  File shell beds
-  *Modiolus modiolus*
-  Basking Shark sightings
-  Seapen and Fireworks Anemone

-  Knotted wrack-ecad mackail
-  Maerl
-  Northern Sea Fan

**Porpoise (Detections per Unit Effort)**

-  0.115
-  0.116
-  0.196
-  0.201
-  0.232
-  0.262
-  0.542

**Sea eagle use areas**

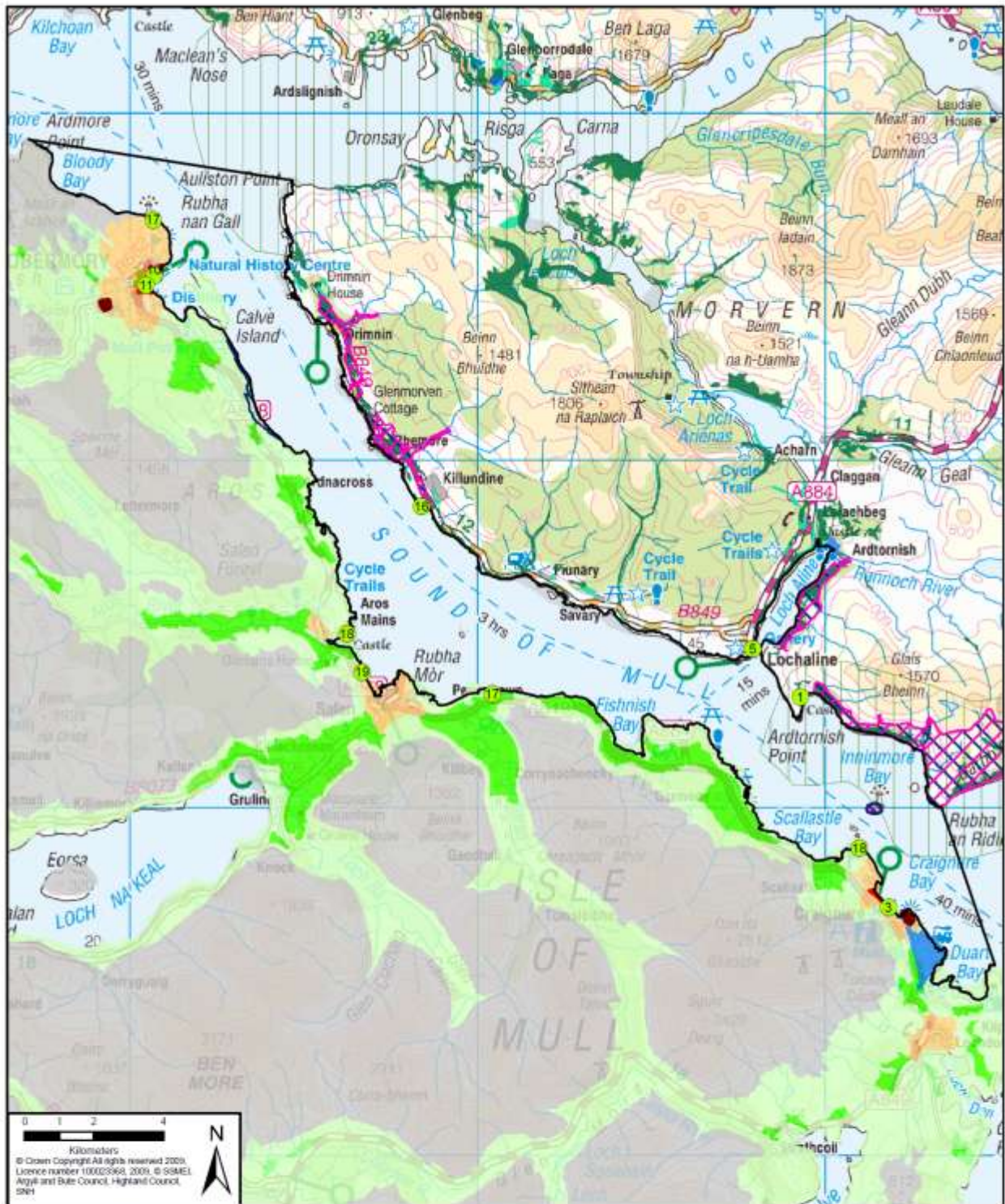
-  Breeding
-  Breeding/Feeding
-  Feeding

**Probable at-sea bird aggregations**

-  Mar - Jun
-  Mar - Sep
-  Jul - Sep

**Map NHE2: Habitats, species, areas of wildlife significance. The spatial accuracy of the information is variable and these maps should not be used for navigation.**





Designations	Argyll & Bute Council Local Plan Designations	Other
SAC	Rural Opportunity Area	Opportunities
Area of Great Landscape Value	Countryside Around Settlement	Sound of Mull Project Area
SSSI	Sensitive Countryside	
Special Protected Area (Birds)	Very Sensitive Countryside	
Gardens and designed landscapes	Conservation Area	
Ancient and long established woodland	Open Space Protection Area	
Long established plantation, other woodland	Tourism Protection Area	

**Map NHE3: Current natural environment and local authority planning designations, and opportunities.**  
 The spatial accuracy of the information is variable and these maps should not be used for navigation.



Historic Heritage Areas	Listed Building Categories	Historic/archaeological sites of interest	Sound of Mull Project area
Historic landscape setting	A	Wrecks	Sound of Mull Project area
Scheduled Monuments	B	Boat House	
Designated Wreck Sites	C	Fish Trap	

Map NHE4: Historic heritage areas and sites in the Sound of Mull. The spatial accuracy of the information is variable and these maps should not be used for navigation.

### **5.6.2 Natural Environment – Seabed Habitats**

The seabed habitats in Map **NHE1** were mapped by Scottish Natural Heritage & Marine Lab. Aberdeen for the Highland Shellfish Management Organisation, to inform its application to the Scottish Government for a Highland Regulating Order. Each habitat was predicted to be the most likely to occupy an area based on existing data and knowledge of environmental conditions. However because of the wide range of variables involved and the low special resolution of the source data, there is considerable overlap between species in the habitats and the predictions should only be used as a guide. The full list of habitats and corresponding designations can be found in the Appendix 6.

### **5.6.3 Natural Environment – Sensitivity of Sites, Habitats and Species of Significance to Sectoral Development and Activities**

The Sound of Mull has a wealth of sites, habitats and species that are recognized for their national and international importance. These include ancient oak woodlands that fringe the shore, important intertidal habitats such as saltmarsh, and many marine species. Appendix 6 contains a full list of all recognized sites, species and habitats, and the following table outlines their sensitivities to particularly sectoral activities. Appendix 18 also details reporting schemes for wildlife and non-native species. Sensitivity information for sites, habitats and species was developed from the following sources:

- Marine Life Information Network’s sensitivity assessments of species and habitats (Marine Life Information Network, 2010)
- Case reports for the OSPAR list of threatened and/or declining species and habitats (OSPAR, 2009)
- U.K. list of SPA areas (Joint Nature Conservation Committee, 2010)
- UK BAP list of priority habitats (U.K. BAP, 2010)
- The Scottish Marine Wildlife Watching Code (Scottish Marine Wildlife Watching Code, 2010)

SITES <sup>5</sup>	SITE SENSITIVITIES					
	Water Quality	Physical Disturbance	Oil/ Chemical Pollution	Sedimentation/ Smothering	Development	Removal of Substrate/ Feature of Interest
Wildfish rivers	✓	✓	✓	✓	✓	✓
Haul out areas for Common Seal ( <i>Phoca vitulina</i> )			✓		✓	
Important seabird breeding sites		✓ During breeding periods	✓		✓	
Geological Features		✓				✓
Morvern Woods SAC	SEE OTTER IN SPECIES SENSITIVITY LISTING					
Glas Eileanan SPA	SEE COMMON TERN IN SPECIES SENSITIVITY LISTING					

HABITATS	HABITAT SENSITIVITIES								
	Loss of Habitat from Development	Erosion	Sedimentation/ Smothering	Invasive Species	Grazing	Pollution/ Contamination	Mobile Fishing Gear	Physical Disturbance & Abrasion (e.g. moorings)	Harvesting
Coastal saltmarsh	✓	✓	✓	✓	✓	✓			
Eelgrass/Sea Grass beds ( <i>Zostera sp.</i> )	✓		✓	✓		✓	✓	✓	
File shell beds ( <i>Limaria hians</i> )							✓	✓	
Horse Mussel beds ( <i>Modiolus modiolus</i> )	✓		✓			✓	✓	✓	✓
Mud habitats in	✓		✓			✓	✓	✓	

<sup>5</sup> SSSI sites surrounding the Sound of Mull are unlikely to be affected by opportunities outlined in the sectors, and are therefore not listed in the site sensitivities table. However details on operations requiring consents for each SSSI can be found on the Scottish Natural Heritage Sitelink Website at: <http://gateway.snh.gov.uk>

deep water	If change in water flow dynamics								
Sea Pen and burrowing megafauna communities	✓		✓			✓	✓	✓	

SPECIES	SPECIES SENSITIVITIES									
	Water Quality	Chemical/ Refuse Pollution	Recreational Fishing	Noise Pollution	Invasive Species	Disturbance from Human Proximity	Commercial Fishing	Finfish Farming	Physical Disturbance & Abrasion (e.g. moorings)	Sedimentation/ Smothering
Atlantic Salmon ( <i>Salmo salar</i> )	✓	✓	✓				✓	✓ Interbreeding and disease transmission		
Basking Shark ( <i>Cetorhinus maximus</i> )		✓				✓ Collision risk with vessels	✓ Bycatch			
Bottlenose Dolphin ( <i>Tursiops truncatus</i> )		✓		✓ Sonar		✓ Collision risk with vessels, ADD use	✓ Bycatch			
Brown/Sea Trout ( <i>Salmo trutta</i> )	✓	✓	✓				✓	✓ Interbreeding and disease transmission		
Common Skate ( <i>Dipturus batis</i> )		✓	✓				✓ Bycatch			
Common Tern ( <i>Sterna hirundo</i> )		✓			✓ Mink	✓ At breeding sites				

Fireworks Anemone ( <i>Pachycerianthus multiplicatus</i> )							✓ Damage from mobile gear			
Golden Eagle ( <i>Aquila chrysaetos</i> )										
Harbour Porpoise ( <i>Phocoena phocoena</i> )										
Knotted Wrack ecad mackii beds ( <i>Ascophyllum nodosum</i> ecad <i>mackii</i> )										
Maerl ( <i>Lithothamnion corallioides</i> and <i>Phymatolithon calcareum</i> )										
Minke Whale ( <i>Balaenoptera acutorostrata</i> )				Sonar		with vessels, ADD use	✓ Collision risk with vessels			
Northern sea fan ( <i>Swiftia pallida</i> )	✓ Oxygen						✓ Damage from mobile gear			
Otter ( <i>Lutra lutra</i> )			✓ capture			✓ holts	✓ Incidental Creels			
Tall Sea Pen									✓	

<i>(Funiculina quadrangularis)</i>										
White tailed eagle <i>(Haliaeetus albicilla)</i>		✓		✓		✓				

#### 5.6.4 Natural & Historic Environment – Landscape/ Seascape Capacity

As part of the development of the SoMMSP a landscape/ seascape capacity report (Grant, 2008) was commissioned to identify coastal areas sensitive to, and appropriate for Aquaculture and Infrastructure developments. This report assessed the coastline of the Sound of Mull against a number of sensitivity criteria, and this detailed descriptive information can be found for each Sub-area in its accompanying technical appendix. The recommendations from this report were used to highlight opportunities and constraints for the Aquaculture and Coastal & Marine Infrastructure sectors, and identified coastal areas in a setting of historic or landscape feature are mapped in Map NHE 4 and the appropriate sub-area maps.

#### 5.6.5 Natural & Historic Environment – Other Landscape Designations

Landscape designations on sensitivity of countryside to development, planning guidance from local authorities in the Sound of Mull (Argyll & Bute and Highland Councils), and other designated landscapes are mapped in Map NHE 3 and the appropriate sub-area maps. The following table lists details of these designation types.

Designating Authority	Designation Name/ Document	Description
Argyll & Bute Council	Local Plan	Strategic land use framework document for development. Details designations displayed on Map NHE4.
Highland Council	Areas of Great Landscape Value	Area designated in accordance with Scottish Office Circular 2/1962 for its regional or locally important scenic character or quality.
Scottish Natural Heritage	Ancient and long established woodland	Woods of semi-natural origin that have appeared on maps from 1750 or the mid 1800s and have been continuously wooded until the present day.
Scottish Natural Heritage	Long established plantation, other woodland	Appear as plantations on maps from 1750 or the mid 1800s. Some may not have been continuously wooded until the present day, although may have developed semi-natural characteristics if undisturbed.
Historic Scotland	Gardens and designed landscapes	Inventoried gardens that are merited on a list of scenic, historic, conservation and horticultural values.

#### 5.6.6 Historic Environment – Overview and Sites of Significance

Historical features in the Sound of Mull are mainly 19<sup>th</sup> century in origin, comprising buildings, marine infrastructure, and harbours, and fishing relics and are for the most part remarkably well preserved. There are also some notable 16<sup>th</sup> and 17<sup>th</sup> century wrecks. In marine historical terms the Sound of Mull is largely unchanged from the 19<sup>th</sup> century period, meaning that many sites are still part of the working community and environment rather than being located in discrete areas.

The Sound of Mull has a diverse collection of historical sites, comprising 31 ancient and scheduled monuments, 75 listed buildings and two listed wrecks, and these sites are mapped in Map NHE 4 and the appropriate sub-areas. Additionally there are over 300 sites mapped without any formal protection that are recognized as sites of



archaeological significance including boathouses and fishing traps. The following table is not intended as a comprehensive guide to all listed sites and buildings, containing only a selection of sites with high tourist numbers or historical significance.

**Duart Castle:** Category A listed building dating back to the 13<sup>th</sup> century and one of the most heavily visited sites in the Sound of Mull. Visitor numbers estimated at 34,000 per year (Magill *et al.* 2009).

**Torosay Castle and Gardens:** Category A listed 19<sup>th</sup> century building constructed in Scottish Baronial mansion style, and separate A listed terraced garden statue walk. Estimated visitor numbers of 30,000 per year (Magill *et al.* 2009).

**Ardtornish Estate:** 19<sup>th</sup> century mansion and highland estate containing three category A, 13 category B and four category C listed buildings.

**St. Columba's Chapel:** Category B listed building and scheduled ancient monument built on the ruins of Drimnin Castle.

**Caisteal nan Con:** Tower house listed as a scheduled ancient monument and believed to have been built on the remains of an ancient fort. The building occupies a prominent coastal setting and has a pier and fish trap of unknown age.

**Aros Castle and Harbour:** Category B listed building and scheduled ancient monument, the 14<sup>th</sup> century castle occupies a prominent coastal setting, with the 17<sup>th</sup> century harbour the earliest known in the Sound of Mull

**Tobermory Lighthouse (Rubha na Gall):** Category C listed building, the lighthouse was constructed in 1857.

**Wreck – Dartmouth:** 5<sup>th</sup> rate English warship wrecked in 1690, the Dartmouth is protected under the Designation of Wrecks Act and can only be dived on under license from Historic Scotland via Lochaline Dive Centre.

**Wreck – Swan:** Along with two companion ships the Swan was wrecked in 1653. She is protected under the Designation of Wrecks Act and can only be dived on under license from Historic Scotland via Lochaline Dive Centre.

**Wreck – San Juan de Sicilia:** A member of the Spanish Armada's Levant squadron, the San Juan de Sicilia was blown up in Tobermory in 1588 after putting in for help.

**Wreck – Hispania:** Swedish merchant vessel sunk in 1954. Considered one of Scotland's finest wreck dives.

**Wreck – Shuna:** Dutch cargo steamship sunk in 1913. Very accessible and can be dived at any tide state.

**Wreck – Rondo:** Tramp steamer wrecked in 1935. A popular wreck dive in the Sound of Mull.

**Wreck: Thesis:** Belfast steamer wrecked in 1889. Consistently listed as one of Britain's top 10 wreck dives.

### 5.6.7 Summary of Strengths, Weaknesses, Opportunities and Threats for Natural and Historic Environment

The information presented in the following SWOT analysis were collated from the socio-economic profiles for other sectors provided by Magill *et al.* (2009), and the Natural & Cultural working sub-groups. It has been used to

inform the Features of Interest for this sector outlined Policy Sound of Mull G2, and the Opportunities and Actions presented for this sector.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Area well known for scenic qualities.</li> <li>• Rich marine, coastal and land based biodiversity</li> <li>• Variety of historic heritage sites.</li> <li>• Existing attractions, viewpoints, access points and interpretation.</li> </ul>	<ul style="list-style-type: none"> <li>• Wreck site deterioration and historic interaction with mobile fishing gear.</li> <li>• Lack of visitor facilities at historic and natural heritage sites (parking, viewpoints, interpretation) and facilities for wet weather.</li> <li>• Land ownership hindering access/ development.</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Improved information on cultural features such as wrecks and fish traps.</li> <li>• Improved marketing for existing and new natural and cultural environment opportunities e.g. kayaking trail.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for development of infrastructure to damage sensitive sites.</li> <li>• Potential disturbance and damage to heritage sites from increase in visitor numbers.</li> <li>• Potential damage to biodiversity of the Sound of Mull through increased interactions.</li> <li>• Oil spills within or nearby Sound of Mull could impact marine and coastal wildlife.</li> <li>• Introduction of non-native pathogens from anglers/ divers/ kayakers using contaminated equipment.</li> <li>• Licences/authorisations required for development.</li> </ul>

### 5.6.8 Policy

#### NHE 1 ENHANCING THE NATURAL AND HISTORIC ENVIRONMENT

The SoMMSP considers that the maintenance of a functional and productive ecosystem is fundamental to the sustainability of many activities that currently occur. It also recognises the significant cultural heritage that is present in the region and acknowledges its economic and social importance to local communities. The Plan:

- supports existing measures to protect sensitive and ecologically important sites and areas, species and habitats in the Sound of Mull;
- encourages projects that will map the extent of known fragile species and habitats in the region;
- recommends measures to further enhance visitor appreciation of natural and cultural sites of significance in the area such as better interpretation, signed trails and guided tours.

#### Justification

Policy NHE1 provides a policy for the Natural and Historic Environment encompassing Policy SOM G1 and SOM G2. It recognises the significant value to the area that the natural and cultural environment provides. The supporting information for the policies and the Sub-areas outline opportunities that will further safeguard the

sector, and were identified through the Natural & Cultural Heritage Sub-group.

### **5.6.9 Supporting Information for the Policy**

#### **Summary of Opportunities Identified for the Natural & Historic Environment**

Opportunities identified include new or better interpretation at many historic sites around the Sound of Mull, and new interpretation on current trails to highlight species such as otters, cetaceans and seals. The development of coastal kayaking trails would also encourage appreciation of the natural and historic features in the area. Locations of Opportunities identified for the Natural and Historic Environment can be seen on Map NHE 3 as indicative points, with a reference number linking the opportunity to a detailed description in the relevant Sub-area.

#### **Constraints and Interactions**

There were no constraints and interactions developed for the Natural and Historic Environment. Whilst many developments and activities rely on a healthy and vibrant Natural & Historic Environment, it has been considered that they will have relevance to other sectors covered in this document (e.g. diving to Recreation & Tourism) and should therefore follow the constraints and interactions contained in the appropriate sector.

#### **5.6.10 Actions**

Actions and recommendations were identified and agreed by the Sound of Mull Working Group and Sector Sub-groups as a means to improve the current management of the sectors, their interactions with one another and other interests, and to assist in the delivery of the general policies SOM G1 and SOM G2 and the Sectoral Policies. Full details on these actions, including links to relevant SoMMSP objectives and policies, relevant bodies for implementation, prioritisation and timescale, are provided in Section 7.3.

## **5.7 Marine & Offshore Renewable Energy**

### **5.7.1 Introduction and Existing Activity**

Although still in its infancy in terms of technological development and commercial production, the Marine & Offshore Renewable Energy sector is expected to develop rapidly over the next decade to exploit the vast resources of wave, tidal and offshore wind power that are present in Scottish waters. Total wave and tidal resources are estimated at 14 GW (10% of EU total) and 7.5 GW (25% of EU total) respectively. Scottish Ministers are committed to seeing 10 MW of wave and tidal energy deployed by 2010, and the Scottish Government has a target of meeting 50% of Scottish demand for electricity from renewables by 2020. It is expected that wave, tidal and offshore wind installations will provide increasingly important contributions to meet this target.

Currently in the Sound of Mull there are no marine renewable energy installations. A report prepared for ScottishPower Renewables (currently confidential) has assessed tidal energy resources within Argyll & Bute Council jurisdiction, which includes information on the Sound of Mull. An SEA on offshore wind resources also expected to be completed soon.

### **5.7.2 Potential for Future Generation Devices & Infrastructure**

#### **Wave Energy Generation**

Wave Energy Capture (WEC) technology is the least developed of marine and offshore renewable devices, and the European Marine Energy Centre (EMEC, 2010) is testing approximately six types of Wave Energy Capture (WEC) technology. Whilst WEC prototypes have been designed to operate from the shoreline out to deep waters, they require areas of good constant wave height for optimum performance. The waters of the Sound of Mull are in all probability too sheltered to provide good conditions for current wave power generator technology.

#### **Tidal Energy Generation**

Tidal power generation can be performed by using a tidal barrage, or by utilizing tidal streams. Tidal barrages are only suitable where they can be built across an estuary or bay and tidal streams utilize fast following currents caused by topographic constrictions that result in increased water speeds. A report prepared for ScottishPower Renewables (currently confidential) identified areas within Argyll & Bute Council jurisdiction that would provide a minimum of 10 KW of generating capacity using a Pelamis Tidal Energy Capture (TEC) device. Of the sites identified, one was located just outside the border of the study area between Duart Point and the Lismore lighthouse. TEC devices for tidal streams have only been tested and developed to full scale in relatively few instances, and the European Marine Energy Centre (EMEC, 2010) is currently testing four types of TEC devices.

#### **Offshore Wind Generation**

By contrast with wave and tidal power production, offshore wind is a relatively mature technology with several farms operating around Great Britain, large scale installations operating in Europe, and many more under construction both in Britain and worldwide. In Scottish waters there are two operational projects; the two turbine

Beatrice demonstration (10 MW) and the 60 turbine Robin Rigg (180 MW). The Scottish Government has initiated a Strategic Environmental Assessment (SEA) for offshore wind within Territorial waters with recommendations planned for early 2010. The Crown Estate has also issued exclusivity leases to ten additional projects within the territorial sea, subject to the outcome of that SEA.

None of these projects or zones are in close proximity to Sound of Mull. The nearest would be the Argyll Array which is greater than 50km distant. Due to the sheltered nature of the Sound of Mull, and the presence of high shipping density it is unlikely that the area would be identified as having potential for an offshore installation.

### **Micro-Renewables**

Small scale energy generation through existing technology such as wind turbines, and future tidal/ wave devices may provide energy need for specific developments e.g. aquaculture or marina facilities

### **Supporting Infrastructure**

All renewable installations have the common need to transport their power to the national grid. Currently there are grid connections both within and very close to the Sound of Mull (Scottish Government, 2010b). As there are areas of wind and tidal resource to the west of the Sound of Mull there may be upgrading of the current infrastructure, or new cabling laid in the area to meet requirements.

### **5.7.3 SWOT Analysis and Economic Contribution**

As there are no operating companies in the area, or comprehensive assessments of suitability of the Sound of Mull for marine renewables, a SWOT analysis for this sector is difficult to construct. Socio-economic benefits of Marine & Offshore Renewables are also difficult to calculate. The only commercially operating facility at Robin Rigg has is not yet producing at full capacity, whilst the Beatrice facility is used for research and development. Whilst there are downstream industries in construction, research and development, these figures are not practical to estimate on a national level, and currently there are no such industries present in the Sound of Mull.

### **5.7.4 Policies**

## **MR 1 MARINE ENERGY DEVELOPMENT AND ACTIVITY**

### *Priorities*

The SoMMSP supports sustainable Marine & Offshore Renewable Energy developments, particularly those which contribute to an increase in renewable energy use by local communities. The Plan recommends:

- Maximising local benefit from environmental assessment, construction and maintenance of marine and offshore energy facilities;
- an assessment of renewable energy potential, particularly for the east side of the Sound of Mull, where no information exists;
- encouraging the promotion of micro renewables for existing and future developments in the area where appropriate.

### *Criteria*

Marine & Offshore Renewable Energy developments will be considered more favourably and encouraged if they:

- i. Support the community consultation and community development principles in SOM G1;
- ii. comply with the sustainability principles in Policy SOM G2;
- iii. in locations where soft constraints or potential negative interactions are identified for Marine & Offshore Renewable Energy, the proponents can demonstrate satisfactory negotiation and mitigation in relation to the relevant interests;
- iv. encourage positive interactions with other sectors that utilise Marine & Offshore Renewable Energy;
- v. accommodate the multiple use of space and physical developments;
- vi. promote and utilise effective working relationships between sectors/businesses/community groups with and outwith the Sound of Mull;
- vii. encourage sustainable business development.

Developments and activities that are located where hard constraints are identified for Marine & Offshore Renewable Energy are discouraged.

### **Justification**

Policy MR1 provides a sectoral policy for Development and Activity for Marine & Offshore Renewable Energy encompassing Policy SOM G1 and SOM G2. It promotes favourable consideration of development and future activities that contribute towards the Additional Criteria outlined as being of value to the area. Additional Criteria were identified from input by the SOM Working Group, Liaison Network and socio-economic report as areas for future development focus.

The Supporting Information for Policies and the Sub-areas outline the hard and soft constraints for Marine & Offshore Renewable Energy to guide development and existing/future use. Hard and soft constraints were informed by Policy SOM G1, the Sectoral Interactions Report (Sound of Mull SSMEI, 2009) and factors considered by regulators for development applications.

### **MR 2 VOLUNTARY/ STATUTORY MANAGEMENT FOR MARINE ENERGY**

Developments and activities are encouraged to contact the following local management organisations (where applicable) before undertaking activities:

- Tobermory Harbour Association
- Mull Aquaculture & Fisherman's Association
- Western Isles Yacht Club

(See Appendix 5 for consultee details)

## Justification

Interaction management measures were discussed and agreed by the Sound of Mull Working Group with comments provided from Scottish Power Renewables.

### 5.7.5 Supporting Information for Policies

#### Opportunities

There are currently no identified opportunities for Marine & Offshore Renewable Energy in the Sound of Mull. Although an area of tidal resource was identified close to the study area, this area would need to account for considerable constraints (see technical appendix) from shipping activity, and the proximity of natural and historic features. Opportunities may arise for support services (e.g. infrastructure, housing, support businesses) for offshore wind areas if suitable sites are located in the areas around the Sound of Mull. One potential site for a large offshore wind array off Tiree is currently being investigated by ScottishPower Renewables.

#### Hard and Soft Constraints affecting Development and Activity

Hard constraints identified for this sector are areas where other legitimate interests likely to be incompatible with Marine & Offshore Renewable Energy are already present. These include existing aquaculture operating, shipping and ferry routes, and protected wreck sites. Soft constraints were identified as zones of competitive (but potentially manageable) interaction with another sector for a resource e.g. species or space. Soft constraints include works restriction areas around pipelines and cables, and landscape/ seascape considerations. Full details of the constraints in terms of other sectors and interests for Marine & Offshore Renewable Energy can be found in Appendix 7, and are detailed in each Sub-area.

#### Positive and Potential Negative Interactions

Positive Interactions were identified as interactions between Marine & Offshore Renewable Energy and other sectors and interests that resulted in a mutually productive outcome. Examples include the potential for new infrastructure to service many sectors, and facilities creating artificial reefs. Potential Negative Interactions were identified as interactions that may result in adverse effects on other sectors and interests. Examples include potential impacts on coastal and marine habitats due to changes in water flow, and disruption to local fisheries during the construction phase. Full details of the interactions in terms of other sectors and interests for Marine and Offshore Renewable Energy can be found in Appendix 7.

### 5.7.6 Actions

Actions and recommendations were identified and agreed by the Sound of Mull Working Group and Sector Sub-groups as means to improve the current management of the sectors, their interactions with one another and other interests, and to assist in the delivery of the general policies SOM G1 and SOM G2 and the Sectoral Policies. Full details on these actions, including links to relevant SoMMSP objectives and policies, relevant bodies for implementation, prioritisation and timescale, are provided in Section 7.3.