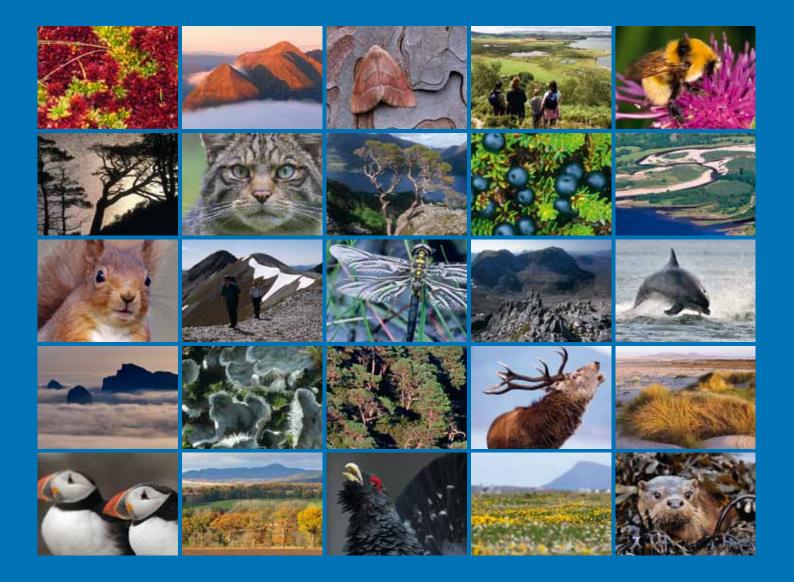
Scottish Natural Heritage Commissioned Report No. 460

# Landscape/seascape capacity for aquaculture: Outer Hebrides pilot study







## COMMISSIONED REPORT

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## Landscape/seascape capacity for aquaculture: Outer Hebrides pilot study

For further information on this report please contact:

Krystyna Campbell Scottish Natural Heritage Great Glen House INVERNESS IV3 8NW Telephone: 01463-725 231 E-mail: krysia.campbell@snh.gov.uk

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# COMMISSIONED REPORT

#### Landscape/seascape capacity study for aquaculture: Outer Hebrides pilot study

Commissioned Report No. 460 (*iBids n°10379*) Contractor: ASH design + assessment Year of publication: 2011

#### Background

The Outer Hebrides coastline is experiencing an increasing amount of development pressure; in particular, there is an increase in planning applications for aquaculture developments including new fish farms or modifications to existing farms. This capacity study was commissioned by Scottish Natural Heritage (SNH) to build upon existing guidance already produced by SNH, The Crown Estate and the Scottish Government, in conjunction with the aquaculture industry. The project was overseen by a steering group consisting of representatives of the Comhairle nan Eilean Siar, Scottish Salmon Producers Organisation and SNH.

It is intended that the capacity study will inform the Aquaculture Supplementary Guidance and new Local Development Plan currently being prepared by Comhairle nan Eilean Siar. Developers will be expected to refer to this Study in the future when preparing aquaculture development proposals in the Outer Hebrides.

#### Main findings

- Four pilot study areas were identified by the steering group. Each was tested against the agreed methodology to identify Regional Coastal Character Areas (RCCA) and Local Coastal Character Areas (LCCA) and to establish the sensitivity of the latter specifically to aquaculture development;
- The sensitivity analysis established that there is scope to develop small to medium scale aquaculture development in most of the pilot study areas, and large-scale developments in Loch Trolamaraig, the east coast of South Uist and east of the Island of Sandray;
- Developments of a scale other than those recommended may change the local coastal/landscape character, or adversely impact upon viewpoints.
- In respect of both shellfish and finfish development, the most sensitive areas were identified as being parts of the inner and outer stretches of Lochs Seaforth, Claidh and Bhrollum, the inner reaches of Lochs Skipport and Eynort and parts of the Barrahead Islands; and
- The report also provides guidance on the scale of development suitable for the identified Local Coastal Character Areas.

For further information on this project contact: Krystyna Campbell Tel: 01463 725000

For further information on the SNH Research & Technical Support Programme contact: Trends & Indicators, Scottish Natural Heritage, Great Glen House, Inverness, IV3 8NW. Tel: 01463 725000 or Research@snh.gov.uk

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#### **Steering Group**

Krystyna Campbell, SNH Project Leader Caroline Stanton, SNH Landscape Advisor Western Isles Roddy McMinn, SNH Area Officer Western Isles Mairi McIver, Comhairle nan Eilean Siar, Planner Stephen Bell, Scottish Salmon Producers Organisation

#### 1 INTRODUCTION

#### Summary

- In response to a request from the Scottish Government this report was commissioned by Scottish Natural Heritage (SNH) to examine the potential landscape/seascape capacity of four pilot study areas in the Outer Hebrides for aquaculture development;
- The findings of this study will help to inform SNH staff, officers of the Comhairle nan Eilean Siar in developing policy and responding to casework, as well as guiding developers.

This landscape/seascape capacity study is strategic and does not remove the need for a detailed site specific planning and evaluation assessment.

#### 1.1 Scope

This strategic appraisal has been carried out to determine the capacity of four pilot study areas located around the Outer Hebrides to accommodate different scenarios of aquaculture development. The report considers the following:

- the methods and findings of the appraisal;
- the landscape and seascape capacity for aquaculture development; and
- considers the potential impacts upon the landscape and seascape resource.

The study was commissioned by Scottish Natural Heritage (SNH) in September 2010 and overseen by a steering group of invited industry representatives, officers of Comhairle nan Eilean Siar, and SNH. The steering group identified four pilot study areas within the administrative and geographical area of the Outer Hebrides (See Figure 1.1), as listed below:

- Loch Liurbost: a graduated loch system that includes Loch Griomsidar that is located in a low-lying coastal area with existing aquaculture development and rural settlement;
- Loch Seaforth with Loch Claidh, Loch Bhrollum: a graduated sea loch that differs in terms of scale of development, includes two sea lochs to the east that contain areas of remote landscape and coastline partially within the South Lewis, Harris and North Uist National Scenic Area (NSA) and designated as a Marine Conservation Area (MCA);
- Lochs Skipport, Eynort and East Coast: A related loch system located on the east coast of South Uist and joined by the coastline between, includes remote areas and sites of historic settlements. Loch Eynort has been designated as a Marine Consultation Area (MCA); and
- Barrahead Islands: includes the chain of remote islands to the south of Barra.

#### 1.2 Background

The Outer Hebrides coastline is experiencing an increasing amount of development pressure; the aquaculture industry is currently consolidating and recent advancements in technology, has led to an increase in production output whilst utilising fewer sites. This has been achieved through increasing the size of existing sites, whilst proposed developments seek to locate fish farms up to 3 times larger than a standard fish farm further out at sea. Small-scale sites have reduced due to lessening economic viability, although some small-scale shellfish farming still takes place. This capacity study builds upon existing guidance already produced by SNH, The Crown Estate and the Scottish Government, in conjunction

with the aquaculture industry. It is intended that the capacity study will inform the Aquaculture Supplementary Guidance and new Local Development Plan currently being prepared by Comhairle nan Eilean Siar. Developers will be expected to refer to this Study in the future when preparing aquaculture development proposals in the Outer Hebrides.

Scottish Planning Policy 2010, the Scottish Governments statement on national planning policy acknowledges the importance of the aquaculture industry for the nation, and is committed to supporting aquaculture and associated industries. In particular, the Scottish Government recognises the importance of the contribution aquaculture makes to the local economy for rural areas, particularly western mainland Scotland and the Isles. The coasts around the Outer Hebrides contain ideal conditions for finfish and shellfish farming, and it is for this reason that the Outer Hebrides make a significant contribution to Scotland's farmed fish output and contributes to the local economy. However, inappropriate aquaculture development can lead to potential adverse effects upon the landscape and seascape resource of our coastlines. It is for this reason that there is a need to establish the carrying capacity of landscapes and seascapes for aquaculture development.

The Scottish Government recognises the importance of the industry for the local economy and is committed to supporting aquaculture and associated industries.

The coast of the Outer Hebrides is some of Scotland's most remote and scenic. Future growth in aquaculture could potentially change the character of this landscape. This report forms an important part of the strategic framework of guidance to aid decision-making with regard to the development policies specific for aquaculture development, as well as local planning applications.

#### **1.3** The Outer Hebrides

**General** 

The Outer Hebrides, which are also known as the Western Isles or the Long Island, comprise a chain of islands located approximately 30 to 50 miles west of the Scottish mainland. The islands are separated from the mainland and Inner Hebrides by the waters of the Minch, the Little Minch and the Sea of the Hebrides. The chain of islands that make up the Western Isles comprise the islands of Lewis and Harris, North Uist, Benbecula, South Uist, Eriskay, Barra, Vattersay, Mingulay and Berneray and a large number of smaller islands. The islands form a geographical area administered by the Comhairle nan Eilean Siar (CnES) and covers approximately 130 miles from the Butt of Lewis in the north to Berneray in the south.

The islands are composed almost entirely of Lewisian gneiss which are metamorphic rocks and the minor differences in the mineral constituent's results in different levels of resistance to erosion. In more recent geological times the islands were subjected to the weight of an ice-cap; the resulting erosion, in combination with climate change, led to the diverse landscape which is evident in the Outer Hebrides today.

Lewis and Harris form the most northerly island and the biggest land mass of all of the islands. Lewis and Harris are not two physically separate islands; rather they are separated by a natural six mile mountain range, which separated the two communities, and led to them being considered two islands. This is further emphasised by the distinct differences in the island's landscapes and coastlines.

#### Lewis

Lewis predominantly consists of flat peat moorland characterised by blanket bogs and complex array of freshwater bodies which covers the central plain. This contrasts sharply with the upland area to the south adjacent to the border with Harris, forming an important backdrop alongside the Harris hills. Settlement mainly occurs in the fertile areas adjacent to the coastline, with Stornoway the only town. Overall, the Lewis coastline tends to be low-lying with areas of machair, and contrasts with the higher landscape of south Lewis, where, the coastline is more rugged and heavily indented into a number of deep sea lochs. In the north of the island, sea cliffs rise to approximately 100 metres at the Butt of Lewis. The west coast is very exposed to the Atlantic Ocean and is more rugged and rocky, broken occasionally by small coves and beaches; it also contains raised rock platforms and gravel beaches as well as small pockets of salt marsh and sandy beaches.

#### <u>Harris</u>

Harris contrasts sharply with Lewis, predominantly consisting of high mountains with exposed bare rock and deep U-shaped valleys often containing sea lochs, although the west coast contains fertile machairs and broad sandy beaches. To the south, the Sound of Harris contains a number of rocky reefs, islets and larger islands. The south eastern coastline, (also known as the Bays area), is rocky and indented with numerous rocky outcrops intertwined with the remnants of townships created when people were evicted from the west coast. Tarbert is the main village on Harris and contains the ferry terminal connecting to Uig on Skye, and Lochmaddy on North Uist. Tarbert is situated on a narrow section of land where the two sea lochs meet, with Loch a Siar to the west and Loch an Tarbert to the east, which includes the island of Scalpay connected to Harris via a bridge at Caolas Scalpaigh. Leverburgh on the south shores has expanded in recent times and also contains a ferry terminal connecting to North Uist.

#### North Uist

To the south lies the island of North Uist. Around one third of the islands land mass consists of a complex system of fresh water lochs. The east coast is rugged, covered in moorland and deeply indented by sea lochs, such as Loch Eport which reaches so far inland that it is only approximately 800 metres from Loch Oban a' Chlachain on the west coast. The west coast in contrast to the east consists mainly of the fertile machair grassland with adjacent crofting townships.

#### South Uist

The island of South Uist forms the second largest island in the Western Isles. It is approximately 22 miles long and 8 miles wide. The west side is relatively flat with extensive machair, and broad sandy beaches forming virtually continuous stretch along the length of the island. The east side of the island is interspersed with lochans and peat moorland and is more mountainous with the summits of Hecla (606m) and Beinn Mhor (620m) dominating the landscape. Here, the east coast is rugged and contains a number of sea lochs and small-scale cliffs. Settlement is mainly located along the west coast, close to the machair and B865 spine road. Lochboisdale is the largest settlement, located in the south with a ferry terminal for ferries connecting to Oban and Barra. South Uist is joined to Benbecula in the north and Eriskay in the south via causeways.

#### Barrahead Islands

To the south of South Uist lie a number of islands, many of which are uninhabited. The island of Barra which is approximately 8 miles long and 7 miles wide consists of a diverse landscape that includes machair, lochs, croft land, broad beaches and rocky upland moorland. The island is dominated by the highest hill Heaval (384m) which lies almost at the centre of the island. The main settlement is Castlebay, with other settlement located near to the main road that circumnavigates the coast. The coastline in the east is rocky and broken, whilst the west coast has sandy bays and machair and exposed. In Castlebay, the medieval

Kisimul Castle forms an important focal point in the bay. To the south lies Vattersay, the most southerly inhabited island, which is joined to Barra via a causeway. The island is largely made up of crofts and is low-lying with the highest point being Heishival Mor (190m). It has a number of broad beaches set amongst its rocky coastline. To the south of Vattersay lie the uninhabited islands of Sandray, Pabbay, Mingulay and Berneray collectively known as the Barrahead Islands. Although all different in character, they contain large cliff faces and rocky coastlines, with the occasional sandy beach and moorland-clad slopes. The remains of former settlements can be found in the more sheltered bays of these islands.

#### The Outer Hebrides Seascape

The seascape of the Outer Hebrides forms a dominant influence over the islands. To the west, the coastlines are unprotected and exposed to the elements of the North Atlantic Ocean. To the east, off Lewis and Harris lies The Minch, whilst The Little Minch lies to the south, between the Uist's and Skye; this opens out into the Sea of the Hebrides, with distant views of Skye, the Inner Hebrides and the Scottish mainland. These islands and the mountainous coast provide foci in the seascape. Between the islands, where the strong Atlantic tides meet the more sheltered tides to the east, strong currents are found, although the effects of these are reduced by the numerous causeways that join the islands.

The Outer Hebrides has approximately 2, 000km of coastline that is diverse and unique; it is for this reason that the coastline is popular with tourists. The tourism sector in the Outer Hebrides is steadily expanding and offers a range of activities using the coastal and marine environment of the islands. This includes fishing, canoeing, cruising, diving, surfing and sailing. There are also proposals to expand the network of marinas around the islands.

#### **1.4 Existing Aquaculture Development**

The aquaculture industry in the Western Isles is a major employer and contributor to the local economy. Fish farms are now present in the majority of sea lochs and sheltered bays along with the onshore processing and transportation facilities required by the industry. The origins of the industry stem from the 1970s when trials were performed on the suitability of finfish and shellfish farming. Since then the industry has rapidly developed and nowadays salmon is the predominant species farmed on a commercial scale. Over the years a number of seabed leases have been granted by the Crown Estate although few of these are in active production. Commercial Shellfish farming is still being developed in the Outer Hebrides and has potential for future growth. With the rising prices in production and transportation small-scale aquaculture is seen as a less viable option and therefore the industry has consolidated with fewer operators although production has remained steady. These operators now operate several sites and this allows for separation of year classes and rotational fallowing which reduces the potential for pest and diseases such as sea lice infestations. Currently there are two purpose-built facilities for processing and packing in the Outer Hebrides and several smaller facilities are engaged in small scale processing and smoking.

In recent years there have been a number of changes in the industry both in procedure and technology. As a whole, the industry is moving away from small-scale development and recent planning applications have included new systems such as increasing the size of existing sites or open sea farming. The latter includes larger fish farms up to three times the size of the average fish farm being located further out to sea in deeper water locations that have stronger currents, which helps reduce potential adverse environmental effects. Additionally, alongside advancements in technology, co-ordinated fallowing and exchange of sites between fin fish and shell fish growers is being undertaken in Loch Roag which will lead to further environmental benefits.

Since 1<sup>st</sup> of April 2007 when The Planning Bill came into effect and planning control of aquaculture development was handed over formally from the Crown Estate to Local

Authorities, Planning applications for new sites, or modifications to existing sites, are required to be made with the relevant Local Authority. A number of pre-application consultations are necessary to be undertaken to ensure that the potential development is assessed against environmental and nature conservation regulations. The seabed and foreshore are also owned by the Crown Estate and it is therefore necessary to obtain a lease. Some proposals for finfish farms due to their nature, scale and location may require assessment under the Environmental Impact Assessment Regulations 1999. Under these regulations, it is mandatory for projects listed in Schedule 1 that an EIA is undertaken, while an EIA may be required for projects listed in Schedule 2 which fall within certain thresholds. Once a planning application has been received and registered (with or without an Environmental Statement), it is then assessed against the relevant Development Plan and material planning considerations. At this stage public and statutory/non-statutory consultations take place.

Recent planning applications submitted in the Outer Hebrides have shown trends for the following:

- Development of previously unused sites for finfish and shellfish (predominantly salmon and mussels respectively);
- Development of used sites for finfish and shellfish;
- Development of sites for multi-use with co-ordinated finfish farms alongside shellfish farms;
- Increase of existing capacity through new long-lines, cages and the upgrade of equipment;
- Change of equipment or site modification such as cages and feeding systems;
- Rationalisation and consolidation of existing sites, resulting in reduction of sites but much larger single developments; and
- Development of sites for other species such as Halibut and Oysters.

#### 1.5 Legal and Policy Context

The assessment has taken account of international, national, regional, and local statutory landscape designations, regulations, strategies, national planning policies and the relevant policies from the statutory Development Plans covering the area. Those of particular relevance to the topics of aquaculture are outlined below. Coastal Planning falls under the Town and Country Planning (Scotland) Act 1997 and associated legislation extends to the mean low water mark of ordinary spring tides and to marine fish farming.

The following legislation is relevant to Scottish marine fish farming and landscape/seascape assessment:

- The Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007;
- Town and Country Planning (Scotland) Act 1997;
- Planning etc (Scotland) Act;
- The Environmental Impact Assessment (Scotland) Regulations 1999;
- The Coast Protection Act (1969);
- The National Parks and Access to the Countryside Act 1949;
- The Countryside (Scotland) Act 1967;
- The Natural Heritage (Scotland) Act 1991;
- The National Scenic Areas (Scotland) Regulations 2008;
- The Wildlife and Countryside Act 1981;
- Conservation (Natural Habitats &c.) Amendment (Scotland) Regulations (2007);
- Nature Conservation (Scotland) Act 2004; and
- The Marine (Scotland) Act 2010.

#### National Policy and Guidance

The primary source of national planning policy in Scotland is set out in the Scottish Government's *Scottish Planning Policy February 2010*. The SPP supersedes the NPPG series and forms a shorter, more concise statement on national planning policy. With particular reference to this report the SPP replaces NPPG 13 – Coastal Planning, NPPG – Natural Heritage and SPP 22 - Planning for Fish Farming.

The Scottish Government's policy on aquaculture is set out in *A Fresh Start – The renewed Strategic Framework for Scottish Aquaculture*. This document recognises and supports the sustainable growth of the aquaculture industry. It advocates that the farmed fish and shellfish industries should minimise potential impacts on the environment, with future industry growth lying within the carrying capacity of the environment. The policy covers all three main sectors of the industry; freshwater fish farming, marine fish farming and shellfish farms.

The Marine (Scotland) Act 2010 provides a legislative and management framework, this aims to balance any competing demands on Scotland's marine environment and helps to create a more simplified marine planning licensing system for Scotland's seas. The Act received Royal Assent on the 10<sup>th</sup> of March 2010 and places a duty on Scottish Ministers to prepare and adopt a National Marine Plan (NMP). The National Marine Plan sets out policies on the following:

- Sustainable development of Scotland's seas;
- Nature Conservation Marine Protected Areas and other relevant conservation sites;
- Economic, social and marine ecosystem objectives as well as objectives for mitigation and adaption of climate change; and
- Information relating to the policies appropriate to the plan.

The National Marine Plan will interact with existing planning frameworks; this will be achieved by the NMP area overlapping with terrestrial plans as it will extend up to the level of mean high water spring tides, while terrestrial planning boundaries generally extend to mean low water spring tides. This will lead to planning addressing the whole of the marine and terrestrial environments. The pre-consultation Draft National Marine Plan was published in March 2011 and will be followed by further consultation later in 2011. The NMP is scheduled to be delivered in the spring or summer of 2012. Marine planning and management will take place at a regional level through Regional Marine Plans. Regional boundaries have still to be agreed, but will be decided during the development of the NMP.

The NMP must also set out the condition of Scotland's marine area (or region); this is set out in Scotland's Marine Atlas, a joint publication between government agencies. The atlas was published in March 2011 and is the first step in developing the NMP for all Scottish waters out to 200 nautical miles. The atlas brings together a range of data and activities that take place in the marine environment. The atlas divides the seas around Scotland into 15 different areas, of which two are pertinent to this report, the Hebrides and the Minches and Malin Sea. The atlas states the importance that aquaculture has to the local economy whilst recognising the changes in technology and development pressures faced. The report also identifies Royal Yachting Association recreational cruising routes, many of which pass through the four identified pilot study areas.

#### Structure and Local Plan Policies

The Western Isles Structure Plan (2003) and Local Plan form the statutory development plans for the Western Isles. The Comhairle nan Eilean Siar are currently at the early stages of preparing a Local Development Plan (LDP) which will include a strategic vision and spatial strategy. The Structure and Local Plans described below were prepared prior to the planning

controls of local authorities being extended to aquaculture development in the marine area, and are therefore out of date. The new Local Development Plan, prepared under the provisions of the Planning etc (Scotland) Act, should introduce policies to guide development of marine aquaculture. Meanwhile, and until the adoption of the LDP, the current development plan policies do not adequately provide policy or locational guidance for the development of marine aquaculture. However, the current Structure Plan and Local Plan will remain in force until the new LDP is adopted.

#### Western Isles Structure Plan 2003 & Western Isles Local Plan 2008

The Western Isles Structure Plan and Local Plan sets out the Development Plan, policies, proposals and recommendations of the Comhairle nan Eilean Siar (CnES) for development, land use and environmental protection within the Western Isles.

The Structure and Local Plan recognises aquaculture's significant contribution to the local economy. The Comhairle is committed to working alongside other agencies and the aquaculture industry to ensure that the marine environment is managed sustainable. Activities associated with the aquaculture industry previously, include both land and sea, previously, the planning system only covered the landward part of aquaculture development and not the offshore area. Local Authority planning control extends only to aquaculture (finfish and shellfish) developments in the marine environment out to 3 nautical miles.

The policies ED6 and ED7 of the Structure Plan refer specifically to aquaculture development. Policy ED6 – Fisheries and Aquaculture Infrastructure suggests that development will be encouraged around the Western Isles to help secure the sustainability of the Western Isles fisheries. Policy ED7 – Marine and Freshwater Aquaculture Development acknowledges that the CnES will prepare a strategy to enable the sustainable development of aquaculture. Support will be given to proposals where careful consideration is given to the location of the site and its suitability for development as well as the design of the associated facilities. Biodiversity and appropriate management of the landscape and natural heritage are also significant considerations.

Policy RM6 Coastal Development refers directly to coastal planning and development. The policy states that development will be encouraged on coastlines that are developed or within existing settlements. Areas of undeveloped coast where there is no township existing and isolated coastlines are assessed against the criteria set out in the policy DM1 Location of Development.

Policy LP/ED4 Aquaculture and Marine Planning Powers refer directly to aquaculture development and state the consideration that will be taken into account when assessing development proposals. Those listed that are pertinent to this report include the location and design of development, landscape and natural heritage features, potential cumulative impacts, and the impact of aquaculture development on communities, tourism and recreational activities.

Accordance with the following policies in relation to landscape and seascape issues associated with aquaculture development is also sought:

- SC11 Sustainable Development;
- DM1 Location of Development;
- DM7 Assessment of Development Proposals;
- RM6 Coastal Development;
- RM8 International Natural Heritage Designations;
- RM9 National Natural Heritage Designations;
- RM10 Local Environmental Designations;

- RM11 Habitats and Species;
- RM13 Listed Buildings;
- RM15 Scheduled Ancient Monuments and other Archaeological Sites;
- ED5 Tourism Development;
- HCL6 Countryside and Coastal Access;
- T3 Walking and Cycling;
- LP/DM1 Assessment of Development Applications; and
- LP/DM3 Service Infrastructure.

#### Scottish Natural Heritage's Approach and Guidelines

Scottish Natural Heritage (SNH) are charged with the responsibility of advising the Scottish Government on matters relating to natural heritage. It is a statutory consultee for development proposals that are subject to environmental impact assessment in accordance with the EIA Regulations.

In response to these duties, SNH has formed strategies targeted at conservation, enhancement and sustainable development. These include and draw on accepted good practice principles, guidelines, discussion documents and joint studies that define landscape values, quality, characteristics and interests. Specific relevant studies and studies are outlined below.

#### Natural Heritage Futures – General

SNH's Natural Futures series sets out long-term objectives to guide and influence the future management of Scotland's natural heritage towards 2025, within the wider context of sustainable development.

Within this series two documents are pertinent to this Outer Hebrides pilot study of aquaculture development.

#### 1. Coast and Seas

This recognises that the aquaculture industry has grown rapidly in recent years. Consolidation within the industry means that there are now fewer producers utilising larger sites, resulting in greater development pressures. Relevant objectives include:

- Development of strategic guidance to consider the carrying capacity of areas utilised for aquaculture;
- Ensuring design, siting and implementation is wholly appropriate to their location;
- Consideration of the cumulative impacts upon the natural heritage.

#### 2. Natural Heritage Futures – Coll, Tiree and the Western Isles

This acknowledges the contribution that aquaculture makes to the rural economy. It also recognises that capacity in sea lochs is limited, and that recent guidance has reduced the potential for inappropriate siting of finfish cages. It highlights the growing pressures associated with freshwater fish farming and the increasing number of freshwater lochs being used for aquaculture.

#### Wild Land Areas

SNH's published Statement No.02/03 concerns the definition and identification of wild land. Map 3 'Search area for wild land', identifies areas that are likely to encompass the main wild land areas although it recognises that not all the areas identified will have wild land character and there may be additional smaller areas not included at this national scale, that may also have wild land character. The map is intended as a tool for local authorities and developers to target surveys with respect to wild land.

#### SNH Aquaculture Guidance

Two SNH documents deal with marine aquaculture development in relation to the landscape and are briefly described below. These two documents aim to offer advice and assist developers and planners in decision making.

#### Guidance on Landscape/Seascape Capacity for Aquaculture

This sets out a methodology for undertaking capacity studies for aquaculture development by assessing the landscape and seascape. The main objective of the guidance the principles of how and where, potential aquaculture development may be best located. This guidance forms the basis of the methodology for this capacity pilot study.

#### <u>Marine aquaculture and the landscape: The siting and design of marine aquaculture</u> <u>developments in the landscape</u>

This offers help and advice on the principles of siting and designing aquaculture development so as to minimise its potential adverse impacts on the landscape and on views, especially out to sea. Currently, this guidance is being updated and is due to be finalised in March 2011. This will give up-to-date advice on recent advancements in technology within the industry.

#### 1.6 Study Brief

The key aim of the project is to assess the capacity of the landscape/seascapes of the agreed pilot study areas with the recommended methodology as set out in the *Guidance on Landscape/Seascape Capacity for Aquaculture*. The results of this work will feed into strategic planning tools and be used by SNH staff, Comhairle nan Eilean Siar and others in developing policy and responding to casework. The report will also be used by developers when planning potential aquaculture development within one of the pilot study areas.

In November 2010 an Inception Report was submitted to the steering group outlining the approach to the capacity study and setting out the methodology. It demonstrated an understanding of the constraints and opportunities for the project, along with a project strategy including the method of assessment clearly set out. The report also set out an understanding of the relevant regulations, guidance and programme for completion.

The pilot study has been prepared by Chartered Landscape Architects from ASH design + assessment, and consists of seven sections as follows:

- Section 1: provides an introduction to the report and states the relevant planning context and guidance;
- Section 2: outlines the adopted methodology;
- Section 3 -6: describes the pilot study areas, identifies both the regional and local coastal character areas, highlights the opportunities and constraints and culminates in their sensitivity to aquaculture development; and
- Section 7: presents the summary and conclusions, with a strategic overview of aquaculture development in the Outer Hebrides.

#### 2. Methodology

#### 2.1 Introduction

The character of the landscape and seascape results from the on-going natural processes and human activities that have shaped the land and coastline to its present form. Landscape character and resources have an importance in their own right and can be valued for their intrinsic qualities. Seascapes are important to the character and identity of the coastal landscape. The aims of this pilot study are:

- to determine the effect of aquaculture development on the landscape character and seascape of the four pilot study areas; and
- highlight the specific elements that contribute to the quality and sensitivity of the landscape and seascape.

Although some elements of the seascape are different to those elements found in the landscape, the natural interaction and spatial continuity between land and sea mean that seascape assessment can be treated as an extension of landscape character assessment. It will be treated in this way in this report.

#### 2.2 Assessment Guidelines

This study is a strategic Landscape/Seascape Assessment, undertaken in accordance with current industry best practice and modified to meet the project requirements.

The work is strictly limited to the landscape, seascape and visual implications. We acknowledge that there are, inevitably, cross-relationships to other planning and environmental concerns; land use, ecology, nature conservation and cultural heritage being the most obvious. However, these are only considered where relevant to our understanding and perception of the landscape and seascape.

The assessment methodology is derived from the *Guidelines for Landscape and Visual Impact Assessment* (GLVIA), published by the Landscape Institute and the Institute of Environmental Assessment (2<sup>nd</sup> Edition 2002), and the *Landscape Character Assessment Guidance for England and Scotland*, (LCA) published by the Countryside Agency and SNH (2002).

The GLVIA acknowledges a relationship between the perception of landscape character and the experience of viewers (referred to as receptors; i.e, residents or people in their workplace, using recreational facilities or the countryside etc).

GLVIA relies on an appreciation of the existing landscape, a thorough understanding of the potential development proposals, evaluation of the magnitude of change predicted to result from the development, the sensitivity of the existing landscape to change and the potential to mitigate impacts.

The LCA Guidance sets out the scope of activity in undertaking a Landscape Character Assessment. This guidance, alongside *Topic Paper 6 Techniques and criteria for judging capacity and sensitivity* (2003), form the methodology for the landscape character and capacity assessment applied.

In line with current best practice the pilot study methodology has involved reference to other assessment approaches in particular for this report the SNH document, *Guidance on Landscape/Seascape Capacity for Aquaculture* which applies a landscape and seascape capacity methodology for sensitivity techniques specifically targeted at aquaculture development.

Reference has also been made to other assessment approaches such as that described in the *Maritime Ireland/Wales INTERREG Report no.5* 'Guide to Best Practice in Seascape Assessment' (2001) and Welsh seascapes and their sensitivity to offshore development by White Consultants. While these two documents informed the methodology for this study, the Scottish coastline has specific characteristics and conditions different to those found in Wales; therefore they can only be critically applied in Scotland. SNH are currently reviewing a number of available guidance specific to seascape and will be producing guidance in the future.

The term seascape refers to relationship between the visual and physical union of land and sea, which combines the character of the maritime, coast and hinterland. The European Landscape Convention defines this as:

'an area, as perceived by people from land, sea or air, where the sea plays a key role'

As mentioned above, seascape assessment is essentially an extension of landscape character assessment. Similarly, in seascape assessment attributes that are specific to that particular environment are defined and established. It is therefore important to consider both the landward and seaward elements and the relationship and influence between them. This leads to the identification of coastal character areas.

SNH, in conjunction with partner councils, has undertaken detailed review and classification of the various regional landscape areas and types in Scotland The landscape of the four pilot study areas are covered by the Western Isles landscape character assessment.

Whilst landscape character assessment can be carried out at a variety of scales, SNH usually identifies landscape character at two levels:

- **Regional Landscape Character Areas** are recognisable distinct landscape regions at broad scale, based on the general characteristics such as landform, geology, soils land use, ecological associations, historical associations and urban and industrial activity; and
- These Regional Landscape Character Areas are further refined into Landscape Character Types. These are tracts of countryside which have a unity of character due to particular combinations of landform, land cover and consistent and distinct pattern of constituent elements, which are reviewed in more detail than the Regional Landscape Character Areas.

The Western Isles landscape character assessment identifies various Landscape Character Types (LCT) and provides a description of their key characteristics, potential forces for change and specific design guidance for each individual LCT.

In 2004 the SNH commissioned report 'Landscape capacity study for onshore wind energy development in the Western Isles', reviewed and updated the landscape character assessment, due to specific issues relating to wind energy. For the purpose of this report no amendments to the original SNH landscape character assessment were necessary. Following an initial desk study and with prior knowledge and experience of the four pilot study areas, the existing assessment is considered a true representation of the existing landscape character baseline.

Coastal character assessment has been undertaken as an integral aspect of *An assessment* of the sensitivity and capacity of the Scottish seascape in relation to windfarms, SNH Commissioned Report 105 (2005). This identified 33 Seascape Units; of these, the four pilot study areas are located within the following two:

- Area 14: The Little Minch; and
- Area 17: Barra and the Sounds.

These Seascape Units are at a national scale and are only valid at a broad strategic level and will therefore not be considered in this report.

#### 2.3 Study Area

Following a steering group meeting, the extent of coastline within each pilot study area was agreed (See Fig 1.1). A 3km offset of the coastline was then identified as the extent of the pilot study area where it was considered that adverse effects from aquaculture development could be experienced on the landscape and seascape resource. The 3km study area has been chosen for a number of reasons, as follows:

- aquaculture development within the study areas tends to be close to the coastline;
- is generally low in the water, with exception of feeding barges;
- views of existing development will significantly reduce outwith 3km, due to the topographical nature of coastline of the pilot study areas; and
- the local level of the pilot study requires a reduced scale and more detailed assessment, therefore a 3km inshore and offshore study area is more relevant for developments close to the shoreline.

#### 2.4 Capacity Assessment

This capacity assessment follows the methodology set out in the *Guidance on Landscape/Seascape Capacity for Aquaculture* as closely as possible; the exception being that for logistical reasons, an initial site visit was not undertaken. Instead, Regional Coastal Character Areas were established during the main site survey.

Existing aquaculture development sites were not considered in the baseline assessment due to the temporary nature and move ability of offshore development, but were considered separately in informing the potential capacity of the pilot study area for aquaculture. Scenarios, outlined below, were used to test the sensitivity and thereafter to ascertain the capacity of each LCCA.

The assessment involved six key stages:

- Stage 1: Preliminary baseline assessment of the study areas;
- Stage 2: A detailed site survey;
- Stage 3: Identification of opportunities and constraints;
- Stage 4: Landscape/Seascape sensitivity assessment;
- Stage 5: Overall Sensitivity; and
- Stage 6: Aquaculture Capacity and Recommendations.

Each stage was applied to each LCCA, and recorded in tabular form under each separate Pilot Study Area. The working method for each stage is outlined below.

#### Stage 1: Baseline Assessment

The following specific desk-based tasks have been undertaken:

- Desk-based review of policies and guidance relevant to the Pilot study;
- Consultation with Comhairle nan Eilean Siar, Scottish Salmon Producers Organisation, and Scottish Natural Heritage;
- A review of the Western Isles Landscape Character Assessment;
- A review of Natural Heritage Futures Coasts and Seas, and Coll, Tiree and the Western Isles;

- Analysis of existing and proposed land use data and policies from the Western Isles Structure Plan 2003, and the Western Isles Local Plan 2008;
- A review of landscape designations;
- A review of Historic Gardens and Designed Landscapes Inventory; and
- Identification of landscape character and its key landscape, ecological and cultural elements.

As mentioned above, it should be noted that existing aquaculture development has not been mentioned in the baseline assessment, but is identified separately.

#### Stage 2: Site Survey

A site appraisal of the existing landscape character and identification of regional and local coastal character areas and seascape assessment, which was undertaken in two separate trips in November and December 2010, by a team of Chartered Landscape Architects. Site recording involved the completion of standardised recording forms and annotation of 1:50, 000 scale Ordnance Survey plans, supported by a photographic record of views from key viewpoints and from the identified regional and local coastal character areas.

Regional Coastal Character Areas (RCCA) were established. These consist of geographical areas sharing similar characteristics at a strategic level; these were named after their geographical location. Following a more detailed assessment, these RCCA's were then subdived into Local Coastal Character Areas (LCCA), where distinct local character was evident with a strong integrity such as a specific stretch of coastline or bay.

The assessment has been undertaken from the nearest public road, footpath or open accessible space. Not all of the footpaths or tracks in the study area have been walked/visited. Assumptions have been made about the extent and degree of importance of views relative to routes as a whole, based on assessment of sample routes/locations. Due to the nature of the pilot study and inaccessibility of three of the pilot study areas, survey work was also undertaken by boat. This helped to inform the seascape assessment.

#### **Stage 3: Opportunities and Constraints**

This stage examines the potential effect on the LCCA, specifically from aquaculture development. By establishing potential opportunities and constraints the assessment can highlight if the LCCA has the potential to accommodate aquaculture development and, if so, what the appropriate scale of development would be in order to avoid any adverse effects. To achieve this it is important to apply different development scenarios chosen to represent the type of design, scale, components, and layout of aquaculture development currently used in the industry. Note that the scenarios are indicative and do not cover all of the potential variables. The scenarios were drawn from the guidance but amended in light of current trends in the industry specific to the Western Isles.:

#### Small Scale

- Up to six cages or rafts with no offshore storage or other infrastructure;
- Up to four mussel lines or rafts occupying up to one third of the length of a bay, with no additional infrastructure. Generally the lines are likely to be about 100m 200m in length, but it is the proportion to the length of bay or defined coastline which is the overriding consideration;
- Oyster trestles which occupy up to one quarter of the arc of a bay when revealed; and
- Scallop lines which require up to fifty buoys to be visible.

#### Medium Scale

- From seven up to ten cages or rafts, up to 80m circumference or 22m in diameter, with one non residential small capacity feed barge or small feed hoppers attached to each cage, but no other offshore infrastructure;
- Up to six mussel lines or rafts, occupying up to one half of the length of a bay, with associated offshore infrastructure. Generally the lines are likely to be about 200m – 400m in length, but it is the proportion of the length of the lines to the length of bay or defined coastline which is the overriding consideration;
- Oyster trestles or similar which occupy up to one third of the arc of a bay when revealed; and
- Scallop lines which require between fifty and one hundred and twenty buoys to be visible;

#### Large Scale

- More than ten cages or rafts, often over 80m in circumference, or 22m in diameter, with a large capacity feed barge and possibly additional water based infrastructure;
- More than six mussel lines or rafts, occupying up to two thirds of the length of a bay, with associated offshore infrastructure. Generally the lines are likely to be greater than 440m in length of bay or defined coastline which is the overriding consideration;
- Oyster trestles or similar which occupy up to two thirds of the arc of a bay when revealed; and
- Scallop lines which require more than one hundred and twenty buoys to be visible.

In the assessment process, the development scenarios equate to the magnitude of potential change being tested. Note that potential new shore bases are not assessed in the study. This is because several developments are often serviced from one large shore base, with a number of smaller satellite shore bases to store equipment. Feeding is now generally automated and harvesting and storage of fish is now undertaken off-site. Existing shore bases within the pilot study areas are mentioned as part of the baseline assessment.

#### Stage 4: Sensitivity Assessment

In assessing the 'Sensitivity to Change' the methodology used in this assessment adopts terminology stated within the GLVIA. The assessment of the landscape sensitivity to change in this report is specifically related to aquaculture; in this case the onshore and offshore facilities and elements that make up an aquaculture development.

The extent to which the coastal character types can accommodate and tolerate change resulting from aquaculture development needs to consider the following:

- The compatibility of the structural forms and intended development scale with for instance landform, land cover, hydrology, settlement, land use and visual extent;
- The existence or absence of other aquaculture development and, where present, its prominence;
- The scenic quality of the landscape and the key qualities; and
- The value of the landscape and seascape.

All the issues considered are presented in *Guidance on Landscape/Seascape Capacity for Aquaculture* (2008).

The degree of sensitivity of landscapes to change of the type proposed would vary in accordance with the importance of the landscape concerned and the contribution it makes (positively or negatively) to the local, regional and national landscape. In determining landscape sensitivity this study evaluated scenic quality on a five point scale, as follows:

- **High**: highest scenic quality, with pleasing patterns, combinations of landscape features and important aesthetic or intangible factors, tranquil and unspoilt by intrusive/inharmonious development;
- **Medium-High**: pleasing pattern or combinations of landscape features but slightly less tranquil/enclosed and some awareness of nearby development;
- **Medium**: may or may not be developed, harmonious and pleasing to the eye, with no discordant elements present;
- Low-Medium: of neutral quality, neither pleasing nor discordant, but with some intrusive or disharmonious development; and
- Low: poor quality landscape with intrusive/inharmonious development predominating.

For the purposes of this assessment, where adjacent Local Coastal Character Areas are in close proximity, the highest sensitivity takes precedence when considering potential aquaculture development.

The values ascribed in this analysis of scenic quality only relate to landscape in the local context. Areas of different landscape/seascape scenic quality do not necessary correlate with existing Landscape Character Types nor RCCA's and LCCA's.

Landscape value is another determinant of sensitivity and is frequently addressed by reference to international, national, regional and local designations, determined by statutory and planning agencies. Absences of such a designation, however, does not necessary infer a lack of quality or value. Factors such as accessibility and local scarcity can render areas of nationally unremarkable quality, highly valuable as a local resource.

#### Landscape Sensitivity to Change

The methodology used in this assessment adopts the terminology within current best practice of assessing "Sensitivity to Change" (GLVIA). The assessment of the landscape sensitivity of change remains specifically related to the proposed development. The extent to which the landscape/seascape components, coastal character areas would accommodate and tolerate the type of change which would be caused by the potential development proposed is assessed by the following factors:

- The change proposed;
- The ability of the landscape/seascape components which are physically affected to accommodate the change proposed; and
- The ability of the wider landscape and its components to accommodate the change proposed.

It should be noted that although this assessment may be influenced by landscape /seascape values, it is not necessarily the case that a highly valued landscape is also a highly sensitive one.

The sensitivity has been reviewed against a set criteria stated in the guidance and includes as follows:

- Maritime influences;
- Character and experience of the coastal edge;
- Setting of landmarks and features;
- Experience of wildness;
- Aesthetic Qualities; and
- Key Viewpoints.

The landscape/seascape sensitivity has been evaluated on a relative basis within the study area and is described by a five-point scale, using the following criteria:

- Very High Sensitivity: A landscape/seascape of very distinct character not able to accommodate change of the type proposed;
- **High Sensitivity**: A landscape of particularly distinctive character able to accommodate relatively small changes of the type proposed;
- **Medium Sensitivity**: A landscape/seascape of moderately valued characteristics reasonably tolerant of change of the type proposed;
- Low Sensitivity: A relatively unimportant landscape which is potentially tolerant of substantial change of the type proposed; and
- Not Sensitive: Potentially tolerant of any change of the type proposed.

#### Stage 5: Overall Sensitivity

This will provide an overview of sensitivity for each LCCA.

#### Stage 6: Aquaculture Capacity and recommendations

This will assess the current sensitivity of aquaculture development within the study area and make recommendations for future aquaculture development. As described above, sensitivity of the landscape and seascape is a key determinant of potential capacity. It is also important to consider the scale of the landscape and seascape when determining the capacity and making recommendations on suitability of development scenarios. As a general rule larger scale landscapes and seascapes will have a greater capacity to accommodate the larger scale development scenarios whereas smaller scale landscapes and seascapes may be dominated by large scale development and would be more suited to the smaller scale development scenarios.

#### 2.5 Limitations of the Assessment

The landscape and seascape assessment combines a desk study with a field survey. Due to time restrictions and weather conditions, only one site visit to each coastal character area was undertaken. However, the assessors recorded as much information as was possible in the short timeframe available to them. Information obtained on the aquaculture industry chiefly came from desk-based research and from communications with industry representatives.

The assessment has not used admiralty charts to aid the assessment; this is due to the age and consequent inaccuracy of the charts within the chosen pilot study areas.

Information on existing aquaculture developments within the pilot study area is based solely upon information recorded during the site survey. Only sites within the pilot study area have been assessed in the cumulative assessment; a wider assessment of the Western Isles coastline as a whole would be required to give a true reflection of potential cumulative impacts on a regional basis.

#### 3. Lewis: Loch Liurbost Pilot Study Area

#### 3.1 Baseline

The Loch Liurbost Pilot Study Area consists of a graduated loch system located approximately 8 kilometres south of Stornoway on the island of Lewis (See Figure 3.1). The study area extends from Rubha Thurnabhaigh to the north and includes Loch Griomsidar, Loch Liurbost and part of the northern coastline of the mouth of Loch Eiresort. Both Loch Liurbost and Loch Griomsidar share similar characteristics in that they are very enclosed, Loch Liurbost by small islands and islets and Loch Griomsidar by a narrow channel, resulting in a limited visibility of the sea and an initial perception that the sea loch is in fact land-locked, although tidal fluctuations and seaweed are evident. The landscape is generally low-lying with the area to the north of Loch Liurbost, Crosbost, Ranais and Griomsidar. To the west the landscape is mainly undulating moorland with freshwater lochs; the A859 road passes through, to the west of Loch Liurbost. To the south the study area includes the mouth of Loch Eiresort, this is studded with small islands and islets which fragment the open waters and filter views. There is little or no settlement in the south and largely consists of remote, undeveloped coastline.

#### 3.2 Designations

There are two Listed Buildings located within the pilot study area (See Figure 3.2), these are both churches within the settlements of Liurbost and Crosbost and are important landmarks and features within the local vicinity. The St Columb's Church Scheduled Ancient Monument (SAM) lies to the south of the pilot study coastline and has no direct intervisibility with the pilot study coastline. There are four ecological designations, which include the eastern edge of the Lewis Peatlands Ramsar, Special Protection Area (SPA) and Special Area of Conservation (SAC). To the north of the pilot study coastline lies Loch Orasay SSSI, although this obtains no direct intervisibility with the pilot study coastline.

#### 3.3 SNH Landscape Character Types

The pilot study area falls within nine Landscape Character Types (LCTs) identified in the Western Isles landscape character assessment. Direct visibility of the coastline is a characteristic integral to five of these LCTs (See Figure 3.3):

- Coastal Island LCT;
- Crofting Two LCT;
- Crofting Three LCT;
- Knock and Lochan LCT; and
- Rocky Moorland LCT.

#### 3.4 Identification of Regional Coastal Character Areas

Following a desk-based survey and on-site assessment, four Regional Coastal Character Areas (RCCA) were identified These RCCA's are illustrated on Figure 3.4 and described in Appendix 3.1 and comprise:

- Loch Griomsidar RCCA;
- Outer Loch Eiresort RCCA; and
- Loch Liurbost RCCA.

#### 3.5 Identification of Local Coastal Character Areas

Following a detailed site survey, eight Local Coastal Character Areas (LCCA) were identified within the Loch Luirbost Pilot Study Area. These LCCA's are illustrated on Figure 3.5 and listed below:

- Narrow Enclosed Inner Loch LCCA;
- Narrow Outer Loch LCCA;
- Moorland Headland Coastal Edge LCCA;

- Secluded Bay with Settlement LCCA;
  Settled Loch Edge LCCA;
  Crofting Slopes with Settlement LCCA; and
- Rocky Moorland Edge LCCA;
  Rocky Moorland with Coastal Edge LCCA.

Table 3.1: Narrow Enclosed Inner Loch LCCA		
Key Characteristics		
Key Characteristics <ul> <li>Distinct variation in the width of the loch from narrow channels into wider sheltered bays and limited perception of the sea helps create the impression that the loch is land-locked;</li> <li>The coastline is sheltered and low-lying with gentle curves and the occasional small bay which contrasts with the long narrow indentations found to the west;</li> <li>The expanse of water is small in scale and large parts of the loch to the west are shallow which are more evident during low tide;</li> <li>Development along the coastal edge is limited to the southern coastline around Ranais;</li> <li>The hinterland is made up of crofting rough pasture around settlements and further afield tends to consist of undulating moorland hillside which creates a sense of enclosure;</li> <li>The occasional water tower on locally prominent ridgelines provide focal points;</li> <li>The irregular shape of the loch and presence of the island of Buaile Mhor results in fragmented views; and</li> <li>Views of the loch are from the settlements and minor roads to the north and south of the loch.</li> <li>Landscape Value:</li> <li>Medium</li> </ul>		
	the vicinity of the loch, onshore satellite base can	
Opportunities	be found to the east of Griomsidar.	
Linear nature of the loch could accommodate small-scale long line development.	Small-scale and narrowness of the loch does not lend itself to finfish development which would be too obtrusive as it is overlooked by settlement.	
Sensitivity	to Change	
Maritime Influences	Medium Sensitivity Tidal dynamics are less evident resulting in the perception of an inland loch. Finfish development would dominate the small-scale of the loch. Some aquaculture traffic could be absorbed due to presence of onshore base.	
Character & Experience of Coastal Edge	Medium Sensitivity Gentle curves with deep narrow indentations leave little opportunity for development although the linear qualities of the loch may offer opportunities for small-scale linear developments	
Setting of landmarks and features	Medium Sensitivity Ranais forms the only distinctive feature on the coastline and development close to the settlement should be avoided.	
Experience of Wildness	Low Sensitivity Sense of remoteness and isolation limited by scattered development along coastline.	
Aesthetic Qualities	Medium Sensitivity The LCCA does not contain any landscape of exceptional scenic quality.	
Key Viewpoints	Medium Sensitivity Potential development should avoid being visible from Ranais, along the loch edge, the adjacent road; the more elevated settlement of Griomsidar to the north and the adjacent road which has elevated views of certain parts of the loch	
Overall Sensitivity	Medium Sensitivity	
LCCA Capacity for Aquaculture	Medium or large scale development would dominate the narrow, small scale nature of this LCCA. There is potential for small-scale shellfish development.	

Table 3.2: Narrow Outer Loch LCCA			
Key Characteristics			
<ul> <li>Indented coastline with a contrasting combination of steep sea cliffs and gentler hillsides that sweep down to the shoreline;</li> </ul>			
coastline into the wider bay of the loch mou			
topography that screens the inner section of			
	ature helps influence the sense of wildness; and dominated by the seascape to the east which		
includes views of Skye, the Inner Hebride point; and	s and Scottish mainland and forms the main focal		
outcrops.	nly consisting of heather moorland with rocky		
Landscape Scenic Quality:	Medium-High		
Landscape Value:	Medium-High		
Existing Aquaculture Development:	Presently no offshore aquaculture development in the vicinity of the LCCA.		
Opportunities	Constraints		
<ul> <li>Visual screening provided by steep landform and narrow channel to the west;</li> <li>Coastline largely inaccessible from land;</li> <li>Close to existing shore base, opportunity to accommodate aquaculture activity on the loch; and</li> <li>Small-scale and linear nature offers some opportunities for long lines or medium-scale finfish development.</li> </ul>	<ul> <li>Small-scale of the loch mouth does not lend itself to large-scale finfish cages which would be too obtrusive in the seascape; and</li> <li>Undeveloped landscape, potential development would change sense of remoteness.</li> </ul>		
	to Change		
Maritime Influences	Medium Sensitivity Small-scale and exposed towards the Minch results in a strong tidal dynamics.		
Character & Experience of Coastal Edge	Medium Sensitivity Steep sided cliffs and gentle sweeping hillsides screen potential views and the enclosed nature of the mouth offers some opportunity for small or medium-scale development.		
Setting of landmarks and features	Low Sensitivity Lack of obvious feature or landmark along the coastal edge.		
Experience of Wildness	Low Sensitivity There is a general sense of remoteness and isolation although this decreases to the west where fragmented views of development reduce the perception of wildness.		
Aesthetic Qualities	Medium Sensitivity Hinterland and coastline is relatively uniform and undeveloped with no outstanding scenic qualities.		
Key Viewpoints	Low Sensitivity Coastline is largely inaccessible with no obvious viewpoints inshore and the broken coastline of steep cliffs and low coastline areas would make it very difficult to experience.		
Overall Sensitivity	Low Sensitivity		
LCCA Capacity for Aquaculture	The small scale nature of much of this area would not be suitable for development. However, there is potential for some small or medium-scale shellfish/finfish development in outer limits of loch		

Table 3.3: Moorland Headland Coastal Edge LCCA			
Key Characteristics			
<ul> <li>Rocky irregular coastline, often with craggy small-scale cliffs, small inlets and occasional small gravel beach results in visual foci;</li> <li>Backdrop of rounded hills with exposed rocky outcrops;</li> <li>Uniformity of hinterland ground cover, consisting of rough grassland, heather and bracken;</li> <li>Small islands, islets and small prominent headlands break up views and provide an interesting composition;</li> <li>Open medium scale seascape combined with undulating topography which gives the hinterland landscape an impression of being smaller scale.</li> <li>Landscape Scenic Quality:</li> </ul>			
Landscape Value:	Medium-High		
Existing Aquaculture Development:	Presently no offshore aquaculture development in the vicinity of the LCCA.		
Opportunities	Constraints		
<ul> <li>Craggy irregular nature of the coastline offers opportunity to screen potential development;</li> <li>No obvious viewing area, inaccessibility and undulating topography would help screen views from the hinterland;</li> <li>Islands and islets offer screening of potential views from the seascape; and</li> <li>Close to existing shore bases and other existing aquaculture sites.</li> </ul>	<ul> <li>Largely undeveloped, which helps create the impression of sense of place and wildness; and</li> <li>Settlement of Cromor overlooks part of the LCCA.</li> </ul>		
Sensitivity	to Change		
Maritime Influences	Medium Sensitivity Coastline exposed to Minch results in strong tidal dynamics with waves crashing onto headlands, increasing the perception of the sea. Potential development could be absorbed within indented areas and appear as a natural extension to the headland. Marine based activity from local fishing boats could absorb potential development. Medium Sensitivity		
	Indented irregular coastline which is consistent offers opportunities for small and medium-scale developments.		
Setting of landmarks and features	Medium Sensitivity Siting of potential development along south of the LCCA should be avoided to prevent potential visual impacts to entrance of Loch Eiresort.		
Experience of Wildness	Medium Sensitivity Although not wild in character the undeveloped nature of the LCCA results in a perceived sense of remoteness.		
Aesthetic Qualities	Medium Sensitivity Irregular coastline that creates visual foci, uniformity in appearance and undeveloped, however contains no exceptional qualities.		
Key Viewpoints	Low Sensitivity Intervisibility is experienced indirectly from the neighbouring LCCA's.		
Overall Sensitivity	Medium Sensitivity		
LCCA Capacity for Aquaculture	Large scale development would dominate the small to medium scale nature of this LCCA. There is potential for small to medium-scale shellfish/finfish development.		

Table 3.4: Secluded Bay with Settlement LCCA			
	acteristics		
<ul> <li>Irregular coastline that gently sweeps down to the loch side, indented with gravel bays and small-scale rocky shoreline;</li> </ul>			
<ul> <li>Scattered crofting settlement nestled between the settlement nestled between the</li></ul>			
<ul> <li>Slightly sloping landform characterised by presented by p</li></ul>	patterns of different orientated lazy beds;		
<ul> <li>Hinterland contains scattered crofts and irred</li> </ul>	egular field patterns;		
<ul> <li>Over ground services, boat moorings and p</li> </ul>	post and wire fences; and		
<ul> <li>Intervisibility with offshore islands and islets</li> </ul>			
Landscape Scenic Quality:	Low-Medium		
Landscape Value:	Low		
Existing Aquaculture Development:	Existing Small-scale finfish development present consisting of six cages.		
Opportunities	Constraints		
Settlement tends to look inwards and	Small-scale of landscape not suitable for		
<ul> <li>topography screens views of the LCCA;</li> <li>Existing small-scale finfish development and marine traffic could absorb aquaculture development; and</li> <li>Islands and islets provide a dark backdrop offering absorption of development into the seascape.</li> </ul>	medium to large-scale developments.		
	to Change		
Maritime Influences	Medium Sensitivity		
	Limited perception of the sea due to large		
	number of islands and islets that make up the horizon giving a sense of enclosure. Some tidal dynamics and existing marine activity provides		
	context for aquaculture development.		
Character & Experience of Coastal Edge	Medium Sensitivity General inaccessibility and post and wire fences along the coastal edge limits the ability to experience the coastline. Potential for medium or large-scale development to dominate the LCCA.		
Setting of landmarks and features	Low Sensitivity Limited landmarks, along the shoreline two painted telegraph poles provide navigation for landing small boats on the gravel beach; ridgelines in the hinterland have a number of water towers which provide distant focal points.		
Experience of Wildness	Low Sensitivity Limited perception of wildness, the LCCA is rural in character, however, associated crofting paraphernalia and wood pole transmission line diminishes any sense of wildness.		
Aesthetic Qualities	Medium Sensitivity		
	Medium Sensitivity Main qualities arise from the intervisibility with the islands and islets which frame views of the sea horizon, otherwise the LCCA contains no exceptional aesthetic qualities		
Key Viewpoints	Low Sensitivity No obvious viewpoints, the gravel beach used for landing boats provides some views to the sea.		
Overall Sensitivity	Medium Sensitivity		
LCCA Capacity for Aquaculture	Medium or large scale development would dominate the small scale nature of this LCCA. There is potential for small-scale shellfish/finfish development.		

Table 3.5: Settled Loch Edge LCCA	
	acteristics
<ul> <li>Regular gentle curving coastline with some minor indentations;</li> <li>Hinterland comprise gentle sloping croft land that extends down to the shoreline and acts as buffer between Crosbost and the sea;</li> <li>Typically linear crofting settlement with long narrow fields and lazy beds that create a diverse landform;</li> <li>Small-scale; and</li> <li>Visual prominence is limited to views across the loch towards adjacent hillsides, results in</li> </ul>	
only a small part of the loch being viewed a Landscape Scenic Quality:	Medium
Landscape Value:	Low
Existing Aquaculture Development:	Presently no offshore aquaculture development in the vicinity of the loch, onshore satellite base can be found to the east of Griomsidar.
Opportunities	Constraints
<ul> <li>Existing marine activity could absorb traffic associated with aquaculture development; and</li> <li>Existing satellite onshore base and jetty.</li> </ul>	<ul> <li>Small-scale and narrowness of loch make it unsuitable for development;</li> <li>Any large structures would appear obtrusive on the loch surface and contrast with the undeveloped nature of the hinterland to the south; and</li> <li>Foreground views from the settlement of Crosbost should be avoided.</li> </ul>
Sensitivity	
Maritime Influences Character & Experience of Coastal Edge	Medium Sensitivity Perception of the sea is limited due to screening from a combination of islands and islets. The loch is relatively sheltered with tidal variations exposing further rocky and gravel shoreline. High Sensitivity Gentle curving shoreline offers little opportunity for potential development. Shallow waters and narrow channel make the LCCA unsuitable for
Setting of landmarks and features	development. Medium Sensitivity Crosbost Church provides the main focal point along the coastline, its large imposing scale stands out amongst the lower elements found within the LCCA. Existing jetty and large hard standing reduce sensitivity of the setting.
Experience of Wildness	Low Sensitivity Although rural in character, the LCCA is too developed to obtain any experiences of wildness.
Aesthetic Qualities	Low Sensitivity Forms a cluttered landscape containing past relics of crofting intertwined with the more dominant modern elements such as houses and jetties, has no exceptional qualities.
Key Viewpoints	Medium Sensitivity Crosbost Church and graveyard obtains panoramic views of the length of the loch. The settlement of Crosbost obtains key views of the loch although only a small section directly in front of the settlement.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The small-scale nature and narrowness of the loch make this LCCA unsuitable for development.

Table 3.6: Crofting Slopes with Settlement	
	acteristics
Regular curved coastline with gravel shorelines;	
	s the coastline and provides a buffer between the
linear settlement of Liurbost and the coastline edge;	
<ul> <li>Undeveloped shoreline with post and wire fencing defining where the loch edge meets</li> </ul>	
crofting land; and	
<ul> <li>Interesting landform pattern of long straight lines of lazy-beds in different periods of cultivation</li> </ul>	
Landscape Scenic Quality:	Medium
Landscape Value:	Low
Existing Aquaculture Development:	Existing Medium-scale mixed development.
Opportunities	Constraints
The regular alignment of the coastline	Close to existing settlement with open
could offer opportunity for alignments of	views to potential development; and
long lines;	<ul> <li>Open views of a large section of the loch</li> </ul>
<ul> <li>Medium scale of the loch offers</li> </ul>	would be compromised by structures
opportunities for small and medium	located within the loch.
scale developments; and	
Shallow coastline offers opportunities	
for coastal edge shellfish farming.	
	to Change
Maritime Influences	Low Sensitivity
	Coastline is sheltered and tidal variations result in
	exposure of shoreline and seaweed during low
	tide, although the overall perception of the sea is
	limited due to topography. Much of the coastline
	is inaccessible due to fencing along the shoreline.
Character & Experience of Coastal Edge	Low Sensitivity
	Gentle curving shoreline offers little opportunity
	for potential development. Shallow waters may
	be ideal for trestles.
Setting of landmarks and features	Low Sensitivity
<b>3 1 1 1 1 1 1 1 1</b>	Landmarks are limited although the crofting strips
	and Liurbost provide a pleasant backdrop to the
	LCCA.
Experience of Wildness	Low Sensitivity
•	Although rural in character the LCCA is too
	developed to obtain any experiences of wildness.
Aesthetic Qualities	Medium Sensitivity
	There is no outstanding qualities of the LCCA
	although the crofting land forms a strong visual
	foci and backdrop to the LCCA
Key Viewpoints	Low Sensitivity
	Liurbost forms the main viewing area although
	due to topography the coastline is screened,
	although the viewpoint does obtain intervisibility
	with other LCCA's.
Overall Sensitivity	Low Sensitivity
LCCA Capacity for Aquaculture	The overall low sensitivity and the medium scale
	nature of this LCCA result in capacity to absorb
	small and medium-scale shellfish/finfish
	developments.

Table 3.7: Rocky Moorland Edge LCCA	
Key Characteristics	
Irregular coastline with some deep fork-like inlets and heavily indented rocky edge;	
<ul> <li>Hinterland consists mainly of rocky hummocky moorland with the occasional high rocky cliff;</li> </ul>	
<ul> <li>Uniformity in land cover with distinct and consistent tidal line where coastline meets</li> </ul>	
vegetation;	
<ul> <li>Undeveloped and uninhabited moorland forms the foreground to distant views of Harris hills;</li> </ul>	
and	
<ul> <li>Shoreline feels enclosed due to small to medium-scale hills to the south.</li> </ul>	
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development:	Existing Medium-scale mixed development.
Opportunities	Constraints
Deep inlets could provide areas for	<ul> <li>Undeveloped nature of the coastline and wild lead characteristics</li> </ul>
storing equipment and mooring	wild land characteristics.
associated vessels;	
The regular alignment of the coastline     active of the coastline     active of the coastline     active of the coastline	
could offer opportunity for alignments of	
long lines; and	
Medium scale of the loch offers	
opportunities for small and medium scale	
developments.	
	to Change
Maritime Influences	Low Sensitivity
	Limited perception of the sea, coastal screening
	results in the loch appearing more like a land
Observator & Evenericanos of Ossetal Edus	locked loch.
Character & Experience of Coastal Edge	Medium Sensitivity
	Irregular coastline offers some potential for
Sotting of landmarks and factures	medium-scale developments.
Setting of landmarks and features	Medium Sensitivity No obvious landmark with the main features
	consisting of rocky hill slopes which help form the
Experience of Wildness	foreground to views towards Pairc from the north.
Experience of Wildness	Medium Sensitivity
	Obtains a sense of remoteness and the
	hinterland contains wild characteristics, however,
	intervisibility with areas to the north of the loch
Apothotia Qualitica	reduce the experience of wildness.
Aesthetic Qualities	High Sensitivity
	Uniform in land cover the undulating nature of the
	LCCA provide an interesting foreground to the
	distant hills of Harris.
Key Viewpoints	No Sensitivity
	No obvious viewpoints, most of the coastline is
	inaccessible.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The overall medium sensitivity and the medium
	scale nature of this LCCA result in capacity to
	absorb small and medium-scale shellfish/finfish
	developments. However, it is considered that the
	LCCA is at capacity with the existing level of
	developments.

	Table 3.8: Rocky Moorland with Coastal Edge LCCA	
	acteristics	
<ul> <li>Exposed loch mouth with small islands and islets breaking up and framing views of the sea horizon;</li> </ul>		
<ul> <li>Medium scale, heavily indented coastline with larger areas of exposed rock where the LCCA is exposed to the open sea and the occasional bay or lagoon;</li> </ul>		
<ul> <li>Hinterland consists mainly of rocky hummocky moorland with the occasional high rocky cliff; and</li> </ul>		
• Uniformity in land cover with distinct consistent tidal line where coastline meets vegetation;		
Landscape Scenic Quality:	High	
Landscape Value:	High	
Existing Aquaculture Development:	Existing Medium-scale mixed development. Existing aquaculture development in Loch Eiresort to the west.	
Opportunities	Constraints	
<ul> <li>Craggy irregular nature of the coastline offers opportunity to screen potential development;</li> <li>No obvious viewing area, inaccessibility and undulating topography would help screen views from the hinterland;</li> <li>Islands and islets offer screening of potential views from the seascape; and</li> <li>Close to existing shore bases and other existing aquaculture sites.</li> </ul>	<ul> <li>Largely undeveloped, the lack of development helps create the impression of sense of place and wildness; and</li> <li>Settlement of Crosbost and Cromor overlooks part of the LCCA.</li> </ul>	
Sensitivity to Change		
Maritime Influences	Medium Sensitivity Prominent location between Loch Liurbost and Loch Eiresort that is open and exposed to the Minch; structures within the water would detract from this important promontory. Further aquaculture development would have the potential for adverse cumulative effects with existing development in Loch Eireasort	
Character & Experience of Coastal Edge	Medium Sensitivity Indented irregular coastline which is consistent offers opportunities for small and medium-scale developments.	
Setting of landmarks and features	Medium Siting of potential development along southern section of the LCCA should be avoided to prevent potential visual impacts to entrance of Loch Eireasort.	
Experience of Wildness	Medium Sensitivity Although not wild in character the undeveloped nature of the LCCA results in a perceived sense of remoteness.	
Aesthetic Qualities	Medium Sensitivity Irregular coastline that creates visual foci, uniformity in appearance and undeveloped, however contains no exceptional qualities.	
Key Viewpoints	Low Sensitivity Intervisibility is experienced indirectly from the neighbouring LCCA's.	
Overall Sensitivity	Medium Sensitivity	
Existing Aquaculture Development	The medium overall sensitivity and the medium scale of this LCCA results in potential for small to medium-scale shellfish/finfish development	

#### 4. Lewis and Harris: Lochs Seaforth, Claidh & Bhrollum Pilot Study Area

#### 4.1 Baseline

Lochs Seaforth, Claidh and Bhrollum Pilot Study Area consist of a graduated loch system that spans the boundary between Lewis and Harris (See Figure 4.1). The study area concentrates on three lochs namely Loch Seaforth, Loch Claidh and Loch Bhrollum. Loch Seaforth is the longest and forms a fjord-like sea loch that meanders approximately 23 kilometres inland and forms the western boundary of the South Lochs peninsula. The north of the loch consists of a narrow stretch of water oriented east-west. At the settlement of Airidh a Bhruaich in the west the river Abhainn Mór Kintaravay flows into the loch and at Seaforth Head in the east Loch Sgiobacleit drains into the loch. The loch then flows in a southerly direction passing through a narrow channel called the Sruth Sheaford, before moving south-west towards the large 'whaleback island' or Seaforth Island. South of Seaforth Island the loch widens and its shores get steeper, similar to a Norwegian fjord. The loch extends further, in a south easterly direction before emptying into the sea. Settlement is located periodically along the western coastline at Airidh a Bhruaich, Aird a Mhulaidh and Maraig. The A859 road runs close to Loch Seaforth until level with Seaforth Island where it changes direction to meander up into the Harris hills. To the east, the South Lochs area is predominantly rocky moorland and hills with freshwater lochs. East of Loch Seaforth, Loch Claidh and Loch Bhrollum are two sea lochs running parallel to one another. Loch Claidh extends for approximately 6 kilometres inland and forms into a narrow head where the Abhainn Gleann Claidh flows into the loch. Loch Bhrollum has a more irregular coastline and extends approximately 4.5 kilometres, inland with a narrow channel formed at the head of the loch where Abhainn Gleann Chriopaig flows into the loch. Both lochs have relatively steep sides with evidence of past settlements, lazy beds and shielings present.

#### 4.2 Designations

There are three Listed Buildings located within the pilot study area (See Figure 4.2), these include the Aline Road Bridge and Ardvourlie Castle, both to the west of Seaforth Island and both obtain important views to the north and south of Loch Seaforth. To the south lies Scalpay Lighthouse which has panoramic views of Loch Trolamaraig, and the mouths of Lochs Seaforth, Claidh and Bhrollum. To the west of Seaforth head lies the Scheduled Ancient Monument of Sideabhal Stone Circle which obtains panoramic views of the inner loch and the Pairc area. The South Lewis, Harris and North Uist National Scenic Area (NSA) cover the Pilot Study coastline from just north of Seaforth Island and encompass both Lochs Claidh and Bhrollum to the east. There are two SNH Search Areas for Wild Land within the pilot study area; these cover the Lewis peatlands to the north-west and the Pairc area to the east. Ecological designations are limited to the northern periphery of the pilot study area and include the Lewis Peatlands Ramsar, Special Protection Area and Special Area of Conservation. Loch Seaforth is designated as a Marine Consultation Area (MCA).

#### 4.3 SNH Landscape Character Types

The pilot study area falls within ten LCTs identified in the Western Isles landscape character assessment, six of which experience direct intervisibility with the pilot study coastline (See Figure 4.3):

- Boggy Moorland LCT;
- Coastal Island LCT;
- Crofting One LCT;
- Crofting Two LCT;
- Rocky Moorland LCT; and
- Mountain Massif (one) LCT.

#### 4.4 Regional Coastal Character Types

Following a desk-based survey and on-site assessment, three Regional Coastal Character Areas (RCCA) were identified These RCCA's are illustrated on Figure 4.4 and described in Appendix 4.1 and comprise:

- Inner Loch Seaforth RCCA;
- Outer Loch Seaforth RCCA; and
- South Lochs RCCA.

#### 4.5 Local Coastal Character Types

Following a detailed site survey fourteen Local Coastal Character Areas (LCCA) were identified within the Lochs Seaforth, Claidh and Bhrollum Pilot Study Area. These LCCA's are illustrated on Figures 4.5a and 4.5b and described below:

- Inner Loch with Crofting LCCA;
- Inner Loch Moorland Edge LCCA;
- Inner Loch with Settlement LCCA;
- Moorland Edge LCCA;
- Moorland Edge with Forestry LCCA;
- Rocky Moorland Edge LCCA;
- Sea Loch Island LCCA;
- Inner Loch Settled Bay LCCA;
- Steep Sided Outer Loch (1) LCCA;
- Outer Loch Settled Bay LCCA;
- Steep Sided Coastal Edge LCCA;
- Indented Coastal Edge LCCA;
- Steep Sided Outer Loch (2) LCCA; and
- Steep Sided Loch Head LCCA.

Table 4.1: Inner Loch with Crofting	
	acteristics
Key Characteristics         • Loch on East to west orientation with fairly regular coastline with small-scale inundations;         • Some tidal dynamics, with small gravel beaches exposed at low tide;         • Variation in width of loch although fairly narrow and open;         • Lack of marine activity on the loch surface;         • Hinterland mainly consists of undulating rough grazing that sweeps down to loch side where better quality grassland is found;         • Although fairly open there is a sense of enclosure resulting from steeper topography to the north and south of the loch;         • Development is limited to just a few houses, outbuildings and unclassified road and evidence of past crofting settlement and irregular field patterns with sheep folds; and         • Uninterrupted views of the east to west axis of the loch; accessible from the unclassified road.         Landscape Scenic Quality:       Medium         Landscape Value:       Medium         Existing Aquaculture Development       Presently there is no aquaculture development in the vicinity of this LCCA.         Opportunities       Constraints	
Opportunities     Regular shape of coastline may lend	
<ul> <li>Regular shape of coastline may lend itself to small-scale long line development.</li> </ul>	<ul> <li>Potential development in the vicinity of this LCCA may reduce experience of wildness of adjacent LCCA's; and</li> <li>No existing marine activity present.</li> </ul>
Sensitivity	
Maritime Influences	Medium Sensitivity Some intertidal dynamics are present, but have less impact on the seascape. Limited perception of the sea and the loch appears to be land- locked. Aquaculture development would compromise the undeveloped nature of the loch surface.
Character & Experience of Coastal Edge	Medium Sensitivity Regular coastline offers little opportunity for finfish development; however, small scale linear offshore development such as long lines may be accommodated.
Setting of landmarks and features	Medium Sensitivity Remains of crofting settlements and presence of lazy beds help create a sense of place and setting for the War Memorial and Sideabhal Standing Stones and these should be avoided.
Experience of Wildness	Low Sensitivity There is a sense of remoteness; however, the presence of man-made features reduces some perception of wildness.
Aesthetic Qualities	Medium Sensitivity The LCCA does contain some qualities such as the ruins of past crofting settlements and the Sideabhal Standing Stones; however, it does not contain any exceptional qualities.
Key Viewpoints	Medium Sensitivity Key views are from the Sideabhal Standing Stones, War Memorial and the unclassified road to Eisgein which obtain panoramic views of the east to west axis of the loch.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	Medium or large scale development would dominate the enclosed nature of this LCCA. Potential for small-scale shellfish development.

Table 4.2: Inner Loch Moorland Edge LCCA	
	acteristics
<ul> <li>Regular coastline with small-scale indentations and an east to west orientation to the loch;</li> <li>Distinct tidal lines and at low tide the occasional gravel beach is exposed;</li> <li>Narrow loch width and lack of activity on the loch surface;</li> <li>Hinterland undulating and fairly low-lying consisting of boggy moorland with the occasional small stream;</li> <li>Undeveloped with the remains of old shielings, lazy beds and some post and wire fencing;</li> <li>Open with extensive views to the south towards the Harris hills and along the loch to the east and west;</li> <li>Uniformity in land cover consisting of moorland species with the occasional freshwater loch found in hinterland;</li> </ul>	
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	Presently there is no aquaculture development in the vicinity of this LCCA.
Opportunities	Constraints
	<ul> <li>Potential development in the vicinity of this LCCA may reduce experience of wildness of the opposite LCCA to the south;</li> <li>No existing marine activity present; and</li> <li>Narrow width of loch offers little opportunity for development.</li> </ul>
Sensitivity	to Change
Maritime Influences	High Sensitivity Some intertidal dynamics are present, but have less impact on the seascape. Limited perception of the sea and the loch appears to be land- locked. The narrow width of the loch would be unsuitable for development. Aquaculture development would compromise the undeveloped nature of the loch surface.
Character & Experience of Coastal Edge	High Sensitivity Simple and regular coastline and intertidal area offers little opportunity for development.
Setting of landmarks and features	High Sensitivity The LCCA helps form the setting for the Pairc area and the distant views of the Harris hills. Potential aquaculture development would contrast with the undeveloped nature of the LCCA.
Experience of Wildness	High Sensitivity Although the LCCA has intervisibility with developed areas the undeveloped nature and sense of remoteness results in a perception of wildness.
Aesthetic Qualities	High Sensitivity Simple and uniform in appearance the LCCA helps contribute to the aesthetic quality of the surrounding landscape.
Key Viewpoints	Low Sensitivity Coastline of the LCCA is largely inaccessible and there are no obvious viewpoints.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	LCCA not suited to potential shellfish/finfish development.

Table 4.3: Inner Loch with Settlement LCCA	
	acteristics
<ul> <li>East to west loch orientation, irregular coastline with small-scale inundations and includes the mouth of the Abhainn Mor Kintaravay, some jetties present;</li> </ul>	
<ul> <li>Distinct tidal lines and at low tide gravel be</li> </ul>	•
<ul> <li>East-West axis meets north-south axis adj</li> </ul>	acent to the LCCA, loch width fairly narrow;
	elds that sweep down to the coastline, contains
lazy beds orientated at different angles;	
	veen the settlement of Airidh a Bhruaich which
straddles the A859 road and the shoreline;	
•	vards the Harris hills and along the loch to the east
and west and to the south through a narrow	
Landscape Scenic Quality:	Medium
Landscape Value:	Medium
Existing Aquaculture Development	Presently there is no aquaculture development in the vicinity of this LCCA.
Opportunities	Constraints
<ul> <li>Linear coastline and presence of</li> </ul>	Narrow width of the loch and irregular
settlement may offer opportunities to	coastline would not be able to
accommodate small scale linear	accommodate any medium to large-
development such as long lines;	scale development scenarios.
	to Change
Maritime Influences	Medium Sensitivity
	Limited intertidal dynamics and perception of the
	sea. The loch appears to be land-locked. The
	narrow width of the loch has the potential for
	small-scale linear development. Medium or large- scale development would dominate this LCCA.
Character & Experience of Coastal Edge	Medium Sensitivity
Character & Experience of Coastal Euge	Distinctive separation between linear crofting
	fields and shoreline. Simple coastline and
	intertidal area offers little opportunity for
	development.
Setting of landmarks and features	Medium Sensitivity
· · · · · · · · · · · · · · · · · · ·	The presence of traditional field systems provides
	a context for the linear crofting settlement and
	memorial to Bonnie Prince Charlie, aquaculture
	development could compromise the setting.
Experience of Wildness	Low Sensitivity
	Although the LCCA does not contain wild land
	characteristics, it obtains direct intervisibility with
	areas that do experience wildness.
Aesthetic Qualities	Medium Sensitivity
	Although not outstanding the coastline is
	simplistic with an intriguing hinterland.
Key Viewpoints	High Sensitivity
	Much of the LCCA is overlooked by the
	settlement of Airidh a Bhruaich, to the north-west
	of the settlement lies a memorial to Bonnie Prince
	Charlie which obtains panoramic views to the
	east and south, potential development should be
	carefully sited to avoid these views.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The narrow width of the loch at this LCCA would
	be unable to accommodate medium or large-
	scale development. Potential for small-scale
	shellfish development.

Table 4.4: Moorland Edge LCCA		
	acteristics	
<ul> <li>Key Characteristics</li> <li>Indented irregular curvilinear coastal edge, which contains a narrow channel called the Sruth Sheaford;</li> </ul>		
<ul> <li>Distinct tidal dynamics with narrow expose</li> </ul>	d rocks and islets exposed at low tide	
<ul> <li>East-West axis meets north-south axis of I through the narrow channel;</li> </ul>	• East-West axis meets north-south axis of loch which opens out to the south having passed	
<ul> <li>Hinterland consists mainly of boggy undulating low-lying moorland with the occasional freshwater loch that gently sweeps down to the loch edge; and</li> </ul>		
along the loch to the east.	south towards the Pairc and the Harris hills and	
Landscape Scenic Quality:	High	
Landscape Value:	High	
Existing Aquaculture Development	Presently there is no aquaculture development in the vicinity of this LCCA.	
Opportunities	Constraints	
	<ul> <li>Combination of the irregular coastline, narrow channel and tidal dynamics offers no potential for development.</li> </ul>	
Sensitivity	to Change	
Maritime Influences	Very High Sensitivity Tidal dynamics are present in the narrow channel which would detract potential development. There is a limited perception of the sea with the loch appearing to be land-locked.	
Character & Experience of Coastal Edge	High Sensitivity Curvilinear and irregular coastline offers little opportunity for potential development.	
Setting of landmarks and features	Medium Sensitivity No obvious landmarks although the LCCA does provide the setting for where the east-west axis of the loch meets the north-south axis and mirrors the undeveloped qualities of the east shoreline.	
Experience of Wildness	Medium Sensitivity Due to the undeveloped nature of the LCCA and intervisibility with areas of wildness to the east the LCCA does have a sense of wildness, however, nearby forestry and settlement reduces these characteristics.	
Aesthetic Qualities	High Sensitivity Although not outstanding in quality the LCCA does help form the backdrop to the loch.	
Key Viewpoints	High Sensitivity No obvious viewpoint, LCCA mainly experienced from the A859 road which is the main tourist route running north to south.	
Overall Sensitivity	High Sensitivity	
LCCA Capacity for Aquaculture	LCCA not suited to potential shellfish/finfish development.	

Table 4 5: Maarland Edge with Forestry I CCA	
Table 4.5: Moorland Edge with Forestry LCCA	actoristics
	acteristics
Regular coastal edge with some indentation;	
Distinct tidal dynamics with narrow exposed rocks and islets exposed at low tide;	
	h is fairly narrow due to irregular coastline on the
east side of the loch;	
	ation planted on boggy undulating moorland;
<ul> <li>There is a narrow moorland buffer between the shoreline and the plantation;</li> </ul>	
<ul> <li>Open with extensive views to the east and south towards the Pairc and the Harris hills;</li> </ul>	
<ul> <li>Existing forestry block plantations contrast sharply with the low-lying moorland in the</li> </ul>	
surrounding areas.	
	on the east side of the loch and the dark backdrop
of the existing forestry plantation.	
Landscape Scenic Quality:	Low
Landscape Value:	Low
Existing Aquaculture Development	Presently there is no aquaculture development in
	the vicinity of this LCCA.
Opportunities	Constraints
<ul> <li>Linear coastline and presence of forestry</li> </ul>	<ul> <li>Narrow channel and regular coastline</li> </ul>
may offer opportunities to screen and	would not be suitable for any scale of
accommodate small-scale linear	finfish development or medium and large-
development such as long lines.	scale linear development.
Sensitivity	to Change
Maritime Influences	High Sensitivity
	Tidal dynamics are present in the narrow
	channel, which any development would detract
	from. There is a limited perception of the sea with
	the loch appearing to be land-locked.
Character & Experience of Coastal Edge	Medium Sensitivity
	Regular coastline and simple in character offers
	opportunities for potential small-scale long line
	development.
Setting of landmarks and features	Medium Sensitivity
	No obvious landmarks and the existing presence
	of forestry is a negative contrast to the otherwise
	undeveloped landscape.
Experience of Wildness	Low Sensitivity
	Some experience of wildness is obtained by
	intervisibility with the LCCA to the east; however
	the presence of forestry reduces this experience.
Aesthetic Qualities	Low Sensitivity
	The presence of forestry provides a dark
	background to an otherwise open landscape.
Key Viewpoints	No Sensitivity
	Coastline largely inaccessible and forestry would
	screen views from the nearest public area, the
	A859 road.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The narrow width of the loch at this LCCA would
	be unable to accommodate medium or large-
	scale development. Potential for small-scale
	linear development such as long-lines.

Table 4.6: Rocky Moorland Edge LCCA	
	acteristics
<ul> <li>Mainly orientated North to South, very irregular coastline with small bays and indentations;</li> <li>Distinct tidal lines, promontories help screen and fragment views of the loch to the north and south;</li> </ul>	
<ul> <li>Hinterland consists mainly of rocky moorland with small and medium sized hills that sweep down to the coastline;</li> </ul>	
<ul> <li>Uniform in appearance, landcover tends to</li> </ul>	-
Very undeveloped and forms part of the se	
	tensive views to the south towards the Harris hills
and along the loch to the east and west and	*
Landscape Scenic Quality: Landscape Value:	High High (Falls part within the South Lewis, Harris
•	and North Uist National Scenic Area)
Existing Aquaculture Development	A number of small-scale developments are present, principally long lines between the LCCA and Seaforth Island.
Opportunities	Constraints
<ul> <li>Irregular coastline and small bays offer opportunities to accommodate small scale linear development such as long lines.</li> </ul>	<ul> <li>Low shoreline, openness and narrow channel offer little opportunity for finfish development or medium to large shellfish development.</li> </ul>
Sensitivity	
Maritime Influences	High Sensitivity Intertidal dynamics are present in the narrow channel called Sruth Sheaford which contains a tidal race. Limited perception of the sea as the loch appears land-locked. The loch's narrow width has the potential to accommodate small- scale linear development. Medium or large scale development would dominate the seascape.
Character & Experience of Coastal Edge	Medium Sensitivity Irregular coastline with small bays could offer opportunities for Small-scale shellfish farming.
Setting of landmarks and features	Medium Sensitivity No obvious landmarks. The LCCA does provide the setting for the Pairc area and is undeveloped.
Experience of Wildness	Medium Sensitivity The LCCA falls within an SNH Search Area for Wildness and contains wild land characteristics; however intervisibility with the sporadically developed west side of Loch Seaforth reduces these qualities.
Aesthetic Qualities	High Sensitivity Simple, uniform landscape with undulating topography which provides the setting for the Pairc area when viewed from the west. Potential development would detract from these views.
Key Viewpoints	Low Sensitivity Coastline is largely inaccessible; this LCCA is largely experienced from the opposite shoreline of Loch Seaforth.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The narrow width of the loch at this LCCA would be unable to accommodate medium or large- scale development. Potential for small-scale shellfish development.

Table 4.7: Sea Loch Island LCCA	
Key Chara	
<ul> <li>Orientated North to South, regular coastline</li> <li>Distinct tidal lines, tidal dynamics evident di through narrow channels between the islan</li> <li>Hinterland consists mainly of a rocky moorl near the shoreline;</li> <li>Uniform in appearance, landcover tends to</li> <li>Located in centre of loch between outer sea and towards the sea;</li> <li>Enclosed by shoreline on both sides of the</li> <li>Landscape Scenic Quality:</li> <li>Landscape Value:</li> </ul>	e with some indentations; ue to the water from the inner loch having to pass d and shoreline; and rounded hill with some evidence of lazy beds be grasses and heather; a loch and inner loch helps to screen views inland loch and inland steep hillsides. High High (Falls within the South Lewis, Harris and North Uist National Scenic Area) A number of small-scale developments exist, principally long lines on both sides of Seaforth Island.
Opportunities	Constraints
<ul> <li>Regular coastline and height of the island may provide opportunities for screening to accommodate small-scale linear development such as long lines.</li> </ul>	<ul> <li>Narrow channel limits scale of potential development.</li> </ul>
Sensitivity	to Change
Maritime Influences	High Sensitivity Location of the island in the centre of the loch results in the east side having a faster moving body of water to the west side where it is more sheltered. Any structures around the LCCA would detract from this unusual island.
Character & Experience of Coastal Edge	Medium Sensitivity The shoreline is fairly regular and curvilinear and has opportunities for accommodating linear development such as long lines.
Setting of landmarks and features	High Sensitivity The island's steep-sided hill forms an important focal point in the centre of Loch Seaforth and provides the setting for views from the inner and outer lochs.
Experience of Wildness	Medium Sensitivity Located close to SNH Search Area for wild land, the east side of the island obtains a sense of wildness from intervisibility with the LCCA and hinterland to the east. West side of island experiences views of development that reduce the sensitivity.
Aesthetic Qualities	High Sensitivity Simple, uniform and dominant, the island is intriguing and forms a focal point.
Key Viewpoints	Low Sensitivity Coastline is largely inaccessible; this LCCA is largely experienced from the opposite shoreline of Loch Seaforth.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	The narrow width of the loch at this LCCA would be unable to accommodate medium or large- scale development. Potential for some limited small-scale linear shellfish development.

Table 4.8: Inner Loch Settled Bay LCCA	
	acteristics
Orientated North to South, with two sweep	
• Distinct tidal lines, parts of the foreshore of Bagh Aird Mhulaidh and Bagh Bhiogadail exposed	
during low tide;	
	nd that gently sweeps down to the shoreline,
scattered settlement with woodland extend	
<ul> <li>Cluttered landscape which feels enclosed of Seaforth Island to the east.</li> </ul>	due to proximity to hills to the west, south and
	meandering uphill towards Harris; from elevated
parking bays extensive views of Loch Seaf	
Landscape Scenic Quality:	High
Landscape Value:	High (Falls within the South Lewis, Harris and
	North Uist National Scenic Area)
Existing Aquaculture Development	A number of small-scale developments exist,
	principally long lines between the LCCA and
	Seaforth Island and some square cages at the
Opportunities	southern point of the LCCA.
Extent of foreshore may offer potential for	Sheltered bay with settlement and key
small-scale shellfish farming.	viewpoints limits development potential.
	to Change
Maritime Influences	Medium Sensitivity
	The Abhainn Scaladair flows into Loch Seaforth
	and the extent of the foreshore at low tide
	influences the LCCA and provides a link with the
	sea. Medium to large scale development would
Character & Experience of Capatal Edge	dominate the sheltered bay. Medium Sensitivity
Character & Experience of Coastal Edge	The shoreline is indented with two small-scale
	bays and there is some development along the
	shoreline such as jetties, however, the small-
	scale of the LCCA would have limited
	opportunities in accommodating development.
Setting of landmarks and features	Medium Sensitivity
	The setting is small-scale and enclosed with a
	number of important features such as Ardvourlie Castle, the A859 road, and the border between
	Harris and Lewis.
Experience of Wildness	Low Sensitivity
	The surrounding hinterland has wild land
	characteristics and is intervisible with the LCCA,
	however, the presence of the road and settlement
	reduces the sense of wildness.
Aesthetic Qualities	High Sensitivity
	Small-scale and enclosed by hills, the LCCA is
Key Viewpoints	highly attractive and within a designated NSA. High Sensitivity
Ney viewpoints	Numerous important viewpoints, such as a lay-by
	to the north of Loidse Ath Linne, Ardvourlie
	Castle, and two walks into the Harris hills. Views
	are elevated, panoramic, and orientated to the
	north or south along Loch Seaforth.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The enclosed nature of this LCCA would be
	dominated by medium or large-scale
	development. Potential for small-scale shellfish development.

Table 4.9: Steep Sided Outer Loch (1) LCCA	
	acteristics
	some indentations and a distinct tide line where
rocky shoreline meets moorland vegetation	
	, illside covered in grasses and heather with the
occasional burn and some native woodland	
<ul> <li>Undeveloped shoreline with no foreshore of</li> </ul>	
•	
<ul> <li>Very enclosed with views furnelled along it 'keyhole view' to the sea horizon;</li> </ul>	och to the north and south includes a distinctive
	and atompoor of the adjacent billoides greate long
<ul> <li>which and exposed with a sense of remotent shadows over the loch.</li> </ul>	ess, steepness of the adjacent hillsides create long
Landscape Scenic Quality:	High
Landscape Value:	High (Falls within the South Lewis, Harris and
	North Uist National Scenic Area)
Existing Aquaculture Development	Presently there are two Medium-scale finfish
Our sector sitter	developments along the western shoreline.
Opportunities	Constraints
<ul> <li>Steep hillsides and limited access to</li> </ul>	<ul> <li>Narrow and enclosed nature of the loch</li> </ul>
shoreline offer opportunities for medium-	may result in ill-sited developments
scale development;	breaking the sea horizon when viewed
	from the north.
	to Change
Maritime Influences	High Sensitivity
	LCCA obtains intervisibility with the sea and
	strong tidal dynamics are evident.
Character & Experience of Coastal Edge	Medium Sensitivity
	Linear and regular coastline offers opportunity to
	accommodate development if sited parallel to the
	shoreline.
Setting of landmarks and features	High Sensitivity
	The steep sides of the loch help create a fjord like
	loch that straddles the Harris and Lewis border.
	The LCCA is mainly experienced from the north-
	west and forms distant views towards the
	seascape.
Experience of Wildness	High Sensitivity
	Sense of remoteness and the dominance of the
	steep loch side provide a sense of place and
	perception of wildness.
Aesthetic Qualities	High Sensitivity
	Dramatic constantly changing coastline with wild
	characteristics forms an intriguing landscape.
Key Viewpoints	High Sensitivity
	Coastline largely inaccessible, key views of the
	coastline tend to be from distant viewpoints to the
	north-west from the A859 road which obtain
	views down the 'fjord' like channel. Potential
	development should be avoided where it could
	disrupt the sea horizon.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	The narrow and enclosed nature this LCCA
	would be unable to accommodate medium or
	large-scale development. Potential for small-
	scale finfish development.

Table 4.10: Outer Loch Settled Bay LCCA	
	acteristics
Orientated North to South, with one narrow indented bay known as Loch Maraig which is well	
sheltered by a promontory;	
	ore in the narrow inlet are exposed during low tide;
	nd hillside with a backdrop of the rocky Harris hills;
Landscape feels enclosed due to proximity	
Unclassified road winds its way down to the	
,	the north side of Loch Maraig, which also contains
a jetty.	High
Landscape Scenic Quality: Landscape Value:	High High (Falls within the South Lewis, Harris and
	North Uist National Scenic Area)
Existing Aquaculture Development	Presently some rectangular cages are located on the southern end of the shoreline, and a jetty
	provides a base for finfish cages within Loch
	Seaforth.
Opportunities	Constraints
Extent of foreshore may offer potential for	Sheltered narrow bay with settlement
small-scale shellfish development.	limits scale of development.
	to Change
Maritime Influences	High Sensitivity
	The extent of the foreshore at low tide influences
	the LCCA and provides a link with the sea.
	Development would dominate the narrow
	sheltered bay.
Character & Experience of Coastal Edge	High Sensitivity
	The shoreline is small-scale and narrow with
	some development along the shoreline such as
	jetties. However, the small-scale of the LCCA
	would have limited opportunities in accommodating potential development.
Setting of landmarks and features	High Sensitivity
octing of landmarks and reatures	The steep sides of the loch enclose the sheltered
	bay. Few landmarks. Footpath from Maraig to
	Urgha through Gleann Lacasdail.
Experience of Wildness	High Sensitivity
	The surrounding hinterland with wild land is
	intervisible with this LCCA. However, the road
	and settlement reduces the experience of
	wildness.
Aesthetic Qualities	High Sensitivity
	Small-scale and enclosed by hills, the LCCA is
	highly attractive and within a designated NSA.
Key Viewpoints	High Sensitivity
	Contains a number of important viewpoints, in particular views from a lay-by on the A859, west
	of Maraig and a bench at the start of the walk to
	Urgha. All have partial views of the LCCA.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	The small scale enclosed nature of this LCCA
	would be unable to accommodate medium or
	large-scale development. Potential for small-
	scale linear shellfish development.
	scare inteal sheinish development.

Table 4.11: Steep Sided Coastal Edge LCCA	
	acteristics
<ul> <li>Orientated North to South, with indentations and sea-loch called Loch Trolarmaraig;</li> <li>Distinct tidal dynamics, the loch is very exposed to the open sea, contains one small islet</li> </ul>	
within the sea loch;	
	nd hillside with a backdrop of the rocky Harris hills;
<ul> <li>Coastline feels enclosed to the west and open to the set and open to the</li></ul>	
<ul> <li>Largely undeveloped, the settlement of Re</li> </ul>	nigeadal is located on the south western tip of
Loch Seaforth	
	einigeadal to Urgha that passes around the head
of Loch Trolamaraig before heading inland	
Landscape Scenic Quality:	High
Landscape Value:	High (Falls within the South Lewis, Harris and North Uist National Scenic Area)
Existing Aquaculture Development	Presently there is no aquaculture development in the vicinity of this LCCA.
Opportunities	Constraints
Irregular indented shape of coastline and	<ul> <li>Lack of development and presence of additionant</li> </ul>
presence of open seas could offer some	settlement.
accommodation for large-scale finfish developments.	
	to Change
Maritime Influences	Low Sensitivity
	LCCA is intervisible with the open sea, and
	strong tidal dynamics are evident. Potential to
	absorb development.
Character & Experience of Coastal Edge	Low Sensitivity
	Indented and irregular coastline that is largely
	screened from view offers opportunity to
	accommodate development if sited within Loch Trolamaraig.
Setting of landmarks and features	High Sensitivity
octaining of harmanian to and fourthros	No obvious landmarks, the LCCA contributes to
	the backdrop of South Lochs, and includes a
	stretch of coastline with similar characteristics
	from Harris up to Loch Sealg. Potential
	development if poorly sited could impinge on this
	coastline.
Experience of Wildness	High Sensitivity
	Sense of remoteness, the dominance of sea and
	steep hinterland creates a strong sense of place
	and perception of wildness. The settlement of
Aesthetic Qualities	Reinigeadal reduces the feeling of wildness. High Sensitivity
	Dramatic, constantly changing coastline with wild
	characteristics, forms an intriguing landscape
Key Viewpoints	Low Sensitivity
	Coastline largely inaccessible, key views of the
	coastline tend to be from Reinigeadal, footpath to
	Urgha, and a picnic area to the north of
	Reinigeadal.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The medium overall sensitivity and the large
	scale open nature of this LCCA result in the
	potential for medium or large-scale finfish
	development within Loch Trolamaraig.

Table 4.12: Indented Coastal Edge I CCA	
Table 4.12: Indented Coastal Edge LCCA	acteristics
<ul> <li>Orientated East-West with an irregular, deeply indented coastline consisting islands and islets;</li> </ul>	
<ul> <li>Distinct tidal dynamics, the coastline is ver</li> </ul>	
<ul> <li>Hinterland consists mainly of steep moorla</li> </ul>	nd hillside;
<ul> <li>Coastline is open with views of the east side</li> </ul>	be of Scalpay and Harris, and more distant views of
mainland Scotland and the Inner Hebrides	
<ul> <li>Undeveloped with evidence of Lazy beds a</li> </ul>	and croft ruins in the more sheltered bays;
<ul> <li>Coastline tends to be quite rocky with the</li> </ul>	occasional small-scale cliff.
Landscape Scenic Quality:	High
Landscape Value:	High (Falls within the South Lewis, Harris and North Uist National Scenic Area & SNH Search Area for Wild Land)
Existing Aquaculture Development	No aquaculture development present in this LCCA.
Opportunities	Constraints
Irregular indented shape of coastline and	Lack of development;
presence of open seas could offer some	<ul> <li>Wild Land Characteristics; and</li> </ul>
accommodation for development.	Designated as an NSA.
Sensitivity	/ to Change
Maritime Influences	Low Sensitivity
	LCCA is intervisible with the sea and strong tidal
	dynamics are evident.
Character & Experience of Coastal Edge	Low Sensitivity
	Tracts of this indented and irregular coastline are
	largely screened from view. This offers
	opportunity to accommodate development, if
	sited appropriately.
Setting of landmarks and features	High Sensitivity
	No obvious landmarks. LCCA forms the backdrop to South Lochs which includes a stretch of coastline with similar characteristics from Harris up to Loch Sealg. If poorly sited development
Experience of Wildress	could impact negatively on this coastline. High Sensitivity
Experience of Wildness	Sense of remoteness, the dominance of sea and
	steep hinterland provides a sense of place and
	perception of wildness.
Aesthetic Qualities	High Sensitivity
Aesthetic Quanties	Dramatic, constantly changing coastline with wild
	characteristics, forms an intriguing landscape
Key Viewpoints	Low Sensitivity
ney viewpoints	Coastline largely inaccessible, key views of the
	coastline tend to be from the Heritage Walk on
	Scalpay and tourist boats going to the Shiants
	although these views would be distant.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The medium overall sensitivity and the generally
	large scale open nature of this LCCA result in the potential for medium or large-scale finfish development within the wider indentations.

Table 4.13: Steep Sided Outer Loch (2) LCCA	
<ul> <li>Orientated North-West to South-East with</li> </ul>	a some indentations and a distinct tide line where
rocky shoreline meets moorland vegetation	
	errupted views of sea horizon to the south;
	hillside covered in grasses and heather with the
occasional burn and some native woodla	
Undeveloped shoreline with no foreshore	
<ul> <li>Very enclosed with views funnelled along</li> </ul>	
	ness, steepness of the adjacent hillsides create long
shadows over the loch.	
Landscape Scenic Quality:	High
Landscape Value:	High (Falls within the South Lewis, Harris and North Uist National Scenic Area, SNH Search Area for Wild Land)
Existing Aquaculture Development	There is no aquaculture development present in
	this LCCA.
Opportunities	Constraints
	<ul> <li>Enclosed nature of the loch and wild land</li> </ul>
	characteristics of hinterland could not
	accommodate aquaculture development.
	ty to Change
Maritime Influences	Very High Sensitivity
	LCCA is intervisible with the sea and strong tidal
	dynamics are evident.
Character & Experience of Coastal Edge	Very High Sensitivity
	Undeveloped shoreline would be compromised
Catting of landmarks and factures	by the introduction of aquaculture development.
Setting of landmarks and features	Very High Sensitivity The steep loch sides create a fjord-like loch and
	the loch head forms a focal point that provides
	intrigue. Intervisibility with the sea and views of
	sea horizon are experienced from all parts of the
	LCCA.
Experience of Wildness	Very High Sensitivity
	Sense of remoteness and the dominance of the
	steep loch sides and sea provide a strong sense
	of place and perception of wildness.
Aesthetic Qualities	Very High Sensitivity
	Dramatic constantly changing coastline with wild
	characteristics, uniformity of coastline and
	hinterland forms a striking and intriguing
	seascape.
Key Viewpoints	Low Sensitivity
	Coastline largely inaccessible, key views of the
	coastline tend to be distant from the Heritage
	Walk on Scalpay and tourist boats going to the
	Shiants although these views would not include
	views of the inner loch.
Overall Sensitivity	Very High Sensitivity
LCCA Capacity for Aquaculture	This LCCA has no potential for aquaculture
	development.

Table 4.14: Steep Sided Loch Head LCCA	
	acteristics
Key Characteristics         • Orientated North-West to South-East with some indentations and a distinct tide line where rocky shoreline meets moorland vegetation, exposed foreshore at low tide;         • Constant perception of the sea, with uninterrupted views of sea horizon to the south and more sheltered than the outer coastline of the loch;         • Narrowing of loch width provides the feeling of enclosure; with views blocked by steep sided hills at the head and funnelled views towards the sea to the south;         • Hinterland mainly consists of steep sided hillsides sweeping around so that the head of the loch is hidden;         • Undeveloped shoreline overlooked by rocky outcrops;         • Wild and exposed with a sense of remoteness, steepness of the adjacent hillsides create long shadows over the loch.         Landscape Scenic Quality:       High         Landscape Value:       High (Falls within the South Lewis, Harris and North Uist National Scenic Area, SNH Search	
Existing Aquaculture Development	Area for Wild Land) No aquaculture development is present in this LCCA.
Opportunities	Constraints
	<ul> <li>Enclosed nature and narrowness of the loch as well as wild land characteristics of hinterland could not accommodate development.</li> </ul>
	to Change
Maritime Influences	Very High Sensitivity LCCA is intervisible with the sea and strong tidal dynamics are evident. The extended foreshore at low tide is unsuitable for development.
Character & Experience of Coastal Edge	Very High Sensitivity Undeveloped nature of shoreline would be compromised by the introduction of aquaculture development.
Setting of landmarks and features	Very High Sensitivity The steep sides of the loch create a fjord-like loch and the loch head forms a focal point that provides interest. Intervisibility with the sea and views of sea horizon are experienced from all parts of the LCCA.
Experience of Wildness	Very High Sensitivity Sense of remoteness and the dominance of the steep loch sides and sea provide a strong sense of place and perception of wildness.
Aesthetic Qualities	Very High Sensitivity Dramatic, constantly changing coastline with wild characteristics, uniformity of coastline and hinterland form a striking and intriguing backdrop to the sea loch.
Key Viewpoints	Low Sensitivity Coastline largely inaccessible; there are no obvious key viewpoints.
Overall Sensitivity	Very High Sensitivity
LCCA Capacity for Aquaculture	This LCCA has no potential for aquaculture development.

# 5 South Uist: Lochs Skipport, Eynort & East Coast Pilot Study Area

## 5.1 Baseline

The Pilot Study Area of Lochs Skipport, Eynort and East Coast, covers a substantial stretch of the South Uist east coastline (See Figure 5.1). Loch Skipport, at the north of the study area, extends approximately 5km inland. The outer section of the loch contains a number of islands and islets which provide shelter from the open sea. The loch then narrows and proceeds in a north-west direction. The main body of water that flows into the loch is from Loch Ba, a large loch to the north-west that interlocks with Loch Skipport, effectively cutting South Uist in two. Skipport's shores are largely uninhabited, apart from a few houses, remains of crofting settlements and an onshore aquaculture base. On the southern bank lies the remains of a Victorian pier once used by pleasure boats and cargo vessels.

Loch Eynort is located to the south and extends approximately 7.5km inland. The outer loch is open to the Minch and extends inwards for approximately 2km and around 1km in width. It then passes through a very narrow channel into a complex network of sheltered coves with islets, meandering further inwards with occasional narrow indentations. Linear settlement is found on both sides of the loch and includes Taobh a Tuath, Taobh a Deas and Unasaraidh. The coastline between and joining these two lochs, is very remote and dominated by the two mountains of Hecla and Beinn Mhor. The coastline and hinterland is undeveloped with only the presence of lazy beds and a small lighthouse on a headland. Deeply indented, the coastline has a number of small bays and promontories. From the coast there are extensive views of the Minch, which include views of Skye, the Small Isles and the Scottish Mainland.

# 5.2 Designations

There is one Listed Building located in the north-east of the pilot study area called Ben Reuval, although it contains no direct intervisibility with the pilot study coastline. There are two Scheduled Ancient Monuments (SAMs) located to the north-west and south-west of Loch Eynort and due to topography obtain no direct intervisibility with the pilot study coastline. The South Uist Machair and Lochs National Scenic Area is located to the west of the pilot study coastline and covers an area to the west of Loch Eynort, however, due to topography obtains no direct intervisibility with the pilot study coastline. There are a number of ecological designations within the pilot study area, these tend to be located around the western periphery of the pilot study area and cover the South Uist machair. To the west of Loch Skipport lies the Loch Druidbeg National Nature Reserve, which contains a number of walks that link up with the road to Loch Skipport. Loch Eynort has been designated as Marine Consultation Area (MCA).

# 5.3 SNH Landscape Character Types

The pilot study area falls within eleven Landscape Character Types identified in the Western Isles landscape character assessment, three of which experience direct intervisibility with the pilot study coastline (See Figure 5.3):

- Knock and Lochan LCT;
- Mountain Massif (one) LCT; and
- Rocky Moorland LCT.

## 5.4 Regional Coastal Character Types

Following a desk-based survey and on-site study three Regional Coastal Character Areas (RCCA) were identified These RCCA's are illustrated on Figure 5.4 and described in Appendix 5.1 and include:

- Loch Skipport RCCA;
- South Uist East Coast RCCA; and
- Loch Eynort RCCA.

# 5.5 Local Coastal Character Types

Following a detailed site assessment, eight Local Coastal Character Areas (LCCA) were identified within the Pilot Study Area. These LCCA's are illustrated on Figure 5.5 and listed below:

- Indented Outer Sea Loch LCCA;
- Enclosed Inner Loch (1)LCCA;
- Enclosed Sea Loch Mouth LCCA;
- Rocky Indented Coastline LCCA;
- Rocky Moorland Headland LCCA;
- Steep Sided Coastline LCCA;
- Sea Loch Mouth LCCA; and
- Enclosed Inner Loch (2);

Table 5.1: Indented Outer Sea Loch LCCA	
	acteristics
<ul> <li>Orientated North-East to South-West, deeply indented with some small islets;</li> <li>Booky abording with small acade aliffs and distinct tidal lines, no foreabord;</li> </ul>	
<ul> <li>Rocky shoreline with small-scale cliffs and distinct tidal lines, no foreshore;</li> <li>Constant perception of the sea and uninterrupted views of sea horizon to the east;</li> </ul>	
	coastline gives a sense of enclosure and screens
views of the hinterland;	deeply incided eliffer
<ul> <li>Simple coastline with heavily indented and</li> </ul>	
	ops. This is largely screened by coastal cliffs with
the occasional view of old crofting ruins; steep-sided hillsides sweep around so that the	
viewer can not see to the head of the loch;	
Wild and exposed with a sense of remoten	ess;
Distant views of the Inner Hebrides.	
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	A finfish development located opposite on the
	southern shoreline of the loch.
Opportunities	Constraints
Irregular indented shape of coastline and	Potential development may be seen from
presence of open seas could offer some	footpath to Hecla.
accommodation for development; and	
Existing marine activity.	
	to Change
Maritime Influences	Low Sensitivity
	LCCA is intervisible with the sea and strong tidal
	dynamics are evident. Irregular coastline and
	existing marine activity could absorb new
	development.
Character & Experience of Coastal Edge	Low Sensitivity
	Rocky coastline with small-scale cliffs could
	accommodate some development if carefully
	orientated in relation to coastline.
Setting of landmarks and features	Medium Sensitivity
•	No obvious landmarks. The LCCA forms part of
	the east coast views as seen from Hecla.
	Potential development should avoid these views.
Experience of Wildness	Very High Sensitivity
•	Sense of remoteness and the dominance of the
	sea provide a sense of place and perception of
	wildness.
Aesthetic Qualities	Very High Sensitivity
	Dramatic constantly changing coastline with wild
	characteristics, uniformity of coastline and simple
	landforms.
Key Viewpoints	Low Sensitivity
	Coastline largely inaccessible, key, elevated
	viewpoints from footpath to Hecla and the summit
	of the mountain.
Overall Sensitivity	of the mountain.
Overall Sensitivity LCCA Capacity for Aquaculture	of the mountain. Medium Sensitivity
Overall Sensitivity LCCA Capacity for Aquaculture	of the mountain. Medium Sensitivity The medium overall sensitivity and irregular
	of the mountain. Medium Sensitivity

Table 5.2: Enclosed Inner Loch (1) LCCA	
	acteristics
Orientated North-West to South-East, heave	
Rocky shoreline with distinct tidal lines and	
Limited perception of the sea which is large	
	des surrounding the loch give a sense of enclosure;
<ul> <li>Simple coastline and hinterland, mainly corrected and hinterland.</li> </ul>	
Landscape Scenic Quality:	Medium
Landscape Value:	Medium
Existing Aquaculture Development	Presently there is a shore base within the inner
	loch.
Opportunities	Constraints
<ul> <li>Existing marine activity.</li> </ul>	<ul> <li>Too narrow for any potential</li> </ul>
	development.
Sensitivity to Change	
Maritime Influences	Very High Sensitivity
	Limited perception of the sea, narrow loch width
	does not lend itself to any development.
Character & Experience of Coastal Edge	Very High Sensitivity
	Rocky regular and narrow coastline could not
	accommodate any development.
Setting of landmarks and features	High sensitivity
	The ruined pier forms the focal point to the loch;
	although the state of ruin and access track give
	the impression of an abandoned landscape.
Experience of Wildness	Medium Sensitivity
	There is a sense of remoteness; however the
	presence of the ruined Victorian pier and existing
	chore base reduces experience of wildness.
Aesthetic Qualities	Medium Sensitivity
	Pleasant but not outstanding and lacks any
	features.
Key Viewpoints	Low Sensitivity
	Coastline largely inaccessible, key viewpoints
	consist of the footpath to Hecla, and views from
	the unclassified road to the loch although the loch
	does not feature heavily in these views.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	The small-scale and narrowness renders this
	LCCA not suitable for shellfish/finfish
	development, although there may be scope to
	extend the onshore base which is well screened.

Table 5.3: Enclosed Sea Loch Mouth LCCA	
	acteristics
Orientated East-West, heavily indented wit	
<ul> <li>Rocky shoreline with distinct tidal lines, no foreshore;</li> </ul>	
	ely screened by outlying islands and islets;
<ul> <li>Islands provide good screening across are</li> </ul>	
<ul> <li>There is a sense of enclosure from the hills</li> </ul>	
<ul> <li>Hinterland mainly consists of rocky moorla</li> </ul>	, .
Landscape Scenic Quality:	Medium
Landscape Value:	Medium
Existing Aquaculture Development	There is a finfish development between the
	islands of Siolaigh Mor and Eilean Ornais.
Opportunities	Constraints
Well screened from the sea and land;	Development may be seen from
and	recreational sailing routes down the east
<ul> <li>Existing marine activity.</li> </ul>	coast.
	to Change
Maritime Influences	Low Sensitivity
	Limited perception of the sea, location of islands
	offers suitable areas for potential development.
Character & Experience of Coastal Edge	Low Sensitivity
	Irregular coastline with islands offers
	opportunities for absorbing potential
	development.
Setting of landmarks and features	Low Sensitivity
	The mountain of Hecla forms the main landmark,
	although topography close to the shoreline would
	screen part of the LCCA from these elevated
	views.
Experience of Wildness	Medium Sensitivity
	There is a sense of remoteness; however the
	presence of the ruined pier and existing
	aquaculture development reduces the sensitivity.
Aesthetic Qualities	Medium Sensitivity
	Pleasant but not outstanding and lacks any key
	features along coastline.
Key Viewpoints	Low Sensitivity
	Coastline largely inaccessible, key viewpoints
	consist of the footpath to Hecla, which should be
	avoided and sailing routes.
Overall Sensitivity	Low Sensitivity
LCCA Capacity for Aquaculture	The low overall sensitivity, irregular coastline and
	potential screening provided by the islands
	results in this LCCA having potential for large-
	scale shellfish/finfish development.

Table 5.4: Rocky Indented Coastline LCCA	
	acteristics
<ul> <li>Orientated North-South with an irregular coastline which is heavily indented containing an occasional small bay;</li> </ul>	
<ul> <li>Rocky shoreline with occasional small-scale</li> </ul>	
<ul> <li>Open seascape with views towards Skye, S</li> </ul>	
Contains a number of headlands, usually c	
Hinterland mainly consists of rocky moorlar	
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	Presently there is no aquaculture development in the vicinity of this LCCA.
Opportunities	Constraints
Irregular indented shape of coastline and	<ul> <li>Lack of development; and</li> </ul>
presence of open seas could offer some	Wild Land Characteristics.
accommodation for development;	to Change
Maritime Influences	to Change Low Sensitivity
	LCCA is intervisible with the sea and strong tidal
	dynamics are evident.
Character & Experience of Coastal Edge	Low Sensitivity
	Indented, irregular coastline is largely screened
	from view and may offer opportunity to
	accommodate development if sited appropriately.
Setting of landmarks and features	Very High Sensitivity The mountain of Hecla forms the main focal point in the LCCA. The coastline forms part of the foreground views from the seascape to Hecla and badly sited development would impact on these views.
Experience of Wildness	Very High Sensitivity Sense of remoteness, the dominance of sea and undulating hinterland provides a sense of place and perception of wildness.
Aesthetic Qualities	Very High Sensitivity Dramatic constantly changing coastline with wild characteristics forms an intriguing landscape.
Key Viewpoints	Low Sensitivity Coastline largely inaccessible, key elevated views of the coastline from the top of Hecla. Due to the topography, only a small section of this LCCA can be viewed from the summit.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The medium overall sensitivity and large scale,
	open nature of this LCCA results in the potential
	for large-scale finfish development in the wider
	bays, if sited appropriately.

Table 5.5: Rocky Moorland Headland LCCA	
	acteristics
<ul> <li>Orientated North-South an irregular coastline heavily indented with occasional small bay;</li> <li>Rocky shoreline with occasional small or medium-scale cliff, distinct tidal lines, no foreshore;</li> <li>Open seascape with views towards Skye. Small kees and mainland Sectland;</li> </ul>	
<ul> <li>Open seascape with views towards Skye, Small Isles and mainland Scotland;</li> <li>Contains a number of headlands, usually consisting of rocky promontories;</li> </ul>	
<ul> <li>Hinterland mainly consists of rocky moorland that sweeps down to the rocky shoreline or cliff tops;</li> <li>Undeveloped although small-scale lighthouse can be found at Rubha Heallarcro which</li> </ul>	
includes an access track down to the landi	ng place.
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	Presently there is no aquaculture development in the vicinity of this LCCA.
Opportunities	Constraints
<ul> <li>Irregular indented shape of coastline and presence of open seas could offer some</li> </ul>	<ul><li>Lack of development; and</li><li>Wild Land Characteristics.</li></ul>
accommodation for development; Sensitivity to Change	
Maritime Influences	Low Sensitivity
	LCCA is intervisible with the sea and strong tidal dynamics are evident.
Character & Experience of Coastal Edge	Low Sensitivity Indented and irregular coastline, largely screened from view, may offer opportunity to accommodate development if sited appropriately.
Setting of landmarks and features	Very High Sensitivity The mountain of Hecla forms the main focal point of the LCCA. In landward views from the sea, the coastline forms the foreground to views of Hecla. Any badly sited development would intrude impact on these views.
Experience of Wildness	Very High Sensitivity Sense of remoteness and the dominance of sea and undulating hinterland provide a sense of place and perception of wildness.
Aesthetic Qualities	Very High Sensitivity Dramatic, constantly changing coastline with wild characteristics forms an intriguing landscape.
Key Viewpoints	Low Sensitivity Coastline largely inaccessible, key elevated views of the coastline are gained from the top of Hecla and from the lighthouse at Rubha Heallacro; due to topography and irregular coastline only partial views of the coastline are obtained at any one time.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The medium overall sensitivity and large scale, open nature of this LCCA results in the potential for large-scale finfish development in the wider bays, if sited appropriately.

ristics
buth, and is heavily indented with small bays;
or medium-scale cliff, small cave or arch and
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, I Isles and mainland Scotland;
ne form of rocky promontories;
vith rocky moorland that sweeps down to the
S;
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esently there is no aquaculture development in vicinity of this LCCA.
nstraints
Lack of development; and
Wild Land Characteristics.
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v Sensitivity
CA is intervisible with the sea and strong tidal
namics are evident.
v Sensitivity
ented and irregular coastline that is largely
eened from view may offer opportunity to
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commodate development if sited appropriately.
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e mountain of Hecla forms the main focal point
the LCCA. The coastline forms part of the
eground views from the seascape to Hecla and
badly sited development may impact on these
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ry High Sensitivity
nse of remoteness and the dominance of sea
d undulating hinterland provide a sense of
ce and perception of wildness.
ry High Sensitivity
amatic constantly changing coastline with wild
aracteristics, forms an intriguing landscape
v Sensitivity
astline largely inaccessible. Key elevated
ws of the coast from the top of Hecla, give only
tial views of the coastline.
dium Sensitivity
e medium overall sensitivity and large scale,
en nature of this LCCA results in the potential
large-scale finfish development in the wider

Table 5.7: Sea Loch Mouth LCCA	
	acteristics
<ul> <li>Orientated East-West an irregular coastline</li> </ul>	e with indentations;
Rocky irregular shoreline with distinct tidal	
<ul> <li>Views towards the Small Isles and mainlan</li> </ul>	d Scotland;
<ul> <li>Hinterland mainly consists of gently sweep</li> </ul>	ing hillsides consisting of rocky moorland that
	of post and wire fences and buildings beyond;
<ul> <li>Undeveloped with the occasional area of la</li> </ul>	izy beds;
<ul> <li>Medium-scale landscape and seascape;</li> </ul>	
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	Presently there is no aquaculture development in this LCCA.
Opportunities	Constraints
Irregular, indented shape of coastline and	<ul> <li>Lack of development; and</li> </ul>
presence of open seas could	Wild Land Characteristics.
accommodate some development;	
Steepness of the hinterland may screen	
potential development; and	
Existing marine activity consisting of	
small-scale fishing.	ta Ohanna
Maritime Influences	to Change Low Sensitivity
Manume innuences	LCCA is intervisible with the sea and strong tidal
	dynamics are evident.
Character & Experience of Coastal Edge	Low Sensitivity
	Rocky, enclosed coastline could accommodate
	potential development depending on careful
	orientation to coastline.
Setting of landmarks and features	High Sensitivity
	No obvious landmark. LCCA forms part of east
	coast views seen from Beinn Mhor. Potential
Energy CM/14	development should avoid these views.
Experience of Wildness	High Sensitivity
	Sense of remoteness and the dominance of the
	sea provide a sense of place and perception of wildness. Views of buildings and fences reduce
	the sensitivity.
Aesthetic Qualities	High Sensitivity
	Dramatic, constantly changing coastline with wild
	characteristics.
Key Viewpoints	Low Sensitivity
	Coastline largely inaccessible, key viewpoints lie
	on summit of Beinn Mhor, although a large part of
	the LCCA would be screened from view.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	Large-scale development may dominate the
	medium scale nature of this LCCA. There is
	potential for medium-scale shellfish/finfish
	development.

Table 5.9: Enclosed Inner Look (2) LCCA	
Table 5.8: Enclosed Inner Loch (2) LCCA	aractariation
Key Characteristics     Orientated North-West to South-East, irregular, heavily indented loch with some islets;	
<ul> <li>Rocky shoreline with distinct tidal lines and no foreshore;</li> </ul>	
	e sea as it is largely screened by topography and
islets:	social as it is largely screened by topography and
,	narrow and billsides surrounding the loch give a
<ul> <li>Small-scale the width of the loch is fairly narrow and hillsides surrounding the loch give a sense of enclosure;</li> </ul>	
<ul> <li>Complex coastline with linear settlement</li> </ul>	on both sides of the loch
<ul> <li>A number of local walks are located alon</li> </ul>	
Landscape Scenic Quality:	Medium
Landscape Value:	Medium
Existing Aquaculture Development	None
Opportunities	Constraints
opportantito	Too narrow for any potential
	development.
Sensitivity to Change	
Maritime Influences	High Sensitivity
	Limited perception of the sea, narrow loch width
	does not lend itself to any development.
Character & Experience of Coastal Edge	High Sensitivity
	Rocky irregular small-scale coastline limits
	potential development.
Setting of landmarks and features	High Sensitivity
<b>3 .</b>	No obvious landmark. The LCCA is very
	enclosed. The coastline is intricate, irregular and
	forms the foreground to views to each settlement.
Experience of Wildness	Medium Sensitivity
	There is a sense of remoteness towards the north
	east end of the loch. However, the presence of
	settlement, fishing gear and crofting elements,
	particularly to the south and west, reduces the
	experience of wildness.
Aesthetic Qualities	Medium Sensitivity
	Pleasant but not outstanding and lacks any key
	features.
Key Viewpoints	High Sensitivity
	Coastline largely experienced from the
	unclassified road and network of footpaths
	through Alt Bholagair.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	The small-scale and narrowness renders this
	LCCA unsuitable for any offshore development.

# 6 Barrahead Pilot Study Area

## 6.1 Baseline

The Barrahead Pilot Study Area extends from Barra southwards to Berneray, to include the islands of Vatersay, Sandray, Pabbay and Mingulay (See Figure 6.1). The west coasts of Vatersay, Pabbay and Mingulay have been excluded from the study due to strong tidal dynamics that make it unfeasible for aquaculture. Barra and Vatersay are the only inhabited islands within this study area. Barra is dominated by the hillside of Sheabhal and consists predominantly of moorland with scattered coastal settlement. Castlebay is the primary settlement and Kisimul Castle, located offshore in the bay, provides the main focal point and tourist attraction. To the south, and connected to Barra via a causeway, lies the island of Vatersay. This island is guite distinctive, consisting of rounded moorland hills often with lowlying areas between that include dune systems and broad beaches. These elements help to create a 'hump back' effect to the island's skyline. South of Vatersay lie the islands of Sandray, Pabbay and Mingulay which all share similar characteristics - sea cliffs on their western sides, rounded moorland hills in their interior and narrow dune systems and beaches amongst rocky promontories on their eastern sides. To east and west of the study area lie a number of small rocky islands including Floda, Ling and Maol Domhnaich, which visually break up the seascape. Looking eastwards the islands experience broad panoramic views over the Minch which includes views of Skye, the Inner Hebrides and the mainland.

# 6.2 Designations

Within the Barrahead Pilot Study Area there are fifteen Listed Buildings and Scheduled Ancient Monuments (SAMs) which form important landmarks and features within the landscape. These are mainly situated around the inhabited islands of Barra and Vatersay with the outlying uninhabited island containing a number of SAMs covering standing stones and the remains of former settlements. The pilot study area also contains three SSSIs and the Mingulay and Berneray Special Protection Area (SPA) which are all found in the southern half of the pilot study area.

## 6.3 SNH Landscape Character Types

The pilot study area falls within eight Landscape Character Types identified in the Western Isles landscape character assessment, six of which experience direct intervisibility with the pilot study coastline (See Figure 6.3):

- Coastal Island LCT;
- Crofting One LCT;
- Crofting Two LCT;
- Machair LCT;
- Mountain Massif (one) LCT; and
- Rocky Moorland LCT.

## 6.4 Regional Coastal Character Areas

Following a desk-based survey and on-site assessment, three Regional Coastal Character Areas (RCCA) were identified These RCCA's are illustrated on Figure 6.4 and described in Appendix 6.1 and comprise:

- Island of Barra RCCA;
- Island of Vatersay RCCA; and
- Barrahead Islands RCCA.

# 6.5 Local Coastal Character Types

Following a detailed site survey nine Local Coastal Character Areas (LCCA) were identified within the Pilot Study Area. These LCCAs are illustrated on Figure 6.5 and described below:

- Moorland Coastal Edge LCCA;
- Settled Sheltered Bay LCCA;
- Sheltered Bay LCCA;
- Narrow Peninsula LCCA;
- Sheltered Bay with Beach (1) LCCA;
- Rocky Moorland Coastal Edge LCCA;
- Indented Coastal Edge LCCA;
- Sheltered Bay with Beach (2) LCCA; and
- Rocky Moorland Islands LCCA.

Table 6.1: Moorland Coastal Edge LCCA	
	acteristics
<ul> <li>Orientated East-West an irregular heavily i</li> <li>Rocky shoreline with distinct tidal lines, no</li> <li>Consists of open seas with extensive views</li> <li>Large-scale seascape with navigation buoy surface of the sea;</li> </ul>	
Present marine activity could accommodate potential development.	<ul> <li>Close to entrance to Castlebay; and</li> <li>Potential intervisibility with other LCCA's on Vattersay.</li> </ul>
Sensitivity	to Change
Maritime Influences Character & Experience of Coastal Edge	Medium Sensitivity Open sea with strong tidal dynamics help to emphasise the influence of the sea. Static structures would detract from this. Medium Sensitivity
Character & Experience of Coastal Edge	Rocky irregular undeveloped coastline could only accommodate small-scale development.
Setting of landmarks and features	High Sensitivity The LCCA forms part of the foreground to views of Sheabhal from the Oban to Barra ferry. Potential development would detract from these views.
Experience of Wildness	Low Sensitivity There is a sense of remoteness, however the presence of marine activity and settlements, reduces the experience of wildness.
Aesthetic Qualities	High Sensitivity Scenic, simple and uniform in appearance with an important feature and backdrop to the island in the hinterland.
Key Viewpoints	High Sensitivity Coastline largely experienced from the ferry, boats going to moor in Castlebay and from elevated views from Sheabhal.
Overall Sensitivity	Medium Sensitivity
LCCA Capacity for Aquaculture	The rocky, irregular and undeveloped coastline would be dominated by medium and large-scale development. There is potential for small-scale shellfish development close to shoreline.

Table C. 9: Cottlad Chaltered Day I. CCA	
Table 6.2: Settled Sheltered Bay LCCA	ractoristics
Curvilinear bay covering the North, East a	racteristics nd West shorelines of Castlebay, which is irregular
and indented with some islets;	
	foreshore, includes a number of headlands;
Limited perception of the sea, with fragme	
<ul> <li>Small-scale seascape with navigation buo surface of the sea;</li> </ul>	ys and fishing buoys located sporadically over the
	around the here
Developed shoreline of Castlebay, located	oorland hillside that sweeps down to the coastline
<ul> <li>Anternation matrix consists of undulating matrix and forms the backdrop to Castlebay;</li> </ul>	contail a miniside that sweeps down to the coastille
<ul> <li>Kisimul Castle forms the focal point of the</li> </ul>	bay
And Castle forms the focal point of the     Landscape Scenic Quality:	High
Landscape Scenic Quanty.	High
Existing Aquaculture Development	Presently there is no aquaculture development in
Existing Aquaculture Development	close proximity to the LCCA.
Opportunities	Constraints
opportaintioo	Small-scale; and
	<ul> <li>Close to settlement and historic castle.</li> </ul>
Sensitivity	
Sensitivity to Change           Maritime Influences         High Sensitivity	
	Sheltered perception of the sea, low tides reveal
	causeway to Kisimul Castle, bay used for
	mooring boats, any development would reduce
	the scenic quality of the seascape.
Character & Experience of Coastal Edge	High Sensitivity
	Irregular coastline that still maintains its natural
	shape despite the presence of pier and ferry
	terminal. The presence of Kisimul Castle in the
<b>- -</b>	bay gives this coastline high value.
Setting of landmarks and features	Very High Sensitivity
	The focal point of the LCCA is the island with
	historic Kisimul Castle. The seascape is integral to its setting. Potential development would detract
	from these views.
Experience of Wildness	Low Sensitivity
	Developed shoreline and presence of marine
	activity limits the experience of wildness.
Aesthetic Qualities	Very High Sensitivity
	Very Scenic, the castle and mountain help form
	the main attraction on the island.
Key Viewpoints	Very High Sensitivity
	Castlebay, Kisimul Castle and Sheabhal form the
	main viewpoints; potential development would
	reduce the quality of these views.
Overall Sensitivity	Very High Sensitivity
LCCA Capacity for Aquaculture	This LCCA has no potential for aquaculture
	development.

Table 6.3: Sheltered Bay LCCA	
	acteristics
	y with small islets, fairly regular with some small-
scale inundations;	
<ul> <li>Rocky shoreline with distinct tidal lines and</li> </ul>	small foreshore which includes a number of jetties
and a causeway linking the two islands;	
<ul> <li>Funnelled views of the sea to the east and</li> </ul>	south across Vattersay;
<ul> <li>Small-scale seascape with navigation buoy</li> </ul>	s and fishing buoys located sporadically over the
surface of the sea;	
<ul> <li>Shoreline elements include areas for lobster</li> </ul>	er pots and a quarry;
<ul> <li>Hinterland mainly consists of undulating me</li> </ul>	porland hillside that sweeps down to the coastline;
<ul> <li>Unclassified road located along north and s</li> </ul>	southern shorelines.
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	Presently there is no aquaculture development in
	close proximity to the LCCA.
Opportunities	Constraints
<ul> <li>Regular coastline may offer opportunities</li> </ul>	Small-scale and enclosed; and
for small-scale long lines; and	Close to settlement.
Existing marine activity.	
	to Change
Maritime Influences	Medium Sensitivity
	Sheltered perception of the sea, low tides reveal
	small foreshore, and narrow bay could
	accommodate small-scale long lines.
Character & Experience of Coastal Edge	High Sensitivity
	Regular coastline that still maintains its natural
	shape, although presence of causeway and small
Setting of landmarks and features	jetties interrupt the coastal edge. High Sensitivity
Setting of landinarks and leatures	The LCCA forms part of the entrance to
	Castlebay.
Experience of Wildness	Low Sensitivity
	Developed shoreline and presence of marine
	activity reduces the experience of wildness.
Aesthetic Qualities	High Sensitivity
	Scenic, with only small-scale development.
Key Viewpoints	High Sensitivity
	This LCCA is mainly experienced from the
	unclassified road that runs on both sides of the
	bay, the causeway, and ferries or boats entering
	Castlebay.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	The small-scale nature of the seascape in this
	area limits the capacity of this LCCA to
	development. There would be potential for small-
	scale shellfish development.

Table 6.4: Narrow Peninsula LCCA	Table 6 4: Narrow Peninsula I CCA	
	acteristics	
<ul> <li>East-West orientated, irregular coastline with small beaches in between hills and a number of islets located off the point;</li> <li>Rocky shoreline with distinct tidal lines, occasional small beach with views through to the north or south;</li> <li>Small-scale seascape with navigation buoys and fishing buoys located sporadically over the</li> </ul>		
<ul> <li>Other scale seascape with having alloh budys and histing budys located sporadically over the surface of the sea to the north;</li> <li>Views of Castlebay to the north and Sandray to the south;</li> <li>Undeveloped shoreline with a couple of properties at Uidh;</li> <li>Hinterland mainly consists of small rounded moorland hillside that sweep down to the coastline to form the backdrop to Kisimul Castle as seen from Castlebay;</li> </ul>		
Landscape Scenic Quality:	High	
Landscape Value:	High	
Existing Aquaculture Development	Presently there is no aquaculture development in close proximity to the LCCA.	
Opportunities	Constraints	
	Small-scale; and	
	Close to settlement and historic castle.	
	to Change	
Maritime Influences	High Sensitivity LCCA is dominated by tidal dynamics, which create an ever changing experience of the coastline.	
Character & Experience of Coastal Edge	High Sensitivity Irregular coastline that is small in scale and could not accommodate development.	
Setting of landmarks and features	High Sensitivity The LCCA forms part of the backdrop to views of Kisimul Castle as seen from Castlebay; and views from Vatersay Beach. Potential development would detract from these.	
Experience of Wildness	Low Sensitivity Developed shoreline and presence of marine activity reduces the experience of wildness.	
Aesthetic Qualities	High Sensitivity A very scenic area, the peninsula frames views of Sandray, from Castlebay. Simple and undeveloped coastline and hinterland.	
Key Viewpoints	High Sensitivity Mainly experienced from the unclassified road or the settlement of Uidh, LCCA also obtains intervisibility with Castlebay and Vatersay Beach.	
Overall Sensitivity	High Sensitivity	
LCCA Capacity for Aquaculture	This LCCA has no potential for aquaculture development.	

Table 6.5: Sheltered Bay with Beach (1) LCCA	Table 6.5. Sheltered Boy with Beach (1) I CCA	
	actoristics	
<ul> <li>Curvilinear bay with broad sandy beach backed by dunes to the west;</li> <li>Curvilinear bay with broad sandy beach backed by dunes to the west;</li> <li>Rocky shoreline along the southern and northern coastlines with distinct tidal lines, occasional small beach with views through to the north or south;</li> <li>Enclosed, intimate seascape with limited perception of the sea;</li> <li>Dune system almost divides Vattersay in half, there is a limited perception of the Atlantic Ocean to the west from the sand dunes;</li> <li>Settlement is small scale, sits back from the coastline and is well screened from views from the east;</li> <li>Hinterland consists mainly of good quality common grazing land and moorland.</li> </ul>		
Landscape Scenic Quality:	High	
Landscape Value:	High	
Existing Aquaculture Development	Presently there is no aquaculture development in close proximity to the LCCA.	
Opportunities	Constraints	
	<ul><li>Small-scale; and</li><li>Close to settlement and beach.</li></ul>	
	to Change	
Maritime Influences	Very High Sensitivity Broad beach and constant movement of dune system would be compromised by offshore development in the LCCA.	
Character & Experience of Coastal Edge	Very High Sensitivity Coastline that is small in scale could not accommodate any potential development.	
Setting of landmarks and features	Very High Sensitivity The LCCA forms part of the main attraction on Vatersay. Potential development would detract from these views.	
Experience of Wildness	Medium Sensitivity Unspoilt, with a sense of remoteness some development of the hinterland and common grazing reduces the experience of wildness.	
Aesthetic Qualities	Very High Sensitivity Very Scenic, the bay is very attractive and an important tourist destination.	
Key Viewpoints	High Sensitivity Mainly experienced from the unclassified road over the dune system or the beach. Within the hinterland, the Annie Jane Memorial and Vatersay Dun all obtain views of the LCCA although due to topographical screening only some parts of the LCCA are visible.	
Overall Sensitivity	Very High Sensitivity	
LCCA Capacity for Aquaculture	This LCCA has no potential for aquaculture development.	

#### Table 6.6: Rocky Moorland Coastal Edge LCCA

#### **Key Characteristics**

- Curvilinear irregular coastline with indentations found around the islands of Sandray, Pabbay and Mingulay;
- Rocky shoreline with small cliffs, caves and promontories with the occasional incised narrow indentation located mainly on the southern coastline;
- Tidal lines are undulating due to the tidal dynamics of the unprotected coastline;
- Hinterland mainly consist of rounded moorland hills with the occasional grouping of lazy beds;
- Large-scale seascape with distant views to Skye, Inner Hebrides and the Mainland;
- Uninhabited and undeveloped, contain wild land characteristics;
- Some marine activity from fishing vessels;

Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	Presently there is no aquaculture development in close proximity to the LCCA.
Opportunities	Constraints
<ul> <li>Large scale open seas offer opportunities to accommodate large scale developments.</li> </ul>	<ul><li>Lack of development; and</li><li>Wild Land Characteristics.</li></ul>
	to Change
Maritime Influences	Low Sensitivity Strong tidal dynamics, open large scale seascape and existing marine activity could accommodate potential development.
Character & Experience of Coastal Edge	High Sensitivity Coastline is large in scale and could accommodate potential development.
Setting of landmarks and features	Very High Sensitivity No obvious landmarks, however the sea cliffs, caves and promontories provide a focus to views.
Experience of Wildness	High Sensitivity There is a sense of remoteness; however the presence of marine activity reduces the experience of wildness.
Aesthetic Qualities	Very High Sensitivity Dramatic constantly changing coastline with wild characteristics, forms an intriguing landscape
Key Viewpoints	Low Sensitivity No obvious viewpoints, this LCCA would be experienced by tourists on boat trips to Mingulay.
Overall Sensitivity	High Sensitivity
LCCA Capacity for Aquaculture	Although the large-scale, open nature of this LCCA offers opportunities for large-scale development the high sensitivity and prevalence of wild characteristics results in no potential for aquaculture development.

	Table 6.7: Indented Coastal Edge LCCA	
	acteristics	
<ul> <li>Irregular, indented coastline located along the east and south of Sandray;</li> <li>Rocky shoreline with distinct tidal lines, frequent small bays and occasional small beaches with dunes beyond;</li> </ul>		
<ul> <li>Combination of small and large scale seascape with some distant views to Skye, Small Isles, Inner Hebrides and the Mainland;</li> <li>Uninhabited and undeveloped, contains wild land characteristics;</li> </ul>		
<ul> <li>Some marine activity from fishing vessels.</li> </ul>		
Landscape Scenic Quality:	High	
Landscape Value:	High	
Existing Aquaculture Development	Presently there is no aquaculture development in close proximity to the LCCA.	
Opportunities	Constraints	
<ul> <li>Large-scale open areas offer opportunity to accommodate development.</li> </ul>	<ul><li>Small-scale bays; and</li><li>Wild land characteristics.</li></ul>	
	to Change	
Maritime Influences	Medium Sensitivity Small scale bays would be highly sensitive to development. However, the open, large scale seascape to east side of Sandray and existing marine activity could accommodate development.	
Character & Experience of Coastal Edge	Medium Sensitivity Much of the coastline is small in scale and could not accommodate any potential development. However, the large scale east coastline could accommodate development.	
Setting of landmarks and features	Medium Sensitivity No obvious landmark, the bays, beach and islets provide focal points to views.	
Experience of Wildness	Medium Sensitivity There is a sense of remoteness; however the presence of marine activity reduces the experience of wildness.	
Aesthetic Qualities	Medium Sensitivity Attractive bays and a sense of remoteness. However the presence of marine activity reduces the experience of wildness.	
Key Viewpoints	Low Sensitivity No obvious viewpoints, potential views from tourists on boat trips to Mingulay and distant views from the Oban Ferry.	
Overall Sensitivity	Medium Sensitivity	
LCCA Capacity for Aquaculture	Potential for large-scale finfish development if located within the large-scale, open areas of this LCCA on the east side of Sandray.	

Table 6.8: Sheltered Bay with Beach (2) LCCA (Pabbay and Mingulay)	
	racteristics
<ul> <li>Curvilinear bay with sandy beach and dun</li> </ul>	es between rocky moorland hills;
<ul> <li>The area of this LCCA on Pabbay has a n</li> </ul>	arrower beach and is more enclosed than the area
on Mingulay;	
<ul> <li>Hinterland consists mainly of moorland an</li> </ul>	
<ul> <li>Enclosed small-scale with views to the easily</li> </ul>	•
<ul> <li>Uninhabited and undeveloped nature with</li> </ul>	
Landscape Scenic Quality:	High
Landscape Value:	High
Existing Aquaculture Development	Presently there is no aquaculture development in
	close proximity to the LCCA.
Opportunities	Constraints
	Small-scale; and
	Wild Land Characteristics.
	y to Change
Maritime Influences	Very High Sensitivity
	Limited existing maritime activity and small scale
	nature of the seascape increase the sensitivity to
	development.
Character & Experience of Coastal Edge	Very High Sensitivity
	Coastline that is small in scale and could not
Outline of low decodes and for these	accommodate any potential development.
Setting of landmarks and features	Very High Sensitivity
	The LCCA forms part of the main attraction on Mingulay and potential development would
	detract from these views.
Experience of Wildness	High Sensitivity
Experience of Whoness	Historic ruined settlement reduces the sense of
	wildness, although contributes to a greater sense
	of abandonment.
Aesthetic Qualities	Very High Sensitivity
	Very Scenic, the bays are very attractive and the
	beach on Mingulay is an important tourist
	destination.
Key Viewpoints	High Sensitivity
	Experienced mainly by tourists on boat trips to
	Mingulay.
Overall Sensitivity	Very High Sensitivity
LCCA Capacity for Aquaculture	This LCCA has no potential for aquaculture
	development

Table 6.0. Beaky Measland Jalanda LCCA		
Table 6.9: Rocky Moorland Islands LCCA		
Key Chara		
	, small cliffs, caves and promontories with the	
occasional incised narrow indentation locat		
<ul> <li>Tidal lines are undulating due to the tidal dy</li> </ul>		
<ul> <li>Hinterland mainly consist of rounded moorla</li> </ul>		
<ul> <li>Large scale seascape with distant views to</li> </ul>	Skye, Small Isles, Inner Hebrides and the	
Mainland;		
<ul> <li>Uninhabited and undeveloped, contain wild</li> </ul>	land characteristics;	
<ul> <li>Some marine activity from fishing vessels;</li> </ul>		
Landscape Scenic Quality:	High	
Landscape Value:	High	
Existing Aquaculture Development	Presently there is no aquaculture development in	
	close proximity to the LCCA.	
Opportunities	Constraints	
<ul> <li>Large-scale open seas offer opportunities</li> </ul>	<ul> <li>Lack of development; and</li> </ul>	
to accommodate developments.	Wild Land Characteristics.	
Sensitivity	to Change	
Maritime Influences	High Sensitivity	
	Open sea with strong tidal dynamics emphasises	
	the influence of the sea. Static structures would	
	detract from this.	
Character & Experience of Coastal Edge	Very High Sensitivity	
	Rocky irregular coastline with no apparent	
	existing development.	
Setting of landmarks and features	Very High Sensitivity	
-	No obvious landmarks, however the sea cliffs,	
	caves and promontories provide a focus to views.	
Experience of Wildness	High Sensitivity	
	There is a sense of remoteness; however the	
	presence of marine activity reduces the	
	experience of wildness.	
Aesthetic Qualities	Very High Sensitivity	
	Dramatic constantly changing coastline with wild	
	characteristics, forms an intriguing landscape	
Key Viewpoints	Low Sensitivity	
	No obvious viewpoints, this LCCA would be	
	experienced by tourist on boat trips to Mingulay	
	and from ferry services to and from Castlebay.	
Overall Sensitivity	High Sensitivity	
LCCA Capacity for Aquaculture	No potential for aquaculture development due to	
	the small-scale nature of the islands and the	
	sense of wildness.	

# 7. Summary and Conclusions

The following table provides a summary of the landscape/seascape sensitivity and capacity to aquaculture development in each **Local Coastal Character Area**.

Table 7.1: Summary Table of lands		
Local Coastal Character Area	Sensitivity	Landscape/Seascape Capacity for Aquaculture
Loch Liurbost Pilot Study Area		
Narrow Enclosed Inner Loch LCCA	Medium	Potential for small-scale shellfish development
Narrow Outer Loch LCCA	Low	Potential for small to medium-scale shellfish/finfish development in outer limits of loch
Moorland Headland Coastal Edge LCCA	Medium	Potential for small to medium scale shellfish/finfish development
Secluded Bay with Settlement	Medium	Potential for small-scale shellfish/finfish development
Settled Loch Edge LCCA	Medium	No capacity for shellfish/finfish development
Crofting Slopes with Settlement LCCA	Low	Potential for medium-scale shellfish/finfish development.
Rocky Moorland Edge LCCA	Medium	Potential for small to medium-scale shellfish/finfish development. Existing developments at capacity
Rocky Moorland and Coastal Edge LCCA	Medium	Potential for small to medium-scale shellfish/finfish development
Lochs Seaforth, Claidh & Bhrollun	n Pilot Study	Area
Inner Loch with Crofting LCCA	Medium	Potential for small-scale shellfish development
Inner Loch Moorland Edge LCCA	High	No capacity for shellfish/finfish development
Inner Loch with Settlement LCCA	Medium	Potential for small-scale shellfish development
Moorland Edge LCCA	High	No capacity for development
Moorland Edge with Forestry LCCA	Medium	Potential for small-scale shellfish development
Rocky Moorland Edge LCCA	Medium	Potential for small-scale shellfish development
Sea Loch Island LCCA	High	Potential for small-scale shellfish development
Inner Loch Settled Bay LCCA	Medium	Potential for small-scale shellfish development
Steep Sided Outer Loch (1) LCCA	High	Potential for small-scale shellfish/finfish development
Outer Loch Settled Bay LCCA	High	Potential for small-scale shellfish development
Steep Sided Coastal Edge LCCA	Medium	Potential for medium to large-scale finfish development within Loch Trolamaraig
Indented Coastal Edge LCCA	Medium	Potential for large-scale finfish development in wide indentations if carefully sited
Steep Sided Outer Loch (2) LCCA	Very High	No capacity for development
Steep Sided Loch Head LCCA	Very High	No capacity for development
Loch Skipport, Eynort and East Co	oast Pilot Stu	dy Area
Indented Outer Sea Loch LCCA	Medium	Potential for medium-scale shellfish/finfish development
Enclosed Inner Loch (1) LCCA	High	No capacity for development. Potential to expand existing onshore base.
Enclosed Sea Loch Mouth LCCA	Low	Potential for large-scale shellfish/finfish development
Rocky Indented Coastline LCCA	Medium	Potential for large-scale finfish development in wide indentations if carefully sited
Rocky Moorland Headland LCCA	Medium	Potential for large-scale finfish development in wide indentations if carefully sited
Steep Sided Coastline LCCA	Medium	Potential for large-scale finfish development in wide indentations if carefully sited

Table 7.1: Summary Table of landscape/seascape capacity			
Local Coastal Character Area	Sensitivity	Landscape/Seascape Capacity for	
		Aquaculture	
Sea Loch Mouth LCCA	Medium	Potential for medium-scale finfish development	
Enclosed Inner Loch (2) LCCA	High	No capacity for development	
Barrahead Pilot Study Area	Barrahead Pilot Study Area		
Moorland Coastal Edge LCCA	Medium	Potential for small-scale shellfish development	
		close to shoreline	
Settled Sheltered Bay LCCA	Very High	No capacity for development	
Sheltered Bay LCCA	High	Potential for small-scale shellfish development	
Narrow Peninsula LCCA	High	No capacity for development	
Sheltered Bay with Beach (1)	Very High	No capacity for development	
LCCA			
Rocky Moorland Coastal Edge	High	No capacity for development	
LCCA			
Indented Coastal Edge LCCA	Medium	Potential for large-scale finfish development to	
		east of Sandray	
Sheltered Bay with Beach (2)	Very High	No capacity for development	
LCCA (Pabbay & Mingulay)			
Rocky Moorland Islands LCCA	High	No capacity for development	

# 7.1 Summary

Generally within the four Pilot Study Areas, the larger scale development scenario would, result in significant change to the existing landscape and seascape character. The Pilot Study Areas and their LCCAs with the capacity to accommodate such large scale aquaculture development are:

- Lochs Seaforth, Claidh & Bhrollum Pilot Study Area: Steep Sided Coastal Edge LCCA and Indented Coastal Edge LCCA
- Lochs Skipport, Eynort and Hinterland Pilot Study Area: Enclosed Sea Loch LCCA, Rocky Indented Coastline LCCA, Rocky Moorland Headland LCCA and Steep Sided Coastline LCCA
- Barrahead Pilot Study Area: Indented Coastal Edge LCCA.

Smaller and medium scale development scenarios would have a lesser effect upon the landscape and seascape character. Therefore many of the LCCAs throughout the Pilot Study Areas would have some capacity for development of these scales, especially small scale shellfish development

## 7.2 Conclusions

The Loch Liurbost Pilot Study Area is the smallest area assessed. It is also the most developed and contains both shellfish and finfish development which are **currently at**, or **approaching landscape and seascape capacity**.

The Lochs Seaforth, Claidh & Bhrollum Pilot Study Area is an important landscape marked by the transition from Lewis to Harris. It is considered to have potential for linear development, such as shellfish long lines. There is potential for small to medium-scale finfish farms in the outer reaches of the loch, and large-scale development to the west in Loch Trolamaraig. Careful consideration of siting would be required to ensure that any development would not break up the linearity of the loch.

The Loch Skipport, Eynort and Hinterland Pilot Study Area is considered to have the greatest capacity for further aquaculture development due to its isolated nature and openness of seascape, and heavily indented coastline. There are already existing onshore

bases in the inner loch of Loch Skipport. Loch Eynort has the potential to be accessed from the inner loch or from Lochboisdale Harbour to the south.

The Barrahead Pilot Study Area is considered to be the most sensitive of the four areas included within this study. Therefore it has a very limited capacity for aquaculture development. The study area contains a number of iconic landscapes and seascapes such as Castelbay, which is known as 'The Jewel of the Hebrides', and the remote island of Mingulay. It is important that these unique landscapes and seascapes are preserved as a composition.

# **APPENDIX .1 – BIBLIOGRAPHY AND REFERENCES**

## Selected Bibliography

David Tyldesley & Associates (2001). *Landscape Capacity Study for Marine Aquaculture Developments in the Orkney Islands*. Scottish Natural Heritage Commissioned Report No. F00LA01B.

Grant, A. (2006) *Landscape/Seascape Capacity for Aquaculture*. Scottish Natural Heritage Commissioned Report No. 215 .).

Goodenough, K. & Merrit, J. (2007). The Outer Hebrides. Scottish Natural Heritage

Ramsay, D.L. & Brampton, A.H. (2000). *Coastal Cells in Scotland: Cells 8 & 9 – The Western Isles*. Scottish Natural Heritage Research, Survey and Monitoring Report No. 150.

RPS, (2007) *Environmental Impact Assessment Practical Guidelines Toolkit for Marine Fish Farming*. Scottish Aquaculture Research Forum

Scottish Natural Heritage (2010). The Special Qualities of the National Scenic Areas.

Scottish Natural Heritage Commissioned Report No. 374.

Slaski, R (2010) *Environmental Impact Assessment (EIA) Thresholds for Marine Fish Farms*. Scottish Aquaculture Research Forum

#### References

Baxter, J.M, Boyd, I.L., Cox, M., Donald, A.E., Malcolm, S.J., Miles, H., Miller, B., Moffat, C.F., (Editors), (2011). *Scotland's Marine Atlas: Information for the National Marine Plan*. Marine Scotland.

Grant, A. (2000) *Marine Aquaculture and the Landscape: The Siting and Design of Marine Aquaculture Developments in the Landscape*. Scottish Natural Heritage.

Hill, M. Briggs, J. Minto, P. Bagnell, D. Foley, K. Williams, A. (2001) *Maritime Ireland/Wales INTERREG 1994-1999 – Guide to Best Practice in Seascape Assessment*. Countryside Commission for Wales.

Marine Scotland (2009) A Fresh Start: The Renewed Strategic Framework for Scottish Aquaculture. Marine Scotland.

Marine Scotland Science (2010) *Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters*. Marine Scotland.

Richards, J. (1998) *Western Isles landscape character assessment*. Scottish Natural Heritage Review No 92.

Scott, K.E., Anderson, C., Dunsford, H., Benson, J.F., & Macfarlane, R. (2005) *An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore windfarms*. Scottish Natural Heritage Commissioned Report No. 103 (R0ame No. F03AA03).

Scottish Natural Heritage. (2008) *Guidance on Landscape /Seascape Capacity for Aquaculture*. Scottish Natural Heritage.

Scottish Natural Heritage (2002) *Natural Heritage Futures – Coasts and Seas*. Scottish Natural Heritage.

Scottish Natural Heritage (2002) Natural Heritage Futures – Coll, Tiree and the Western Isles. Scottish Natural Heritage.

Swanwick, C. University of Sheffield & Land use Consultants. (2002) *Landscape Character Assessment – Guidance for England and Scotalnd*. The Countryside Agency & Scottish Natural Heritage.

The Countryside Agency & Scottish Natural Heritage (2002) Landscape Character Assessment – Guidance for England and Scotland, Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity. The Countryside Agency & Scottish Natural Heritage.

The Landscape Institute with the Institute of Environmental Management and Assessment (2002) *Guidelines for Landscape and Visual Impact Assessment*. Second Edition. Spon Press.

# **APPENDIX 2.1 – ASH AQUACULTURE EXPERIENCE**

# ASH design & assessment Aquaculture Experience

ASH have extensive experience of the landscape/seascape assessment and siting of saltwater and freshwater finfish sites and shellfish sites on sensitive locations on the west coast of Scotland. Assessments have related to a variety of developments, ranging from reconfiguration/relocation of existing operations to the siting of completely new ones.

These have included:

- **The Isle of Arran**: proposed new fish farm site in a visually challenging and sensitive location in Whiting Bay, not far from Brodick, the islands main town and near to the Ardrossan Ferry route. A landscape and visual assessment was carried out;
- **The Sound of Shuna**: proposed new mussel farm site at visual focal point visible from main Argyll coastal route. A landscape and visual assessment was carried out;
- **The Sound of Mull**: proposed new fish farm site at Maclean's Nose, a rocky point at the entrance to Loch Sunart; careful siting played an important part in this development. In addition, a landscape and visual assessment was carried out;
- Loch Sunart: proposed changes from traditional hand-fed pens to automatic feed barges in several locations. A landscape and visual assessment was carried out in order to assess the likely impacts of these changes. Extensive consultation with SNH and The Highland Council was required;
- Loch Sunart: a review of the client's operations on the entire length of this environmentally sensitive sea-loch looking at the reconfiguration and deletion of existing sites and proposals for new ones, together with changes in associated shore bases and operations. This involved an assessment of the landscape capacity of the coastal hinterland in respect of the proposed changes together with an assessment of likely visual impacts;
- Loch Torridon/Loch Ewe: proposed changes to existing configurations, involving new pens, in several locations in these highly sensitive and popular landscapes, the latter not far from Inverewe Gardens. A landscape and visual assessment was carried out in order to assess the likely impacts of these changes. Extensive consultation with SNH was required;
- **The Isle of Skye**: proposed changes to an existing configuration, involving new pens, in a sensitive location overlooked by the Cuillins. A landscape and seascape assessment was carried out to assess the likely impacts of these changes; and
- Loch Garry and Glenfinnan: proposed deletion and reconfiguration of pens in two freshwater locations, the latter not far from the famous Glenfinnan Memorial. A landscape and visual impact assessment was carried out in order to assess the likely impacts of these changes.

# Loch Liurboist Pilot Study Area

# Regional Coastal Character Areas (RCCA)

# Loch Griomsidar RCCA

This RCCA consists of a small sea loch located to the south of Stornoway on the east coast of Lewis. Generally, the loch is narrow and enclosed by the surrounding moorland; the inner loch is sheltered and has a limited perception of the sea due to the extent of the narrow channel to the east. The coastline is low-lying and indented and a further narrow channel forks to the north-west. Settlement is mainly concentrated within the inner loch with the settlement of Griomsidar on the northern shoreline and Ranais located on the southern shoreline, which contrast with the largely uninhabited area to the east. Within the loch there is a small island known as Buaile Mhor although its close proximity to the shoreline results in it appearing more like a promontory. Dividing the inner and outer lochs is a very narrow channel, to the east of this channel the loch opens out into the Minch. The hinterland consists predominantly of undulating moorland with rocky hills and crofting around the settlements. To the west, a number of water towers on local ridge lines break the horizon and provide focal points.

# Outer Loch Eiresort RCCA

This RCCA consists of a stretch of coastline from Rubha Raerinis to Eilean Chalaibrigh on the approaches to Loch Eireasort on the east coast of Lewis. The coastline is very indented and exposed to the Minch to the east. Occasionally there is a sheltered bay or group of islands and islets that provide some shelter from the openness of the Minch. The coastline is largely uninhabited apart from a small settlement at Cuidhir and the eastern side of Crosbost adjacent to the entrance into Loch Liurbost. The hinterland is predominantly undulating rocky moorland and there is a sense of wildness in the more uninhabited areas of coastline.

## Loch Liurbost RCCA

This RCCA consists of a sea loch located to the south of Stornoway, on the east side of Lewis. The loch is enclosed on both sides by the hillsides that sweep down to the lochside and the islands located at the loch head provide screening resulting in a limited perception of the sea. The northern side of the RCCA is the most developed, with the settlement of Crosbost being located close to the shoreline and the larger linear settlement of Liurbost being located further back from the loch edge in a more elevated location. The hinterland of the north side is predominantly crofting with distinct linear field systems located between the shoreline and settlements. The southern side of the loch is more indented with two narrow channels that extend inland from the main loch. The hinterland is predominantly undulating rocky moorland, which forms the foreground of views from Liurbost and Crosbost towards the Pairc and Harris hills.

# Lochs Seaforth, Claidh & Bhrollum Pilot Study Area

## Regional Coastal Character Areas (RCCA)

## South Lochs RCCA

This RCCA consists of a stretch of coastline from the Gob Rubh Uisinis headland in the east to Eilean Glas na laichh-Acarsaid Fhalaich to the west and includes Loch Claidh and Loch Bhrollum. The coastline is undulating with a number of narrow channels entering smaller sheltered bays. The coastline is uninhabited with the occasional crofting ruin being found in the more sheltered locations and remains of shielings and lazybeds. The hinterland is predominantly moorland with steep sided slopes and rocky outcrops enclosing the two seas, although the influence of the sea is still very evident. The coastline is very exposed to the Minch and contains panoramic views of the east Harris coastline, Isle of Skye, Inner Hebrides and the Scottish mainland. The uninhabited and underdeveloped nature of this RCCA lends it a number of wild land characteristics.

# **Outer Loch Seaforth RCCA**

This RCCA consists of the outer shoreline of Loch Seaforth and a stretch of coastline to the south including Loch Trolamaraig. The outer coastline of Loch Seaforth is regular with small inundations and is enclosed due to the proximity of steep sided hills that rise from the shore. The outer coastline of the RCCA consists of a rocky indented shoreline that is very exposed to the Minch. There is limited development or settlement within the RCCA with only the settlement of Reinigeadal being found on the western tip of Loch Seaforth. The hinterland predominantly consists of rocky moorland on steep sided hillsides with extensive views of the east Harris coastline. The uninhabited and undeveloped nature of this RCCA engenders a sense of wildness and natural characteristics.

## Inner Loch Seaforth RCCA

This RCCA consists of the inner coastline of the loch from Seaforth Head and Airidh a Bhruaich in the north to Maraig in the south. The coastline is irregular and indented with two bays at Aird a Mhulaidh and Maraig. There is a limited perception of the sea due to the presence of Seaforth Island in the centre of the loch and the length of loch which narrows views of the sea. The hinterland is generally made up of undulating moorland, the western side of the loch has a number of settlements with crofting, the A859 road and forestry plantation. To the east, the hinterland is predominantly undulating moorland with medium scale hills that form the foreground of views from the west towards the Pairc area.

# Lochs Skipport, Eynort and the East Coast Pilot Study Area

## Regional Coastal Character Areas (RCCA)

## Loch Skipport RCCA

This RCCA consists of the inner and outer stretches of coastline of Loch Skipport located on the east coast of South Uist. This coastline is heavily indented with a number of island and islets protecting the outer limits of the loch. The inner loch is accessed through a narrow channel, which results in a more sheltered area with a limited perception of the sea and a sense of enclosure from the surrounding moorland hills. The outer loch is more open, exposed to the Minch, and obtains extensive panoramic views of the Isle of Skye, Inner Hebrides and the Scottish mainland. The RCCA is uninhabited with only an existing finfish shore base and the ruins of a Victorian pier on the coastline.

# South Uist East Coast RCCA

This RCCA consists of a stretch of coastline extending from Rubha Heallacro in the north to Loch Eynort in the south. The coastline is heavily indented and rocky with a number of small caves. The hinterland contains the two highest peaks on South Uist, in Hecla and Beinn Mhor and is predominantly of undulating moorland with the occasional lazybed or shieling. The coastline is uninhabited with no evidence of further development, which results in the perception of wildness and remoteness. The RCCA is largely dominated by the two mountains and the openness of the Minch which results in a large-scale landscape and seascape.

## Loch Eynort RCCA

This RCCA comprises the inner and outer stretches of coastline of Loch Eynort located to the north of Lochboisdale on the east coast of South Uist. The coastline is very irregular and indented; the inner loch is enclosed from the sea by a narrow channel to the east, which results in limited perception of the sea. The outer extent of the loch is open towards the Minch although the surrounding undulating moorland of the hinterland does provide a sense of enclosure. Settlement is found within the inner loch on both the northern and southern shorelines, consisting of scattered properties adjacent to the unclassified road. The hinterland is dominated by Bein Mhor on the north side and Beinn Ailean and Mullach a Ghlinn Mhor on the southern side.

# **Barrahead Pilot Study Area**

# Regional Coastal Character Areas (RCCA)

#### Island of Barra RCCA

This RCCA consists of the southern coastline of Barra including Castlebay and extends from Rubha Mor to the causeway linking Barra to Vattersay. The coastline is mainly rocky and indented with the exception of Castlebay 'The Jewel of the Hebrides', which is more regular and sheltered and includes Kismul Castle. Settlement is found around Castlebay or the A888 which circumnavigates the island. The hinterland is predominantly moorland slopes that sweep down to the shoreline and includes the peak of Sheabhal which dominates the island. The RCCA forms the northern side of a sheltered bay with Vatersay to the south.

#### Island of Vattersay RCCA

This RCCA consist of the Island of Vattersay to the south of Barra. The RCCA is low-lying and predominantly consists of a rocky shoreline with undulating moorland hinterland, with exception to a number of broad beaches and dune systems that extend inwards. Settlement is limited and mainly found on the promontory at Uidh or the largest settlement of Bhatarsaigh, which sits slightly back from the main beach. The RCCA forms the last of the southern habited islands and has a sense of remoteness with some wild characteristics.

#### **Barrahead Islands RCCA**

This RCCA consists of a chain of islands to the south of Vatersay including Sandray, Pabay, Mingulay and Berneray. These islands contain similar characteristics in consisting of rocky shoreline with indentations and rocky moorland hinterland. This is broken up with narrow beaches and dune systems found on the eastern shorelines apart from Mingulay, where the beach is broader and extends around a sheltered bay. The west side of the islands tend to consist of steep cliffs that are open and exposed to the Atlantic Ocean. The RCCA obtains extensive views of the Isles of Skye, Inner Hebrides and the Scottish mainland and contains wild characteristics, with a sense of remoteness.

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Policy and Advice Directorate, Great Glen House, Leachkin Road, Inverness IV3 8NW T: 01463 725000

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