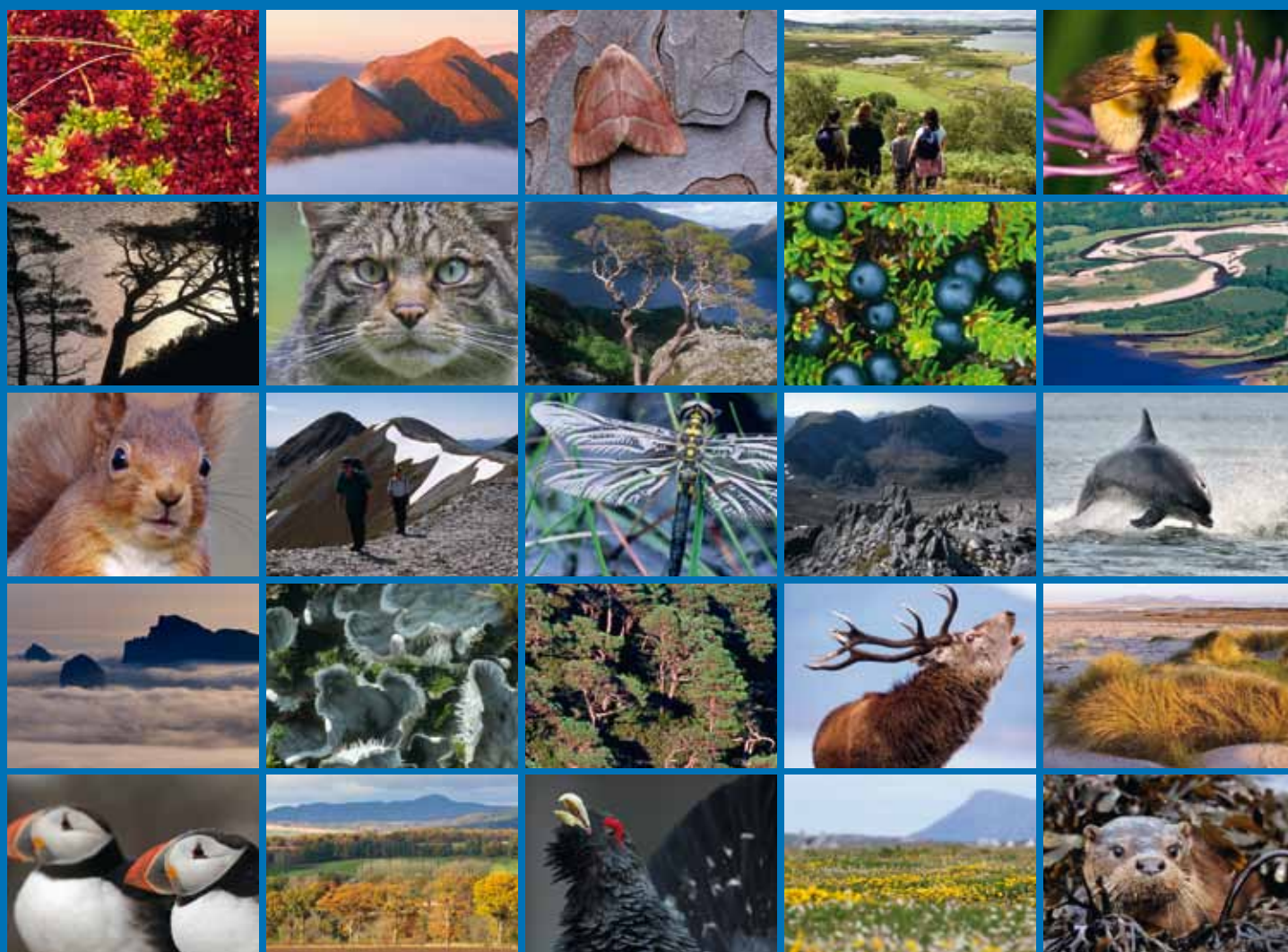


Orkney landscape capacity for aquaculture: Scapa Flow and Wide Firth



COMMISSIONED REPORT

Commissioned Report No. 466

Orkney `andscape Capacity for aquaculture: Scapa Flow and Wide Firth

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COMMISSIONED REPORT

Summary

Orkney landscape capacity study for aquaculture: Scapa Flow and Wide Firth

Commissioned Report No. 466
Contractor: horner + maclellan
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Background

'Finfish and shellfish farms continue to increase in terms of both number and size. Often applications for aquaculture leases are considered individually, and their effects on seascape character and visual amenity can be difficult to assess at a strategic level.'
A. Grant, 2007.

'The industry should work in harmony with nature, managing and minimising transient environmental impacts, and avoiding significant, cumulative, long-term or irreversible changes to ecological systems, to cultural remains or to valued landscape and scenery.'
A Strategic Framework for Scottish Aquaculture, 2003.

This report aims to assess both the strategic and local level landscape capacity for the siting of finfish and shellfish farms within the Scapa Flow and Wide Firth waters of Orkney. The capacity assessment will provide a basis for assessing future individual lease applications and determining their suitability for location within a specific seascape. The methodology followed for this assessment is based on *'Guidance on Landscape/Seascape Capacity for Aquaculture, Scottish Natural Heritage, 2008'*.

Main findings

- In terms of landscape and visual aspects, both Scapa Flow and Wide Firth study areas have the capacity to accommodate further small to medium scale aquaculture developments. This is likely to take the form of single medium scale farms within a specific location or a collection of well-sited smaller scale farms. Extensions to existing smaller farms may also be appropriate.
- Developments that are more numerous than this, or of a large scale, may change the local coastal/landscape character, or adversely impact upon viewpoints.
- Areas best suited to development include those with north facing shores, linear sections of coast or suitable promontories, relatively high cliffscapes or deep intertidal zones of dark rock and seaweed, areas of limited settlement and visibility, and areas least affected by landscape and natural heritage designations

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The views contained in this report are those of the consultants and do not necessarily reflect the policies and views of Scottish Natural Heritage (SNH) or Orkney Islands Council (OIC).

1 INTRODUCTION

This report comprises five key sections followed by annexes. The first section, the introduction, describes the background to the study while the second section gives a brief description of the methodology. The third and fourth sections apply the methodology to two pilot study areas. The final section presents conclusions for both pilot study areas and suggests how the findings may be applied elsewhere within Orkney.

This report only considers landscape/seascape and visual aspects. It does not deal with the other environmental, social, technical, or economic issues raised by aquaculture development.

1.1 Background

This study was commissioned by Scottish Natural Heritage (SNH) in September 2010 to fulfil a requirement of the Scottish Government. The project brief is reproduced in Annex ONE.

The findings of this study will help to inform the production of plans and proposals, relating to the siting of potential aquaculture developments, for the forthcoming Orkney Local Development Plan (LDP) 2012, Supplementary Guidance for Aquaculture which will be supported by a Fish Farm Framework map, and any regional marine plans. It will also provide landscape/seascape principles which may guide aquaculture development outwith the pilot study areas, in other similar landscapes/seascapes.

1.1.1 National Planning Framework 2, 2009

The Scottish Government's 'National Planning Framework 2 (NPF2)' (2009), builds on the strategic guidance for spatial development in Scotland given in the initial NPF1, to 2030. A key aim is '*... protecting and enhancing the quality of the natural and built environments*'. (NPF2, 2009)

Planning authorities are required to take this framework into account when preparing development plans and it is a material consideration in determining planning applications, in this case aquaculture development.

The framework requires '*a strong commitment to protecting and enhancing the natural, built and cultural environments, which are essential components of the quality of life of people living in Scotland and unique economic assets*'. (NPF2, 2009) It pays due regard to the significance of the Scottish landscape in the context of our daily lives and as a major tourist attraction, however noting that landscapes do change and evolve and that the effect on landscape character should be an important consideration in decision-making.

'Landscapes evolve continuously in response to climatic, economic, social and technological change. As the European Landscape Convention recognises, their value extends beyond those protected by formal designations to all areas which reflect the interaction of natural processes with human activities. Landscape and visual impacts will continue to be important considerations in decision-making on developments. The cumulative effects of small-scale changes require as much attention as large developments with immediately obvious impacts. Some of Scotland's remoter mountain and coastal areas possess an elemental quality from which many people derive psychological and spiritual benefits. Such areas are very sensitive to any form of development or intrusive human activity and great care should be taken to safeguard their wild land character.' (NPF2, 2009)

Regarding coastal character, *'Our marine and coastal environment is a unique asset which helps to define Scotland's character and supports a wide range of economic activities, including fishing, aquaculture, energy production and tourism.'* (NPF2, 2009)

The planning system should help to ensure that marine resources are developed sustainably, with development takes account of effects on environmental resources, the capacity of marine and coastal areas, with adverse effects minimised and mitigated. The care and management of the coastal environment should build on the work of the seven Local Coastal Partnerships and marine planning pilots to achieve more integrated outcomes for coast and sea. (NPF2, 2009)

1.1.2 Scottish Planning Policy, 2010

Scottish Planning Policy (SPP) covering Coastal Planning and Fish Farming highlights the importance of Development Plans and Regional Marine Plans being complementary, particularly within the inter-tidal area where their powers overlap.

'Development plans should identify areas which are potentially suitable for new or modified fish farm development and sensitive areas which are unlikely to be appropriate for such development. In potential development areas fish farm development may be appropriate, subject to locational and environmental considerations. Sensitive areas are unlikely to be suitable for fish farm development unless adverse impacts can be adequately mitigated. When designating potential development areas and sensitive areas, planning authorities should take into account carrying capacity, landscape, natural heritage and historic environment interests, potential conflict with other users and other regulatory controlled areas.' (SPP, 2010)

'When determining planning applications, authorities should take into account the direct and cumulative effects of the proposed development on the environment, including carrying capacity, visual impact and the effects on the landscape, marine historic environment and the sea or loch bed.' (SPP, 2010)

The Scottish Government's policy on aquaculture is set out in 'A Fresh Start - the Renewed Strategic Framework for Scottish Aquaculture', 2009, and highlights the need for *'aquaculture plans, in the context of marine plans and river basin management plans, which provide a clear indication of where aquaculture development may take place for production of shellfish, finfish and other species.'* (SPP, 2010)

SPP covering Coastal Planning and Fish Farming is reproduced in Annex TWO.

1.1.3 Orkney Structure and Local Plan 2004

Existing structure and local plan planning policies relevant to aquaculture development have been considered within this study and are listed in Annex THREE. As stated in section 1.1 Background, the awaited Orkney LDP is due for final adoption in 2012. As the LDP has not yet been adopted, at the time of writing this assessment, policies and proposals contained therein have not been considered.

1.2 An Introduction to Capacity Assessment

Landscape capacity is *'the degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character, or overall change of landscape character type. Capacity is likely to vary according to the type and nature of change being proposed'* (Swanwick, C, 2002)

Seascape capacity is *'the ability and degree to which a seascape character area or type can accommodate change without unacceptably reducing quality or value. In evaluating the capacity, character of the area will be the most important factor, but it is also likely that the perceived value of a seascape will directly affect judgments about acceptable*

change. The concept of capacity to change is inseparable from consideration of the type of development proposed, and it likely that an overall assessment of capacity without reference to such information would be of little value'. (Brady Shipman Martin and University College Dublin, 2001)

The above descriptions will be combined and used throughout this study to assess the capacity of 'coastal character areas' - the uniting of landscape and seascape. Descriptions for terminology used throughout this report are listed in Annex FOUR.

1.2.1 The Process of Capacity Assessment

Generally, landscape/seascape capacity assessment '*aims to sustain the significant characteristics of the existing coastal character*'. (A. Grant, 2006)

The process of assessing capacity begins by considering the components and attributes of the development, in this case aquaculture, including onshore and off shore infrastructure.

The scope of the study area is defined at the outset and comprises the maritime, coastal and hinterland areas of Scapa Flow and Wide Firth.

It is then possible to consider which characteristics of these areas are most likely to be affected by development of the type, or types, proposed. These effects can be positive or negative.

Note that capacity does not relate to physical and experiential character alone. Other issues including visibility, visual composition, the setting of key features and settlements, aesthetic quality and ambience, all require consideration and professional judgment and assessing their significance is part of the process.

Relevant assessment criteria inform the capacity of a particular area. The assessments must be transparent, informative and consistent and lead to clear conclusions and recommendations.

2 DESCRIPTION OF METHODOLOGY

2.1 Summary

The methodology for the current study follows that developed in '*Guidance on Landscape/Seascape Capacity for Aquaculture*' (SNH 2008) and '*Landscape/seascape carrying capacity for aquaculture.*' (SNH Commissioned Report No. 215). There are six stages:

- Desk Study
Confirm study area with project steering group (PSG), agreeing a suitable scale of assessment and the development scenarios.
- Initial Site Survey
An initial site survey by car and ferry to assess the landscape/seascape character at a strategic level and to identify the component Coastal Character Areas (CCA) with geographical integrity and recognisable identity.
- Survey and Analysis
The survey and analysis of the landscape/seascape character, identifying key characteristics, experiences, features and visual qualities. Viewpoints are identified and a photographic record is made at this time; areas of consistent character and identity are identified – Local Coastal Character Areas (LCCA).
- Opportunities and Constraints
Identify the characteristics and features relevant to aquaculture development. Note that only landscape and visual opportunities and constraints are identified, and not others which fall within the remit of, for example the Scottish Environmental Protection Agency (SEPA), who consider environmental aspects such as water depth and tidal flow.
- Sensitivity Assessment.
Assess the sensitivity of each LCCA in terms of maritime influences, character and experience of the coastal edge, setting of landmarks and features, experience of wildness, aesthetic qualities and key viewpoints i.e. the coastal characteristics considered during identification of LCCAs. Sensitivity is allocated to all of these criteria on a four-point scale with explanations and justifications included in the matrix. Cumulative issues are also identified at this stage.

Although each criteria, in theory, is assessed on an equal basis i.e. they all have equal weighting/importance, the simple process of adding up scores to determine a sensitivity outcome can lead to results lacking in professional judgement. For example, an area may exhibit low scores for the majority of criteria yet a high score for one in particular. This would result in the area having a relatively high capacity for development. However, the one high sensitivity score may be deemed greatly important and the deciding factor against development.

- Conclusions
Prepare written recommendations on the potential to accommodate aquaculture development in each LCCA. Guidance and advice on accommodating aquaculture development (including on shore facilities) is also developed and strategic conclusions and findings are reached for the entire study area.

Each area is considered to either have capacity or not. Those areas that do demonstrate capacity are subdivided into those currently without existing development and those with existing development. This provides a clearer understanding of potential cumulative effects.

2.2 Desk Study

2.2.1 Existing aquaculture in Scapa Flow and Wide Firth

Mapping information, provided by Orkney Island Council, identifies a number of existing aquaculture licences: nine within Scapa Flow and 12 within Wide Firth. Of the nine located in Scapa Flow, only seven were found to be currently operational. Similarly, of the 12 located in Wide Firth, there was evidence of only five in operation.

Consultations with SEPA revealed that while Scapa Flow has many characteristics favourable to aquaculture there are multiple operational constraints resulting in many financially unviable farms, ceasing operation. SEPA also confirmed that, in parts, inner Wide Firth is unsuitable for current finfish farming practices because, although tidal, it is too shallow at less than 20m in places.

SEPA use a model called AutoDEPOMOD to determine marine fish biomass units i.e. the maximum size for a fish farm at a certain location. The current biomass limit is between 1000 and 1500 tons of standing stock. The model takes into account water depth and tidal movement, to disperse deposited faeces and food waste from the seabed. While this favours strong tides, it poses problems for anchorage and access. The layout of a farm has an important bearing on the outputs of the model AutoDEPOMOD.

SEPA confirm that Orkney finfish farms tend to be smaller than those on the west coast and are generally restricted to about 8-10 cages. This relates to SEPA's biomass model and the limiting factors of sea depth and tidal flow. As an example, along the east coast of Hoy, fish farms of 4-8 cages, produce very small amounts of biomass, possibly around 400 tons. SEPA consider that any further finfish farms in Scapa Flow are likely to remain around the 8-12 cage size and be in a typical layout of 2x4 – 2x6, with a cage circumference of 80-100m and a 50m gap between cages for access.

Although environmental constraints considered by SEPA are of high importance and inform the overall appearance of the development, they lie beyond the remit of this study. Likewise do other constraints relating to protected species, protected ecological sites, benthic habitats, ferry and boat traffic etc...

Current trends in aquaculture are included in Annex FIVE.

2.2.2 Aquaculture Components and Attributes

Aquaculture developments comprise:

- Water based elements – including fin fish cages, shellfish rafts and lines, storage and working rafts, buoys, predator nets, craft required for feeding, harvesting and general maintenance.
- Shore based elements – including buildings, piers, jetties, berthing pontoons, storage areas and parking spaces.

2.2.3 Finfish Cages and Offshore Infrastructure

Finfish cages are square or rectangular, but more commonly circular in plan. Circular cages can range from as small as 40m circumferences to over 100m. More recent cages have been designed to lie very low in the water.

Cages are generally arranged in a regular, grid-like pattern of two rows. Materials are predominantly dark in colour (metal or plastic).

Three methods of feeding are used:

- Hand fed by a man with a scoop from a boat (boats are often brightly coloured);
- Hand fed by an air/water gun spraying pellets, and controlled by a man on a boat;
- Automated using a large permanent floating barge or cylindrical barge (SeaCap), usually painted battleship grey. This connects to each cage via a series of pipes that deliver feed automatically; a sensor in the bottom of each cage gauges the amount of feed delivered.
- In addition other infrastructure may include a floating house attached to the farm for worker's accommodation. This is common in Norway and there is one on Shetland, but it is unlikely that this type of accommodation would be required in either Scapa Flow or Wide Firth due to the proximity of the coast.

2.2.4 Mussel and Scallop Lines, Oyster Trestles and Offshore Infrastructure

Mussels, scallops and oysters are found in the seas around Orkney. However, shellfish farming is not very common in Orkney waters as spat occurs naturally at a low level, making it economically unviable. Compared to the west coast, Orkney's shallow waters are a constraint. Some shellfish farms were established in the past but proved unviable and, even though licences may still exist, they remain unused.

2.2.4.1 Mussel Farming

The natural mussel spat fall in Orkney is poor i.e. collecting spat on vertical ropes, so artificial collection is often an alternative. This involves collecting spat by hand from natural beds and transplanting them into permanently water covered sites before further transplanting onto vertical ropes known as 'droppers'.

- **Long Lines**
Natural mussel farming uses 'long lines'. A rope is stretched horizontally and maintained 1-2m from the surface by a series of buoys, often painted grey; they are anchored at each end to the seabed. Mussels are grown on droppers which hang down up to 4m in length from the horizontal rope. The droppers are placed at least 0.5m apart, to hang at least 4m above the seabed giving a minimum water depth requirement of 6m. Small muscles are stripped away from submerged spat collection ropes and inserted into a long sock-like, biodegradable, cotton tube, before being wound around the dropper. Long line culture is commonly used in Scotland, as it creates less of a visual impact than raft culture.
- **Raft Culture**
Raft culture utilises similar principles to long line culture in that the mussels are suspended on droppers but these are suspended from floating rafts. The rafts are anchored to the seabed, reducing the number of anchoring systems, compared to long lines.

2.2.4.2 Scallop Farming

As with mussels, scallop spat is difficult to harvest naturally in Orkney. Most farms use a series of mesh spat bags suspended in the water on a line, anchored to the seabed. Spat bags are filled with a suitable cultch (usually filamentous fibres) onto which scallop larvae will settle and grow into spat. Spat can then be collected and transferred to a farm site for on-growing. Scallop hatcheries provide an artificial alternative which allows spat to be further grown in nursery tanks before being transferred to an on-growing system such as pearl nets.

- **Hanging Culture**
Hanging culture involves the use of a raft or 'long line' system which floats on the sea surface from which the cultured scallops are suspended, usually attached on ropes. Rafts are more expensive than lines and are largely restricted to sheltered waters. Lines can be completely submerged except for the buoys and so are less visually intrusive. There are a number of methods for hanging scallops including:
 - Pearl nets – small pyramid shaped nets hung 10 to a dropper line
 - Lantern nets – small cylindrical nets hung in the same way as pearl nets.
 - Ear hanging – involves drilling a hole in the scallop ear and attaching it to a submerged rope - this is a cheaper method than the lantern method and results in better growth rates.
 - Rope culture – similar to ear hanging, the scallops are cemented to a hanging rope by their flat valve.
 - Pocket nets – individual scallops are hung in individual pocket nets.
 - Hog rigging – netting pockets of three or four scallops around a central line.
 - Plastic trays – plastic trays such as oyster cages which are suspended like lantern nets.
- **Bottom Culture**
Bottom culture is used in combination, or as an alternative to, hanging culture. Visual advantages are that buoys and ropes are not required, as equipment lies on the seabed. Plastic bottom trays, similar to oyster trays, can be used on the seabed. Wild ranching – as it suggests is the natural use of the seabed with harvesting being by diving or dredging

2.2.4.3 Oyster Farming

Oysters grow naturally in estuarine or brackish waters. Spat is collected from these waters, or is cultivated artificially in closely monitored conditions. Oysters are then grown in marine waters in three ways:

- **Release**
Spat or seed oysters are distributed over existing oyster beds and left to mature naturally. They are harvested by diving, dredging or, in very shallow waters by simply gathering them by hand, or with small rakes. In deeper water, long-handled rakes or oyster tongs are used to reach the beds.
- **Intertidal Racks**
Here, spat is put into bags/racks raised above the sea bed on wooden trestles. Rectangular shaped baskets, handmade from tough polypropylene mesh, are secured to the wooden/metal trestle posts which are drilled vertically into the seabed and act as the main supporting structure. Attached to these are timber rails which run parallel to the seabed and support the baskets.

Racks are built in shallow, sheltered waters, situated in the intertidal zone (that is between high and low tide marks so the oysters sit just above the water level at low tide and, depending on the tidal range, at high tide are covered by one to two metres. Harvesting simply involves lifting the bags or racks to the surface at low tide, and removing the mature oysters.

- **Intertidal Long Lines and Bags**
A more recent and popular method is intertidal long lines and bags, to on-grow oysters. Made of polypropylene mesh, the bags are cylindrical in shape, 90cm

length x 15cm diameter, and hung on a wire suspended between wooden uprights. The benefit of this system is that the height of the wire can be adjusted to lower or raise the oyster bags depending on the tide and water temperature.

These bags are made of various mesh sizes, according to the size of the oysters, and are designed to hang on a wire and move with the water currents.

2.3 Development Scenarios

Development scenarios were used to focus thinking on the potential effects of the development on the coastal character, particularly during the opportunities and constraints analysis, the sensitivity assessment and the capacity assessment, all of which contribute to forming conclusions.

Development scenarios are indicative rather than prescriptive, as many site-specific constraints need to be judged for each individual application. Scenarios considered were largely controlled by the environmental and physical character of the two study areas, thus the scales of the farms are likely to be smaller than those along the west coast of Scotland. This is primarily due to shallow waters and low spat counts as discussed with SEPA and industry representatives. Scenarios were as follows:

2.3.1 Small Scale

- Up to 6 cages or rafts, 16 - 29m diameter (50 - 100m circumference), with no offshore storage or other infrastructure, and occupying no more than one tenth of a bay or stretch of coast.
- Up to four mussel/scallop lines or rafts, up to 100m long, or occupying no more than one tenth of a bay or stretch of coast, with no offshore infrastructure.
- Oyster trestles or intertidal long lines, occupying up to one tenth of a bay or stretch of coast when the intertidal is revealed at low tide.

2.3.2 Medium Scale

- Between six and twelve cages or rafts, up to 30m diameter (100m circumference), with one feed barge/SeaCap or small feed hoppers attached to each cage, but no other offshore infrastructure, and occupying no more than one quarter of a bay or stretch of coast.
- Up to six mussel/scallop lines or rafts, up to 200m long, or occupying up to one quarter of a bay or stretch of coast, with associated offshore infrastructure.
- Oyster trestles or intertidal long lines, occupying up to one quarter of a bay or stretch of coast when the intertidal is revealed at low tide.

2.3.3 Large Scale

- More than twelve cages or rafts, over 30m diameter (100m circumference), or larger, with one feed barge/SeaCap/floating house and additional offshore infrastructure, and occupying no more than two thirds of a bay or stretch of coast.
- More than six mussel/scallop lines or rafts, more than 400m long, or occupying more than two thirds of the length of a bay or stretch of coast, with associated offshore infrastructure.

- Oyster trestles or intertidal long lines, occupying more than two thirds of a bay or stretch of coast when the intertidal is revealed at low tide.

2.3.4 Extensions to Existing Developments

In some circumstances, it may be possible to enlarge or extend existing developments. Indeed, in certain locations extending an existing farm may improve the siting of the farm in relation to the coastal character.

2.3.5 Multi Site Developments

In some cases, while there might be limited opportunity for a medium or large scale development e.g. along a stretch of coast with a regular pattern of small scale bays and headlands; multiple small scale developments might be appropriate than one larger development. This scenario is likely to give rise to cumulative landscape issues and therefore requires careful consideration in relation to siting e.g. there must be visible cohesion between individual developments to maintain integrity, a consistent pattern and relationship with the coast, and an appropriate scale to / number of developments to avoid dominating the existing local character.

2.4 Map Scales – desk study, site work and presentation

For this study, map scales of 1:50 000, augmented with 1:25 000 scale and Admiralty Maps, were used to map Coastal Character Areas (CCAs) and, in turn, Local Coastal character areas (LCCAs). This allowed for good level of recording details in the field, such as physical features along the coastline and hinterland.

For presenting strategic information a map scale of 1:150 000 enabled both study areas to fit on one A3 sheet and gives a suitable level of detail.

For detailed, local information the 1:50 000 map scale was found to give the best visual representation at the level of detail required to present key features and visual analysis. This scale also presents the landscape context – the relationship between the hinterland and seascape character.

2.5 Selecting the pilot study areas

The extents of each study area — Scapa Flow and Wide Firth — were discussed at an inception meeting, with the aim of encompassing a sufficient range of landscape character types including developed, non developed and isolated coastlines. This may be useful in formulating general principles for the siting of aquaculture to apply to similar coastal areas outwith the pilot study areas.

2.6 Identifying Character-based Subdivisions

To assist in the analysis and presentation of findings, and to comply with recommended approaches to capacity assessment, the study and recommendations considered areas of consistent character. These areas relate to geographically coherent locations, similar in overall character and recognisable as one individually named entity. This approach correlates with that recommended in the SNH guidance, '*Guidance on Landscape/Seascape Capacity for Aquaculture*' (SNH 2008) and '*Landscape/seascape carrying capacity for aquaculture.*' (SNH Commissioned Report No. 215, 2007)

2.6.1 National Coastal Character

One national seascape character type applies to both study areas. This is the *Deposition Coasts of Islands* (Type 12). Its characteristics are described in Annex SIX and are derived from SNH Commissioned Report No.103 (2005)

2.6.2 Coastal Character Areas

The Coastal Character Areas (CCAs) identified, reflect both a consistency in overall character at a broad scale or known geographical area. In this instance, these are usually a stretch of coastline, a single island or group of small islands.

Consistent with the method in SNH Commissioned Report No.215 (2007), the descriptions of Coastal Character Areas are limited to a very brief overview.

2.6.3 Local Coastal Character Areas

CCAs are further subdivided into areas of distinct coastal character, by examining coastal characteristics and issues, as outlined in Annex NINE. These are called Local Coastal Character Areas (LCCAs).

The following attributes, based on '*Guidance on Landscape/Seascape Capacity for Aquaculture, Scottish Natural Heritage, 2008*', were taken into account when identifying these areas:

- The degree of influence of the sea and qualities which may be described as 'maritime' on the landscape and coast of the area, including coastal dynamics;
- Physical landform, the degree of enclosure or openness and an assessment of horizontal and vertical scale;
- The shape, scale and degree of fragmentation of the coastline;
- The presence of human artefacts, distribution of settlement pattern and amount of human activity;
- Landscape features, including historic features, and their setting;
- Experience of the coast, landscape and seascape, including the degree of remoteness and potential opportunities to appreciate wildness; and
- Visual catchment.

Forty-six LCCAs have been identified within Scapa Flow and twenty-two within Wide Firth. Each study area is presented in turn, with the findings of both desk study and fieldwork for each CCA and associated LCCAs. Following thereon is the sensitivity assessment for each LCCA with recommendations and guidance for siting as appropriate.

3 SCAPA FLOW

3.1 Landscape and Seascape Context

The Scapa Flow study area, including Hoy Sound and Bring Deeps, lies within south Orkney, sheltered between the southern coast of mainland, the north eastern coast of Hoy and Graemsay, and the western coast of Holm, Burray and South Ronaldsay. Refer to Figure 1.

A semi enclosed flow of tidal waters, Scapa Flow is a natural harbour, renowned for its history as a naval base during World War I and II. As a result it is scattered with wrecks – some of which are classified as war graves, ruined coastal defences and associated military buildings and structures.

The whole area lies within 'Deposition Coasts of Islands' seascape character type (SNH Commissioned Report No.103, 2005), refer to Annex SIX.

The Flow is surrounded by a range of 15 Landscape Character Types, including six Island Character Areas, which make up the coastal hinterland and reflect the varied coastline. Refer to Figure 2 and Annex SEVEN and EIGHT.

Seascapes range from the expansive, with views out to open sea/sky horizons, to the more intimate and sheltered with focus on the coastline and adjacent islands. The coastline is dynamic, characterised by stretches of cliff; deep bays; shallow bays; out-stretched headlands and promontories; islands both large and small; ayres; causeways; and developed harbours. Settlement ranges from isolated dwellings and farmsteads scattered throughout the hinterland to harbour villages and the town and port of Stromness.

The western extents of the study area, including northern Hoy, Graemsay, and parts of west mainland fall within the Hoy and West Mainland National Scenic Area (NSA). A number of Sites of Local Landscape Character, as identified in the Orkney Islands Local Plan 2004, extend into the study area and along parts of the coast including Swanbister Bay and Waulkmill Bay, Scapa Bay, Hunda, and Herston.

The Neolithic Orkney World Heritage Site buffer zone, which surrounds the Ring of Brodgar, extends into the study area north of Bay of Ireland. The study area is scattered with Scheduled Ancient Monuments (SAMs) including cairns, brochs, and standing stones; Listed Buildings including Hall of Clestrain (to the southeast of Bay of Ireland), and Cantick Head lighthouse (South Walls); and Coastal Batteries located at strategic points along the coast. A group of seven scheduled Maritime Wrecks/War Graves lie just off the north coast of Cava, and a number of wrecked blockships lie adjacent to the Churchill Barriers. Melsetter House, an Inventory Garden and Designed Landscape, is located at the south western end of North Bay, South Walls. Refer to Figures 4 - 7.

3.2 Scapa Flow Coastal Character Areas

This study has identified a total of 11 Coastal Character Areas (CCAs) within the Scapa Flow study area. Refer to Figure 3.

- Stromness - Clestrain Sound
- Orphir
- Scapa Bay
- Burray - South Ronaldsay
- North Bay - Long Hope
- South East Hoy
- North East Hoy

- Graemsay
- Cava, Rysa Little and Fara
- Flotta
- Switha

Each CCA comprises a more detailed series of Local Coastal Character Areas (LCCAs). Refer to Figures 4 - 7. The following takes each CCA, and associated LCCAs, in turn and provides:

- Local character area analysis – key landscape and visual elements;
- Opportunities and constraints for aquaculture development;
- Sensitivity of character areas to aquaculture development; and
- Conclusions and relevant guidance.

3.3 Stromness – Clestrain Sound Coastal Character Area

Landscape Character Types: Coastal Granite Pastures, Inclined Coastal Pastures.

3.3.1 Stromness – Clestrain Sound CCA: character analysis – refer to Figures 3 and 4 – LCCAs 1, 2 and 3

The Stromness - Clestrain Sound CCA is generally south and south west facing and extends from Skerry of Ness to Houton Head in the south east, including Inner and Outer Holm, Bay of Navershaw, and Bay of Ireland. The greater part of the area is characterised by a low lying, gently indented coastline which extends around Bay of Ireland before stretching out along Clestrain Sound. Wide bands of generally rocky areas characterise the intertidal zone and provide a visual and physical link with Outer and Inner Holm and the mainland at low states of the tide. The coast is backed by simple, sweeping agricultural land and rough pasture that rises swiftly behind Stromness in the west. The concentration of activity and development at Stromness and the harbour is visible from the majority of the area. Large farmsteads and scattered dwellings appear well spaced and regular within the open hinterland overlooking the coast.

3.3.1.1 Skerry of Ness to Outer Holm LCCA 1: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Inclined Coastal Pastures, Coastal Granite Pastures.



Plate 1: Skerry of Ness to Outer Holm LCCA 1

- This south facing bay is semi enclosed and sheltered by rising granite pastures behind Stromness and by distant shores and hills to the east and south i.e. Ward Hill and Mid Hill and the striking profile of rugged hills on Hoy.
- There is a relatively strong maritime influence from seagulls, seaweed, buoys, boats and harbour edge structures e.g. piers, jetties.
- Water is calm and largely sheltered from westerly winds.
- The low lying golf course and campsite, south of Stromness, experience close range views of the harbour and boat traffic including the passage of the Northlink ferry service.

- The hard, man made coastal edge of the harbour rises vertically, backed by Stromness which rises uphill to overlook Hammavoe, Inner and Outer Holm, and Scapa.
- There is a complex arrangement of piers and harbour infrastructure emphasised by light and shade, shapes and colours, and the movement of boats, people and vehicles.
- The eastern coast is low lying with stretches of shingle and subtly indented and emphasised by seaweed tide lines. The Inner and Outer Holm islands extend the coastal edge character south and increase the sense of harbour enclosure.
- Settlement is dense and concentrated within Stromness. Housing and light industrial expansion spreads to the north and northeast. Street lighting and signage is typical. Vegetation is limited or associated with gardens and streets.
- There is sparse settlement along the southeast shore – one lone property on Inner Holm forming a visual feature.
- Pasture and arable land rises behind Stromness and falls to the lower lying east. Stonewalls and fence lines strengthen regular field patterns.
- There is easy access to the harbour edge and a constant connection to civilisation. Access to the shoreline on the southeast is limited to single farm track or by foot or boat.
- Views focus on Stromness, with prominent boat/ harbour activity; and to the rugged hills on Hoy.

3.3.1.2 Outer Holm to Skerries of Clestrain LCCA 2: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Inclined Coastal Pastures.



Plate 2: Outer Holm to Skerries of Clestrain LCCA 2

- Bay of Ireland, a large, semi enclosed, south facing bay characterises this LCCA.
- A wide sense of simple enclosure is formed by the elevated granite pastures behind Stromness, gently rising hills to the east on the mainland and the striking profile of steep, rugged hills to the south on Hoy.
- Graemsay enhances the impression of enclosure by restricting views southeast and southwest and reducing the expanse of open water.

- A significant extent of open tidal water, plus seaweed, a deep intertidal zone, boat traffic and views out to 'open sea' creates a relatively strong maritime influence.
- Lighthouses on Graemsay form focal maritime features.
- The exposed flow of water is animated by wind action and seldom completely calm.
- The simple, low lying coastal edge is gently indented and comprised of rock platforms and stretches of shingle, and defined by dark seaweed tide line.
- Settlement is scattered but well spaced across the hinterland.
- Pasture and arable land inclines evenly from the shoreline and stonewalls and fence lines strengthen regular field patterns.
- Access to the coast is limited over agricultural land, private track or by boat.
- Views are focused on Graemsay or channelled east and west to Bring Deeps and the open Atlantic respectively.

3.3.1.3 Skerries of Clestrain to Houton Head LCCA 3: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Inclined Coastal Pastures.



Plate 3: Skerries of Clestrain to Houton Head LCCA 3

- A large, semi enclosed, stretch of water extending from Bay of Ireland to Bring Deeps.
- Distant, elevated granite pastures behind Stromness, gently rising hills to east on mainland and the striking profile of steep, rugged hills to the south on Hoy provide a wide sense of simple enclosure.
- Graemsay enhances the impression of enclosure by restricting views west to 'open sea'.
- The exposed flow of water, animated by wind action, is seldom completely calm.
- A significant extent of open tidal water, plus seaweed, a deep intertidal zone, boat traffic and views out to 'open sea' creates a relatively strong maritime influence over the land.
- Lighthouses on Graemsay form focal maritime features.

- The simple, consistent, and low lying coastal edge is comprised of rock platforms and stretches of shingle, and defined by a dark, seaweed tide line. The coastline becomes steeper towards Houton Head.
- A dispersed, linear pattern of settlement is well spaced across the hinterland, residing at low level below moorland hills.
- Pasture and arable land inclines evenly from the shoreline and stonewalls and fence lines strengthen regular field patterns.
- Access to the coast is limited over agricultural land, private track or by boat.
- Stromness town and harbour forms a visible man made focus to the west.
- Views are generally focused on Graemsay or channelled east and west to Bring Deeps and the Atlantic respectively.

3.3.2 *Stromness - Clestrain Sound: opportunities and constraints*

Currently, no aquaculture development is apparent within Stromness - Clestrain Sound CCA. Landscape opportunities and constraints, which are like to affect any development, are noted below.

3.3.2.1 Skerry of Ness to Outer Holm LCCA 1: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- The complex appearance of the developed harbour area offers opportunities to absorb further man made influences e.g. inorganic shapes would be less prominent.
- Existing harbour facilities/space could be used for shore based infrastructure if there is physical capacity for further development.

Landscape and visual constraints for aquaculture development:

- The relatively small scale bay could easily 'fill up' with development.
- High numbers of people would have a direct, often elevated and close range view of the development from properties, roads and core footpaths surrounding the harbour.
- Elevated, close range views from the Citadel viewpoint and Brinkles, overlook harbour.
- Along areas of simple organic coastline (e.g. Inner and Outer Holms) inorganic shapes would be prominent.
- The area lies within the Hoy and West Mainland NSA and within close proximity to the World Heritage Site buffer zone.
- Stromness is a designated Conservation Area with many Listed Buildings and the setting includes the harbour.

3.3.2.2 Outer Holm to Skerries of Clestrain LCCA 2: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Land based facilities could be accommodated close to the harbour if space permits. Alternatively, shore based infrastructure would be appropriately located in proximity to existing buildings or clusters of buildings where easy access to the shore is available – e.g. at Congesquoy or Norton.
- A limited number of residential properties have direct views of the bay.
- The relatively low lying shore and hinterland limits the extent of possible elevated views.

- The dark seaweed and rock intertidal zone allows for cages, buoys and lines to be largely absorbed into the backdrop when viewed from low angles on opposite shores. It also allows trestles to be absorbed along the shore itself.
- South facing views allow for cages, buoys and lines to be cast in shadow and become largely absorbed by the land behind.

Landscape and visual constraints for aquaculture development:

- The simple landscape composition would emphasise the occurrence of inorganic, geometric shapes.
- Elevated panoramic views can be gained, but at distance, from the A964 and the minor road from the A965 to Stromness.
- Close range, sea level views can be gained from a short section of the A964 travelling to or from the A965.
- The coastline is currently undeveloped; new development would be prominent.
- Clear, framed vistas towards Hoy Sound and Bring Deeps would be interrupted by development.
- The area lies within the Hoy and West Mainland NSA and within very close proximity to the World Heritage Site buffer zone.
- Listed Buildings, including the Hall of Clestrain, along with three Scheduled Ancient Monuments on the shoreline have settings including areas of the bay.

3.3.2.3 Skerries of Clestrain to Houton Head LCCA 3: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities nearby can most easily absorb shore based infrastructure if there is physical space for this.
- The dark, rocky intertidal zone allows for cages, buoys and lines to be largely absorbed into the backdrop when seen from low angles on opposite shores. It also allows trestles to be absorbed along the shore itself.
- South facing views allow for cages, buoys and lines to be cast in shadow and become largely absorbed by land behind.
- The character of the coastline and regular pattern of fieldscapes allows for inorganic, geometric shapes and layouts to be accommodated.

Landscape and visual constraints for aquaculture development:

- Elevated panoramic views can be gained from relatively close range including from properties, the A964, and the higher Langwell road.
- The coastline is currently undeveloped; new development would be prominent.
- Clear, framed vistas towards Hoy Sound and Bring Deeps would be interrupted by development.
- The area lies within the Hoy and West Mainland NSA and within relative close proximity to the World Heritage Site buffer zone.
- The Clestrain Sound, coastline, and hinterland form the landscape setting for the Hall of Clestrain, a Listed Building, and a Coastal Battery.
- Due to a combination of topography and limited existing development, shore based infrastructure would be prominent in this LCCA and alternative locations would need to be found in other LCCAs.

3.3.3 *Stromness - Clestrain Sound CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development*

Potential sensitivity of the seascape to aquaculture development	Skerry of Ness to Outer Holm LCCA 1	Outer Holm to Skerries of Clestrain LCCA 2	Skerries of Clestrain to Houton Head LCCA 3
Maritime Influences	<p>Low sensitivity</p> <p>Maritime influences limited to tidal patterns, especially on eastern shores, and existing maritime activity and traffic within the harbour which could make development easier to accommodate.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and maritime traffic and navigational aids are visible from many locations around the bay including some distant, framed views of 'open sea' and Atlantic breakers to the west. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and maritime traffic and navigational aids are visible from many locations along the coast including some distant, framed views of 'open sea' and Atlantic breakers to the west. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>Extensively developed coast to western side of bay could absorb, noise, light, activity and structures. Busy harbour could easily become cluttered and 'fill up' with development.</p>	<p>Low sensitivity</p> <p>Relatively small bay could easily 'fill up' with development. However development could be associated with promontories or aligned to reflect the shape of the coast.</p> <p>Coastline not readily accessed for recreation.</p>	<p>Low sensitivity</p> <p>Development could be aligned to reflect the linear shape of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes.</p> <p>Coastline not readily accessed for recreation.</p>
Setting of Landmarks and Features	<p>High sensitivity</p> <p>A number of Listed Buildings/Structures including Stromness Conservation Area overlook the harbour. The area is also within Hoy and West Mainland NSA and within close proximity of the World Heritage Site buffer zone.</p>	<p>Moderate sensitivity</p> <p>A number of Listed Buildings/Structures and Scheduled Ancient Monuments overlook the bay or rely on it as part of their coastal setting. The area is also within close proximity of the World Heritage Site buffer zone.</p>	<p>Low sensitivity</p> <p>A Listed Building/Structure and two Coastal Batteries overlook the coast or rely on it as part of their coastal setting.</p>
Experience of Wildness	<p>Not sensitive</p> <p>Majority of coast is well settled and forms the busy port of Stromness. Eastern extents of the coastline are less accessible and undeveloped however highly influenced by the</p>	<p>Low sensitivity</p> <p>Visual influence of Stromness and settlement throughout hinterland, including main roads, limits sense of wildness. The landscape as a whole is characterised by well</p>	<p>Low sensitivity</p> <p>Visual influence of Stromness and settlement throughout hinterland, including main roads, limits sense of wildness. The landscape as a whole is characterised by well</p>

	built edge to the north and west.	managed agriculture.	managed agriculture.
Aesthetic Qualities	<p>Moderate sensitivity</p> <p>Although the harbour and hinterland itself holds no exceptional aesthetic qualities the backdrop of old Stromness forms an attractive and characteristic visual element.</p> <p>The Area falls within Hoy and West Mainland NSA and forms an important part of the entrance to Orkney from mainland Scotland.</p>	<p>High sensitivity</p> <p>The open bay offers attractive, clear views of Graemsay backed by the impressive, rugged hills on Hoy.</p> <p>The Area falls within Hoy and West Mainland NSA and forms an important part of the entrance to Orkney from mainland Scotland.</p>	<p>High sensitivity</p> <p>The coastline offers attractive, clear views of Graemsay backed by the impressive, rugged hills on Hoy including direct views towards the striking cliffs of The Bring, also on Hoy.</p> <p>The Area falls within Hoy and West Mainland NSA.</p>
Key Viewpoints	<p>High sensitivity</p> <p>The harbour is largely an internally focused area overlooked by a number of concentrated, elevated viewpoints including residential properties. Close range views are readily experienced from shoreline and harbour side locations.</p>	<p>Moderate sensitivity</p> <p>The bay is overlooked by a number of properties located throughout the hinterland experiencing both elevated and close range views. The A964 runs close to the bay and together with other local roads experiences elevated views.</p> <p>The bay is also visible from Graemsay, Stromness and passengers on the Northlink Ferry approaching from mainland Scotland as well as passengers on other local ferry services.</p> <p>The bay experiences clear, framed vistas towards Hoy Sound and Bring Deeps which are likely to be affected by development.</p>	<p>Moderate sensitivity</p> <p>The coast is overlooked by a number of properties located throughout the hinterland experiencing both elevated and close range views. The A964 runs parallel with the coast and together with other local roads experiences elevated views.</p> <p>The coastline is also visible from Graemsay, B9047 on Hoy and by passengers on local ferry services.</p> <p>The coast experiences clear, framed vistas towards Hoy Sound and Bring Deeps which are likely to be affected by development.</p>

Table 1: Sensitivity assessment – LCCAs 1 - 3

3.3.4 Stromness - Clestrain Sound CCA: conclusions

The conclusions from the capacity assessment for the individual LCCAs are as follows, including accompanying guidance.

3.3.4.1 Skerry of Ness to Outer Holm LCCA 1 – refer to Figure 8

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with views from Stromness and the small scale of the harbour which could easily ‘fill up’ with development.

3.3.4.2 Outer Holm to Skerries of Clestrain LCCA 2 – refer to Figure 8

There is some potential for this local coastal character area to accommodate small scale aquaculture development or limited small scale multi sites, provided:

- Scale or amount of development does not dominate the bay or impact on the quality of this portion of the NSA.
- Development avoids impacts on open views towards Graemsay and the backdrop of Hoy.
- Development be aligned with and as close to the shore as possible or associated with promontories.
- Development be sited away from shoreline properties and clusters of settlement.
- Development be sited, preferably, along western shores to ensure views of an undeveloped coastline, for passengers approaching Stromness, are maintained.
- Individual, small scale developments take up no more than one tenth of the bay. Small scale, multi site developments totals no more than two of any kind.

3.3.4.3 Skerries of Clestrain to Houton Head LCCA 3 – refer to Figure 8

There is some potential for this local coastal character area to accommodate one medium scale aquaculture development or limited small scale multi sites, provided:

- Development avoids impacts on open views towards Graemsay and the backdrop of Hoy.
- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the regular pattern of hinterland fieldscapes.
- Development be sited away from shoreline properties and clusters of settlement.
- Development is located adjacent areas of low cliff, embankment, or convex slopes, such as immediately north of Houton Head, to maximise natural screening.
- Single medium scale development takes up no more than one quarter of the coast. Small scale, multi site developments totals no more than three of any kind.

3.3.5 Stromness - Clestrain Sound CCA: summary of cumulative development

While capacity has been identified for both LCCA 2 and 3, these have been considered in isolation. When considering the CCA Stromness - Clestrain Sound as a coherent section of coastline, consideration requires to be given to the possible cumulative effects of development within these LCCAs. If there is demand for a medium scale development in this CCA as well as pressure for development of small scale fish farms, the capacity would be limited to one medium scale development located in LCCA 3 sufficiently far round the coast so as not to be visible in conjunction with small scale single or multiple developments in LCCA 2. If demand is limited to small scale development only, the capacity would remain as no more than five, ideally with different kinds of fish farm being located in groups within each LCCA i.e. shellfish developments within LCCA 2 and finfish within LCCA 3 – again with visual separation.

Consideration of offshore islands is also relevant to cumulative impacts but, in this case, Graemsay has been assessed as having no capacity and thus no cumulative issues arise.

3.4 Orphir Coastal Character Area

Landscape Character Types: Inclined Coastal Pastures, Enclosed Bay Landscapes, Holms.

3.4.1 *Orphir CCA: character analysis – refer to Figures 3, 4 and 5 – LCCAs 4, 5, 6 and 7*

The Orphir coastal character area extends from Houton Point in the west to, and including, Waulkmill Bay in the east. The area is largely influenced by its open, south facing aspect to Scapa Flow and the effect sunlight has on seaward views, particularly in winter when the sun is low. The area is characterised by a series of south facing, shallow bays ranging from almost enclosed to wide and open, backed by low sandy shores and moderately high cliffs. Fairly wide stretches of shore characterise the intertidal zone. Holm of Houton is physically and visually lined to the mainland at low states of the tide. Settlement is concentrated along the main A964, offset from the majority of coast, from which a number of single track roads leading to the coast string off small, clustered dwellings and farmsteads.

3.4.1.1 Houton Head to Orphir Bay LCCA 4: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Inclined Coastal Pastures, Holms.



Plate 4: Houton Head to Orphir Bay LCCA 4

- This stretch of south facing, indented coastline comprises bays, small headlands and Holm of Houton. Holm of Houton becomes part of the main coastline from certain angles.
- There are open and framed views across Scapa Flow to distant, silhouetted landmasses including Hoy, Cava, Flotta, Burray and South Ronaldsay.
- The coastline is essentially sheltered by the regular pattern of bays and inclined, undulating pastures yet highly influenced by the large expanse of Scapa Flow to the immediate southeast resulting in a strong maritime character with changeable light conditions, tidal movements, boat traffic, and visible navigational aids.

- The exposed flow of water, outwith the confines of bays, is animated by wind action seldom completely calm.
- Houton Head to Hill of Midland provides a ridgeline and visual barrier to the west thus increasing the sense of shelter along much of the coastline.
- Holm of Houton and the horseshoe Bay of Houton form prominent coastal features with dynamic sequential views. Houton harbour, with associated buildings and structures, forms a dominant man made element and focal point to the bay.
- The simple, low lying coastal edge is comprised of rock platforms and stretches of shingle, and punctuated by the arrangement of bays and headlands.
- Inclined coastal pastures, rough grazing and irregularly scattered farmsteads and dwellings rise gently, but unevenly, from the shoreline to the rolling hill fringe and simple backdrop of moorland.
- Stonewalls and fence lines provide structure within irregular field patterns and telegraph poles create vertical, visual elements and further complexity to the variable hinterland. Wind shaped vegetation associated with dwellings is typical of within more sheltered locations.
- Access to the coast is limited over agricultural land, private track, by boat, or from the Bay of Houton.
- The nature of the seaward sloping topography and the simple character of the moorland backdrop, north of the A964, largely focus views on Scapa Flow or the immediate coastline.
- Flotta oil terminal, tankers, and the wind turbine and gas flare form characteristic elements of the distant seascape.

3.4.1.2 Orphir Bay to Toy Ness LCCA 5: key landscape and visual elements – refer to Figure 5

Landscape Character Types: Inclined Coastal Pastures, Enclosed Bay Landscapes.



Plate 5: Orphir Bay to Toy Ness LCCA 5

- This area forms a small, exposed, stretch of coastline between Orphir Bay and Swanbister Bay.

- Elevated, hinterland falls to east with subtle ridgelines and convex slopes interrupting views of the coastline and creating a sense of shelter and distance from the sea.
- The low cliff edge creates a sense of exposure and offers open views along the coastline to the east and west with open views across Scapa Flow to distant, silhouetted landmasses including Hoy, Cava, Fara, Flotta, Burray and South Ronaldsay.
- The land is largely dominated by the influence of Scapa Flow and its maritime character including changeable light conditions, tidal movements, boat traffic, and visible navigational aids such as the Barrel of Butter.
- The exposed flow of water animated by wind action, is seldom very calm with onshore winds enhancing the sense of exposure to the sea.
- The simple, narrow, consistent, coastal edge comprises a low cliff face, rock platforms and stretches of rock and shingle, defined by dark a seaweed tide line and breaking waves.
- Settlement is sparse across the hinterland, residing at small linear clusters of dwellings on the coast.
- Pasture and arable land inclines gently, but unevenly from the cliff edge to rolling hill fringe and moorland in north with patches of rough grassland and heath, with rough grazing and The Fidge wetland to the east.
- Stonewalls and fence lines provide structure to the irregular arrangement of large and small field patterns.
- Access to the coast is limited over agricultural land, private track or by boat. The cliff edge generally restricts easy access.
- Views are focused within the undulating hinterland or across Scapa Flow, particularly to the distant backdrop of hills on Hoy, when in close proximity to the coast.
- An existing finfish farm is visible from the cliff edge south of Toy Ness.

3.4.1.3 Toy Ness to The Lash LCCA 6: key landscape and visual elements – refer to Figure 5

Landscape Character Types: Enclosed Bay Landscapes.



Plate 6: Toy Ness to the Lash LCCA 6

- This low lying, wide bay is semi-enclosed by a large area of even and gently, rising coastal pasture and the headlands of Toy Ness and The Lash to the west and east.
- The bay is exposed south to Scapa Flow with framed views of distant, silhouetted, landmasses including Hoy, Cava, Fara, Flotta, Burray, and South Ronaldsay. There are also views to 'open sea' ' in the far south.
- The 'enclosed bay' landscape character of the hinterland creates semi-containment and shelter and focuses views along the coastline and within the bay. The concave and convex nature of the hinterland slopes creates a range of open and foreshortened views towards the sea.
- Scapa Flow provides a maritime influence at some distance beyond the sheltered reaches of bay. Maritime character includes changeable light conditions, tidal movements, boat traffic particularly oil tankers, and navigational aids including the Barrel of Butter.
- The simple, consistent, coastal edge with localised indentation and stream mouths is comprised of rock platforms, stretches of rock and shingle, and sandy bays. The bay has a deep intertidal zone where waves roll across the sands and break either side at Toy Ness and The Lash.
- There are few, irregularly scattered dwellings and farmsteads within the bay hinterland.
- Pasture and arable land inclines gently and relatively evenly from the shore to encompass the bay. Moorland to the north and to the west on Hoy provides a neutral backdrop from a number of locations.
- Stonewalls and fence lines strengthen the patchwork of field patterns down to the shoreline. Telegraph poles form prominent vertical elements scattered throughout the hinterland especially when viewed on top of ridgelines. Wind shaped tree and shrub planting is associated with dwellings.
- Dykes and ditches are typical features.
- Access to coast, particularly the sandy bays, is via local lanes. There is also a pier located north of Toy Ness and jetty south of Smoogro.
- An existing finfish farm, of 10 circular cages and an automated feeding system, is visible just south of Toy Ness in the west, forming a subtle extension to the promontory.

3.4.1.4 Waulkmill Bay LCCA 7: key landscape and visual elements – refer to Figure 5

Landscape Character Types: Enclosed Bay Landscapes, Loch Basins.



Plate 7: Waulkmill Bay LCCA 7

- This long, narrow, shallow bay is enclosed by low cliffs and convex slopes to the east and west and moorland hills to the north.
- Views are framed and channelled south to Scapa Flow with Flotta, Burray, and South Ronaldsay silhouetted on the horizon line. There are views to 'open sea' in the far south.
- The maritime influence of Scapa Flow is at some distance beyond the sheltered reaches of the bay. The maritime character includes changeable light conditions, tidal movements, boat traffic particularly oil tankers.
- This is a sheltered area of water animated by wind and tidal action, but typically calm.
- The coastal edge is largely consistent with localised indentation along the east and west. Deep intertidal sand flats, tidal patterns and changeable light conditions create dynamic focus to the bay bounded by a rock and shingle shore and defined by a dark seaweed tide line.
- Inundation grassland and associated wetland, including Skaith, forms a low lying link between the bay and Loch of Korbister.
- There are few, isolated dwellings along the eastern cliff top and along the A964 on the confluence of the bay and loch. The area is largely natural in character.
- Rough grassland and dark heath flank the cliff slopes either side of the bay and over rising ground to the north providing a stark contrast and a matt backdrop to the reflective water and light sands.
- Wind shaped tree and shrub planting is associated with dwellings.
- Access to the bay is via a minor local road with car parking facilities, private access track, or boat.
- Views are principally contained within, and directed by, the physicality of the bay.

3.4.2 Orphir CCA: opportunities and constraints

There is currently one medium scale finfish farm within Orphir CCA, located south of Toy Ness, and apparently comprising 10 circular cages and one automated, permanent feeding barge. Landscape opportunities and constraints, which are like to affect any further development, are noted below.

3.4.2.1 Houton Head to Orphir Bay LCCA 4: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Houton would most readily accommodate shore based infrastructure if space permits.
- Northern extents of Houton Bay are classed as developed coast, including the existing ferry terminal, offering opportunity to absorb further man made influences e.g. inorganic shapes would be less prominent.
- The dark seaweed and rock intertidal zone allows for cages, buoys and lines to be absorbed into the backdrop from low angles when viewed from opposite shores or ferry routes. It also allows trestles to be absorbed along the shore itself.
- South facing views over Bay of Houton allow for cages, buoys and lines to be cast in shadow and become absorbed, from some angles, by silhouetted land to the south.
- In exposed locations where wave activity creates a pattern of light and shadow, cages will be less prominent, particularly when viewed from lower elevations (see plate 69).
- Deeply indented pattern of coastline provides headlands and promontories suitable for locating cages, buoys and lines which would be largely screened from bays and the low lying hinterland by convex landforms.
- The lack of settlement on coastal headlands limits close range views of development.

Landscape and visual constraints for aquaculture development:

- Elevated panoramic views can be gained from relatively close range including from residential properties and the A964.
- Much of the coastline is currently undeveloped therefore new development would be prominent particularly when situated within bays or observed from higher locations.
- The small scale nature of the bays and the enclosed character of Bay of Houton could easily 'fill up' with and be dominated by development.
- Clear vistas from Bay of Houton across Scapa Flow would be interrupted by development.
- The area lies within close proximity to the Hoy and West Mainland NSA.
- The coastline forms the southerly setting for two Listed Buildings and two Scheduled Ancient Monuments.
- No logical/accessible location for shore based infrastructure other than at the harbour.

3.4.2.2 Orphir Bay to Toy Ness LCCA 5: opportunities and constraints – refer to Figure 5

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Houton could absorb shore based infrastructure if space permits.
- There is little visibility from distant, southern shores.

- In choppy conditions, the pattern of light and shade will assist in absorbing cages; in still conditions, the pattern of cages would be more evident.
- The linear character of the coastline allows for inorganic, geometric shapes and layouts to be accommodated.
- The cliff edge allows development to be 'tucked in' and largely screened from view if located close to the shoreline.
- The lack of settlement on coastal headlands limits close range views of development.
- Currently one finfish farm exists to the eastern extents and is well accommodated into the seascape thus reducing the magnitude of change for future developments or extensions to existing.

Landscape and visual constraints for aquaculture development:

- The coastline is currently largely undeveloped apart from one existing finfish farm; additional development close to this would cause a cumulative impact and increase the overall prominence of development.
- A popular coastline core footpath route and viewpoint offers access and sea views.
- The area lies within a Site of Local Landscape Character and within relative close proximity to the Hoy and West Mainland NSA.
- No logical/accessible location for shore based infrastructure other than at Houton harbour.



Plate 8: Toy Ness finfish farm south of Toy Ness, Orphir

3.4.2.3 Toy Ness to The Lash LCCA 6: opportunities and constraints – refer to Figure 5

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Houton would most readily absorb shore based infrastructure although development associated with the existing pier in Swanister Bay would be possible if carefully designed.
- There is little visibility from distant, southern shores.

- Cages, buoys and lines located close to the north facing shoreline would be cast in shadow for much of the day and would be less prominent in views.
- Currently one finfish farm is visible to the west. This reduces the magnitude of change to this particular LCCA to accommodate similar developments or extend existing.

Landscape and visual constraints for aquaculture development:

- Elevated panoramic views can be gained from relative close range including from properties and the A964.
- This relatively small scale bay could appear to be 'at capacity' with even one small, centrally located development.
- The immediate coastline is currently undeveloped, apart from views of existing development to the west; new development would be prominent especially within the internally focused character of the enclosed bay landscape.
- Inorganic shapes would be prominent against areas of simple, organic coastline.
- Development would pose a cumulative impact with views of the existing fish farm development to the west and would increase the overall prominence of development.
- The area lies within a Site of Local Landscape Character.
- The coastline forms the southerly setting for one Listed Building and one Scheduled Ancient Monument.

3.4.2.4 Waulkmill Bay LCCA 7: opportunities and constraints – refer to Figure 5

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Houton or Scapa Bay would be more appropriate for shore based infrastructure than anywhere within this LCCA.
- There is little visibility from distant, southern shores.
- South facing views allow for cages, buoys and lines to be cast in shadow.
- Areas of cliff and convex headland allow development to be 'tucked in' and largely screened from view.
- Development located off the headland either side of the bay would effectively elongate and emphasise the sheltered character of the bay.

Landscape and visual constraints for aquaculture development:

- Elevated views can be gained from relative close range including from properties along the local road east of the bay at Waulkmill Lodge and Crook, from core footpaths surrounding the bay, and from Hobbister Hill Nature Reserve.
- The coastline is currently undeveloped with inner areas of the bay classed as 'isolated'; new development would be highly prominent especially within the internally focused narrow, character of the bay.
- Inorganic shapes would be prominent against areas of simple, organic coastline.
- External, framed vistas along the length of the bay would be interrupted by even a small development due to the narrowness of the bay.
- The area lies within a Site of Local Landscape Character, is scenically attractive, especially at low tide, and has been recommended as a scenic bathing beach in tourist literature.
- Access difficulties also precludes shore based infrastructure.

3.4.3 Orphir CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Houton Head to Orphir Bay LCCA 4	Orphir Bay to Toy Ness LCCA 5
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns animate the dynamic form of the coastline and reveal deep intertidal zones of rock, shingle and seaweed. Maritime traffic, including oil tankers, and navigational aids are visible from many locations along the coast and from within bays.</p> <p>Existing maritime activity at Houton may make development easier to accommodate.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells. Simplicity of sea surface and organic pattern of bays and headlands could be compromised by clutter.</p>	<p>Low sensitivity</p> <p>Tidal patterns, maritime traffic and navigational aids, including oil tankers, are visible from many locations along the coast and from within bays. Low cliffs enhance sense of exposure to open seascape.</p> <p>Existing finfish farm may make further development easier to accommodate.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>Development could be associated with promontories and enhance the dynamic form of the coastline, however development could also interrupt the natural organic pattern of bays and headlands.</p> <p>Coastline not readily accessed for recreation.</p>	<p>Low sensitivity</p> <p>By nature of a low cliff and a convex landform, the coastline is largely screened with focus out over Scapa Flow, however there is a local coastal footpath with car parking and viewpoints.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A couple of Listed Buildings and a collection of Scheduled Ancient Monuments, including a popular Heritage Centre, overlook the area and rely on the setting of the coast.</p>	<p>Low sensitivity</p> <p>The coast lies within an Area of Local Landscape Character, however does not form the setting for any significant features or landmarks.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Majority of coastal hinterland is well settled and served by the A964. Southern, outer extents of the coastline are less accessible and undeveloped, however the landscape as a whole is characterised by well-managed agriculture.</p>	<p>Moderate sensitivity</p> <p>Although the headland is largely well-managed agricultural land, the lack of settlement and the exposure to the sea creates a degree of wildness.</p> <p>Areas of rough grassland and wetland increase this sense of wildness, however the existing finfish farm limits it somewhat.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>While the area contains no exceptional scenic qualities the dynamic pattern of bays and headlands including Holm of Houton creates an attractive series of</p>	<p>Low sensitivity</p> <p>While the area contains no exceptional scenic qualities it is located within an Area of Local Landscape Character and offers elevated views across the open flow.</p>

	<p>sequential views and an interesting relationship between sheltered bays and open flow.</p> <p>The area falls just outside Hoy and West Mainland NSA.</p>	
Key Viewpoints	<p>Moderate sensitivity</p> <p>The coastline is overlooked from elevated locations along the A964 and other local roads, and from several properties located throughout the hinterland with some at close range.</p> <p>The coastline is also visible by passengers on local ferry services.</p> <p>Bays, in particular Bay of Houton, experience clear vistas across Scapa Flow.</p>	<p>Low sensitivity</p> <p>The coastline is overlooked from elevated locations along the coastal footpath and from well-positioned benches sited to admire the view. However by nature of the convex hinterland most views are interrupted from settlement and roads.</p>

Table 2: Sensitivity assessment – LCCAs 4 – 5

Potential sensitivity of the seascape to aquaculture development	Toy Ness to The Lash LCCA 6	Waulkmill Bay LCCA 7
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns are well observed within the bay, exposing and covering deep intertidal zones of sand, shingle, rock and seaweed.</p> <p>Maritime traffic, including oil tankers, and navigational aids are visible from many locations within the bay plus distant, framed views to 'open sea'.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>	<p>Low sensitivity</p> <p>Tidal patterns are well observed within the bay, exposing and covering deep intertidal zones of sand, shingle, rock and seaweed.</p> <p>Maritime traffic, including oil tankers, and navigational aids are visible from many locations within the bay plus distant, framed views to 'open sea'.</p> <p>Long, narrow character of bay provides a degree of separation from the sea.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Development could be associated with outer promontories and enhance the sheltered character of the bay, however development could also dominate and easily 'fill up' the bay and disrupt the natural sense of 'quiet'.</p> <p>Coastline not readily accessed for recreation.</p>	<p>High sensitivity</p> <p>Development could be associated with outer promontories and enhance the sheltered character of the bay, however development could also dominate and easily 'fill up' the bay and disrupt the natural sense of 'quiet'.</p> <p>Expansive tidal sands within the bay entice access to, and experience of, the coast at an intimate level. The bay is a popular recreational asset.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A Listed Building and a Scheduled Ancient Monument overlook the bay and rely on the setting of the coast. The area falls within an Area of Local</p>	<p>Low sensitivity</p> <p>The coast lies within an Area of Local Landscape Character, however does not form the setting for any significant features</p>

	Landscape Character.	or landmarks.
Experience of Wildness	<p>Low sensitivity</p> <p>Although the enclosed bay landscape is largely well-managed agricultural land, the lack of settlement and quiet shelter of the bay creates a degree of wildness. This has already been affected by finfish farm development to the west off Toy Ness.</p>	<p>Moderate sensitivity</p> <p>The narrow character of the bay surrounded by relatively high cliffs and exposed rough grass and moorland, with limited settlement creates a fairly strong sense of wildness easily affected by development.</p> <p>The inner reaches of the bay are also classed as 'isolated' coast.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>While the area contains no exceptional scenic qualities the bay does from a sense of place and an attractive sheltered contrast with the exposed flow.</p> <p>The bay falls within an Area of Local Landscape Character.</p>	<p>Moderate sensitivity</p> <p>While the area contains no exceptional scenic qualities the bay does fall within an Area of Local Landscape Character and forms a unique feature within the coastline effectively providing a narrow pocket of seascape within a moorland landscape.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>The coastline is overlooked from elevated locations along local roads and from several properties located throughout the hinterland with some at close range.</p> <p>The bay is largely screened from the A964.</p>	<p>High sensitivity</p> <p>The coastline is overlooked from elevated locations along a local road to the east and from several properties located at close range on the eastern corner. Hobbister Hill Nature Reserve, open to the public, also overlooks the bay from the east.</p> <p>The bay is glimpsed from the A964.</p> <p>The bay experiences a clear, framed vista over Scapa Flow which is likely to be affected by development.</p>

Table 3: Sensitivity assessment – LCCAs 6 - 7

3.4.4 Orphir CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.4.4.1 Houton Head to Orphir Bay LCCA 4 – refer to Figure 8

There is some potential for this local coastal character area to accommodate small scale aquaculture development or limited small scale multi sites, provided:

- Development avoids impacts on framed and open views over Scapa Flow from within or aligned with any of the bays.
- Scale or amount of development does not dominate or result in impacts on the natural pattern of the bays and headlands.
- Development should be associated with promontories/headlands and be aligned with and as close to the shore as possible.
- Individual, small scale developments takes up no more than one tenth of either an individual bay or headland. Small scale, multi site developments totals no more than one small development per bay or headland – either bays or headlands to be developed but not both.

3.4.4.2 Orphir Bay to Toy Ness LCCA 5 – refer to Figure 9

There is some potential for this local coastal character area to accommodate limited small to medium scale aquaculture developments, or extensions to existing, provided:

- Development is aligned with and as close to the shore as possible or associated with the existing finfish farm off Toy Ness i.e. an extension to the existing farm.
- The scale of development does not dominate or result in an adverse cumulative impact on the area i.e. additional developments or extensions to existing do not, in total, occupy more than 50% of the area.
- New finfish development reflects the scale, layout and orientation of the existing finfish farm to avoid visual clutter and disorder.
- Development is located adjacent areas of low cliff, embankment, or convex slopes to maximise natural screening.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development (or expansion of the existing fish farm) takes up no more than one quarter of the coast.

3.4.4.3 Toy Ness to The Lash LCCA 6 – refer to Figure 9

There is some potential for this local coastal character area to accommodate limited small scale, multi site aquaculture developments or one medium scale aquaculture development, provided:

- Development avoids impacts on open views over Scapa Flow.
- Scale or amount of development does not dominate the bay or result in impacts on the sense of tranquillity.
- Development be sited away from shoreline properties and sandy bays.
- Development be aligned with and as close to the shore as possible or associated with promontories. A mirroring of the existing finfish farm at Toy Ness off The Lash would be an example, however adverse cumulative impacts should be guarded against.
- Intertidal trestles or long lines are sited away from beach areas and restricted to the outer extents of the bay.
- Individual, small scale development takes up no more than one tenth of the bay. Single, medium scale development takes up no more than one quarter of the bay. Small scale, multi site developments total no more than two, of any kind. No capacity for multiple medium scale developments.

3.4.4.4 Waulkmill Bay LCCA 7 – refer to Figure 9

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the aesthetic, visual and spatial qualities and the sense of local landscape importance. The bay is also a popular recreational asset.

3.4.5 Orphir CCA: summary of cumulative development

Taking this CCA as a whole and considering the issue of cumulative impacts, it is considered that, although capacity has been identified in LCCA 4 it would be prudent to focus development in LCCAs 5 and 6, thus retaining significant lengths of coastline at either end of the CCA undeveloped to act as a buffer zone between this CCA and those adjacent. Capacity would therefore be restricted to either two medium sized developments (including expansion of the existing fish farm) with a preference for these to be in fairly close proximity with a partial visual separation formed by Toy Ness or three small scale developments, again in relatively close proximity.

3.5 Scapa Bay Coastal Character Area

Landscape Character Types: Moorland Hills, Enclosed Bay Landscapes, Rolling Hill Fringe, Plateau Heaths and Pastures, Inclined Coastal Pastures, Coastal Basins.

3.5.1 *Scapa Bay CCA: character analysis – refer to Figures 3 and 5 – LCCAs 8, 9, 10 and 11*

Scapa Bay extends from Waulkmill Bay to Howequooy Head in the south. The majority of the area is characterised by undeveloped, moderate to high cliffs topped by moorland and rough pasture with restricted access to the coast. Scapa Bay forms a central feature framed and sheltered by flanking cliffs and offering easy local access over a wide and popular sandy beach. With the exception of the Bay itself, much of this stretch of coast has little in the way of a coastal 'buffer' or intertidal zone. Sections of lower lying, rocky coastline are broken by sandy bays and stretches of shingle shore, backed by scattered settlement and agricultural land use.

3.5.1.1 Waulkmill Bay to Hellia LCCA 8: key landscape and visual elements – refer to Figure 5

Landscape Character Types: Moorland Hills.



Plate 9: Waulkmill Bay to Hellia LCCA 8

- This is an exposed stretch of isolated coastline with relatively high cliffs.
- Elevated, hinterland falls to the south over convex slopes and interrupts views of the coastline creating a degree of separation from the seascape and a sense of overall remoteness i.e. a limited opportunity to experience smells and sounds of the sea.
- The simple, linear composition of land, sea, land, sky, when viewed from the hinterland, offers open views along the coast and across Scapa Flow to distant, silhouetted landmasses including Hoy, Fara, Cava, Flotta, Burray and South Ronaldsay. 'Open sea' is also visible to the distant south.
- Cliff top views are dominated by the exposed influence of Scapa Flow and the maritime character of changeable light conditions, tidal movements, animated

waters, and boat traffic especially oil tankers. On shore winds heighten the sense of exposure to the sea.

- A simple, narrow, coastal edge comprises cliff face, rock platforms and stretches of rock and shingle, defined by dark seaweed tide line and breaking waves. Localised indentations and points including waterfalls and short ravines are also typical.
- Settlement is sparse and outwith the immediate, exposed hinterland, residing along the A964 to the northeast.
- Rough grassland and dark heath flank cliff tops with pasture and arable land extending north towards and beyond the A964.
- The coastline, cliffs and cliff tops are largely natural in character with a degree of wildness.
- The simple landscape character of the hinterland results in vertical elements such as telegraph poles and fence lines appearing prominent.
- Access to the coast is limited to boat or via the coastal path within the Hobbister Nature Reserve.
- Views are generally elevated and focused over a simple foreground to an open expanse of Scapa Flow and distant landmasses.

3.5.1.2 Hellia to Hemp Stack LCCA 9: key landscape and visual elements – refer to Figure 5

Landscape Character Types: Enclosed Bay Landscapes, Rolling Hill Fringe, Plateau Heaths and Hills.



Plate 10: Hellia to Hemp Stack LCCA 9

- This long, wide, and shallow bell-shaped bay is enclosed by low cliffs and convex slopes to the east and west and gently rising ground to the north with views of Kirkwall climbing to form a built skyline beyond. The skyline surrounding the bay is generally low lying resulting in a typically horizontal, well contained dynamic.
- Views are framed and channelled south to Scapa Flow with Flotta and South Ronaldsay silhouetted on the distant horizon line. Views to 'open sea' in the far south via Sound of Hoxa are also obtainable.

- The area is dominated by the sweeping sandy shore of the bay and the semi-contained body of animated water.
- Scapa Flow and the passage of boat traffic, especially oil tankers, provides a maritime influence at some distance beyond the sheltered reaches of the bay with changeable light conditions and tidal movements influencing the bay itself.
- The coastal edge is relatively dynamic comprising indented cliffs with rock platforms, points and short ravines, rock and shingle shores with dark seaweed tide lines, sandy stretches and large bay, man made coastal retaining walls and coastal minor road, and Scapa pier and harbour facilities.
- Settlement and light industrial development extends south from Kirkwall's urban edge and is concentrated along the northern shore and scattered through the hinterland to east and west including sky-lining buildings along ridgelines.
- Large fieldscapes of pasture and arable land, structured by fence lines and stonewalls, flank cliff tops over a short distance before reaching the skyline.
- Wind shaped tree and shrub planting is associated with dwellings.
- The bay is well accessed by minor local roads including car-parking facilities, seating, interpretation etc... and on foot from nearby settlement. It is used regularly.
- Views are principally contained within and directed by the physicality of bay with some views south interrupted by Scapa pier and associated marine elements.

3.5.1.3 Hemp Stack to Bay of Deepdale LCCA 10: key landscape and visual elements – refer to Figure 5

Landscape Character Types: Plateau Heaths and Pasture.



Plate 11: Hemp Stack to Bay of Deepdale LCCA 10

- This exposed stretch of isolated coastline is characterised by relatively high, rugged cliffs overlooking an animated expanse of flow which is seldom calm.
- Elevated, hinterland falls to the west over steep, convex slopes interrupting views of the coastline and creating a sense of shelter and distance from the sea i.e. a limited opportunity to easily experience the smells and sounds of the sea.
- The high cliff edge itself experiences a sense of exposure and close proximity to the dynamic sea, enhanced by onshore winds, with open views along the

coastline to the north and south and across Scapa Flow to distant, silhouetted landmasses including Hoy, Fara, Cava, Flotta, Burray and South Ronaldsay. Views through the Sound of Hoxa to 'open sea' are also obtained.

- The influence of Scapa Flow and it's maritime character including changeable light conditions, tidal movements, and boat traffic especially oil tankers is strongest from along the cliff edge. The War Grave of HMS Royal Oak is visible marked by buoy.
- The simple, narrow, coastal edge comprises cliff face, some rock and shingle, and breaking waves. A characteristic 'crimped' effect is clearly visible along the cliff line with localised indentations, points, ravines, stacks, and waterfalls.
- Settlement is sparse and largely outwith the immediate exposed hinterland, along the A961 to the east with isolated farmsteads on exposed plateau.
- Pasture and arable land, rough grassland, and dark heath flank the cliff tops and extend east over plateau towards the A961.
- The simple, open landscape character of hinterland results in vertical elements such as telegraph poles and fence lines appearing prominent.
- Access to the coast is limited to boat or remote cliff top footpaths.
- Views from the A961 are substantially interrupted by convex slopes and the nature of the ridgeline landscape.

3.5.1.4 Bay of Deepdale to Howequoy Head LCCA 11: key landscape and visual elements – refer to Figure 5

Landscape Character Types: Coastal Basins, Inclined Coastal Pastures.



Plate 12: Bay of Deepdale to Howequoy Head LCCA 11

- This area is characterised by a large, semi enclosed, body of water contained by distant landmasses, including West and East Mainland, Hoy, Flotta, and South Ronaldsay, and low lying agricultural hinterland.
- The significant extent of open tidal water, seaweed, a fairly deep intertidal zone, boat traffic, especially oil tankers, and views out to 'open sea' via the Sound of Hoxa creates a relatively strong maritime influence over the land.
- Exposed flow of water animated by wind action, seldom very calm.

- The indented, generally low lying coastal edge is comprised of low cliffs, rock platforms and stretches of shingle, defined by dark seaweed tide line and breaking waves.
- Settlement is irregularly scattered throughout the hinterland, residing at low level within inclined pastures and coastal basins.
- Pasture and arable land inclines over gently undulating ground and convex slopes from the shoreline restricting views from eastern locations and along the A961.
- Stonewalls and fence lines add structure to irregular field patterns and enhance or break up topographical features. Telegraph poles add vertical elements and a degree of complexity to the irregular arrangement of farmsteads, clustered dwellings and isolated dwellings.
- Access to the coast is limited over agricultural land, private track or by boat.
- Views are generally semi-contained within the hinterland, obstructed and dominated by the convex topography.
- Views from the coastline are open and exposed at low level to onshore winds and the influence of the sea with relatively long-range views back across the hinterland.

3.5.2 Scapa Bay CCA: opportunities and constraints

There is currently no apparent aquaculture development within Scapa Bay CCA. Landscape opportunities and constraints, which are like to affect any development, are noted below.

3.5.2.1 Waulkmill Bay to Hellia LCCA 8: opportunities and constraints – refer to Figure 5

Landscape and visual opportunities for aquaculture development:

- From a landscape and visual perspective, and if space permits, sharing existing harbour facilities/space at Scapa Bay would be more appropriate than another location in this LCCA due to the lack of shore access elsewhere.
- Dark cliff and moorland allows for cages, buoys and lines to be absorbed into the backdrop from low angles when viewed from the mainland to southeast.
- In choppy conditions, south facing views allow for cages, buoys and lines to be absorbed by the high contrast of light and shade on the water surface.
- Areas of high cliff and convex landform allow development to be ‘tucked in’ and largely screened from view if located close to the shoreline.
- Lack of settlement or public use within close proximity of the coast.

Landscape and visual constraints for aquaculture development:

- Both low lying and elevated views can be gained from distant southeasterly, mainland shores.
- Core footpaths run throughout Hobbister Nature Reserve above the cliffs.
- The coastline is currently classed as ‘isolated’; new development would be prominent.
- Inaccessibility of the shoreline and a narrow intertidal zone limits the possibility for trestles.

3.5.2.2 Hellia to Hemp Stack LCCA 9: opportunities and constraints – refer to Figure 5

Landscape and visual opportunities for aquaculture development:

- From a landscape and visual perspective, and if space permits, sharing existing harbour facilities/space at Scapa Bay would be more appropriate than another location in this LCCA due to the lack of shore access elsewhere.
- Looking south, in choppy conditions, buoys and lines would be absorbed into the changing pattern of light and shade on the water's surface.
- Areas of cliff and convex headland allow development to be 'tucked in' and largely screened from some locations if located close to the shoreline.
- Trestles could be accommodated within the dark intertidal zone to southern reaches away from the beach.
- Northern extents of the bay are classed as developed coast, including the existing Scapa Pier, offering opportunity to absorb further man made influences e.g. inorganic shapes would be less prominent.

Landscape and visual constraints for aquaculture development:

- Elevated views can be gained from relatively close range including from properties, core footpaths, and local roads surrounding the bay.
- Eastern and western coastlines are currently undeveloped; new development would be prominent.
- External, framed vistas, channelled along the bay, would be interrupted, particularly by any development located centrally in the bay.
- Inorganic shapes would be prominent against areas of simple, organic coastline.
- The area lies within a Site of Local Landscape Character and is a popular area for local recreation.
- The coastline forms the southerly setting for one Scheduled Ancient Monument and the buoy marked War Grave of HMS Royal Oak.

3.5.2.3 Hemp Stack to Bay of Deepdale LCCA 10: opportunities and constraints – refer to Figure 5

Landscape and visual opportunities for aquaculture development:

- From a landscape and visual perspective, and if space permits, sharing existing harbour facilities/space at Scapa Bay would be more appropriate than another location in this LCCA due to the lack of shore access elsewhere.
- Dark cliff and moorland allows for cages, buoys and lines to be absorbed into backdrop when viewed from the mainland to northwest.
- Areas of high cliff and convex landform allow development to be 'tucked in' and largely screened from view if located close to shoreline.
- Lack of settlement or public use within close proximity of coast.

Landscape and visual constraints for aquaculture development:

- Both low lying and elevated views can be gained from the distant northwesterly, mainland shores.
- The coastline is classed as 'isolated'; new development would be prominent.
- Location of the wrecked HMS Royal Oak is in close proximity.
- Inaccessibility to the shoreline and a narrow intertidal zone limits the possibility for trestles.
- Access difficulties also precludes shore based infrastructure.

3.5.2.4 Bay of Deepdale to Howequooy Head LCCA 11: opportunities and constraints – refer to Figure 5

Landscape and visual opportunities for aquaculture development:

- From a landscape and visual perspective, and if space permits, sharing existing harbour facilities/space at Scapa Bay would be more appropriate than another location in this LCCA due to the lack of shore access elsewhere.
- Little visibility from opposite shores.
- Convex landform and areas of low cliff allow development to be ‘tucked in’ and largely screened from view if located close to shoreline.
- Predominantly linear character of coastline and the regular pattern of fieldscapes across the hinterland allows for inorganic, geometric shapes and layouts to be absorbed.
- Trestles could be accommodated within the intertidal zone following the line of the coast with little impact to landscape resource or visual amenity.

Landscape and visual constraints for aquaculture development:

- Elevated panoramic views can be gained from relative close range including from properties, local access routes and coastal footpaths.
- The coastline is currently undeveloped; new development would be prominent.
- The coastal setting is important for a number of Listed Buildings.
- Access difficulties also precludes shore based infrastructure.

3.5.3 Scapa Bay CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Waulkmill Bay to Hellia LCCA 8	Hellia to Hemp Stack LCCA 9
Maritime Influences	<p>Not sensitive</p> <p>Convex landform, high cliffs and nature of ‘set back’ settlement and roads results in a degree of separation from the coast and in turn maritime influences.</p> <p>Distant views of the sea remain including the passage of oil tankers.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns are well observed within the bay, exposing and covering deep intertidal zones of sand, shingle, rock and seaweed.</p> <p>Maritime traffic, including oil tankers, and navigational aids are visible from many locations within the bay plus distant, framed views to ‘open sea’ would be easily obstructed by development.</p> <p>Simplicity of distant sea surface could easily be compromised by clutter.</p>
Character and Experience of the Coast	<p>Not sensitive</p> <p>The isolated, inaccessible nature of the cliffscape results in limited appreciation and experience of it. Development would therefore pose little impact.</p> <p>Coastline not readily accessed for recreation.</p>	<p>Moderate sensitivity</p> <p>The coastline is a valued recreational asset to local residents providing easy, sheltered access to the sea especially from the beach.</p> <p>Predominantly, regular coastline to outer east and west offers little opportunity for development to be associated with promontories although lines and cages</p>

		<p>could be aligned relative to the coastline.</p> <p>Existing development at Scapa Pier could absorb some noise, light, activity and structures or offset development located on opposite shores.</p>
Setting of Landmarks and Features	<p>Not sensitive</p> <p>This area does not provide the setting for or feature any significant landmarks or features.</p>	<p>Low sensitivity</p> <p>The northern extents of Scapa Bay lie within an Area of Local Landscape Character and provide the setting for one Scheduled Ancient Monument.</p>
Experience of Wildness	<p>High sensitivity</p> <p>The isolated nature of the cliffscape and general inaccessibility would be affected by development.</p>	<p>Low sensitivity</p> <p>The area as a whole is well settled with areas of developed coastline and well managed agricultural hinterland. Northern extents also border the urban fringe of Kirkwall and experience views of the built skyline subsequently limiting the sense of wildness. Therefore development is not likely to affect the experience of wildness.</p>
Aesthetic Qualities	<p>Moderate sensitivity</p> <p>While the area contains no exceptional scenic qualities the cliffscape does provide an impressive series of coastal features such as waterfalls and ravines with a dramatic outlook over exposed areas of flow.</p>	<p>Moderate sensitivity</p> <p>While the area contains no exceptional scenic qualities the bay does fall within an Area of Local Landscape Character and forms an attractive and readily accessible resource for the local population. Outer reaches of the coastline provide attractive, rugged cliffscapes.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is largely unnoticed from elevated locations along local roads and from properties located throughout the hinterland, however cliff top views from the likes of Hobbister Hill Nature Reserve or coastal footpaths provide 'bird's eye' views of the coast, cliff and sea below. Distant views are gained from mainland shores to the east and southeast.</p> <p>Development would therefore be largely screened.</p>	<p>High sensitivity</p> <p>Elevated properties and local roads including those at lower level to the north of the bay experience views of the coastline.</p> <p>Scapa Bay itself also provides low level views of the seascape framed either side by cliffs. External, framed vistas of the flow from this point are likely to be affected by development.</p>

Table 4: Sensitivity assessment – LCCAs 8 – 9

Potential sensitivity of the seascape to aquaculture development	Hemp Stack to Bay of Deepdale LCCA 10	Bay of Deepdale to Howequooy Head LCCA 11
Maritime Influences	<p>Not sensitive</p> <p>Convex landform, high cliffs and nature of 'set back' settlement and roads results in a degree of separation from the coast and in turn maritime influences.</p> <p>Distant views of the sea remain</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and maritime traffic and navigational aids are visible from many locations along the coast. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p>

	including the passage of oil tankers.	
Character and Experience of the Coast	<p>Not sensitive</p> <p>The isolated, inaccessible nature of the cliffscape results in limited appreciation and experience of it. Development would therefore pose little impact.</p> <p>Coastline not readily accessed for recreation.</p>	<p>Low sensitivity</p> <p>Development could be aligned to reflect the linear shape of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories.</p> <p>Coastline not readily accessed for recreation.</p>
Setting of Landmarks and Features	<p>Not sensitive</p> <p>This area does not provide the setting for, or feature, any significant landmarks or features.</p>	<p>Low sensitivity</p> <p>A few Listed Buildings overlook the coast or rely on it as part of their coastal setting.</p>
Experience of Wildness	<p>High sensitivity</p> <p>The isolated nature of the cliffscape and general inaccessibility would be affected by development.</p>	<p>Low sensitivity</p> <p>Visual influence of settlement throughout hinterland, including main roads, limits sense of wildness. The landscape as a whole is characterised by well managed agriculture.</p>
Aesthetic Qualities	<p>Moderate sensitivity</p> <p>While the area contains no exceptional scenic qualities the cliffscape does provide an impressive series of coastal features such as stacks and ravines with a dramatic outlook over exposed areas of flow.</p>	<p>Moderate sensitivity</p> <p>While the area contains no exceptional scenic qualities as a whole the coastline does offer attractive, distant views across the flow towards the skyline of Hoy including Flotta, Fara, Rysa Little and Cava in the foreground and northwest towards impressive cliffscapes on mainland.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is largely unnoticed from elevated locations along local roads and from properties located throughout the hinterland, however cliff top views from coastal footpaths provide 'bird's eye' views of the coast, cliff and sea below. Distant views are gained from mainland shores to the north and northwest.</p> <p>Development would therefore be largely screened.</p> <p>The location of HMS Royal Oak results in parts of the coastline forming key viewpoints including the surrounding waters for divers.</p>	<p>Moderate sensitivity</p> <p>The coast is overlooked by a number of properties and local roads located throughout the hinterland, however most views are obstructed by the undulating and convex landform including those from the A961.</p>

Table 5: Sensitivity assessment – LCCAs 10 – 11

3.5.4 Scapa Bay CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.5.4.1 Waulkmill Bay to Hellia LCCA 8 – refer to Figure 9

There is some potential for this local coastal character area to accommodate one medium scale aquaculture development, or limited small scale multi sites, provided:

- Development be aligned with and as close to the shore as possible.
- Development be sited away from any striking geological cliff features.
- Single, small scale development occupying no more than one tenth of the coast.
- Single, medium scale development takes up no more than one fifth of the coast.
- Small scale, multi site developments totals no more than three, of any kind.
- Medium scale multi developments totalling no more than two, of any kind, and with a separation distance of at least 1km.

3.5.4.2 Scapa Bay LCCA 9 – refer to Figure 9

There is some potential for this local coastal character area to accommodate small scale aquaculture development or limited small scale, multi site developments, provided:

- Development be aligned with and as close to the shore as possible within outer reaches of the bay or associated with the existing pier facilities.
- Development does not interrupt views from Scapa Bay towards the flow.
- Development be sited away from shoreline properties where possible and the sandy bay.
- Scale or amount of development does not dominate the bay or impact on the recreational resource.
- Trestles or intertidal long lines are sited away from the beach area and limited to less than five rows in alignment with the coast.
- Individual, small scale development taking up no more than one tenth of the bay. Small scale, multi site developments totals no more than two, of any kind, located on one or other side of the bay but not both sides.

3.5.4.3 Hemp Stack to Bay of Deepdale LCCA 10 – refer to Figure 9

There is some potential for this local coastal character area to accommodate one medium scale aquaculture development, or limited small scale multi sites, provided:

- Development be aligned with and as close to the shore as possible.
- Development be sited away from any striking geological cliff features.
- Development be sited clear of the HMS Royal Oak War Grave.
- Individual, small scale development taking up no more than one tenth of the coast.
- Single, medium scale development takes up no more than one quarter of the coast. Small scale, multi site developments total no more than two, of any kind.

3.5.4.4 Bay of Deepdale to Howequoy Head LCCA 11 – refer to Figure 9

There is some potential for this local coastal character area to accommodate one medium scale aquaculture development, and/or limited small scale multi sites, provided:

- Development be aligned with and be as close to the shore as possible or associated with subtle promontories such as Tongue of Gangsta.

- Development be sited away from shoreline properties.
- Scale or amount of development does not dominate the low lying agricultural hinterland.
- Development is located adjacent areas of low cliff, embankment or convex slopes to maximise natural screening.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of the coast. Small scale, multi site developments totals no more than three, of any kind.

3.5.5 *Scapa Bay CCA: summary of cumulative development*

Reviewing the capacity for the Scapa Bay CCA as a whole, potential cumulative issues are of particular relevance given the open nature of this CCA with views from shore to shore. It is recommended that, to minimise cumulative impacts either one side of the bay or the other be excluded from development. Given the focus of views from the beach, and the nature of the coastal topography, it is considered that the eastern portion of this CCA has greater potential to accommodate development than the western and northern sections. Development would therefore be restricted to either two medium sized developments or a series of no more than five small scale developments. If there is pressure for different kinds of fish farm, these should be grouped together (i.e. finfish and shellfish separately). By concentrating development to the eastern side of Scapa Bay, a lengthy section of coastline from Waulkmill Bay to Hemp Stack would be left undeveloped.

3.6 Burray - South Ronaldsay Coastal Character Area

Landscape Character Types: Holms, Whaleback Island Landscapes, Inclined Coastal Pastures, Coastal Basins, Plateau Heaths and Pasture, Cliff Landscapes, Urban and Rural Development.

3.6.1 Burray - South Ronaldsay CCA: analysis – refer to Figures 3 and 6 – LCCAs 12, 13, 14, 15, 16, 17, 18 and 19

Running from Howequoy Head to North Lobers, the diverse Burray/South Ronaldsay character area is heavily influenced by the sequential pattern of alternating land and sea and the presence of the Churchill Barriers. Its sheltered aspect is emphasised by views of often rough seas and framed sea/sky horizons to the east. The area is relatively well settled with dispersed linear development following coastal roads and concentrations at St Mary's, Burray Village and St Margaret's Hope. Improved pasture, arable land, rough grassland and patches of moorland flank simple, stepped coastlines and sheltered bays. Relatively high, rugged cliffs shelter the coastline from the southwest on which World War defence structures mark focal viewpoints.

3.6.1.1 Howequoy Head to Glimps Holm LCCA 12: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Coastal basin, Holms.



Plate 13: Howequoy Head to Glimps Holm LCCA 12

- This is a small, semi enclosed, area of water extending from Howequoy Head to Glimps Holm, focused around St Mary's Bay and Skerry Sound, with framed views southwest across open water to Flotta, northwest to the mainland, and east over Churchill Barrier No. 1 and 2 to Holm Sound with the North Sea beyond.
- St Mary's Bay is a west facing bay formed by the creation of the Churchill Barriers and subsequent interruption of the tidal flow. It is a relatively shallow area of tidal water, animated by wind action, and provides a calm contrast to the rougher waters east of the barriers.

- There is a sense of semi-containment and shelter provided by a rising backdrop of agricultural land to the northeast and a continuation of the Burray coastline to the south.
- The constant presence of sea views to the east and west, including views of oil tanker passage to the west, numerous shipwrecks adjacent the barriers, and prevalent seaside smells and sounds create a strong maritime character.
- The pattern and sequential experience of land and water especially when travelling along the A961 is unique and dynamic.
- The low lying coastline comprises low cliff, rock platforms, points, rock and shingle shores, and hard man made edges and elements including St Mary's village, the Churchill Barriers and numerous piers.
- Low lying pasture and arable land, including areas of rough grazing, form simple blocks and ridgelines of hinterland viewed within a dominant seascape.
- Settlement and urban features are concentrated at St Mary's village along the shoreline with dwellings and farmsteads scattered through the hinterland to the north. Settlement is scarce over Lamb Holm and Glimps Holm with evidence of ruins and abandoned buildings.
- The Italian Chapel forms a focal feature on Lamb Holm.
- Access to the coast is readily available from the A961 and St Mary's village.
- Views are focused on the built form of St Mary's village, the striking nature of the Churchill Barriers, or east and west to open waters.

3.6.1.2 Glimps Holm to East Ayre LCCA 13: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Inclined Coastal Pastures, Holms, Whaleback Island Landscapes.



Plate 14: Glimps Holm to East Ayre LCCA 13

- This area is characterised by a large, semi enclosed, expanse of water from Glimps Holm to Hunda, including East Weddel Sound, Echnaloch Bay, and Hunda Sound, with open views across Scapa Flow towards Flotta, Fara, Cava, Rysa Little, Hoy and the mainland, and views east to Holm Sound.

- A relatively deep area of tidal water, animated by wind action with an open aspect to Scapa Flow. Shallower, more sheltered areas lie within bays and area characterised by a deep intertidal zones and defined by dark seaweed.
- A sense of semi-containment and shelter is provided by the rising backdrop of agricultural land to the south and east and the low lying arms of Hunda and Glimps Holm extending to the southwest and northeast.
- The constant presence of sea views, oil tanker passage, shipwrecks adjacent the barriers, and prevalent the seaside smells and sounds creates a strong maritime character.
- The pattern and sequential experience of land and water is unique and dynamic.
- The coastline is characterised by a series of bays effectively coming together to form one larger bay. The creation of Churchill Barrier No. 3 and the subsequent interruption of tidal flow has enhanced a sense of containment.
- The low lying coastline comprises low cliff, rock platforms, points, ayres and causeways, rock and shingle shores, and the hard man made edge of Churchill Barrier No. 3.
- Low lying, gently inclined pasture and arable land, including areas of rough grazing, form simple blocks and ridgelines of hinterland viewed within a dominant seascape.
- There is a concentration of dispersed, linear settlement along central southern shores, with buildings silhouetted along the skyline. A number of dwellings and farmsteads are also scattered through the hinterland to the east and southeast. Settlement is scarce over Glimps Holm and Hunda, limited to isolated farmsteads with evidence of ruins and abandoned buildings.
- Fence lines and stonewalls both emphasise and break up the topography.
- Access to coast is limited to where the A961 skirts lower lying areas of shore or via agricultural access tracks or boat.
- Views are focused west and northwest across Scapa Flow where tankers form a visual focus, or on shipwrecks adjacent the barriers.

3.6.1.3 East Ayre to The Cairn Head LCCA 14: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Holms.



Plate 15: East Ayre to The Cairn Head LCCA 14

- This remote, low lying area is dominated by a large, open expanse of water northwest of Hunda with clear views towards Flotta, Cava, Rysa Little, Hoy and the mainland.
- The significant extent of deep tidal water is animated by wind action and is seldom completely calm.
- The constant presence of sea views, the passage of oil tankers, and prevalent seaside smells and sounds creates a strong maritime character.
- The simple sea/land/sky composition creates a dominant horizontal dynamic.
- The relatively consistent, northwest facing coastline is characterised by low cliff, narrow rock platform, stretches of rock and shingle, and a relatively narrow intertidal zone defined by dark seaweed.
- The hinterland is simple and characterised by gently sloping rough grassland and patches of heath with a smooth profile and little distinction except for the remains of an old quarry and a few shallow waterbodies.
- Isolated farm buildings with access tracks and a number of ruins, stonewalls and sheep shelters form the only man made elements.
- Access to the coast is via boat or over access tracks from the Hunda Sound causeway. The area is generally remote.
- Views are dominated by Scapa Flow and focused west and northwest across the flow where tankers form a visual focus.

3.6.1.4 The Cairn Head to Knockhall Point LCCA 15: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Holms, Inclined Coastal Pastures, Urban and Rural Development.



Plate 16: The Cairn Head to Knockhall Point LCCA 15

- A long, narrow, semi enclosed, stretch of water extending from Hunda to St Margaret's Hope and containing Water Sound. It comprises a generally west facing bay formed by the creation of Churchill Barrier No. 4 and the subsequent interruption of the tidal flow.
- It is a relatively shallow area of tidal water, animated by wind action and with a deep intertidal zone defined by dark seaweed. It provides a calm, sheltered

contrast to the rougher waters to the east of the barriers and towards the open extents of the North Sea.

- There is a sense of semi-containment and shelter provided by the rising backdrop of agricultural land to the north and south. The continuation of the coastline to the west frames views of Flotta, and to the east frames views of the North Sea.
- The proximity to water and the shoreline including views of boats and buoys at Burray Village, the passage of the Pentland ferry to and from St Margaret's Hope, and prevalent seaside sounds and smells creates a strong maritime influence.
- The coastline is comprised of low cliff, areas of deep rock platform, stretches of rock, shingle and sand, causeways, and hard man made edges and elements including Burray Village, and Churchill Barrier No. 4.
- Low lying pasture and arable land, including areas of rough grazing, border to the north and south providing simple containment.
- A concentration of settlement and urban features at Burray Village disperses along the northern shore to the west with dwellings and farmsteads scattered throughout the hinterland to south.
- Fence lines and stonewalls emphasise and break up the topography but strengthen field patterns. Telegraph poles form vertical elements within a predominantly horizontal dynamic.
- Access to the coast is readily available from the A961 and Burray Village.
- Views are largely focused internally on opposing shores or channelled east and west to distant skylines, including Hoy hills and 'open North Sea', by nature of the sloping topography.

3.6.1.5 St Margaret's Hope LCCA 16: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Inclined Coastal Pastures, Urban and Rural Development.



Plate 17: St Margaret's Hope LCCA 16

- This is a small, north facing, semi enclosed, area of water known as St Margaret's Hope.

- There is a sense of complete containment from many locations due to the close, sheltering nature of opposing shores. The surrounding landform provides a rising backdrop and a degree of intimacy.
- The bay comprises a relatively shallow area of tidal water, animated by wind action and with a deep intertidal zone defined by dark seaweed. It is often calm.
- The close proximity to water and the shoreline including views of boats and buoys and the frequent passage of the Pentland ferry to and from the terminal, plus prevalent seaside sounds and smells, creates a strong maritime influence.
- The low lying coastline comprises low cliff, areas of deep rock platform, stretches of rock and shingle, and hard man made edges and elements including St Margaret's Hope village and the retaining wall round to ferry terminal and pier.
- Inclined pasture and arable land, including sheltered pockets of tree and shrub cover, form the hinterland to the east and west of the bay. Field patterns and topography are emphasised by fence lines and stonewalls.
- Settlement and urban features is concentrated at St Margaret's Hope with dwellings and farmsteads scattered to the east and west and along the skyline.
- Access to the coast is readily available from St Margaret's Hope.
- Views are largely focused internally on St Margaret's Hope and the distinctive interface between village and sea.

3.6.1.6 Needle Point to Croo Taing LCCA 17: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Inclined Coastal Pastures, Cliff Landscapes, Coastal Sand Landscapes, Plateau Heaths and Pasture.



Plate 18: Needle Point to Croo Taing LCCA 17

- This area forms a large, semi enclosed, stretch of water from Water Sound to Sound of Hoxa with open views northwest across Scapa Flow and west towards Flotta.
- It is a relatively deep area of strong tidal water, animated by wind action with an open aspect to Scapa Flow. Shallower, more sheltered areas, such as the Dam of Hoxa, are characterised by a deeper intertidal zone.

- There is a sense of fragmented shelter provided by Hunda to the north, Burray to east, Flotta to west, and the backdrop of agricultural hinterland to the south. However, it is generally exposed to Scapa Flow with distant views of the hills on Hoy, the mainland and Graemsay.
- The constant presence of sea views to the north and to the southwest via Hoxa and Widewall Bay, including the passage of oil tankers and the Pentland ferry, navigational aids, tidal/wave power equipment in the Dam of Hoxa, and prevalent seaside smells and sounds at lower elevations close to the shore, creates a strong maritime character.
- The north facing coastline comprises low and relatively high cliff punctuated by the shingle bay of Dam of Hoxa, rock platforms, and stretches of rock and shingle shores with relatively narrow intertidal zones.
- The convex character of the hinterland restricts views of the coastline from higher elevations including views from local roads and settlement, thus creating a degree of separation from the seascape.
- Pasture and arable land, including some areas of rough grazing and sheltered pockets of vegetation cover, characterise the simple ridgeline hinterland interjected by the lower lying Hoxa Bay and coastal sand landscapes including a small ayre.
- Settlement is sparse comprising typically well spaced farmsteads and lone dwellings that overlook the coast.
- Fence lines and stonewalls emphasise and break up the topography but strengthen regular, small scale field patterns. Telegraph poles form vertical elements within a predominantly horizontal dynamic.
- Access to the coast is limited to the lower lying Dam of Hoxa or by boat.
- Views are focused north towards Hunda, northwest across Scapa Flow with the distant Graemsay framed between Hoy and the mainland, or west towards Flotta with the hills of Hoy beyond.

3.6.1.7 Croo Taing to Vamh and Moi Geo to North Lobers LCCA 18: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Cliff Landscapes.



Plate 19: Croo Taing to Vamh and Moi Geo to North Lobers LCCA 18

- This large, semi enclosed, stretch of water extends from Scapa Flow to Sound of Hoxa, with views of 'open sea' to the south.
- Flotta, South Walls and Hoy provide a degree of semi-containment and shelter to the west, whilst the continuation of South Ronaldsay to the south and the distant mainland to the north provides a wide sense of semi-enclosure.
- A deep flow of strong tidal water, animated by wind action and seldom very calm.
- Panoramic views from cliff tops offer a large scale, exposed aspect to the sea heightened by onshore winds.
- The convex character of the topography and general inaccessibility of the cliffscape creates degree of separation from sea and a sense of overall remoteness with a limited opportunity to experience the smells and sounds of the sea.
- The constant presence of sea views including the passage of oil tankers and the Pentland ferry and associated navigational aids such as Nevi Skerry and Scarf Skerry, create a strong maritime character.
- The coastline is comprised of rugged high cliffs, rock platforms, deep ravines and caves, stacks and skerries, stretches of rock and shingle and highlighted by breaking waves with little intertidal zone.
- Settlement is sparse within the cliff top hinterland, limited to isolated dwellings and farmsteads largely located to the north and south of the cliffscape.
- World War defence structures form visual features on the elevated headland.
- A convex and concave landform of pasture and rough grassland slopes relatively evenly to the precipitous cliffs.
- Access to the coast is by boat or across rough grassland to lower lying, less steep areas.
- Views are predominantly focused west to Flotta and the oil terminal with the backdrop of Hoy beyond.

3.6.1.8 Widewall Bay LCCA 19: key landscape and visual elements – refer to Figure 6

Landscape Character Types: Coastal Basins, Cliff Landscapes, Inclined Coastal Pastures.



Plate 20: Widewall Bay LCCA 19

- This area forms a dogleg shaped area of water between Herston, Uppertown and Hoxa, known as Widewall Bay.
- It is a relatively shallow area of tidal water, animated by wind action and with a deep intertidal zone defined by stretches of dark seaweed.
- There is a sense of complete containment and shelter from many locations within the low lying agricultural hinterland or along the shore.
- Framed views are obtained southwest towards Switha and South Walls and northeast towards Hunda via the Dam of Hoxa.
- The proximity to water and shoreline, and the prevalent seaside sounds and smells creates a slight maritime influence, however the overall character is not that of a seascape.
- The low lying coastline comprises some low cliff, fragmented areas of rock platform, long stretches of rock and shingle, extensive intertidal sands, and hard man made edges and elements including an incongruous urbanised street at Herston.
- Gently inclined pasture and arable land, including areas of rough grazing and sheltered pockets of vegetation cover, surround the bay providing simple containment and a consistently level horizon line.
- Settlement is scattered throughout the hinterland with buildings sky lining and punctuating the smooth ridgeline.
- Telegraph poles provide vertical structure within the predominantly horizontal dynamic.
- Fence lines and stonewalls emphasise and break up topography and highlight small scale, regular field patterns.
- The coast is largely accessible from surrounding local roads at low level including parking at Bay of Wright.
- Views are largely focused internally on opposing shores or ridgelines.

3.6.2 *Burray - South Ronaldsay CCA: opportunities and constraints*

There is currently no apparent aquaculture development within Burray - South Ronaldsay CCA. Landscape opportunities and constraints, which are like to affect any development, are noted below.

3.6.2.1 *Howequoy Head to Glimps Holm LCCA 12: opportunities and constraints – refer to Figure 6*

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at St Mary's, if space permits, would be more appropriate for any shore based infrastructure than other locations within this LCCA.
- Areas of developed coastline at St Mary's and along the Churchill Barriers would offer opportunity to absorb further man made influences e.g. inorganic shapes would be less prominent.
- Convex landform and areas of low cliff allow development to be 'tucked in' and largely screened from view if located close to the shoreline.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated.
- Looking south, in choppy conditions, buoys and lines would be absorbed into the changing pattern of light and shade on the water's surface.
- Stretches of coast with limited views from properties or roads.
- North facing coastlines with dark intertidal zones would allow development to be largely absorbed into the shaded backdrop. Including trestles and intertidal long lines along the shore.

Landscape and visual constraints for aquaculture development:

- Both low lying and elevated views can be gained from St Mary's, from the A961 skirting the coast and crossing the Churchill Barriers, and from a number of core footpaths especially around Howequooy Head.
- The coastline is largely classed as undeveloped; new development would be fairly prominent.
- The location of important shipwrecks would limit opportunities to site development within close proximity.
- Framed vistas from within the St Mary's Bay towards Scapa Flow would be interrupted by development located centrally.
- A number of Listed Buildings/Structures, concentrated within St Mary's village and including the Italian Chapel, rely on the coastal setting.

3.6.2.2 Glimps Holm to East Ayre LCCA 13: opportunities and constraints – refer to Figure 6

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at St Mary's would be more appropriate for any shore based infrastructure, if space permits, than other locations within this LCCA.
- Convex landform and areas of low cliff allow development to be 'tucked in' and largely screened from view if located close to the shoreline. Including narrow rows of trestles and intertidal long lines.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated.

Landscape and visual constraints for aquaculture development:

- Both low lying and elevated views can be gained from numerous properties throughout the hinterland, core footpaths and from the A961 which skirts the coast in places including Churchill Barrier No. 3.
- The coastline is classed as undeveloped; new development would be prominent.
- The location of important shipwrecks/blockships would limit opportunities to site development within close proximity.
- Framed vistas along the coast and from within Echnaloch Bay and Hunda Sound, towards Scapa Flow and Glimps Holm respectively, would be interrupted by centrally located development.
- Views are generally focused out across the bays towards Scapa Flow where development would be visible.
- Southern extents of the coast lie within an Area of Local Landscape Character.

3.6.2.3 East Ayre to The Cairn Head LCCA 14: opportunities and constraints – refer to Figure 6

Landscape and visual opportunities for aquaculture development:

- If space is available, harbour facilities/space at St Mary's, Burray Village or St Margaret's Hope would be more appropriate for any shore based infrastructure than other locations within this LCCA.
- Limited views from properties or roads.
- North facing coastlines with dark intertidal zones would allow development to be largely absorbed into the shaded backdrop. Including trestles and intertidal long lines along the shore.
- The simple horizontal dynamic of the island could absorb well sited, linear development into the arrangement of sea, land and sky.

- The coastline is not readily accessed for recreation.

Landscape and visual constraints for aquaculture development:

- The simple remote character of the coastline and hinterland could easily be dominated by development.
- The coastline is classed as undeveloped; new development would be prominent.
- The whole area lies within an Area of Local Landscape Character.

3.6.2.4 The Cairn Head to Knockhall Point LCCA 15: opportunities and constraints – refer to Figure 6

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space, if available, at Burray Village or St Margaret's Hope would be more appropriate for any shore based infrastructure than other locations within this LCCA.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated.
- Areas of developed coast such as Burray Village and the Churchill Barrier would offer opportunity to absorb further man made influences e.g. inorganic shapes would be less prominent.
- Stretches of coast to the northwest experience limited close range views from properties or roads.
- Deep intertidal zones comprising dark seaweed cover offer opportunity to largely absorb development into the backdrop or rows of trestles or intertidal long lines into the shore itself.

Landscape and visual constraints for aquaculture development:

- Burray Village and St Margaret's Hope overlook areas of the coast and comprise a number of Listed Buildings/Structures, including the Conservation Area at St Margaret's Hope, that rely on the setting of the area.
- A number of core footpaths have views across the area.
- The A961 skirts close to lengths of the shore including Churchill Barrier No. 4 and experiences clear, framed vistas channelled west along Water Sound. Shoreline and hinterland properties also experience clear, framed vistas west along the sound which would be interrupted by centrally located development.
- The majority of the coast is classed as undeveloped; development would therefore be prominent.
- North western extents of the coast lie within an Area of Local Landscape Character.

3.6.2.5 St Margaret's Hope LCCA 16: opportunities and constraints – refer to Figure 6

Landscape and visual opportunities for aquaculture development:

- If available, harbour facilities/space at the ferry terminal would be more appropriate for any shore based infrastructure than other locations within this LCCA.
- The developed nature of the coast around St Margaret's Hope and the ferry terminal offers opportunity to absorb further man made influences e.g. inorganic shapes would be less prominent.
- Deep, dark intertidal areas could largely absorb shore based development such as trestles and intertidal long lines.

Landscape and visual constraints for aquaculture development:

- St Margaret's Hope overlooks the bay; many Listed Buildings/Structures and the Conservation Area rely on the setting of the coast.
- Both close range and elevated views from properties, roads and footpaths are focused on the bay with a framed vista channelled out across Water Sound towards the opposing shore and agricultural backdrop.
- The rising backdrop of St Margaret's Hope against the bay forms an attractive view from some northern locations which development would interrupt.
- The intimate scale of the bay could easily 'fill up' with and be dominated by development.
- Passengers on the Pentland ferry service experience close range views of the bay on arrival and departure.

3.6.2.6 Needle Point to Croo Taing LCCA 17: opportunities and constraints – refer to Figure 6

Landscape and visual opportunities for aquaculture development:

- Depending on physical capacity, harbour facilities/space at Burray Village or St Margaret's Hope would be more appropriate for any shore based infrastructure than other locations within this LCCA.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated.
- Looking south, in choppy conditions, buoys and lines would be absorbed into the changing pattern of light and shade on the water's surface.
- Areas of cliff and convex headland allow development to be 'tucked in' and largely screened from some locations if located close to the shoreline.
- The dark seaweed and rock intertidal zone allows for cages, buoys and lines to be largely absorbed into the backdrop when viewed from low angles on opposite shores. It also allows trestles to be absorbed along the shore itself.
- South facing views allow for cages, buoys and lines to be cast in shadow and become largely absorbed by the land behind.
- Limited close range views from properties or roads.

Landscape and visual constraints for aquaculture development:

- The undeveloped nature of the coast would result in development becoming prominent.
- The Dam of Hoxa provides recreational access to the shore and frames views towards Scapa Flow.
- The coastline is viewed by passengers on the Pentland ferry service which passes within close proximity.

3.6.2.7 Croo Taing to Vamh and Moi Geo to North Lobers LCCA 18: opportunities and constraints – refer to Figure 6

Landscape and visual opportunities for aquaculture development:

- If available, harbour facilities/space at Burray Village or St Margaret's Hope would be more appropriate for any shore based infrastructure than other locations within this LCCA.
- Areas of cliff and convex headland allow development to be 'tucked in' and largely screened from some locations if located close to the shoreline.
- Limited close range views from properties or roads or from opposite shores.
- The dark cliff and rock allows for cages, buoys and lines to be largely absorbed into the backdrop when viewed from low angles on opposite shores or by passengers on the passing ferry service.

Landscape and visual constraints for aquaculture development:

- The coastline is viewed by passengers on the Pentland ferry service which passes within relative close proximity.
- Relatively narrow intertidal zone with lack of easy access and exposure to rough waters means trestles may not be suitable.
- The undeveloped and isolated nature of the coast would result in development becoming prominent.
- A number of Coastal Batteries and Scheduled Ancient Monuments are located on Hoxa Head and rely on the coastal setting.
- Hoxa Head forms a relatively popular viewpoint.

3.6.2.8 Widewall Bay LCCA 19: opportunities and constraints – refer to Figure 6

Landscape and visual opportunities for aquaculture development:

- Shore based infrastructure would be best accommodated close to the existing buildings at Herston.
- Short areas of cliff and convex headland allow development to be ‘tucked in’ and largely screened from some locations if located close to the shoreline.
- The dark seaweed and rock intertidal zone allows for cages, buoys and lines to be largely absorbed into the backdrop when viewed from low angles on opposite shores. It also allows trestles to be absorbed along the shore itself.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated and reflect the regular pattern of fieldscapes.
- Bay of Wright is rarely used for recreation; more commonly used for grazing.

Landscape and visual constraints for aquaculture development:

- Close range and elevated views from properties and roads surround and are focused on the bay.
- The coastline is largely undeveloped; development would therefore be prominent.
- Herston, on the western side of the bay, lies within an Area of Local Landscape Character.
- The small, internally focused bay could easily ‘fill up’ with development.
- North western extents experience framed views towards Switha and South Walls which would be interrupted by development.

3.6.3 Burray - South Ronaldsay CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Howequoy Head to Glimps Holm LCCA 12	Glimps Holm to East Ayre LCCA 13	East Ayre to The Cairn Head LCCA 14
Maritime Influences	<p>Moderate sensitivity</p> <p>Framed views west over Scapa Flow and east to ‘open sea’. Sea views dominate to east and west.</p> <p>Tidal patterns revealing intertidal zones of rock,</p>	<p>Moderate sensitivity</p> <p>Framed views northwest over Scapa Flow.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed and majority of shoreline offering access to intimate</p>	<p>High sensitivity</p> <p>Open, exposed aspect to Scapa Flow – seascape dominates small, simple island.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p>

	<p>shingle and seaweed and shoreline offering intimate experience of seaside sounds and smells.</p> <p>Distant passage of oil tankers and maritime traffic.</p> <p>Simplicity of sea surface could easily be compromised by clutter and dominate important characteristic shipwrecks.</p>	<p>experience of seaside sounds and smells.</p> <p>Distant passage of oil tankers and maritime traffic and close views of shipwrecks.</p> <p>Simplicity of sea surface could easily be compromised by clutter and dominate important characteristic shipwrecks.</p>	<p>Passage of local ferry service and ferry and maritime traffic, including oil tankers, and navigational aids such as Nevi Skerry.</p>
Character and Experience of the Coast	<p>High sensitivity</p> <p>The repetitive pattern of land and sea is a unique characteristic.</p> <p>Development could be aligned with linear sections of coast or associated with promontories.</p> <p>Ease of access from the central A961 and shoreline settlement.</p>	<p>High sensitivity</p> <p>Generally sheltered series of bays with straight shores.</p> <p>Development could be aligned with linear sections of coast.</p> <p>Ease of access to shoreline from the A961 to eastern extents. Properties largely experience the coast from elevated locations.</p>	<p>Low sensitivity</p> <p>The isolated nature of the coast results in limited appreciation and experience of it.</p> <p>Development could be aligned with linear sections of coast and be accommodated by the largely horizontal, simple dynamic of the island.</p>
Setting of Landmarks and Features	<p>Moderate sensitivity</p> <p>A number of Listed Buildings/Structures and Scheduled Ancient Monuments overlook the coast including the Italian Chapel.</p>	<p>Low sensitivity</p> <p>The area is void of any significant features, however western extents fall within an Area of Local Landscape Character.</p>	<p>Low sensitivity</p> <p>The area is void of any significant features, however it does fall within an Area of Local Landscape Character.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>The majority of the coastline is undeveloped, however constant views of St Mary's shoreline village and the passage of traffic along the A961 limits wildness.</p>	<p>Low sensitivity</p> <p>The coastline is largely undeveloped, however settlement scattered throughout the hinterland, the well managed character of agricultural land and the presence of local roads limits wildness. Hunda is uninhabited and instills a sense of exposed wildness to western extents.</p>	<p>High sensitivity</p> <p>The exposed, uninhabited moorland character of Hunda with an open aspect to Scapa Flow evokes a sense of wildness dominate by the sea.</p> <p>Relatively easily access this wildness can be appreciated first hand, but compromised with development.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Although the pattern of land and sea creates an interesting composition the area does not exhibit any exceptional scenic qualities.</p>	<p>Low sensitivity</p> <p>The area as a whole does not exhibit any exceptional scenic qualities, however western extents fall within an Area of Local Landscape Character.</p>	<p>High sensitivity</p> <p>The area falls within an Area of Local Landscape Character and is an unusual composition.</p>

Key Viewpoints	<p>Moderate sensitivity</p> <p>Sequential views along the A961, including the Churchill Barriers, and close range views from properties and local roads through northern reaches of hinterland including St Mary's.</p> <p>Fishing village character. Framed views of the flow from this point are likely to be affected by development.</p>	<p>Moderate sensitivity</p> <p>The majority of the coast is overlooked from elevated viewpoints and from properties and roads, however the general character of some convex slopes limits views of the immediate shoreline.</p> <p>Close range and framed views are gained from low lying roads and properties especially from the Churchill Barriers.</p>	<p>Medium sensitivity</p> <p>The coastline is visible at close range on foot or from the panoramic viewpoints on Hunda and at Hillside.</p> <p>Northern shores are visible at distance from Holm and southern shores at distance from Hoxa. Development would also be seen at distance.</p>
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Table 6: Sensitivity assessment – LCCAs 12 – 14

Potential sensitivity of the seascape to aquaculture development	The Cairn Head to Knockhall Point LCCA 15	St Margaret's Hope LCCA 16	Needle Point to Croo Taing LCCA 17
Maritime Influences	<p>Moderate sensitivity</p> <p>Framed views west to Hoxa Sound and east to 'open sea'.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed and majority of shoreline offering access to intimate experience of seaside sounds and smells.</p> <p>Fishing village character.</p> <p>Distant passage of oil tankers, ferry and maritime traffic including navigational aids such as Nevi Skerry.</p> <p>Simplicity of sea surface could easily be compromised by clutter.</p>	<p>Moderate sensitivity</p> <p>Intimate relationship within harbour to tidal patterns revealing intertidal zones of rock, shingle and seaweed and close experience of seaside sounds and smells.</p> <p>Close maritime activity at ferry terminal. Fishing village character.</p> <p>Simplicity of sea surface could easily be compromised by clutter.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and maritime traffic and navigational aids are visible from many locations along the coast.</p> <p>Renewable wave/tidal energy device in Damn of Hoxa. Further development could be accommodated.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Framed views north over Scapa Flow.</p>
Character and Experience of the Coast	<p>High sensitivity</p> <p>Largely sheltered, linear bay with straight shores.</p> <p>Development could be aligned with linear sections of coast.</p> <p>Ease of access from the skirting A961 and shoreline settlement.</p>	<p>High sensitivity</p> <p>Sheltered, small scale bay with focused on St Margaret's Hope village.</p> <p>Limited opportunity for development not to dominate the intimate scale and nature of the bay and village.</p> <p>Shoreline access from village.</p>	<p>Low sensitivity</p> <p>Development could be aligned to reflect the linear shape of the coast and geometric shapes and layouts accommodated below cliffs and by the regular pattern of fieldscapes.</p> <p>Dam of Hoxa popular for recreation, but largely set back from the majority of shoreline.</p>

Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A couple of Listed Buildings/Structures front the shoreline north and south, and western extents fall within an Area of Local Landscape Character.</p>	<p>High sensitivity</p> <p>A number of Listed Buildings/Structures including St Margaret's Hope Conservation Area overlook the harbour.</p> <p>The bay also forms an important part of the entrance to Orkney from mainland Scotland.</p>	<p>Not sensitive</p> <p>The area is void of any significant features.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>The majority of the coastline is undeveloped, however constant views of Burray Village and the passage of traffic along the A961 limits wildness.</p> <p>Hunda is uninhabited and instills a sense of exposed wildness to western extents.</p>	<p>Not sensitive</p> <p>Majority of coast is well settled and forms the intricate village of St Margaret's Hope. Outer eastern and western extents of the coastline are less accessible and undeveloped however highly influenced by the built edge to the south and southwest.</p>	<p>Low sensitivity</p> <p>Visual influence of settlement throughout hinterland and along shores, including main roads, limits sense of wildness. The landscape is characterised by well managed agriculture, however largely inaccessible coastline creates a degree of wildness.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>The area as a whole does not exhibit any exceptional scenic qualities, however western extents fall within an Area of Local Landscape Character.</p>	<p>Moderate sensitivity</p> <p>Although the bay and hinterland hold no exceptional aesthetic qualities the village of St Margaret's Hope is picturesque and dominates bay.</p>	<p>Low sensitivity</p> <p>The area as a whole does not exhibit any exceptional scenic qualities, however it does offer uninterrupted views towards Hunda.</p>
Key Viewpoints	<p>High sensitivity</p> <p>Close range sequential views along the A961 and close range views from properties and local roads throughout the hinterland including Burray Village and St Margaret's Hope.</p> <p>Framed vistas channelled west along Water Sound.</p> <p>Elevated viewpoints on Hunda and at Hillside.</p>	<p>High sensitivity</p> <p>The bay is largely an internally focused area overlooked by a number of concentrated, elevated viewpoints including residential properties.</p> <p>Close range views are readily experienced from shoreline and harbour side locations.</p> <p>Framed views along the bay and across Water Sound are likely to be affected by development.</p>	<p>Low sensitivity</p> <p>The coast is visible at close range to passengers on the Pentland ferry service and at distance from some locations along opposite shores including Burray Village.</p> <p>Properties and roads, except for those around Damn of Hoxa, have screened views due to the convex character of slopes and cliff face.</p>

Table 7: Sensitivity assessment – LCCAs 15 – 17

Potential sensitivity of the seascape to aquaculture development	Croo Taing to Vamh and Moi Geo to North Lobers LCCA 18	Widewall Bay LCCA 19
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells from northern and southern shores where access is easier.</p> <p>Views of passing ferries and oil tankers through Sound of Hoxa including associated navigational aids such as Nevi Skerry.</p> <p>Dramatic cliffscapes and breaking waves heighten exposed influence of the sea including views to 'open sea'.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, sand, shingle and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Limited by sense of semi-enclosure and surrounding shores.</p> <p>Simplicity of sea surface could easily be compromised by clutter.</p>
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Limited experience of immediate coastline due to exposed character and lack of access and settlement. Development could be aligned to and largely screened by cliff from hinterland areas.</p> <p>Passage of oil tankers and ferry traffic do have experience of the coastline and development is likely to affect the character of undeveloped cliffscapes.</p>	<p>High sensitivity</p> <p>Development could be aligned to reflect linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes, however development is likely to interrupt the undeveloped character of the internally focused bay and shoreline.</p> <p>The B9042 and B9043 skirt close to the shore around the majority of the bay with properties throughout the hinterland, some at sea level.</p> <p>Close, visual relationship within confines of bay and hinterland.</p>
Setting of Landmarks and Features	<p>Moderate sensitivity</p> <p>The coastline forms the setting for a number of Scheduled Ancient Monuments and Coastal Batteries.</p>	<p>Low sensitivity</p> <p>The area is largely void of any significant features however, Herston is classed as an Area of Local Landscape Character.</p>
Experience of Wildness	<p>Moderate sensitivity</p> <p>With settlement set back from the coastline access via track can be made to experience the exposed nature of cliffs and wild seas and the empty presence of wartime defense structures.</p> <p>The passage of oil tankers and ferries also experience the wild backdrop of rugged cliffs and breaking waves.</p>	<p>Low sensitivity</p> <p>The hinterland landscape is largely well-managed agricultural land with a settled shoreline. The semi-enclosed aspect of the bay increases the sense of shelter and limits wildness.</p> <p>External views to exposed cliffs along Hoxa Sound provide contrast and heighten the sense of shelter within the bay.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Although the coastline does not demonstrate any exceptional scenic qualities the rugged cliffscape including</p>	<p>Low sensitivity</p> <p>Although the area does not demonstrate any exceptional scenic qualities it forms a pleasant, low lying and settled seascape,</p>

	Hoxa Head provides a dramatic relationship with the sea and surrounding headlands.	characteristic of Orkney with an Area of Local Landscape Character at Herston.
Key Viewpoints	<p>Moderate sensitivity</p> <p>The coastline is largely viewed from passing oil tankers, ferry traffic, opposite headlands, and distant views from Flotta.</p> <p>Settlement and roads throughout the hinterland have views over lower lying southern reaches of the coastline however most areas are largely screened by the convex landform and cliffs.</p> <p>External views south towards 'open sea' are gained from exposed heads.</p>	<p>Moderate sensitivity</p> <p>Close range, shoreline and elevated views are gained from numerous properties and local roads throughout the hinterland including the B9042 and B9042 as they skirt close to the shore.</p> <p>Development would be highly visible from a number of locations focused internally. Framed views towards Switha and South Walls would be interrupted by development.</p>

Table 8: Sensitivity assessment – LCCAs 18 – 19

3.6.4 Burray - South Ronaldsay CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.6.4.1 Howequooy Head to Glimps Holm LCCA 12 – refer to Figure 10

There is some potential for this local coastal character area to accommodate small scale aquaculture developments, provided:

- Development is aligned with and as close to the shore as possible or associated with promontories such as Skaildaquooy Point.
- Development avoids obstructing framed views across Scapa Flow or the setting of shipwrecks.
- Development is sited away from shoreline properties, piers, jetties, and the Churchill Barriers.
- Development is located adjacent areas of low cliff, embankment, or convex slopes, such as immediately north of Glimps Holm, to maximise natural screening.
- Single, small scale developments takes up no more than one tenth of the bay.
- No capacity for multiple sites.

3.6.4.2 Glimps Holm to East Ayre LCCA 13 – refer to Figure 10

There is some potential for this local coastal character area to accommodate small scale aquaculture development, or limited small scale multi site development, provided:

- Development be and aligned with and as close to the shore as possible, preferably alongside cliffs, and maintain a neat and orderly layout to reflect the pattern of fieldscapes and linear settlement or be associated with promontories such as East Ayre.
- Development avoids obstructing framed views across Scapa Flow or the setting of shipwrecks/blockships.
- Development is sited away from shoreline properties and the inner reaches of Echnaloch Bay.
- Development is located adjacent areas of low cliff, embankment or convex slopes, such as Swannies Point, to maximise natural screening.
- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi site developments total no more than two, of any kind.

3.6.4.3 East Ayre to The Cairn Head LCCA 14 – refer to Figure 10

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the remote, undeveloped nature of Hunda and its Local Landscape Character status. Development would dominate the simple nature of the island.

3.6.4.4 The Cairn Head to Knockhall Point LCCA 15 – refer to Figure 10

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the visual and experiential qualities of the elongated bay; the proximity to, and views gained from, St Margaret's Hope, Hunda Local Landscape Character area, and Burray Village; the close skirting A961 tourist route including Churchill Barrier No. 4; and the entrance to Orkney from the south from the Pentland ferry.

3.6.4.5 St Margaret's Hope LCCA 16 – refer to Figure 10

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the visual and experiential qualities of the bay and the likelihood that the intimate scale and picturesque character of St Margaret's Hope village would be easily dominated by development.

3.6.4.6 Needle Point to Croo Taing LCCA17 – refer to Figure 10

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture development or limited small scale multi site development, provided:

- Development be aligned with and as close to the shore as possible either side of Damn of Hoxa.
- Development avoids interrupting direct views towards Hunda.
- Development is sited away from shoreline properties.
- Development is in line with the coast and to areas where the cliff provides a degree of screening.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of the coast. Small scale, multi site developments totals no more than two, of any kind.

3.6.4.7 Croo Taing to Vamh and Moi Geo to North Lobers LCCA 18 – refer to Figure 10

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture development or limited small scale multi site development, provided:

- Development is aligned with and as close to the shore as possible or associated with promontories such as Moi Geo and Harrabrough Head.
- Development preferably backed by areas of linear cliff or dark intertidal zones.
- Development is sited out of direct alignment with Coastal Batteries to maintain the integrity of military history.
- Development is sited away from shoreline properties to the north and south and away from any striking geological cliff features.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of

the coast. Small scale, multi site developments total no more than three, of any kind.

3.6.4.8 Widewall Bay LCCA 19 – refer to Figure 10

There is some potential for this local coastal character area to accommodate small scale shellfish developments only, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the pattern of fieldscapes.
- Onshore infrastructure to be accommodated close to the existing buildings at Herston.
- Offshore development be sited away from shoreline properties, particularly those within the Local Landscape Character Area at Herston, and scale or amount of development does not dominate or impact on the scale or simple character of the bay.
- Development be sited away from Sand of Wright.
- Individual, small scale linear intertidal trestles or long lines do not occupy more than one tenth of the bay.
- Small scale, multi site developments total no more than three trestle or long line developments.

3.6.5 Burray – South Ronaldsay CCA: summary of cumulative development

Although the assessment has concluded that no development is appropriate in LCCAs, 14, 15 and 16, thus preserving an undeveloped central core to this CCA, the Burray to South Ronaldsay CCA requires to be considered as a cohesive section of coastline and the cumulative issues addressed. Given the nature of the bays in LCCA 12 and 13, it is concluded that the capacity would remain as has been assessed for these two areas in isolation – i.e. three small scale developments in total.

In terms of LCCAs 17, 18 and 19, LCCA 19 has been identified as only having capacity for trestles or long lines and, this being the case, this LCCA could be developed but should be considered only after LCCAs 17 and 18 have been discounted for this type of development. Such is the nature of the coast and intervisibility between these two LCCAs that it is considered that the individual capacity assessments remain appropriate although there would be a preference to accommodate up to three medium sized developments rather than either up to eight small scale development or a mixture of both.

Relevant to the consideration of cumulative issues is the presence of Flotta at just over 2km distant. Should development be proposed for the eastern shore (LCCA 43), this would have a bearing on the location of any development in the northern portion of LCCA 18 and it is recommended that development be restricted to the southernmost portion of LCCA 18.

3.7 North Bay - Long Hope Coastal Character Area

Landscape Character Types: Inclined Coastal Pastures, Moorland Hills, Whaleback Island Landscapes.

3.7.1 North Bay - Long Hope CCA: character analysis – refer to Figures 3 and 7 – LCCAs 20, 21, 22 and 23

The North Bay - Long Hope CCA includes North Bay and Long Hope and extends southeast to Cantick Head including Kirk Hope. The majority of this area is characterised by an enclosed area of coastline, with an outer sea loch and a shallower inner sea loch both of which have sections of wide bands of rocky, shingle and sandy shore within the intertidal zone. The coast is readily accessible by road with dispersed linear development including a concentration of settlement at the boundary between the two lochs. The coastline is largely rocky, but broken in places by shingle shores and sandy bays.

3.7.1.1 Cantick Head to Crowtaing LCCA 20: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Whaleback Islands Landscapes.



Plate 21: Cantick Head to Crowtaing LCCA 20

- A small, semi enclosed, area of water, known as Kirk Hope, with an outlook over Cantick Sound, Switha Sound and Flotta.
- The shallow area of tidal water is animated by wind action but is generally calm and sheltered. There are disparate views of rough tidal races within Cantick Sound.
- A sense of semi-containment and shelter is provided by the gently rising backdrop of pasture and arable land.
- The low-level skyline enhances the intimate character of the small scale bay and the close relationship shared with the coastline including smells and sounds of the sea. Views over 'open sea' are gained over some areas of low skyline highlighting the sense of shelter within bay.

- Cantick Head lighthouse and other navigational aids, including distant views of boat traffic around Lyness, create a sense of maritime character.
- The consistent coastline comprises areas of rock platform, shingle shores, sandy bays, and a moderate intertidal zone emphasised by seaweed cover and drift.
- Low-lying, gently inclined and undulating pasture and arable land, with rough grassland and grazing characterises the hinterland.
- Dwellings and farmsteads are well spaced along northern shores and around the sandy bay at Booth. Many properties sky line along the low horizon.
- Topography is emphasised or broken by stonewalls and fence lines.
- Access to the coast is readily available where the local road skirts the coastline along the southern shore.
- Views are dominated by the intimate, small-scale nature of the bay or contrasting exposed views out to tidal races and breakers in Cantick Sound.

3.7.1.2 Crowtaing to Point of Hackness LCCA 21: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Whaleback Island Landscapes.



Plate 22: Crowtaing to Point of Hackness LCCA 21

- This small, semi enclosed, stretch of water experiences expansive views northwest across eastern extents of Long Hope to Weddel Sound backed by Hoy, Fara and Flotta including distant views of the mainland, and southeast to Switha Sound, Cantick Sound and Pentand Firth backed by South Walls, Switha, Flotta and South Ronaldsay.
- The exposed headland overlooks a relatively deep flow of strong tidal water including views of rough tidal races and breakers to the east. Together with views of boat and ferry traffic to the northwest and Cantick Head lighthouse to southeast there is a relatively strong maritime influence.
- The coastline comprises areas of relatively high cliff, rock platforms, and a narrow intertidal zone. The shoreline is essentially hidden from view below the cliff top.

- The hinterland is predominantly flat pastureland gently falling to the cliff edge. The exposed aspect to sea and onshore winds enhances the influence of the seascape character over the land.
- There are few dwellings and farmsteads scattered over the hinterland. The simple, open character of pastureland results in vertical elements becoming prominent including World War structures and a Martello Tower.
- The shoreline is largely restricted by the nature of the cliffs however, access can be made via private access tracks or from the northern reaches, before the B9047 leaves the coastline.
- Views are dominated by the cliffscape opposite on Flotta.

3.7.1.3 Point of Hackness to South Ness and North Ness to Crock Ness LCCA 22: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Inclined Coastal Pastures, Whaleback Island Landscapes.



Plate 23: Point of Hackness to South Ness and North Ness to Crock Ness LCCA 22

- This small, semi enclosed, stretch of water between North Bay and Flotta, is known as Long Hope. It is a relatively deep flow of tidal water, animated by wind action and generally calm.
- A sense of semi-containment and shelter is provided by a rising backdrop of moorland to the northwest on Hoy and rising pasture and arable land on the whaleback landscape of South Walls to the south, with Flotta sheltering to the northeast. Moasound to the west forms a narrowing where North Ness and South Ness protrude and interrupt views of North Bay from certain alignments.
- The subtly indented coastline, almost bay like in character, comprises two opposing shores of shallow waters and a deep intertidal zone defined by dark seaweed.
- The low lying coastline is characterised by low cliff/embankment, fragmented rock platforms and points, rock and shingle shores, sandy bays, and piers and jetties.
- A gently inclined patchwork of pasture and arable land, with patches of rough grassland, backed to north by moorland hills, forms the settled hinterland.

- Scattered dwellings and farmsteads are strung out along roadsides with associated wind shaped vegetation cover. There is a concentration of development at South Ness dispersing thereafter along the southern shoreline.
- Regular field patterns are emphasised by stonewalls, fence lines and dykes.
- Small-scale boat traffic and associated navigational aids, together with tidal patterns, changing light conditions, and prevalent sounds and smells of the sea, create a maritime influence.
- Access to the coast is readily available where the B9047 skirts the coastline. Outer reaches of the coastline to the northeast are less accessible with a greater sense of exposure and influence of sea.
- Views are primarily channelled out towards Weddel Sound or Cantick Sound by the nature of bay dynamic.

3.7.1.4 South Ness to North Ness LCCA 23: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Inclined Coastal Pastures, Whaleback Landscapes, Moorland Hills.



Plate 24: South Ness to North Ness LCCA 23

- This small, semi enclosed, area of water known as North Bay, experiences framed views north to Long Hope and southeast to the 'open sea' of the Pentland Firth over The Ayre.
- The shallow area of tidal water is animated by wind action but generally remains calm and sheltered. This contrasts with the sense of exposure gained from views of the open Pentland Firth via The Ayre.
- There is a sense of semi-containment and shelter provided by the surrounding hinterland. Moasound forms a narrowing where North Ness and South Ness protrude and interrupt views of Long Hope from certain alignments.
- The subtly indented coastline comprises areas of low cliff/embankment, fragmented rock platforms and points, small skerries, rock and shingle shores, sandy bays, and an extensive intertidal zone emphasised by vast seaweed cover.

- The low lying, gently inclined, patchwork of rolling pasture and arable land, with patches of rough grassland, backed to the north by moorland hills, forms a well-settled hinterland.
- Dwellings and farmsteads are well spaced and strung out along roadsides around the bay. Melsetter House and its associated wind shaped tree coverage forms an important landscape feature at the western end of the bay.
- Regular field patterns emphasised by stonewalls, fence lines and dykes follow low lying reaches of the hinterland.
- Maritime influences are limited to the character of tidal patterns, seaweed cover and seaside smells, but the close relationship with shoreline from the B9047 allows intimate experience.
- Access to the coast is readily available where the B9047 skirts the coastline around the full extent of the bay and at Melberry Links.
- Views are dominated by the cyclical nature of sequential views around the bay, especially from the B9047.

3.7.2 North Bay - Long Hope CCA: opportunities and constraints

There is currently no apparent aquaculture development within North Bay/Long Hope CCA, however, a shellfish farm license site (*mussel long lines*) is listed within the area at North Bay, however it was not visible during fieldwork and may not be active. Landscape opportunities and constraints, which are like to affect any development, are noted below.

3.7.2.1 Cantick Head to Crowtaing LCCA 20: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Lyness or South Ness would be more appropriate for shore based infrastructure, if space permits.
- Relatively low lying shore and hinterland reduces opportunities for views from elevated locations.
- Dark seaweed and rock intertidal zone allows for cages, buoys and lines to be absorbed into backdrop and trestles to be accommodated within the intertidal zone.
- South facing views allow for cages, buoys and lines to be cast in shadow and become absorbed by land behind.

Landscape and visual constraints for aquaculture development:

- The intimate bay could easily ‘fill up’ with even small scale development.
- Elevated views can be gained from the B9047 on approach to northern shores, local roads across South Walls, and numerous properties within the hinterland.
- Close range, sea level views can be gained from the local road skirting the southern shore including properties along the shoreline.
- The coastline is currently undeveloped; new development would be prominent including the introduction of inorganic shapes against areas of simple, organic coastline.
- Framed views towards Flotta and Switha would be interrupted.
- A number of Listed Buildings reside along the shoreline including the cemetery which relies on the quiet setting of the bay.

3.7.2.2 Crowtaing to Point of Hackness LCCA 21: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at South Ness or Lyness, if space permits, would more readily accommodate shore based infrastructure than any location in this LCCA.
- Dark cliff and intertidal zone allows for cages, buoys and lines to be absorbed into the backdrop when viewed from Flotta to north. It also allows trestles to be absorbed along the shoreline itself.
- Areas of cliff allow development to be 'tucked in' and largely screened from some locations if located close to the shoreline.
- Limited views from properties and roads.

Landscape and visual constraints for aquaculture development:

- The coastline is currently undeveloped; new development would be prominent including the introduction of inorganic shapes against areas of simple, organic coastline.
- A popular Coastal Battery, Scheduled Ancient Monument and a popular viewpoint overlook the coast and rely on its seascape setting.
- The clear, visual relationship between the opposing shores of Hackness and Flotta could be interrupted.

3.7.2.3 Point of Hackness to South Ness and North Ness to Crock Ness LCCA 22: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Lyness or South Ness would be most appropriate for shore based infrastructure, if space permits.
- Relatively low lying shore and hinterland means there are few locations offering elevated views.
- Dark seaweed and rock intertidal zone allows for cages, buoys and lines to be absorbed into the backdrop when looking from shore to shore. It also allows trestles to be absorbed along the shoreline itself.
- South facing views allow for cages, buoys and lines to be cast in shadow and become largely absorbed by the land behind.

Landscape and visual constraints for aquaculture development:

- Medium scale bay could easily 'fill up' with a large scale development or a series of small – medium size developments creating cumulative issues.
- Elevated views can be gained from the B9047 on approach to northern shores, local roads across North Walls and South Walls, and numerous properties within hinterland.
- Close range, sea level views can be gained from the B9047 including a long section along the southern shore.
- The coastline is currently undeveloped; new development would be prominent including the introduction of inorganic shapes against areas of simple, organic coastline.
- Framed views towards Flotta would be interrupted including the clear, visual relationship between opposing shores.
- A number of Listed Buildings reside in hinterland and along the shoreline including one Scheduled Ancient Monument.

3.7.2.4 South Ness to North Ness LCCA 23: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- If space permits, existing harbour facilities/space at Lyness or South Ness would be most appropriate for shore based infrastructure.
- Relatively low lying shore and hinterland results in few elevated views.
- Dark seaweed and rock intertidal zone allows for cages, buoys and lines to be absorbed into the backdrop when viewed from low angles. It also allows trestles to be absorbed along the shoreline itself.
- South facing views allow for cages, buoys and lines to be cast in shadow and become absorbed by the land behind.

Landscape and visual constraints for aquaculture development:

- Medium scale bay could easily 'fill up' with a large scale developments or series of small – medium size developments resulting in cumulative issues.
- Elevated views can be gained from local roads on South Walls.
- Close range, sea level views can be gained from the B9047, Melberry Links, and a number of properties skirting the entire bay including Melsetter House from which there are views directly along the bay.
- The enclosed, small scale character of the bay, with internal looking views would be affected by and focused on the development.
- The coastline is currently undeveloped; new development would be prominent including the introduction of inorganic shapes against areas of simple, organic coastline.
- A collection of Listed Buildings reside in hinterland and along the shoreline including Melsetter House which is also a Garden and Designed Landscape relying on the bay as an important part of its wider setting.

3.7.3 North Bay - Long Hope CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Cantick Head to Crowtaing LCCA 20	Crowtaing to Point of Hackness LCCA 21
Maritime Influences	<p>High sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, sand, shingle and seaweed. Animated waves and tidal races visible in Cantick Sound including dramatic cliffscapes on Switha and Flotta. Visible navigational aids including Cantick Head lighthouse.</p> <p>Undeveloped, small scale shoreline offering intimate experience of seaside sounds and smells.</p>	<p>Low sensitivity</p> <p>Convex landform, and cliffs result in a degree of separation from the coast and in turn maritime influences.</p> <p>Views of the sea remain including distant views towards 'open sea' and the passage of local maritime traffic to and from Lyness and associated navigational aids including Cantick Head lighthouse.</p>
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Development could quickly 'fill up' and dominate the intimate character of the bay, however could be aligned with linear sections of outer coastlines.</p>	<p>Not sensitive</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it. Development would therefore pose little impact.</p>

	A number of properties have a close relationship with the bay including the local road skirting the southern shore to Cantick Head.	Coastline itself is not readily accessed for recreation.
Setting of Landmarks and Features	Moderate sensitivity A number of Listed Buildings/Structures overlook the coast including a cemetery that relies on the quiet setting of the bay.	Moderate sensitivity A Coastal Battery and collection of Scheduled Ancient Monuments including a Martello Tower overlook the coast and rely on it as part of their coastal setting. The Martello Tower is relatively popular with visitors.
Experience of Wildness	Moderate sensitivity Although the sheltered nature of the bay and well-managed agricultural hinterland provides a sense of control, the lack of settlement, number of abandoned buildings and proximity to 'open sea' and animated tidal races, including exposed headlands and views to rugged Hoy hills provides a certain degree of wildness. Development would easily affect this.	Moderate sensitivity The isolated nature of the cliffscape and general inaccessibility would be affected by development.
Aesthetic Qualities	Low sensitivity The area does not demonstrate any exceptional scenic qualities, however it does form a pleasant, low lying and intimate bay landscape, characteristic of Orkney, with views towards impressive tidal races and cliffscapes.	Low sensitivity The area offers views towards impressive tidal races to the southeast and cliffscapes on Flotta and Switha, however it does not demonstrate any exceptional scenic qualities itself.
Key Viewpoints	Low sensitivity Properties and the local roads overlook the bay within close proximity. Distant views from properties and roads on Flotta may be gained. Clear, framed vistas would be affected by centrally located development.	Low sensitivity The coastline is largely unnoticed from immediate hinterland. Distant views can be gained from Wee Fea viewpoint and some roads and settlement on Flotta. Limited views are also gained from Crockness.

Table 9: Sensitivity assessment – LCCAs 20 – 21

Potential sensitivity of the seascape to aquaculture development	Point of Hackness to South Ness and North Ness to Crock Ness LCCA 22	South Ness to North Ness LCCA 23
Maritime Influences	Moderate sensitivity Tidal patterns revealing deep intertidal zones of rock, sand, shingle and seaweed. Passage of local ferry service and maritime traffic including associated navigational aids. Undeveloped shoreline offering intimate experience of seaside sounds and smells. Limited by sense of semi-enclosure and surrounding shores.	Low sensitivity Tidal patterns revealing deep intertidal zones of rock, sand, shingle and seaweed. Undeveloped shoreline offering intimate experience of seaside sounds and smells. Limited by sense of semi-enclosure and surrounding shores. Simplicity of sea surface could easily be compromised by clutter.

	Simplicity of sea surface could be compromised by clutter.	
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories.</p> <p>A number of properties line the shoreline and the B9047 skirts close along the southern shore.</p> <p>Close, visual relationship between opposite shores.</p>	<p>High sensitivity</p> <p>Development could be aligned to reflect linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes, however development is likely to interrupt the undeveloped character of the internally focused bay and shoreline.</p> <p>The B9047 skirts close to the shore around the entire bay with properties throughout the hinterland, some at sea level. Close, visual relationship within confines of bay and hinterland.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A number of Listed Buildings/Structures and a Scheduled Ancient Monument overlook the coast and rely on it for their coastal setting.</p>	<p>High sensitivity</p> <p>A number of Listed Buildings/Structures overlook the bay and rely on it for their setting. Melsetter House, a Garden and Designed Landscape, is situated at the southwestern end of the bay occupying a prominent position and providing an important landmark and historical feature within the setting of the bay.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>The hinterland landscape is largely well-managed agricultural land with a settled shoreline and views of maritime traffic and local ferries to and from South Ness. The semi-enclosed aspect of the bay increases the sense of shelter and limits wildness.</p>	<p>Low sensitivity</p> <p>The hinterland landscape is largely well-managed agricultural land with a settled shoreline. The semi-enclosed aspect of the bay increases the sense of shelter and limits wildness.</p> <p>Views to 'open sea' over The Ayre to the south and moorland hills to the north highlight the sense of shelter within the bay by contrast.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Although the area does not demonstrate any exceptional scenic qualities it forms a pleasant, low lying and settled seascape, characteristic of Orkney.</p>	<p>Low sensitivity</p> <p>Although the area does not demonstrate any exceptional scenic qualities it forms a pleasant, low lying and settled seascape, characteristic of Orkney.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>Distant, elevated views area gained from Wee Fea viewpoint. Close range, shoreline and elevated views are gained from numerous properties and local roads throughout the hinterland including the B9047 as it skirts close to the shore and the concentration of settlement at South Ness.</p> <p>Development would be highly visible from a number of locations and interrupt clear vistas towards opposing shores or Flotta.</p>	<p>High sensitivity</p> <p>Close range, shoreline and elevated views are gained from numerous properties and local roads throughout the hinterland including the B9047 as it skirts close to the shore. Melsetter House has central views northeast along the bay and although largely screened by surrounding vegetation, remain important.</p> <p>Development would be highly visible from a number of locations and focused internally on the bay.</p>

Table 10: Sensitivity assessment – LCCAs 22 – 23

3.7.4 North Bay - Long Hope CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.7.4.1 Cantick Head to Crowtaing LCCA 20 – refer to Figure 11

There is some potential for this local coastal character area to accommodate one small scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible within the outer reaches of the bay, preferably along northwestern shores, avoiding central locations within the bay.
- Development be sited away from shoreline properties and scale or amount does not dominate the bay.
- Trestles are not located in close proximity of the beach, settlement or the local road i.e. preferably on northwestern shores.
- Individual, small scale development takes up no more than one tenth of the bay.

3.7.4.2 Crowtaing to Point of Hackness LCCA 21 – refer to Figure 11

There is some potential for this local coastal character area to accommodate one small to medium scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible.
- Development be located to the centre of the area to avoid impacting on views from Kirk Hope and Long Hope.
- Single, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of the coast.

3.7.4.3 Point of Hackness to South Ness and North Ness to Crock Ness LCCA 22 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale aquaculture development or limited small scale multi sites, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the regular pattern of hinterland fieldscapes.
- Development be sited away from shoreline properties and clusters of settlement – northern shores or outer extents of southern shores would be most appropriate.
- Individual, small scale development takes up no more than one tenth of the bay. Small scale, multi site developments total no more than two, of any kind, and seek to mirror each other on opposite shores.

3.7.4.4 South Ness to North Ness LCCA 23 – refer to Figure 11

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the visual and experiential qualities of the bay the importance of the bay as a setting for Melsetter House.

3.7.5 North Bay - Long Hope CCA: summary of cumulative development

In considering the cumulative issues which may arise for the North Bay to Longhope CCA, the recommendations for the offshore islands of Flotta and Switha require to be taken into consideration. While any development on Switha is unlikely to result in

significant cumulative issues (with LCCA 20, taking into consideration the specific locational guidance provided), development proposals off the south western shore of Flotta (LCCA 39) would have a bearing on the capacity of LCCA 21. Were development to be proposed between Wharth and Innan Neb, this would effectively exclude LCCA 21 from further consideration (and vice versa) on account of the visual impacts which would occur as a result of the effective narrowing of Switha Sound.

3.8 South East Hoy Coastal Character Area

Landscape Character Types: Inclined Coastal Pastures, Moorland Hills.

3.8.1 South East Hoy CCA: character analysis – refer to Figures 3 and 7 – LCCAs 24, 25 and 26

Extending from Green Head to Crock Ness, this east facing coastal character area offers a varied and indented coastline, backed by moorland hills, of quite, sheltered bays and relatively intensely developed hinterland with a network of roads, tracks, dwellings, ruins and a number of piers and associated infrastructure. The intertidal zone is relatively deep especially within the shallow bays, but punctuated by the hard edge of Lyness harbour. Existing fin fish farms form visual elements within the water and extend the sense of industry from land to sea. This section of the coast is sheltered by Cava, Rysa Little, Fara and Flotta with occasional, framed glimpses beyond to more open waters and the distant mainland.

3.8.1.1 Crock Ness to The Point LCCA 24: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Inclined Coastal Pastures.



Plate 25: Crockness to The Point LCCA 24

- A small, semi enclosed, stretch of water extending from The Point to Crock Ness, focused around Ore Bay with framed views along Gutter Sound to Bring Deeps and towards Flotta, Switha and South Ronaldsay.
- The relatively deep flow of tidal water, animated by wind action, is generally calm especially within bays where deep intertidal zones are blanketed with seaweed.
- There is a sense of semi-containment and shelter provided by the rising backdrop of moorland to west on Hoy and Fara and Flotta to east.
- Frequent boat and ferry traffic and associated navigational aids create a strong maritime character.
- The indented, generally east facing coastline comprises low cliffs, deep rock platforms especially at Crock Ness, rock and shingle shores, sandy bays, and

hard man made edge and elements including Lyness harbour and numerous piers.

- Low lying rough grass and pasture land, scattered with dwellings, farmsteads, harbour buildings and infrastructure, light industrial sheds and building conversions, and World War structures and ruins including a disused wartime camp site, creates a diverse hinterland backed by moorland hills and some blocks of forestry.
- Existing fish farm activity, visible within Ore Bay, is generally seen from low level within a complex arrangement of man made elements and structures of the surrounding hinterland. There are some focal features of interest including a Martello Tower and several pieces of sculpture formed from recycled/reclaimed materials.
- Access to the coast is by rough access track, by boat or from pier/harbour locations.
- Views are predominantly focused on the complex pattern of man made elements and industry, particularly within Lyness itself, and the frequent passage of boat traffic.

3.8.1.2 The Point to Ruberry LCCA 25: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Inclined Coastal Pastures.



Plate 26: The Point to Ruberry LCCA 25

- A small, semi enclosed, stretch of water extending from Ruberry to The Point, with framed views out, either side of Fara, towards the mainland and Flotta.
- A relatively deep flow of tidal water, animated by wind action, and generally calm and shallow within bays.
- A sense of semi-containment and shelter is provided by the rising backdrop of moorland to the west on Hoy and Fara to east.
- The indented, generally east facing coastline is characterised by two bays of contrasting scale with the larger of two having very shallow waters and a deep intertidal zone.
- The coastline comprises rugged low cliffs, rock platforms, rock and shingle shores, sandy bays, points and small skerries, and an incising burn mouth.

- The coastline is highlighted in areas by an exposed band of rock providing a pale contrast between the dark seaweed tide line and the rough grass/heath along the cliff edge.
- Low lying, gently inclined pasture and arable land, with patches of wet heath and grassland, forms the sheltered hinterland with scattered dwellings and farmsteads strung out along the roadside with associated wind shaped vegetation cover.
- Stonewalls, fence lines and telegraph poles provide vertical structure, scale and a sense of perspective.
- Small-scale boat traffic, including fish farm maintenance boats and the Houton to Lyness ferry, and associated navigational aids, creates a maritime influence.
- Existing fish farm activity, visible adjacent Fara, is generally seen from low level sections of the B9047 and associated settlement although more elevated locations offer almost 'bird's eye' views of the cages.
- Access to the coast is by rough access track or boat or where the B9047 skirts the coastline.
- Views are dominated by the horizontal scale afforded by the expanse of Gutter Sound and the low lying profiles of the distant mainland and Fara to east.

3.8.1.3 Ruberry to Green Head LCCA 26: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Moorland Hills, Inclined Coastal Pastures.



Plate 27: Ruberry to Green Head LCCA 26

- A small, semi enclosed, stretch of water extending from Green Head to Ruberry, with framed views out across Scapa Flow towards the mainland and Burray.
- A relatively deep flow of tidal water, animated by wind action, but generally calm, and shallow within bays.
- There is a sense of semi-containment provided by the rising backdrop of moorland to the west on Hoy and Cava, Rysa Little and Fara to east.
- The coastline is intricate and comprised of rugged low cliffs, rock platforms, rock and shingle shores and deeply indented bays and river mouth, separated by low cliffs and defined by a deep intertidal zone. It is highlighted by an exposed band

of rock providing a pale contrast between the dark moorland and seaweed tide line.

- There is a high degree of exposure at more elevated parts of the coast contrasting with the benign character of the bays that are sheltered by the close proximity of Rysa Little.
- A gently, convex landform of uniform wet heath and rough grassland slopes relatively evenly to the low lying coastline through which a steeply sided, wooded watercourse with an associated stone bridge cuts at Pegal Bay.
- Small-scale boat traffic, including fish farm maintenance boats, and associated navigational aids, creates a maritime influence.
- Existing fish farm activity occupies central locations in both bays and is generally seen from low level sections of the B9047 although more elevated locations offer almost 'bird's eye' views of the cages.
- Access to the coast is by rough access track or by boat or where the B9047 skirts the coastline.
- A number of isolated buildings lie close to road but settlement is generally sparse. Man made influences include the B9047, access tracks, existing finfish farms and onshore infrastructure.
- The simple moorland hinterland results in prominent vertical elements including a line of telegraph poles.
- Views are generally dominated by the low horizontal profile of the islands and mainland, including Hoy to east, with sections of 'open sea'.

3.8.2 South East Hoy CCA: opportunities and constraints

There are four existing small to medium scale aquaculture developments within South East Hoy CCA. These are located off the coast of Fara and within Ore Bay, Pegal Bay and Lyrawa Bay. Respectively there are 12, nine, 10 and four circular cages and no apparent permanent feeding facilities. Feeding appears to be via a boat and long-arm. A further shellfish farm license site (*mussel long lines*) is listed within the South East Hoy area at Mill Bay, however it was not visible during fieldwork and may not be active. Landscape opportunities and constraints, which are like to affect any further development, are noted below.



Plate 28: West Fara finfish farm off the coast of Fara, South East Hoy



Plate 29: Ore Bay finfish farms in Ore Bay (*site 1 and 2*), South East Hoy

3.8.2.1 Crock Ness to The Point LCCA 24: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Complex appearance of developed harbour edge offers opportunities to absorb further man made influences e.g. inorganic shapes would be less prominent.
- Existing harbour/pier ities/space can accommodate shore based infrastructure.
- Relatively low lying shore and hinterland means there are few elevated views.
- Cages, buoys and lines would be cast in shadow and largely absorbed by land behind when seen from south facing views from Hoy and Fara.
- Trestles can be accommodated within the dark intertidal zone and largely absorbed by the array of hinterland development.
- Currently three finfish farms are visible located off Fara to the northwest and within Ore Bay, offering possible opportunities for extensions to these.

Landscape and visual constraints for aquaculture development:

- Relatively small scale bay could easily 'fill up' with further development or extensions to existing causing a cumulative impact increasing the overall prominence of development.
- High numbers of people would have a direct, often elevated and close range view of the development or collection of developments including passengers on the frequent ferry service.
- Vistas channelled northwest and southeast between Hoy and Fara would be further interrupted by additional development.
- Elevated distant views from popular Wee Fea viewpoint.
- A number of Listed Buildings and a Scheduled Ancient Monument rely somewhat on the coastal setting.

3.8.2.2 The Point to Ruberry LCCA 25: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Lyness would be more appropriate for shore based infrastructure, if space permits.
- Low cliff and moorland allows for cages, buoys and lines to be largely absorbed into backdrop from low angles when viewed from Fara to the east.
- Views towards complex appearance of developed backdrop at Lyness offers opportunities to absorb further man made influences e.g. inorganic shapes would be less prominent including rows of trestles or long lines within the intertidal zone.
- Currently one finfish farm is visible located off Fara to the southeast reducing the magnitude of change for future developments or extensions to existing.
- An existing shellfish farm licence exists in Mill Bay which appears inactive – there is opportunity for this site to be utilised.

Landscape and visual constraints for aquaculture development:

- Small scale bay and sound could easily ‘fill up’ with development or further development.
- Elevated views can be gained from relative close range along B9047 and from scattered settlement within close proximity of shoreline. Passengers on the frequent ferry service would also experience close range views.
- The coastline is largely undeveloped; new development would be prominent including the introduction of inorganic shapes against areas of simple, organic coastline.
- Further development would pose a cumulative impact with views of the existing fish farm development and increase overall prominence of development as a whole.
- Vistas channelled northwest and southeast between Hoy and Fara would be further interrupted by additional development.
- A number of Listed Buildings rely on the coastal setting.
- Parts of the area are over looked by popular viewpoints including Wee Fea.



Plate 30: Pegal Bay finfish farm at Pegal Bay, South East Hoy



Plate 31: Lyrawa Bay finfish farm at Lyrawa Bay, South East Hoy

3.8.2.3 Ruberry to Green Head LCCA 26: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- If space permits, existing harbour facilities/space at Stromness, Houton or Lyness would be more appropriate for shore based infrastructure than anywhere within this LCCA.
- Low cliff and moorland allows for cages, buoys and lines to be largely absorbed into backdrop when viewed from Cava, Rysa Little and Fara from the east.

- Areas of low cliff and convex landform allow development to be 'tucked in' and largely screened from view if located close to the shoreline including rows of intertidal trestles or long lines.
- Lack of settlement or public use within close proximity of coast.
- Currently two finfish farms are visible located within Lyrawa Bay and Pegal Bay. These are centrally located and would benefit from being located closer to one side of each bay thus allowing unobstructed 'through views' and potential extensions as a result.

Landscape and visual constraints for aquaculture development:

- Small scale bays and sound could easily 'fill up' with development or further development.
- Elevated panoramic views can be gained from relative close range along B9047.
- Inorganic shapes against areas of simple, organic coastline.
- The coastline is currently classed as 'isolated'; further development would be prominent including further inorganic shapes against areas of simple, organic coastline.
- Further development would pose a cumulative impact with views of existing fish farm development and would increase overall prominence of development as a whole.
- Vistas channelled northwest and southeast between Hoy and Rysa Little would be further interrupted by additional development.
- Dive boats commonly use this area.
- Area lies within close proximity of the Hoy and West Mainland NSA.
- A number of Listed Buildings rely on the coastal setting.
- Parts of the area form popular recreational spots or are over looked by popular viewpoints including Lyrawa Hill.

3.8.3 South East Hoy CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Crock Ness to The Point LCCA 24	The Point to Ruberry to LCCA 25	Ruberry to Green Head LCCA 26
Maritime Influences	<p>Low sensitivity</p> <p>Maritime influences limited to tidal patterns, especially on southern shores, and existing maritime activity and traffic and finfish farms within the bay which could make development easier to accommodate.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, sand, shingle and seaweed. Frequent passage of local ferry service and maritime traffic including associated navigational aids.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>An existing finfish farm is visible located to the east off Fara.</p> <p>Limited by sense of semi-enclosure and surrounding shores.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, sand, shingle and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Existing finfish farms are highly visible and close.</p> <p>Limited by sense of semi-enclosure and surrounding shores.</p>

Character and Experience of the Coast	<p>Low sensitivity</p> <p>Extensively developed coast to western side of bay could absorb, noise, light, activity and structures. Existing finfish farms to north and south could help absorb further development, however the bay could easily become cluttered and 'fill up' with development.</p>	<p>High sensitivity</p> <p>Development could be associated with outer promontories and enhance the sheltered character of the bay, however development could also dominate and easily 'fill up' the bay and become a cumulative issue with other fish farms.</p> <p>A number of properties have a close relationship with the bay and it also provides local recreation.</p>	<p>Moderate sensitivity</p> <p>The coastline is largely isolated limiting appreciation and experience of it.</p> <p>Existing fish farm development forms the focus of Lyrawa and Pegal bays. Further development is likely to dominate, as there is little opportunity to align with the coast or be associated with promontories.</p>
Setting of Landmarks and Features	<p>Moderate sensitivity</p> <p>A number of Listed Buildings/Structures and two Scheduled Ancient Monuments, including a Martello Tower, overlook the area.</p>	<p>Low sensitivity</p> <p>A number of Listed Buildings/Structures overlook the coast.</p>	<p>Low sensitivity</p> <p>A number of Listed Buildings/Structures overlook the coast.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Visual influence of Lyness and settlement throughout hinterland, including main roads, limits sense of wildness. The landscape as a whole is characterised by well-managed agriculture and light industry.</p> <p>Ruined buildings and wartime structures instill a degree of wildness and neglect.</p>	<p>Low sensitivity</p> <p>The hinterland landscape is largely well-managed agricultural land with a settled shoreline and views towards Lyness and the existing finfish farm off Fara. However, closely backed by moorland hills with views towards ruined buildings on Fara instills a limited degree of wildness.</p>	<p>Moderate sensitivity</p> <p>The coastline is largely isolated within a backdrop of moorland resulting in a degree of wildness, however the visibility of existing finfish farms and the close location of the B9047 limit this.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Although the coast and hinterland itself holds no exceptional aesthetic qualities the cluttered character of Lyness together with wartime structures and features creates an interesting backdrop to the coast.</p>	<p>Low sensitivity</p> <p>Although the area does not demonstrate any exceptional scenic qualities the quiet, settled nature of the bay is pleasant.</p>	<p>Low sensitivity</p> <p>A pleasing composition of quiet bays within inclined moorland, however limited by the presence of existing finfish farms. Existing farms could absorb further development.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>Scattered properties and the network of local roads overlook much of the area with views channelled northwest and southeast.</p> <p>Passengers on the local ferry service also have close range views of the</p>	<p>Moderate sensitivity</p> <p>Properties and the B9047 overlook the bay within close proximity and experience framed views either side of Fara.</p> <p>Passengers on the local ferry service also have close range views of the bay and shoreline</p>	<p>Low sensitivity</p> <p>The coastline is largely screened from distant views and the convex nature of the hinterland interrupts many views of the shore. The B9047 skirts within close proximity offering both close range and elevated views of the bays, coastline and existing</p>

	coast and shoreline including elevated panoramic views from Wee Fea viewpoint.	including elevated panoramic views from Wee Fea viewpoint.	farms. Framed, vistas are gained between Hoy and Rysa Little and east along Lyrawa Bay (however interrupted by existing finfish farms). This area is widely used by dive boats.
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Table 11: Sensitivity assessment – LCCAs 24 – 26

3.8.4 South East Hoy CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.8.4.1 Crock Ness to The Point LCCA 24 – refer to Figure 11

There is some potential for this local coastal character area to accommodate limited small scale aquaculture development or extensions to existing, provided:

- It is suggested, should additional finfish cages be proposed for existing farms or additional units elsewhere within the area, that the existing locations be revised (subject to permissions) to prevent clutter and a ‘filling up’ of the bays, thus aligning all existing and proposed developments with and as close to the shore as possible or associated with promontories where possible.
- It is also suggested that the farm within Ore Bay is ‘tightened’ up in terms of layout as it appears to be drifting as three separate units with no apparent landward associations i.e. its siting has lost integrity. It is suggested that it be aligned with the shore or the pier at Rinnigill.
- Scale or amount of development does not over ‘clutter’ the bay, dominate or result in an adverse cumulative impact on the area i.e. additional developments, of any kind, or extensions to existing do not, in total, occupy more than 50% of the area.
- New finfish development reflects the scale, layout and orientation of existing finfish farms to avoid visual clutter and disorder.
- Development is located adjacent areas of low cliff, embankment, or convex slopes to maximise natural screening.
- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi sites, including existing, total no more than four, of any kind.

3.8.4.2 The Point to Ruberry LCCA 25 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale aquaculture development provided:

- Development should be aligned with and located as close to the shore as possible or associated with promontories such as Ruberry.
- Development should be sited away from shoreline properties and scale or amount does not dominate the bay.
- Development is located adjacent areas of low cliff, embankment or convex slopes, to maximise natural screening.
- Individual, small scale development takes up no more than one tenth of the coast.
- Existing, apparently inactive, licensed sites be considered for reuse before additional ones are applied for to reduce potential cumulative impacts.

3.8.4.3 Ruberry to Green Head LCCA 26 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale shellfish developments, small scale, shellfish multi sites, or extensions to existing finfish farms, provided:

- It is suggested, should additional finfish cages be proposed for existing farms or additional shellfish units elsewhere within the area, that the existing locations be revised (subject to permissions) to prevent clutter and a ‘filling up’ of the bays, thus aligning all existing and proposed developments with and as close to the shore as possible or associated with promontories such as Pegal Head and Green Head.
- It is also suggested that the farm within Pegal Bay is ‘tightened’ up in terms of layout as it appears to be drifting as two separate units with no apparent landward associations i.e. its siting has lost integrity.
- Trestles or intertidal long lines are located away from the inner reaches of Pegal Bay and Lyrawa Bay and sited along areas of low cliff away from habitation or recreational areas - for example north of Ruberry or Pegal Head.
- Individual, small scale shellfish development takes up no more than one tenth of the coast. Small scale, multi site shellfish developments total no more than two, of any kind.

3.8.5 South East Hoy CCA: summary of cumulative development

The South East Hoy LCCA already has a total of four operational finfish farms, with a further farm off the western shore of Fara, and one licensed site for shellfish. These are scattered along the length of this coastline and any additional development will clearly result in cumulative issues.

The assessment identified potential for a total of four small developments in LCCA 24 and this would remain the case (i.e. two further developments to add to those existing in Ore Bay) if no further development occurs off the southern coast of Fara. It is recommended that no further development occur in LCCA 25 and it is recommended that on expiry of the existing license for the shellfish site in Mill Bay this is not renewed so that this bay remains free of aquaculture development as a buffer between Ore Bay and Pegal Bay.

LCCA 26 is considered to have further capacity only for shell fish farms and this would remain the case when considering the South East Hoy CCA coastline as a whole, provided no development is proposed off the western coast of Rysa Little.

3.9 North East Hoy Coastal Character Area

Landscape Character Types: Inclined Coastal Pastures, Enclosed Bay Landscapes, Moorland Hills.

3.9.1 North East Hoy CCA: character analysis – refer to Figures 3 and 4 – LCCAs 27, 28, 29 and 30

The North East Hoy coastal character area extends from Out Taings in the north to Green Head in the south, takes in Bay of Creekland, Bay of Quoys and The Bring. The area is characterised by rugged northeast facing and largely undeveloped, inaccessible cliffscapes which flank sheltered, settled bays where wide expanses of sand and shingle are revealed at low tide. The bays and immediate coastline are readily accessible from the road and from the sea. The area as a whole is overlooked by the rugged hills of Hoy to the south and sheltered by Graemsay and East West Mainland to the north.

3.9.1.1 Green Head to Red Geo LCCA 27: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Moorland Hills.



Plate 32: Green Head to Red Geo LCCA 27

- A large, semi enclosed, flow of deep tidal water, animated by wind action and seldom calm. It extends from Burra Sound to Bring Deeps, with distant views of Bay of Ireland and Clestrain Sound.
- There is a sense of semi containment to the north, west and northwest provided by gently rising moorland hills on the west mainland, a continuation of the coast of Hoy, and Graemsay and Stromness; and to the east and southeast by Cava, Fara and Flotta.
- There are framed views southeast and northeast to Scapa Flow, either side of Cava, with distant landmasses including the east mainland and Burray.
- Small-scale boat traffic, including fish farm maintenance boats, and associated navigational aids, creates a distant maritime influence.

- Sweeping panoramic views are gained from higher elevations, resulting in a large scale and exposed aspect to the sea and onshore winds. This creates an indirect relationship with coast from the B9047 with a limited opportunity to experience the intimate smells and sounds of the sea.
- The convex character of the topography and the general inaccessibility of the coastline forms degree of separation from the seascape and a sense of overall remoteness. Lower lying sections of the coastline, either side of Scad Head, are visible from the B9047.
- The coastline is comprised of rugged low cliffs, rock platforms, shingle shores and subtle bays, promontories and a narrow intertidal zone. It is highlighted by breaking waves.
- There is an absence of settlement. Man made influences include the B9047, access tracks, wartime foundations and building remnants such as batteries, and an existing finfish farm located off Scad Head.
- The hinterland consists of a blanket of uniform wet heath and rough grassland sloping relatively evenly to the gently curving, northeast facing coastline.
- Access to lower lying stretches of coast is by rough access track or boat.
- Views are focused inland to the hills on Hoy or northwest and northeast across expansive waters.

3.9.1.2 Red Geo to Sea Geo LCCA 28: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Moorland Hills.



Plate 33: Red Geo to Sea Geo LCCA 28

- A large, semi enclosed, flow of deep tidal water, animated by wind action and seldom very calm, extending from Burra Sound to Bring Deeps, with views of Bay of Ireland and Clestrain Sound.
- Distant, elevated granite pastures behind Stromness and gently rising moorland hills to the northeast on mainland, including Graemsay in front of Stromness, provide a sense of semi-containment and shelter.
- The area is characterised by elevated panoramic views from a straight section of northeast facing cliff, with a large scale, exposed aspect to sea and onshore winds. This creates an indirect relationship with coast.

- The convex character of the topography and inaccessibility of cliffscape creates a degree of separation from the seascape, a sense of overall remoteness, and a limited opportunity to experience the inherent smells and sounds of the sea.
- Small-scale ferry traffic and views to Northlink ferries approaching and leaving Stromness, including associated navigational aids, creates a distant maritime influence.
- The coastline is comprised of rugged high cliffs, rock platforms, and deep ravines, highlighted by waterfalls and breaking waves with little intertidal zone.
- There is an absence of settlement and man made features other than the B9047 and hill tracks.
- The convex and concave landform of uniform wet heath and rough grassland slopes relatively evenly to the precipitous cliffs. The moorland is incised by deep, burn cut gorges with associated woodland remnants.
- Access to the coast is by boat alone.
- Views are focused inland to the rugged hills on Hoy, northwest towards Graemsay, Stromness and Bay of Ireland, or southeast towards Scapa Flow.
- Outer cages of an existing finfish farm are visible from sections of the B9047, but cages closest the shore are obscured.

3.9.1.3 Sea Geo to Middle Skerry LCCA 29: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Enclosed Bay Landscapes, Inclined Coastal Pastures.



Plate 34: Sea Geo to Middle Skerry LCCA 29

- This area includes a narrow, semi enclosed, flow of strong tidal water, animated by wind action and seldom completely calm, extending from Hoy Sound to Bring Deeps, including Burra Sound.
- A sense of shelter and semi-containment is provided by distant, elevated granite pastures behind Stromness and gently rising moorland hills to the northeast on mainland, including Graemsay in foreground.
- There is a close visual relationship with the southwestern shores of Graemsay and this coastline as a whole from the B9047.
- Framed views are gained southeast to Scapa Flow and northwest to the 'open sea' of the Atlantic.

- The passage of small-scale ferry traffic and views to Northlink ferries approaching and leaving Stromness, associated navigational aids, a close proximity to the sea with inherent sounds and smells, creates a strong maritime influence.
- The sweeping coastline is broken by headland at Moaness. It comprises large areas of intertidal sands and shingle, low cliff, rock platforms, and is defined by a dark seaweed tide line and rolling and breaking waves.
- Small, clustered groups of settlement are scattered across the immediate hinterland and along the coast, including farmsteads, isolated dwellings, and a historic cemetery.
- The gently sloping, generally convex landform of pasture and arable land inclines relatively evenly from the shoreline above the low-lying shallow bays to the rugged hills on Hoy. There is a strong horizontal emphasis of the low-lying landform.
- There are woodland remnants generally associated with dwellings or watercourses.
- Stonewalls and fence lines enhance or break up the topography and provide vertical structure to the simple landscape.
- Access to the coast is via local lanes, agricultural access tracks or by boat.
- Views are predominantly focused inland to the imposing glaciated hills on Hoy, northwest towards the open Atlantic sea, or southeast towards Scapa Flow.

3.9.1.4 Middle Skerry to Out Taings LCCA 30: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Inclined Coastal Pastures.



Plate 35: Middle Skerry to Out Taings LCCA 30

- Characterised by a large, semi enclosed, flow of strong tidal water with tidal races and views of Atlantic breakers, extending from Hoy Sound to Burra Sound.
- Distant, elevated granite pastures west of Stromness and gently rising moorland hills to the northeast on the mainland, together with the western extents of Graemsay, provide a sense of visual containment to the east.

- Views of 'open sea' to the west, the lighthouse at Point of Oxan to the east on Graemsay, and the passage of boat traffic and associated navigational aids exposes the coastline to a strong maritime influence. The exposed aspect to sea and onshore winds enhances the influence of the seascape character over the hinterland.
- The dynamic coastal edge comprises areas of rugged cliff, sloping rock platforms, skerries and promontories, short ravines and waterfalls, short stretches of shingle, small sandy bays, and is defined by a dark seaweed tide line and breaking waves.
- Settlement is sparse and limited to isolated farmsteads on the sloping hinterland.
- Pasture and arable land inclines evenly and smoothly over steep, convex slopes from the shoreline to the rolling hill fringe and high, rugged glaciated hills.
- Stonewalls and fence lines enhance or break up the topography and provide vertical structure to the simple landscape. Telegraph poles form prominent vertical features in the simple hinterland and moorland backdrop.
- Access to the coast is via agricultural access tracks or by boat. The coastline is largely isolated.
- Views are focused inland to the rugged, Hoy hills or west towards Atlantic breakers and 'open sea'.

3.9.2 *North East Hoy CCA: opportunities and constraints*

There are currently two apparent aquaculture developments within North East Hoy CCA, located adjacent Lyre Geo and Scad Head. They consist of 10 and eight cages respectively, the latter including four vacant or fallowing cages, with no apparent permanent means of feeding. Feeding appears to be via a boat and long-arm. Landscape opportunities and constraints, which are like to affect any further development, are noted below.



Plate 36: Chalmers Hop finfish farm at Scad Head, North East Hoy

3.9.2.1 Green Head to Red Geo LCCA 27: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Stromness, Moaness, Houton or Lyness offer more appropriate locations for shore based infrastructure.
- Dark cliff and moorland allows for cages, buoys and lines to be absorbed into backdrop from low angles when viewed from the mainland and from Graemsay to the north and northwest.
- Looking from the north, cages, buoys and lines would be cast in shadow and become absorbed by the high contrast water surface.
- Areas of cliff and convex landform allow development to be ‘tucked in’ and largely screened from view including rows of trestles within the intertidal zone.
- Lack of settlement or public use within close proximity of coast.
- Currently one finfish farm is visible located off Scad Head. This particular fish farm would be improved if it were located closer to, or extended in towards the promontory.

Landscape and visual constraints for aquaculture development:

- Both low lying and elevated views can be gained from distant northern, mainland shores and eastern extents of Graemsay, and the popular viewpoint on Lyrava Hill.
- A core footpath leads directly down to Chalmer’s Hope.
- The coastline is currently classed as ‘isolated’; further development would create cumulative issues resulting in development as a whole appearing more prominent.



Plate 37: Bring Head finfish farm at Lyre Geo, North East Hoy

3.9.2.2 Red Geo to Sea Geo LCCA 28: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Stromness or Moaness would be more appropriate for shore based infrastructure than any location within this LCCA.
- Dark cliff and moorland allows for cages, buoys and lines to be absorbed into the backdrop when viewed from low angles on the mainland and from Graemsay to the north and northwest.
- Cages, buoys and lines would appear cast in shadow when viewed from the north and as a result be largely absorbed into the backdrop.
- Areas of high cliff and convex landform allow development to be 'tucked in' and largely screened from view.
- Lack of settlement or public use within close proximity of the coast.
- Currently one finfish farm is just visible below the cliff to the west and highlights the capacity of the coastline to accommodate and screen development.

Landscape and visual constraints for aquaculture development:

- Both low lying and elevated views can be gained from distant northern, mainland shores and eastern extents of Graemsay.
- The coastline is currently classed as 'isolated'; further development would be prominent and potentially result in cumulative effects if located in close proximity to the existing cages.
- Trestles would be difficult to accommodate within the narrow intertidal zone.
- Area lies within the Hoy and West Mainland NSA.

3.9.2.3 Sea Geo to Middle Skerry LCCA 29: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Stromness or at Moaness would be most appropriate for shore based infrastructure.
- When viewed from the north, cages, buoys and lines would be cast in shadow and largely absorbed in some locations by the dark intertidal zone behind.
- Relatively pronounced promontories and skerries could be emphasised by locating development to extend/mimic these.
- The coastline is not a popular recreational asset.

Landscape and visual constraints for aquaculture development:

- Small scale sound and bays could easily 'fill up' with even small scale development.
- Elevated panoramic views can be gained from relatively close range including properties and roads on Hoy, from opposite shores and elevated hinterland on Graemsay, and by passengers on the local ferry service.
- The coastline is currently relatively undeveloped; new development would be prominent.
- The low lying, sandy, sheltered nature of the bays would be affected by development including the narrow stretch of Burra Sound which maintains an uninterrupted and close visual relationship between Hoy and Graemsay.
- Clear, framed vistas towards Hoy Sound and Bring Deeps would be interrupted by development.
- Inorganic shapes would be prominent against areas of simple, organic coastline.
- Area lies within the Hoy and West Mainland NSA.

- A number of Listed Buildings, a Coastal Battery, and some elevated Scheduled Ancient Monuments rely on the coastal setting.

3.9.2.4 Middle Skerry to Out Taings LCCA 30: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Stromness would more readily accommodate shore based infrastructure than any location in this LCCA.
- Dark cliff allows for cages, buoys and lines to be absorbed into backdrop from low angles when viewed from the mainland to north.
- South facing views also allow for cages, buoys and lines to be cast in shadow and become absorbed by the shadow cast from the cliff face.
- Areas of cliff and areas of convex landform allow development to be ‘tucked in’ and largely screened from views looking north if located close to the shoreline.
- Relatively pronounced promontories may offer opportunity to emphasise these coastline features.
- Lack of settlement or public use within close proximity of coast.

Landscape and visual constraints for aquaculture development:

- Both low lying and elevated views can be gained from mainland shores to the north, including Stromness, western extents of Graemsay, and by passengers on the Northlink ferry.
- The coastline is currently undeveloped with an area classed as ‘isolated’; new development would be prominent.
- Inorganic shapes would be prominent against areas of simple, organic coastline.
- This stretch of coast forms part of the southern gateway to Orkney from northern Scotland and thus is visually important.

3.9.3 North East Hoy CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Green Head to Red Geo LCCA 27	Red Geo to Sea Geo LCCA 28
Maritime Influences	<p>Not sensitive</p> <p>Convex landform, cliffs and nature of ‘set back’ roads results in a degree of separation from the coast and in turn maritime influences.</p> <p>Distant views of the sea remain including the passage of local maritime traffic.</p> <p>An existing finfish farm is visible off Scad Head.</p>	<p>Not sensitive</p> <p>Convex landform, high cliffs and nature of ‘set back’ roads results in a degree of separation from the coast and in turn maritime influences.</p> <p>Distant views of the sea remain including views to ‘open sea’ in the northwest and the passage of local maritime traffic.</p> <p>An existing finfish farm is visible just below the cliff edge.</p>
Character and Experience of the Coast	<p>Not sensitive</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it. Further development would therefore pose little impact.</p>	<p>Not sensitive</p> <p>The isolated, inaccessible nature of the cliffscape results in limited appreciation and experience of it. Further development would therefore pose little impact.</p>

	Coastline not readily accessed for recreation.	Coastline not readily accessed for recreation.
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A Coastal Battery is located on Scad Head, however an existing finfish farm is also located directly in front.</p>	<p>Not sensitive</p> <p>This area does not provide the setting for or feature any significant landmarks or features.</p>
Experience of Wildness	<p>High sensitivity</p> <p>The isolated nature of the cliffscape and general inaccessibility would be affected by development.</p>	<p>Moderate sensitivity</p> <p>The isolated nature of the cliffscape and general inaccessibility would be affected by development, however there is already an existing finfish farm visible from some locations.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Located on the boundary of the Hoy and West Mainland NSA, this area contains no exceptional scenic qualities, however elevated locations, including Lyrawa Hill, provide expansive views across Graemsay, mainland and Scapa Flow.</p>	<p>Moderate sensitivity</p> <p>The cliffscape provides an impressive series of coastal features such as waterfalls and ravines with a dramatic outlook over Bring Deeps.</p> <p>The area lies within the Hoy and West Mainland NSA and provides elevated views across Graemsay, west mainland and out to 'open sea'.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is largely unnoticed from elevated locations along the B9047, however coastal locations provide framed views towards Graemsay and Scapa Flow.</p> <p>Lyrawa Hill is a popular viewpoint overlooking parts of the coast including the existing finfish farm off Scad Head.</p> <p>Distant views from opposite northern shores are largely limited.</p>	<p>Low sensitivity</p> <p>The coastline is largely unnoticed from elevated locations along the B9047, however cliff top locations provide 'bird's eye' views of the coast, cliff and sea below. Distant views are gained from mainland shores to the north.</p> <p>Development would therefore be largely screened or absorbed into the backdrop as demonstrated by existing.</p>

Table 12: Sensitivity assessment – LCCAs 27 – 28

Potential sensitivity of the seascape to aquaculture development	Sea Geo to Middle Skerry LCCA 29	Middle Skerry to Out Taings LCCA 30
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, sandy bays and shingle shores, and the dynamic pattern of skerries to the northwest, and some maritime traffic, including local ferry services, and navigational aids are visible from many locations along the coast.</p> <p>Undeveloped shoreline offering easy access to intimate experience of seaside sounds and smells.</p>	<p>High sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and maritime traffic, including the passage of Northlink ferries to and from Stromness, and navigational aids, including lighthouses, are visible from many locations along the coast.</p> <p>Undeveloped and isolated shoreline offering intimate experience of seaside sounds and smells.</p>

	Framed views out to Atlantic breakers and 'open sea'.	Open, exposed views out to Atlantic breakers and 'open sea' and rugged cliffs.
Character and Experience of the Coast	<p>High sensitivity</p> <p>Little opportunity for development to be aligned with the coast or be associated with promontories.</p> <p>Low lying, settled shoreline is readily accessed in particular Bay of Creekland.</p> <p>Development would dominate the coastline.</p>	<p>Moderate sensitivity</p> <p>Coastline not readily accessed for recreation, however it does form part of the 'gateway' to Orkney from mainland Scotland visible to passengers on the Northlink ferry service.</p> <p>Development could be associated with promontories.</p>
Setting of Landmarks and Features	<p>Moderate sensitivity</p> <p>A collection of Listed Buildings and a number of Scheduled Ancient Monuments overlook and rely on the coastline as part of their seascape setting.</p>	<p>Low sensitivity</p> <p>One Scheduled Ancient Monument and a Coastal Battery overlook and rely on the coastline as part of their seascape setting.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Although the area experiences views towards 'open sea' and Atlantic breakers including a backdrop of imposing, rugged hills, the settled nature of the coast and well managed character of the agricultural hinterland, including some views towards Stromness, limits the sense of wilderness.</p>	<p>High sensitivity</p> <p>The isolated nature of the cliffscape, general inaccessibility and proximity to 'open sea' would be affected by development.</p>
Aesthetic Qualities	<p>Moderate sensitivity</p> <p>An attractive composition of sweeping shorelines and smooth pastureland backed by imposing, rugged hills rising steeply.</p> <p>The Area falls within Hoy and West Mainland NSA.</p>	<p>High sensitivity</p> <p>A dramatic composition of rugged shoreline, sweeping pastureland and imposing, rugged hills rising steeply. Open views of animated sea.</p> <p>The Area falls within Hoy and West Mainland NSA.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>The coast is overlooked by a number of properties and roads located throughout the hinterland, including the B9047, experiencing both elevated and close range views. Views are also gained from properties and local roads to the north on Graemsay.</p> <p>Clear, framed vistas towards Hoy Sound and Bring Deeps are likely to be affected by development.</p> <p>Passengers on local ferry services also gain close range views.</p>	<p>Moderate sensitivity</p> <p>The coastline is visible at close range to passengers on the Northlink and local ferry services including some elevated properties and roads on Graemsay. Distant views from Stromness, in particular from the Citadel viewpoint, are also gained.</p>

Table 13: Sensitivity assessment – LCCAs 29 – 30

3.9.4 North East Hoy CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.9.4.1 Green Head to Red Geo LCCA 27 – refer to Figure 8

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture development, small scale, multi site developments, or an extension to the existing, provided:

- Development is aligned with and as close to the shore as possible or associated with the existing finfish farm.
- Extensions to the existing finfish farm would be favoured in order to decrease the gap between it and Scad Head in turn increasing its association with the promontory.
- Trestles or intertidal long lines follow the line of the coast and remain ‘tucked in’ by utilising the natural screening effect of the convex hinterland and areas of cliff or embankment and avoid unnecessary cumulative impacts by being located within close proximity of the existing finfish farm.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast, including extensions to existing. Small scale, multi site developments total no more than three, of any kind including the existing finfish farm.

3.9.4.2 Red Geo to Sea Geo LCCA 28 – refer to Figure 8

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture development, small scale, multi site developments, or an extension to the existing, provided:

- Development is aligned with and as close to the shore as possible but preferably associated with the existing finfish farm i.e. an extension to reduce potential cumulative impacts.
- Development is sited away from any striking geological cliff features.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast, including extensions to existing. Small scale, multi site developments total no more than two, of any kind including the existing finfish farm.

3.9.4.3 Sea Geo to Middle Skerry LCCA 29 – refer to Figure 8

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the aesthetic, visual and spatial qualities of the undeveloped coastline and its importance as a recreational resource.

3.9.4.4 Middle Skerry to Out Taings LCCA 30 – refer to Figure 8

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the aesthetic and visual qualities of the undeveloped shore and the importance of the coastline forming part of the ‘gateway’ to Orkney.

3.9.5 *North East Hoy CCA: summary of cumulative development*

In terms of cumulative issues, it is considered that the capacity identified for LCCA 27 and 28 combined would remain as assessed for them individually.

3.10 Graemsay Coastal Character Area

Landscape Character Types: Whaleback Island Landscapes.

3.10.1 *Graemsay CCA: character analysis – refer to Figures 3 and 4 – LCCAs 31 and 32*

The island of Graemsay is characterised by a domed, 'whaleback' profile where smooth, improved grasslands sweep over gentle, convex slopes to a low lying, undramatic rocky shore broken only by sand and shingle bays, the pier and lighthouses. Settlement is sparse leaving a sense of quiet, isolation. The impressive backdrop of Hoy, when viewed from the north, provides stark contrast behind the unassuming island of Graemsay.

3.10.1.1 Point of Oxan to the pier LCCA 31: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Whaleback Island Landscapes.



Plate 38: Point of Oxan to the pier LCCA 31

- A large, semi enclosed, flow of tidal water, animated by wind action and seldom very calm, extending from Hoy Sound to Bring Deeps including Clestrain Sound and views of Bay of Ireland.
- The significant extent of open tidal water, plus seaweed, relatively deep intertidal zone, boat traffic, navigational aids and views out to 'open sea' due west, creates a strong maritime influence over the land.
- Lighthouses at Sandside and Point of Oxan form focal maritime features including the passage small-scale traffic, views of Northlink ferries approaching and leaving Stromness, and associated navigational aids.
- The small low lying, island character is dominated by the seascape.
- Distant, elevated granite pastures behind Stromness and gently rising moorland hills to the northeast on the mainland provides a wide sense of simple enclosure.
- Stromness town and harbour forms a visible man made focus to the north.

- The deep Bay of Sandside and the pronounced promontories of Point of Oxan and Taing of Sandside create a relatively dynamic coastline.
- The low lying coastal edge is comprised of low cliff, sloping rock platforms, skerries and promontories, short stretches of shingle, sandy bays, and is defined by a dark seaweed tide line.
- An irregular pattern of settlement is scattered across the hinterland with a sparse arrangement of farmsteads and isolated dwellings, some sky-lining along the whaleback ridgeline.
- Pasture and arable land inclines evenly and smoothly from the shoreline backed by the rugged hills on Hoy to the southwest.
- Stonewalls and fence lines enhance or break up the topography and provide vertical structure to the simple landscape.
- Access to the coast is via local lanes, private agricultural access tracks or by boat.
- Views are focused on Stromness or west to the open Atlantic.

3.10.1.2 The pier to Point of Oxan LCCA 32: key landscape and visual elements – refer to Figure 4

Landscape Character Types: Whaleback Island Landscapes.



Plate 39: The pier to Point of Oxan LCCA 32

- A narrow, semi enclosed, flow of strong tidal water, extending from Hoy Sound to Bring Deeps including Burra Sound.
- The lighthouse at Point of Oxan forms focal maritime feature including the passage small-scale traffic, views of Northlink ferries approaching and leaving Stromness, and associated navigational aids.
- Distant, elevated granite pastures behind Stromness and gently rising moorland hills to the northeast on the mainland provide a backdrop to the smooth, whaleback profile of Graemsay.
- The small low lying, island character maintains a close visual, relationship with North East Hoy CCA. Northwestern and southeastern reaches are exposed to and influenced by the open aspect to the Atlantic and Bring Deeps respectively.

- The relatively consistent coastal edge comprises areas of low cliff, sloping rock platforms, skerries and promontories, short stretches of shingle, sandy bays, and defined by dark seaweed tide line.
- An irregularly scattered pattern of settlement resides across the hinterland characterised by a sparse arrangement of farmsteads and isolated dwellings, some sky-lining along the whaleback ridgeline.
- Pasture and arable land inclines evenly and smoothly over convex slopes from the shoreline.
- Stonewalls and fence lines enhance or break up the topography and provide vertical structure to the simple landscape.
- Access to the coast is via agricultural access tracks or by boat.
- Views are focused on the rugged, Hoy hills directly southwest, northwest towards Atlantic breakers and the 'open sea', or southeast towards Scapa Flow.

3.10.2 *Graemsay CCA: opportunities and constraints*

There is currently no apparent aquaculture development within Graemsay CCA. Landscape opportunities and constraints, which are like to affect any development, are noted below.

3.10.2.1 Point of Oxan to the pier LCCA 31: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Stromness or on Graemsay could readily accommodate shore based infrastructure.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be absorbed into backdrop from low angles – when viewed from opposite shores.
- South facing views allow for cages, buoys and lines to be cast in shadow and become largely absorbed by the land behind.
- Pronounced headlands may offer opportunity to emphasise these coastline features with development.

Landscape and visual constraints for aquaculture development:

- Elevated panoramic views can be gained from relative close range including from properties, core footpaths and roads on Graemsay, from Stromness and by passengers on the Northlink ferry.
- The coastline is currently undeveloped; new development would be prominent.
- The simple, island character of Graemsay would be affected by development and inorganic shapes would be prominent against areas of simple, organic coastline.
- Framed views towards Hoy Sound and the Atlantic beyond and Bring Deeps are likely to be interrupted by development.
- The area lies within the Hoy and West Mainland NSA and within relative close proximity to the World Heritage Site buffer zone.
- A number of Listed Buildings and a Coastal Battery rely on the coastal setting.
- Development may interrupt the maritime character and feature of the lighthouses.

3.10.2.2 The pier to Point of Oxan LCCA 32: opportunities and constraints – refer to Figure 4

Landscape and visual opportunities for aquaculture development:

- Existing harbour facilities/space at Stromness or on Graemsay would be appropriate for shore based infrastructure.
- Dark seaweed and rock intertidal zone allows for cages, buoys, lines, and trestles to be absorbed into the backdrop from low angles – when viewed from opposite shores.
- Subtle points, promontories and skerries may offer opportunities to emphasise these coastline features.

Landscape and visual constraints for aquaculture development:

- Small scale Burra Sound could easily appear to ‘fill up’ with even small scale development and interrupt clear, framed views towards Bring Deeps and Hoy Sound.
- Elevated panoramic views can be gained from relative close range including from properties, core footpaths and roads on Graemsay, from opposite shores and elevated hinterland on Hoy, and from by passengers on the local ferry service.
- The coastline is currently undeveloped; new development would be prominent.
- The simple, island character of Graemsay would be affected by development including the narrow stretch of Burra Sound which maintains an uninterrupted and close visual relationship between Graemsay and Hoy.
- Inorganic shapes would be prominent against areas of simple, organic coastline.
- The area lies within the Hoy and West Mainland NSA.
- A number of Listed Buildings and a Coastal Battery rely on the coastal setting.
- Development may interrupt the maritime character and feature of the lighthouses.

3.10.3 Graemsay CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Point of Oxan to the pier LCCA 31	The pier to Point of Oxan LCCA 32
Maritime Influences	<p>High sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, sand, shingle and seaweed, and maritime traffic, including the passage of Northlink ferries to and from Stromness, and navigational aids, including lighthouses, are visible from many locations along the coast.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Views out to Atlantic breakers and ‘open sea’.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock and seaweed and the dynamic pattern of skerries to the southwest, and some maritime traffic, including local ferry services, and navigational aids are visible from many locations along the coast.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Views out to Atlantic breakers and ‘open sea’ from north western extents.</p>

Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect the linear shape of the coast or associated with promontories, however development would affect the sense of simple, island character and undeveloped nature.</p> <p>The coastline also forms part of the 'gateway' to Orkney from mainland Scotland visible to passengers on the Northlink ferry service.</p>	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect the linear sections of the coast.</p> <p>Development is likely to affect the spatial relationship between adjacent coastlines and sound.</p> <p>Coastline not readily accessed for recreation.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A collection of Listed Buildings and a Coastal Battery overlook and rely on the coastline as part of their seascape setting.</p>	<p>Low sensitivity</p> <p>A collection of Listed Buildings and a Coastal Battery overlook and rely on the coastline as part of their seascape setting.</p>
Experience of Wildness	<p>Moderate sensitivity</p> <p>Although the island landscape is largely well-managed agricultural land, the limited amount of settlement, nature of the simple small, island and views towards 'open sea' and rugged cliffs instill a sense of wildness. Development would affect this. Views towards the harbour and town at Stromness, including the passage of maritime traffic limit the experience of wildness.</p>	<p>Moderate sensitivity</p> <p>Although the island landscape is largely well-managed agricultural land with views to opposite settled shores, the limited amount of settlement, nature of the simple small, island and some views towards 'open sea', rugged cliffs and glaciated hills instill a sense of wildness.</p> <p>Development would affect this.</p>
Aesthetic Qualities	<p>Moderate sensitivity</p> <p>A pleasing composition of sea, simple island profile and backdrop of impressive, rugged hills on Hoy.</p> <p>The Area falls within Hoy and West Mainland NSA.</p>	<p>Moderate sensitivity</p> <p>The simple island and coastline provides uninterrupted views towards and closeness to the impressive, rugged hills on Hoy, and animated sea and rugged cliffscapes to the west.</p> <p>The Area falls within Hoy and West Mainland NSA.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>The coastline is overlooked by a number of properties and local roads located throughout the hinterland experiencing both elevated and close range views. Passengers on the Northlink and local ferry services also have clear visibility of the coastline.</p> <p>Framed views towards the Atlantic and Bring Deeps are likely to be affected by development.</p>	<p>Low sensitivity</p> <p>The coast is overlooked by a limited number of properties and roads located throughout the hinterland experiencing both elevated, framed, and close range views. Views are also gained from properties and the B9047 to the south on Hoy. Passengers on local ferry services also gain close range views.</p> <p>Framed views towards the Atlantic and Bring Deeps are likely to be affected by development.</p>

Table 14: Sensitivity assessment – LCCAs 31 – 32

3.10.4 Graemsay CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.10.4.1 Point of Oxan to the pier LCCA 31 – refer to Figure 8

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the aesthetic, visual and spatial qualities of the undeveloped, simple island and the importance of the coastline forming part of the 'gateway' to Orkney.

3.10.4.2 The pier to Point of Oxan LCCA 32 – refer to Figure 8

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high aesthetic, visual and spatial sensitivities associated with this undeveloped, simple island.

3.10.5 Graemsay CCA: summary of cumulative development

No cumulative issues would arise as there is no capacity for development off the Graemsay coast.

3.11 Cava, Rysa Little and Fara Coastal Character Area

Landscape Character Types: Holms, Whaleback Island Landscapes.

3.11.1 *Cava, Rysa Little and Fara CCA: character analysis – refer to Figures 3 and 7 – LCCAs 33, 34, 35, 36, 37 and 38*

This area is characterised by a collection of three small, tear-drop shaped, isolated islands all of which are low lying with a domed profile and a blanket mosaic of moorland, rough grassland and pasture. Above the rocky coastline of low cliffs and small, shingle bays ruined houses stand out as prominent features often silhouetted on the skyline or highlighted against the simple backdrop of moorland. Low cliffs, rock platforms and shingle shores characterise the relatively narrow intertidal zone.

3.11.2 *Cava, Rysa Little and Fara CCA*

Six local coastal character areas have been identified within this CCA. Key landscape and visual elements, which are likely to influence the development of aquaculture, within these areas are noted below.

3.11.2.1 Calf of Cava to Point of the Ward LCCA 33: key landscape and visual elements – refer to Figures 4 and 7

Landscape Character Types: Holms.



Plate 40: Calf of Cava to Point of the Ward LCCA 33

- This area is characterised by a significant, open expanse of animated tidal waters, known as Scapa Flow, which dominate and expose the small, low-lying island and coastline.
- Views towards the mainland, Burray, Flotta, and Fara and the backdrop of moorland hills on Hoy provide a wide sense of semi enclosure.
- The frequent passage of boat traffic, including oil tankers, and views of associated navigational aids such as the lighthouse on Calf of Cava and the Barrel of Butter create a maritime influence.

- The largely consistent east facing, coastal edge is comprised of low and relatively high cliffs, narrow rock platforms, short stretches of shingle, and a narrow intertidal zone defined by a dark seaweed tide line.
- The Calf of Cava and The Ayre form characteristic features of the island and increase the visual interest in the coastline.
- The simple hinterland is characterised by sloping moorland and rough grassland with a smooth profile and little distinction.
- A simple sea, land, sky composition creates a dominant horizontal dynamic.
- A few scattered ruins and abandoned buildings form visual features within the monotonous land cover and emphasise the remote nature of the island and its exposure to sea.
- Access to the coast is limited solely to boat.
- Views are dominated by the close influence of the seascape.

3.11.2.2 Point of the Ward to Calf of Cava LCCA 34: key landscape and visual elements – refer to Figures 4 and 7

Landscape Character Types: Holms.



Plate 41: Point of the Ward to Calf of Cava LCCA 34

- A large, semi enclosed stretch of animated tidal water from Bring Deeps to Gutter Sound with views directly towards elevated, moorland hills on Hoy with Rysa Little in foreground.
- Framed views northwest towards Graemsay between Hoy and mainland, and southeast towards Fara and Flotta.
- The low lying coastline and hinterland are dominated by the imposing hills on Hoy and the significant extent of open tidal water.
- Some small-scale boat traffic and views of associated navigational aids create a maritime influence.
- The west facing coastline is largely consistent and comprised of low cliffs, narrow rock platforms, short stretches of shingle, and a narrow intertidal zone which is defined by a dark seaweed tide line.
- The Calf of Cava and The Ayre form characteristic features of the island and increase the visual interest in the coastline.

- This simple hinterland is characterised by sloping moorland and rough grassland with a smooth profile and little distinction.
- The area has a strong horizontal dynamic formed by the simple arrangement of sea, land and sky.
- A number of scattered ruins and abandoned buildings form visual features within the monotonous land cover and emphasise the remote character of island.
- Distant views of existing finfish farm activity are gained along the northeast coast of Hoy.
- Access to the coast is limited solely to boat.
- Views are dominated by the hills on Hoy and the framed passage through Bring Deeps towards Graemsay. Passengers on the local ferry service gain relatively close range views of the coast.

3.11.2.3 North Rysa Little to south Rysa Little LCCA 35: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Holms.



Plate 42: North Rysa Little to south Rysa Little LCCA 35

- This large, semi enclosed stretch of water from Bring Deeps to Gutter Sound has views directly towards Cava, framed views northwest towards Graemsay between Hoy and mainland, and southeast towards Fara with Flotta beyond.
- The low lying coastline and hinterland is backed by the hills on Hoy and fronted by a significant extent of open tidal water. Water is animated by wind action and seldom completely calm.
- Some small-scale boat traffic and views of associated navigational aids create a maritime influence.
- The largely consistent, east facing, coastal edge is comprised of low cliff, rock platforms and a narrow intertidal zone defined by a dark seaweed tide line.
- The simple hinterland is characterised by generally flat moorland and rough grassland with a smooth profile and little distinction.
- The area has a strong horizontal dynamic formed by the simple arrangement of sea, land and sky.
- There is no apparent evidence of settlement or man made influences which emphasises the overall sense of remoteness and exposure to the sea.

- Access to the coast is limited solely by boat.
- Views are focused on the open expanse of Scapa Flow framed between Cava and Fara to the east.

3.11.2.4 South Rysa Little to north Rysa Little LCCA 36: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Holms.



Plate 43: South Rysa Little to north Rysa Little LCCA 36

- This small, semi enclosed stretch of water between Rysa Little and Hoy, is known as Rysa Sound. It is characterised by a narrow flow of tidal water animated by wind action which is seldom completely calm.
- There are framed views northwest towards the mainland and southeast towards Gutter Sound with Fara beyond.
- Some small-scale boat traffic and views of associated navigational aids create a maritime influence including existing finfish farm activity within close proximity.
- The low lying coastline and hinterland is overlooked by the moorland hills on Hoy with views west over Scapa Flow to Cava, Fara and Flotta, with the mainland and Burray beyond.
- The coastline has a strong visual relationship with the coastline of Hoy and shares a small area of intertidal zone. It is largely consistent, west facing, and comprises low cliff, rock platforms, stretches of shingle shore and a relatively deep intertidal zone defined by dark seaweed.
- The hinterland is characterised by generally flat moorland and rough grassland with a smooth profile and little feature.
- The simple sea, land, sky composition creates a dominant horizontal dynamic.
- There is no apparent evidence of settlement or man made influences thus emphasising the sense of remoteness.
- Access to the coast is limited solely by boat.
- Views are primarily focused on the imposing moorland hills on Hoy and dominated by the existing finfish farm in the foreground.

3.11.2.5 North Point to Ayre Point LCCA 37: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Whaleback Islands Landscapes.



Plate 44: North Point to Ayre Point LCCA 37

- A significant, semi enclosed expanse of tidal water animated by wind action and framed between Flotta, Cava and the mainland with distant views towards Burray.
- The frequent passage of boat and ferry traffic with views of associated navigational aids, including the Barrel of Butter, creates a maritime influence.
- The low lying island is backed by the moorland hills on Hoy. It experiences open views west over Scapa Flow and has a strong visual relationship with the coastline of Flotta.
- The indented east facing, coastal edge is comprised of sloping rock platforms, points, stretches of shingle, and a relatively deep intertidal zone defined by a dark seaweed tide line.
- The simple island hinterland is characterised by gently sloping moorland and rough grassland with a smooth profile and little distinction except for a few dykes.
- The area has a strong horizontal dynamic formed by the simple arrangement of sea, land and sky.
- There are a number of scattered ruins and abandoned buildings forming visual features within the monotonous land cover and emphasising the remote character of the island and its exposure to the sea. There is also some evidence of field patterns and access tracks with existing sheep grazing.
- Access to the coast is limited solely by boat.
- Views are largely focused on the Flotta oil terminal and the passage of tankers or out across the open expanse of Scapa Flow.

3.11.2.6 Ayre Point to North Point LCCA 38: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Whaleback Islands Landscapes.



Plate 45: Ayre Point to North Point LCCA 38

- This small, semi enclosed stretch of water from Gutter Sound to Weddel Sound experiences framed views north to Rysa Little and south to South Walls and Switha.
- It comprises a significant extent of tidal flow animated by wind action which is seldom completely calm.
- The frequent passage of boat and ferry traffic, with views of associated navigational aids, creates a maritime influence.
- The low lying coastline is overlooked by moorland hills on Hoy to the west and has a strong visual relationship with the coastline at Lyness.
- The indented west facing, coastal edge is characterised by low cliffs, narrow rock platforms, stretches of rock and shingle, and narrow intertidal zone defined by a dark seaweed tide line.
- The simple hinterland is formed from gently sloping and undulating moorland and rough grassland with a smooth, featureless profile except for a few dykes and incising burns.
- The area has a dominant horizontal dynamic due to the simple arrangement of sea, land and sky.
- A few scattered ruins and abandoned buildings form visual features within the monotonous land cover and emphasise the remote character of the island. There is some evidence of field patterns and access tracks with existing sheep grazing.
- Access to the coast is limited solely by boat.
- Views are dominated by the diverse man made coast and hinterland at Lyness including existing finfish farms in the waters between.

3.11.3 Cava, Rysa Little and Fara CCA: opportunities and constraints

There are two existing medium scale aquaculture developments within Cava, Rysa Little and Fara CCA. These are located just within Pegal Bay and off the coast of Fara with 10 circular cages each and no apparent permanent feeding facilities. Feeding appears to be via a boat and long-arm. Landscape opportunities and constraints, which are like to affect any further development, are noted below.

3.11.3.1 Calf of Cava to Point of the Ward LCCA 33: opportunities and constraints – refer to Figures 4 and 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Houton or Lyness could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be absorbed into backdrop from low angles – when viewed from passing ferry services.
- Lack of settlement or public use across entirety of island or along the coast.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow inorganic, geometric shapes and layouts to be better accommodated.
- Areas of low cliff would offer opportunity to absorb development into the backdrop and into the shadow and dark reflections provided from it, when viewed from relatively low angles.

Landscape and visual constraints for aquaculture development:

- Passengers on the passing local ferry service gain views of the coast.
- The coastline is currently classed as undeveloped; new development would be prominent.
- The simple, small scale island character of Cava would be affected by development and inorganic shapes would be more prominent against the simple, moorland backdrop.
- Development may interrupt the maritime character and feature of the lighthouse.
- Dive boats commonly use this area giving rise to further views from the sea.
- The area lies within close proximity of the Hoy and West Mainland NSA.

3.11.3.2 Point of the Ward to Calf of Cava LCCA 34: opportunities and constraints – refer to Figures 4 and 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Houton or Lyness could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be absorbed into backdrop from low angles – when viewed from passing ferry services or from distant locations on Hoy.
- Lack of settlement or public use across entirety of island or along the coast.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow inorganic, geometric shapes and layouts to be better accommodated.

Landscape and visual constraints for aquaculture development:

- Passengers on the passing local ferry service gain views of the coast and from some distant and elevated locations on Hoy. Development may interrupt framed views from the ferry towards Bring Deeps and between Cava and Fara.

- The coastline is currently classed as undeveloped; new development would be prominent.
- The simple, small scale island character of Cava would be affected by development and inorganic shapes would be more prominent against the simple, moorland backdrop.
- Views of existing finfish farm development along the coast of Hoy may result in cumulative issues.
- Development may interrupt the maritime character and feature of the lighthouse.
- The area lies within close proximity of the Hoy and West Mainland NSA.

3.11.3.3 North Rysa Little to south Rysa Little LCCA 35: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Lyness could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be absorbed into backdrop from low angles – when viewed from passing ferry services.
- Lack of settlement or public use across entirety of island or along the immediate coast.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow inorganic, geometric shapes and layouts to be better accommodated.

Landscape and visual constraints for aquaculture development:

- Passengers on the passing local ferry service gain views of the coast.
- The coastline is currently classed as isolated; new development would be prominent.
- The simple, island character of Rysa Little would be affected by development and inorganic shapes would be more prominent against the simple, moorland backdrop.
- The small scale island could be easily dominated by development.
- The area lies within close proximity of the Hoy and West Mainland NSA.

3.11.3.4 South Rysa Little to north Rysa Little LCCA 36: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Lyness could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be somewhat absorbed into backdrop from low angles – when viewed from low lying locations along the Hoy coastline.
- Lack of settlement or public use across entirety of island or along the immediate coast.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow small scale, inorganic, geometric shapes and layouts to be better accommodated.
- Currently two finfish farms exist within this seascape thus reducing the magnitude of change for future developments or extensions to existing.

Landscape and visual constraints for aquaculture development:

- Existing finfish farms pose potential cumulative effects for further development resulting in development as a whole becoming more prominent.
- The small scale island and coast could easily be dominated by further development.
- The coastline is currently classed as isolated; further development would increase the overall prominence of development as a whole.
- The area lies within close proximity of the Hoy and West Mainland NSA.
- Views from the B9047 and associated lay-bys and recreation areas overlook the coast, some from higher elevations.

3.11.3.5 North Point to Ayre Point LCCA 37: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Lyness or Flotta could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be somewhat absorbed into backdrop from low angles – when viewed from passing ferry services or the coast of Flotta.
- Lack of settlement or public use across entirety of island or along the immediate coast.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow small scale, inorganic, geometric shapes and layouts to be better accommodated.
- Promontories and points offer opportunity to site development which may emphasise these coastline features such as Whiting Point.
- The close proximity and influence of the Flotta oil terminal may allow further man made features to be better accommodated.

Landscape and visual constraints for aquaculture development:

- The simple island character could easily be dominated by development.
- The remote nature of abandoned buildings could be lost through development sited within close proximity.
- The coastline is classed as undeveloped; development would therefore become prominent.
- Close range views are gained from the passing ferry service and from the adjacent coastline of Flotta.

3.11.3.6 Ayre Point to North Point LCCA 38: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Lyness or Flotta could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Lack of settlement or public use across entirety of island or along the immediate coast.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be somewhat absorbed into backdrop from low angles – when viewed from passing ferry services or the coast at Lyness.
- Promontories and points offer opportunity to site development which may emphasise these coastline features such as Peat Point and North Point.
- Currently two finfish farms exist within this seascape thus reducing the magnitude of change for future developments or extensions to existing.

Landscape and visual constraints for aquaculture development:

- The simple island character could easily be dominated by development.
- The remote nature of abandoned buildings could be lost through development sited within close proximity.
- The coastline is classed as undeveloped; further development would therefore become prominent.
- Views from Lyness and neighbouring coasts, roads such as the B9047 and properties overlook the coast, some from higher elevations including Wee Fea viewpoint.
- Framed views along Weddle Sound and Gutter Sound and between Cava and Fara are likely to be interrupted by development.
- Passengers on the local ferry service experience close range, sequential views of the majority of the coast.
- Existing finfish farms pose potential cumulative effects for further development resulting in development as a whole becoming more prominent.

3.11.4 Cava, Rysa Little and Fara CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Calf of Cava to Point of the Ward LCCA 33	Point of the Ward to Calf of Cava LCCA 34	North Rysa Little to South Rysa Little LCCA 35
Maritime Influences	<p>High sensitivity</p> <p>Open, exposed aspect to Scapa Flow – seascape dominates small, simple island.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Passage of local ferry service and maritime traffic, including oil tankers, and navigational aids such as Barrel of Butter and Calf of Cava lighthouse.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Passage of local ferry service and maritime traffic including associated navigational aids such as Calf of Cava lighthouse.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Passage of local ferry service and maritime traffic, including distant views of oil tankers, and associated navigational aids such as Calf of Cava lighthouse.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by ferry passengers.</p> <p>Development could be aligned with linear sections of coast and be accommodated by the largely horizontal, simple dynamic of the island.</p>	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by ferry passengers.</p> <p>Development could be aligned with linear sections of coast and be accommodated by the largely horizontal, simple dynamic of the island.</p>	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by ferry passengers.</p> <p>Development could be aligned with linear sections of coast and be accommodated by the largely horizontal, simple dynamic of the island.</p>

Setting of Landmarks and Features	<p>Low sensitivity</p> <p>Northeastern waters are scattered with submerged Listed Wrecks, however these would not impact on landscape and visual aspects of development.</p> <p>Abandoned buildings form characteristic features on the bleak island.</p>	<p>Low sensitivity</p> <p>One submerged Listed Wreck is located to the northwest, however this would not impact on landscape and visual aspects of development.</p> <p>Abandoned buildings form characteristic features on the bleak island.</p>	<p>Not sensitive</p> <p>No landmarks or features.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>The isolated nature of the island, including abandoned buildings and general inaccessibility would be affected by development, however largely un-experienced except by passengers on local ferry services.</p>	<p>Low sensitivity</p> <p>The isolated nature of the island, including abandoned buildings and general inaccessibility would be affected by development, however largely un-experienced except by passengers on local ferry services.</p>	<p>Low sensitivity</p> <p>The isolated nature of the island and general inaccessibility would be affected by development, however largely un-experienced except by passengers on local ferry services.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Although the island forms a characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.</p>	<p>Low sensitivity</p> <p>Although the island forms a characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.</p>	<p>Low sensitivity</p> <p>Although the island forms a characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is visible at close range by passengers on local ferry services and from limited, distant locations on mainland.</p>	<p>Low sensitivity</p> <p>The coastline is visible at close range by passengers on local ferry services and from limited, distant locations on Hoy.</p> <p>Framed views towards Bring Deeps, experienced by passengers on the ferry service, are likely to be affected by development to the west of the ferry route.</p>	<p>Low sensitivity</p> <p>The coastline is visible at close range by passengers on local ferry services and from limited, distant, elevated locations on Hoy.</p>

Table 15: Sensitivity assessment – LCCAs 33 – 35

Potential sensitivity of the seascape to aquaculture development	South Rysa Little to North Rysa Little LCCA 36	North Point to Ayre Point LCCA 37	Ayre Point to North Point LCCA 38
Maritime Influences	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p>	<p>Low sensitivity</p> <p>Open, exposed aspect to Scapa Flow for large portion of coast, but dominated by views of</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p>

	<p>Existing finfish farms are highly visible and close.</p> <p>Limited by sense of semi-enclosure and surrounding shores.</p>	<p>Flotta oil terminal and the passage of oil tankers.</p> <p>Passage of local ferry service and maritime traffic including associated navigational aids.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p>	<p>Passage of local ferry service and maritime traffic including associated navigational aids.</p> <p>Existing finfish farms are highly visible and close.</p> <p>Limited by sense of semi-enclosure and surrounding shores.</p>
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it, however it bares a strong visual relationship with opposite shores and bays.</p> <p>Existing fish farm development is highly visible. Further development is likely to dominate and 'clutter' the simple coastline and island profile.</p>	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by ferry passengers and farmers with grazing rights.</p> <p>Development could be aligned with linear sections of coast and be accommodated by the largely horizontal, simple dynamic of the island.</p> <p>Flotta oil terminal could absorb some noise, light, activity and structures or offset development.</p>	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it, however it bares a strong visual relationship with opposite shores and bays.</p> <p>Existing fish farm development is highly visible. Further development could be aligned with linear sections of coast or associated with existing fish farms aiding integration.</p>
Setting of Landmarks and Features	<p>Not sensitive</p> <p>No landmarks or features.</p>	<p>Low sensitivity</p> <p>Abandoned buildings form characteristic features on the bleak island.</p>	<p>Low sensitivity</p> <p>Abandoned buildings form characteristic features on the bleak island.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>The isolated nature of the island and general inaccessibility would be affected by development, however largely un-experienced except from opposite shores. Existing finfish farms limit the sense of wildness.</p>	<p>Low sensitivity</p> <p>The isolated nature of the island and general inaccessibility would be affected by development, however Flotta oil terminal already dominates the coast.</p>	<p>Low sensitivity</p> <p>The isolated nature of the island and general inaccessibility would be affected by development, however largely un-experienced except from opposite shores or by passengers on local ferry services. Lyness and views of settled shores and existing finfish farms limit the sense of wildness.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Although the island forms a characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.</p>	<p>Low sensitivity</p> <p>Although the island forms a characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.</p>	<p>Low sensitivity</p> <p>Although the island forms a characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is visible at relative close range from</p>	<p>Low sensitivity</p> <p>The coastline is visible at relative close range from</p>	<p>Moderate sensitivity</p> <p>The coastline, including framed views along Gutter</p>

	the B9047 on Hoy and one Listed Building.	northwestern extents of Flotta and from the local ferry service.	Sound and Weddle Sound and between Cava and Fara, are visible at relative close range from Lyness and settlement and roads throughout the hinterland and from the local ferry service.
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Table 16: Sensitivity assessment – LCCAs 36 – 38

3.11.5 Cava, Rysa Little and Fara CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.11.5.1 Calf of Cava to Point of the Ward LCCA 33 – refer to Figures 8 and 11

There is some potential for this local coastal character area to accommodate one small to medium scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island.
- Development be sited out of direct alignment with abandoned buildings to maintain the island's historic character.
- Development be sited away from the lighthouse and the Calf of Cava.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast.

3.11.5.2 Point of the Ward to Calf of Cava LCCA 34 – refer to Figures 8 and 11

There is some potential for this local coastal character area to accommodate one small to medium scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island.
- Development be sited out of direct alignment with abandoned buildings to maintain the island's historic character.
- Development be sited away from the lighthouse and the Calf of Cava.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast.

3.11.5.3 North Rysa Little to South Rysa Little LCCA 35 – refer to Figure 11

There is some potential for this local coastal character area to accommodate one small scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island.
- Development be limited to as few rows as possible i.e. cages no more than two, lines or trestles less than five, to avoid dominating the small island.
- Individual, small scale development takes up no more than one tenth of the coast.

3.11.5.4 South Rysa Little to north Rysa Little LCCA 36 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale shellfish developments, extensions to existing finfish developments in opposite bays, or relocation of existing (subject to permissions), provided:

- Development or relocation be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island.
- It is suggested, should additional finfish cages be proposed for existing farms or additional shellfish units elsewhere within the area, that all existing locations be revised to prevent clutter and a 'filling up' of the bays opposite, thus aligning all existing and proposed developments with and as close to shorelines as possible or associated with promontories.
- Individual, small scale shellfish development takes up no more than one tenth of the coast.
- Scale or amount of development does not over 'clutter' the sound, dominate the island or result in an adverse cumulative impact on the area i.e. additional developments, of any kind, or extensions to existing do not, in total, occupy more than 50% of the area.
- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi sites, including existing, total no more than two, of any kind.

3.11.5.5 North Point to Ayre Point LCCA 37 – refer to Figure 11

There is some potential for this local coastal character area to accommodate one small to medium scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island.
- Development should be sited out of direct alignment with abandoned buildings to maintain the island's historic character, for example preferred development i.e. cages, long lines and trestles be aligned with the coast between North Point and Whiting Point.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast.

3.11.5.6 Ayre Point to North Point LCCA 38 – refer to Figure 11

There is some potential for this local coastal character area to accommodate limited small scale aquaculture development or small scale multi sites, extensions to those existing, or relocation of existing provided:

- Development or relocation be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island.
- Scale or amount of development does not over 'clutter' the sound, dominate the island or result in an adverse cumulative impact on the area i.e. additional developments, of any kind, or extensions to existing do not, in total, occupy more than 50% of the area.
- Development should be sited out of direct alignment with abandoned buildings to maintain the island's historic character.
- It is suggested, should additional finfish cages be proposed for existing farms or additional units elsewhere within the area, that all existing locations be revised to prevent clutter and a 'filling up' of the bays opposite, thus aligning all existing

and proposed developments with and as close to shorelines as possible or associated with promontories such as Peat Point or North Point.

- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi sites, including existing, total no more than two, of any kind.

3.11.6 Cava, Rysa Little and Fara CCA: summary of cumulative development

Cumulative issues are of relevance to this group of small islands when considered together, and in association with the LCCAs on mainland Hoy. Given that there are already developments off the western coasts of Rysa Little and Fara, it is recommended that Cava, remains as an undeveloped example of a 'holm' island. Given that South East Hoy CCA has been assessed as having capacity for development provided the western coasts of Rysa Little and Fara are not developed, it is recommended that any aquaculture development on these islands be located on the eastern side.

3.12 Flotta Coastal Character Area

Landscape Character Types: Holms, Low Island Pastures, Low Moorland, Urban and Rural Development.

3.12.1 Flotta CCA: character analysis – refer to Figures 3 and 7 – LCCAs 39, 40, 41, 42, 43 and 44

The island of Flotta is characterised by low settled pasture, interspersed by rough grassland and scattered dwellings. Low moorland and rough grassland border the coast to the west and to the north along Golta. Moorland and rough grassland also flank cliff tops to the east. The coastline is largely stepped with a rocky shoreline and stretches of sand and shingle at low tide. Cliffs and rock platforms on the exposed south east corner shelter shingle bays to the north and west. Man made influences such as the oil terminal, gas flare and the wind turbine influence the character of this area and form visual features within the simple landscape and associated coastline. Views of adjacent shores to the east and west provide a degree of shelter, however the open exposure, heightened at Tween the Wicks and Stanger Head, emphasises the influence of the sea.

3.12.1.1 Innan Neb to the pier LCCA 39: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Low Moorland.



Plate 46: Innan Neb to the pier LCCA 39

- This area is characterised by a long, semi enclosed stretch of water from Switha Sound to Weddel Sound with framed views southwest along Long Hope, south east towards Switha, northwest towards Lyness, and north across Scapa Flow towards the mainland along side Fara and Cava.
- The significant extent of tidal flow is animated by wind action and seldom completely calm.
- The frequent close passage of boat and ferry traffic approaching and leaving Lyness and Flotta, with views of associated navigational aids, creates a maritime influence.

- The relatively consistent west facing, coastal edge is comprised of cliffs, some narrow rock platforms, long stretches of rock and shingle, and a narrow intertidal zone defined by a dark seaweed tide line.
- The simple hinterland is characterised by gently convex, sloping moorland and rough grassland with a smooth profile and little distinction except for access tracks associated with the airstrip, a few ruined wartime structures including coastal batteries, and views of Flotta wind turbine and oil terminal.
- There is an absence of settlement and a sense of exposure within the open moorland and along the coastline which is emphasised by onshore winds.
- A simple sea, land, sky composition with a dominant horizontal dynamic is broken only by vertical cliffs which as a result form a visual feature.
- Access to the coast is by access tracks across the moorland or by boat.
- Views are largely focused on the passage of boats to and from Lyness and by Flotta oil terminal with elevated views of the coast gained from West Hill.

3.12.1.2 The pier to the jetty LCCA 40: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Urban and Rural Development.



Plate 47: The pier to the jetty LCCA 40

- This small stretch of coast has an open aspect north to Scapa Flow with views towards the mainland alongside Cava and Fara.
- There is a sense of open exposure to the sea and the relatively deep flow of tidal water, animated by wind action, is seldom completely calm.
- The frequent passage of boat and ferry traffic and close views of oil tankers creates a strong maritime character.
- The north facing coastline is generally consistent comprising rock platforms and shingle shores, with hard man made edge and elements including numerous piers and the oil terminal jetty.
- Low lying rough grassland forms the immediate hinterland and is dominated by the Flotta oil terminal. The oil terminal occupies and interrupts views east and southeast.
- Access to the coast is gained from the ferry pier, but is generally limited by the oil terminal.

- Views are focused on oil terminal and the passage of ferries and tankers.

3.12.1.3 The jetty to Tween the Wicks LCCA 41: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Low Island Pastures, Holms.



Plate 48: The jetty to Tween the Wicks LCCA 41

- This area is dominated by the large, open expanse of Scapa Flow with views west to Hoy, Fara and Cava, north to the mainland, and east to Burray and South Ronaldsay.
- Views of frequent boat and ferry traffic especially oil tankers, and navigational aids including Nevi Skerry, create a strong maritime influence. The sense of scale is often dominated by the presence of massive oil tankers.
- The low lying coastline and hinterland is exposed and influenced by the animated seascape to north.
- The consistent, straight, north facing coastal edge is comprised of narrow rock platforms and stretches of shingle, with a narrow intertidal zone, deeper within the Calf Sound, and defined by dark seaweed.
- The Calf of Flotta forms a distinctive island when viewed from certain alignments.
- The hinterland is simple and characterised by a narrow band of gently sloping moorland and rough grassland with a smooth profile and little distinction except for a number of access tracks and wartime structures including a disused campsite. The composition is largely horizontal with views focused externally.
- A number of scattered ruins and abandoned buildings form visual features within the monotonous land cover and emphasise its remote character and exposure to sea.
- Access to the coast is via boat or access track from oil terminal.
- Views are predominantly focused on the Flotta oil terminal and the passage of tankers or out across the expanse of Scapa Flow.

3.12.1.4 Tween the Wicks to Quoy Ness LCCA 42: key landscape and visual elements
– refer to Figure 7

Landscape Character Types: Low Island Pastures.



Plate 49: Tween the Wicks to Quoy Ness LCCA 42

- This small, semi enclosed, stretch of water, is known as Pan Hope. It is a shallow area of tidal water, animated by wind action, but generally calm within inner reaches.
- There is a sense of semi-containment and shelter provided by the surrounding landform, however a low-lying skyline creates a degree of exposure and dominance of the sky and water over the landmass.
- Distant elevated landmasses including moorland hills on Hoy and moorland on the mainland are revealed above the immediate skyline with South Ronaldsay occupying views to east.
- The subtly indented coastline is punctuated by Curries Firth, and comprises two opposing shores of shallow water and deep intertidal zone defined by dark seaweed.
- Northern shores comprise long stretches of shingle with a large sandy bay to the west within Curries Firth, backed by low lying moorland and rough grassland and influenced by the presence of the oil terminal.
- A number of scattered ruins and abandoned buildings form visual features within the monotonous land cover and emphasise the remote nature of the Golta promontory.
- Southern shores are characterised by fragmented rock platforms, stretches of sand and shingle with man made features including a pier and jetty, and backed by low pastures with regular field patterns emphasised by stonewalls and fence lines.
- Clusters of settlement, scattered dwellings and farmsteads frequent the southern hinterland and along skyline.
- Access to the coast is via track or local lane along the southern shore. Access is limited along the northern shore due to the oil terminal.

- Views are primarily channelled, by the nature of the bay, out towards the Sound of Hoxa and South Ronaldsay. Flotta oil terminal and the backdrop of Hoy dominate to the west.

3.12.1.5 Quoy Ness to House Geo LCCA 43: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Low Island Pastures.



Plate 50: Quoy Ness to House Geo LCCA 43

- This largely open stretch of deep, strong tidal water extends from Scapa Flow to the Pentland Firth, and is known as the Sound of Hoxa.
- Relatively close range views of Switha, South Walls, South Ronaldsay and Burray create a sense of semi-enclosure in contrast to views north to Scapa Flow and south to 'open sea' in the Pentland Firth.
- Large scale, panoramic views unveil animated waters including rough tidal races to the east of Switha, which enhance the overall sense of exposure to the seascape.
- The immediate hinterland is characterised by moorland and rough grassland and backed by views of Hoy.
- The inaccessibility of the cliffscape creates a degree of separation from the sea, a sense of overall remoteness, and a limited opportunity to easily experience the intimate character and smells and sounds of the coast.
- Views of oil tankers and the Pentland ferry service approaching and leaving the oil terminal and St Margaret's Hope respectively, creates a maritime influence.
- The coastline comprises rugged high cliffs, rock platforms, stacks and deep ravines, highlighted by breaking waves.
- There is limited settlement within the immediate hinterland. A number of wartime ruins and abandoned structures create focal points on the cliff line plus a disused quarry.
- The convex and concave landform of uniform heath and rough grassland slopes relatively evenly to the cliff and coastal edge.
- Access to the coast is by boat or from access tracks within lower lying northern reaches.

- Views are generally focused south to 'open sea' or directly east towards the Hoxa Head cliffscape and associated military structures.

3.12.1.6 House Geo to Innan Neb LCCA 44: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Low Island Pastures.



Plate 51: House Geo to Innan Neb LCCA 44

- This area is characterised by a largely open flow of deep, tidal water extending from Switha Sound to Sound of Hoxa, with views south to 'open sea' either side of Switha. Rough tidal races and animated waters enhance the sense of exposure to and influence of the seascape character.
- Views of oil tankers and the Pentland ferry service approaching and leaving the oil terminal and St Margaret's Hope respectively create a distant maritime influence.
- The coastline is generally low-lying and indented by Kirk Bay and Scat Wick and sheltered by cliffs to the east and west. There is a contrasting sense of shelter between the coastline bays and settled hinterland and the open aspect to sea.
- The south facing coastal edge comprises rock platforms, stretches of rock and shingle within bays, and a relatively deep intertidal zone defined by dark seaweed against pale shingle.
- Pasture and arable land with patches of moorland and rough grassland form an outstretched, rolling hinterland backed by views of Hoy to the west.
- Stonewalls and fence lines emphasise small scale field patterns and undulating topography through which well spaced dwellings and farmsteads are scattered.
- Abandoned buildings and ruins are common within the more remote eastern reaches.
- The largely concave landform slopes relatively evenly to the coastal edge creating a strong visual relationship with coast.
- Access to the coast is by boat or from tracks and local roads.
- Views are primarily focused south towards Switha and beyond to the 'open sea'.

3.12.2 Flotta CCA: opportunities and constraints

There is currently no apparent aquaculture development within Flotta CCA. Landscape opportunities and constraints, which are like to affect any development, are noted below.

3.12.2.1 Innan Neb to the pier LCCA 39: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Lyness, Flotta or South Ness could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Lack of settlement or roads across this area of hinterland.
- Convex landform and areas of low cliff allow development to be 'tucked in' and largely screened from view if located close to the shoreline.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be somewhat absorbed into backdrop from low angles – when viewed from opposite shores on South Walls and Hoy.
- Looking south, in choppy conditions, buoys and lines would be absorbed into the changing pattern of light and shade on the water's surface.
- Development and existing finfish farms along the Hoy coast, south of Lyness, may offer a suitable backdrop to absorb further development and activity when viewed from this area itself.

Landscape and visual constraints for aquaculture development:

- The coastline is classed as undeveloped; development would therefore become prominent.
- Views from Lyness and neighbouring coasts, roads such as the B9047 and properties overlook the coast, plus the popular Martello Towers and Wee Fea viewpoint. Framed vistas through Weddle Sound and Switha Sound.
- Passengers on the local ferry service experience relatively close range, sequential views of north western extents of the coast.
- A core footpath skirts the coast.
- Existing finfish farms close to Lyness pose potential cumulative effects for further development resulting in development as a whole becoming more prominent within the semi enclosed seascape.

3.12.2.2 The pier to the jetty LCCA 40: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- This area has the opportunity to house its own onshore infrastructure within the current arrangement of piers and jetties.
- The coastline is classed as developed; therefore offering the opportunity to absorb further man made influences e.g. inorganic shapes would be less prominent.

Landscape and visual constraints for aquaculture development:

- Passengers on the local ferry services would experience close range views of development from both the harbour and the boat.
- Cumulative issues would likely arise from views of the existing oil terminal and the frequent passage of tankers.

- The sweeping nature of the coast would make siting offshore difficult i.e. to reflect the coast through the layout.
- Although landscape and visual constraints do not pose a threat to development within this area, practical considerations for the ferry terminal and the oil terminal would therefore development would not be permitted.

3.12.2.3 The jetty to Tween the Wicks LCCA 41: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Flotta could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- There are no close range views from properties of roads within this area.
- North facing coastlines with dark intertidal zones would allow development to be largely absorbed into the shaded backdrop. Including trestles and intertidal long lines along the shore.
- Looking south, in choppy conditions, buoys and lines would be absorbed into the changing pattern of light and shade on the water's surface, however these views would be at considerable distance from the mainland.
- Promontories and points offer opportunity to site development which may emphasise these coastline features such as the Calf of Flotta.
- The linear nature of the coast offers opportunity to absorb inorganic, geometric shapes and layouts.
- The area is not readily accessed.
- Views of the oil terminal and the passage of tankers may allow development to appear less prominent.

Landscape and visual constraints for aquaculture development:

- The coastline is classed as undeveloped; development would therefore become prominent and impact on the remote nature of the coast.
- A number of Scheduled Ancient Monuments including the disused war camp and a Coastal Battery rely on the coastal setting.
- The simple character of the moorland backdrop may result in development becoming perceptible and dominant.

3.12.2.4 Tween the Wicks to Quoy Ness LCCA 42: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Flotta or St Margaret's Hope could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- There is no settlement or roads across northern extents of the hinterland and has limited access.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated including rows of trestles.
- Dark intertidal zones allows for cages, buoys, lines, and trestles to be somewhat absorbed into the backdrop from low angles – when viewed from opposite shores.
- Views of the oil terminal to the northwest may allow development to appear less prominent when used as a backdrop in views from southern shores.

Landscape and visual constraints for aquaculture development:

- The coastline is classed as undeveloped; development would therefore become prominent.

- Views from properties, core footpaths and roads along southern shores are relatively close and focused on the bay.
- The B9045 has a direct view channelled along the bay and at height, including the viewpoint on West Hill.
- A number of Scheduled Ancient Monuments including the disused war camp and a Coastal Battery rely on the coastal setting.

3.12.2.5 Quoy Ness to House Geo LCCA 43: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at St Margaret's Hope would be more appropriate for any shore based infrastructure than other locations within this LCCA.
- Areas of cliff and convex headland allow development to be 'tucked in' and largely screened from some locations if located close to the shoreline.
- Limited close range views from properties or roads or from opposite shores.
- The dark cliff and rock allows for cages, buoys and lines to be largely absorbed into the backdrop when viewed from low angles on opposite shores or by passengers on the passing ferry service.

Landscape and visual constraints for aquaculture development:

- The coastline is viewed by passengers on the Pentland ferry service which passes within relative close proximity.
- Relatively narrow intertidal zone with lack of easy access and exposure to rough waters means trestles may not be suitable.
- The undeveloped and isolated nature of the coast would result in development becoming prominent.
- A core footpath follows the coast south to the viewpoint at Stanger Head.
- A number of Coastal Batteries and Scheduled Ancient Monuments are located along the coast and at Stanger Head and rely on the coastal setting.
- Stanger Head forms a relatively popular viewpoint with views across Switha to 'open sea'.

3.12.2.6 House Geo to Innan Neb LCCA 44: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at South Ness could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Headlands and promontories could accommodate development away from residential receptors and enhance the sheltering nature of associated bays.
- Dark intertidal zones allows for cages, buoys, lines, and trestles to be somewhat absorbed into the backdrop from low angles – when viewed from opposite shores on South Walls.
- Areas of cliff and convex headland allow development to be 'tucked in' and largely screened from some locations if located close to the shoreline.
- Western extents experience limited views from properties.

Landscape and visual constraints for aquaculture development:

- Areas of concave slope allow a clear visual relationship between properties and core footpaths and the coast, especially in line with Kirk Bay where development would be highly noticeable.
- The coastline is currently undeveloped; therefore development would appear prominent.

- Framed vistas between Switha and Flotta, particularly from within Kirk Bay, are likely to be interrupted by development.
- The settled nature of the coast and bays could be dominated by development.
- A number of Coastal Batteries and some Listed Buildings/Structures rely on the coastal setting.

3.12.3 Flotta CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Innan Neb to the pier LCCA 39	The pier to the jetty LCCA 40	The jetty to Tween the Wicks LCCA 41
Maritime Influences	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Passage of local ferry service and maritime traffic including associated navigational aids.</p> <p>Influenced by views of Flotta oil terminal.</p> <p>Limited by sense of semi-enclosure and surrounding shores.</p>	<p>Not sensitive</p> <p>The coastline is largely dominated by Flotta oil terminal and the passage of oil tankers and local ferry traffic.</p>	<p>Low sensitivity</p> <p>Open, exposed aspect to Scapa Flow – seascape dominates simple coastline.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Influenced by views of Flotta oil terminal and the passage of oil tankers.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>Although tracks supporting the airstrip provide access to the coast it does not form a popular recreational area.</p> <p>Visual relationship with opposite shores.</p> <p>Development could be aligned with linear sections of coast and be accommodated by the largely horizontal, simple dynamic of shore, cliff and moorland.</p>	<p>Low sensitivity</p> <p>The coastline is largely dominated by Flotta oil terminal with limited experience during embarking and disembarking from the local ferry service.</p> <p>Visual relationship with opposite shores.</p>	<p>Low sensitivity</p> <p>The coastline is not readily accessed due to the restrictions of the oil terminal, therefore the uninhabited and largely isolated character of the coast is not experienced except by workers on oil tankers or at the oil terminal.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A number of Coastal Batteries are located at Innan Neb.</p>	<p>Not sensitive</p> <p>The coastline does not form the setting for any significant landmarks or features.</p>	<p>Moderate sensitivity</p> <p>The coastline forms the setting for a number of Scheduled Ancient Monuments, including abandoned buildings and the disused military camp at Golta.</p>

Experience of Wildness	<p>Moderate sensitivity</p> <p>The undeveloped coastline backed by bleak moorland would be affected by development and likely to be experienced from opposite shores and by passengers on local ferry services.</p> <p>Lyness and views of settled shores and existing finfish farms limit the sense of wildness including the adjacent Flotta oil terminal.</p>	<p>Not sensitive</p> <p>Although the coastline is not a hive of activity the presence of the oil terminal and flux of oil tankers and ferry traffic limits any sense of wildness.</p>	<p>Low sensitivity</p> <p>The uninhabited nature of the coastline, including abandoned buildings, the disused military camp and general inaccessibility would be affected by development, however largely not experienced except by workers on oil tankers or at the oil terminal.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>The area does not bare any exceptional scenic qualities which would be affected by development except for clear views of the cliffs at Innan Neb.</p>	<p>Not sensitive</p> <p>The presence of massive oil tankers and the character of industry have a certain aesthetic charm, however it is not likely they would not be affected by development.</p>	<p>Low sensitivity</p> <p>Although the coastline, including Calf of Flotta, forms a characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>The coastline is visible and unobstructed from settlement and roads throughout the hinterland on opposite shores, from the local ferry service, from the panoramic viewpoint on West Hill, and from popular visitor attractions at the Martello Towers.</p> <p>Framed views through Weddle Sound and Switha Sound are likely to be affected by development.</p>	<p>Low sensitivity</p> <p>The coastline is visible from the local ferry service and from the panoramic viewpoint on West Hill.</p> <p>Development would be largely absorbed into the built character of the coast.</p>	<p>Low sensitivity</p> <p>The coastline is largely screened from view except from oil tankers and the oil terminal.</p>

Table 17: Sensitivity assessment – LCCAs 39 – 41

Potential sensitivity of the seascape to aquaculture development	Tween the Wicks to Quoy Ness LCCA 42	Quoy Ness to House Geo LCCA 43	House Geo to Innan Neb LCCA 44
Maritime Influences	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells –</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells from</p>	<p>High sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells with</p>

	<p>from southern shores.</p> <p>Views of passing ferries and oil tankers through Sound of Hoxa including associated navigational aids such as Nevi Skerry.</p> <p>Limited by influence of Flotta oil terminal and sense of semi-enclosure from surrounding shores.</p> <p>Simplicity of sea surface could easily be compromised by clutter.</p>	<p>northern shores where access is easier.</p> <p>Views of passing ferries and oil tankers through Sound of Hoxa including associated navigational aids such as Nevi Skerry.</p> <p>Dramatic cliffscapes and breaking waves heighten exposed influence of the sea including views to 'open sea'.</p>	<p>views of 'open sea', cliffs and tidal races.</p> <p>Distant passage of maritime traffic and oil tankers.</p>
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>The coastline is essentially divided in two by the oil terminal – settled southern shores, moorland northern shores.</p> <p>Development could be aligned to reflect linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories along southern shores.</p> <p>A number of properties are scattered and clustered throughout southern hinterland including local roads and the B9046.</p> <p>Northern shores are largely un-accessed and could accommodate development within the horizontal dynamic of simple moorland and shore.</p> <p>Close, visual relationship between opposite shores.</p>	<p>Moderate sensitivity</p> <p>Limited experience of immediate coastline due to exposed character and lack of access and settlement. Development could be aligned to and largely screened by cliff from hinterland areas.</p> <p>Passage of oil tankers and ferry traffic do have experience of the coastline and development is likely to affect the character of undeveloped cliffscapes.</p>	<p>Moderate sensitivity</p> <p>Development could be associated with outer promontories and enhance the sheltered character of the bays or aligned with linear sections of coast, however development could also dominate and interrupt the undeveloped, small scale, rural nature of the shoreline and hinterland.</p>
Setting of Landmarks and Features	<p>Moderate sensitivity</p> <p>The coastline forms the setting for a number of Scheduled Ancient Monuments, including abandoned buildings and the disused military camp at Golta, a Coastal Battery and a Listed Building/Structure.</p>	<p>Moderate sensitivity</p> <p>The coastline forms the setting for a number of Scheduled Ancient Monuments and Coastal Batteries.</p>	<p>Low sensitivity</p> <p>The coastline is overlooked by a limited number of Listed Buildings/Structures.</p>

Experience of Wildness	<p>Low sensitivity</p> <p>The uninhabited nature of the northern shoreline, including abandoned buildings, the disused military camp and general inaccessibility would be affected by development in views from southern shores.</p> <p>Flotta oil terminal, well settled southern shores, and the sheltered nature of the bay limits wildness.</p>	<p>Moderate sensitivity</p> <p>With settlement set back from the coastline access via track, including through the disused quarry, can be made to experience the exposed nature of cliffs and wild seas and the empty presence of wartime defense structures.</p> <p>The passage of oil tankers and ferries also experience the wild backdrop of rugged cliffs and breaking waves.</p>	<p>Low sensitivity</p> <p>Sheltered bays and settled, agricultural hinterland limits wildness, however views of tidal races, 'open sea' and abandoned buildings does create a sense of wild exposure.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>The area does not bare any exceptional scenic qualities which would be affected by development.</p>	<p>Low sensitivity</p> <p>Although the coastline does not demonstrate any exceptional scenic qualities the rugged clifscape including Stanger Head provides a dramatic relationship with the sea and surrounding headlands.</p>	<p>Low sensitivity</p> <p>Although the coastline does not demonstrate any exceptional scenic qualities the pattern of settlement and fieldsapes adjacent sheltered bays instills typical Orcadian character.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>Although the bay is largely screened from external view settlement and roads along southern shores and throughout the hinterland have elevated views.</p> <p>West Hill viewpoint experiences elevated, framed views along the bay as does the B9046 on approach.</p> <p>Development would be visible but accommodated to some degree by the existing influence of the oil terminal.</p>	<p>Moderate sensitivity</p> <p>The coastline is largely viewed from passing oil tankers, ferry traffic and distant views from Hoxa Head and South Ronaldsay.</p> <p>Settlement and roads throughout the hinterland have views over lower lying northern reaches of the coastline however southern reaches are largely screened by the convex landform and cliffs.</p> <p>External views south towards 'open sea' are gained from southern reaches.</p>	<p>Moderate sensitivity</p> <p>The coastline is overlooked from properties and roads throughout the hinterland with some at close range. Distant views are gained from South Walls.</p> <p>Framed views between Switha and Flotta are likely to be affected by development, in particularly within Kirk Bay.</p>

Table 18: Sensitivity assessment – LCCAs 42 – 44

3.12.4 Flotta CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.12.4.1 Innan Neb to the pier LCCA 39 – refer to Figure 11

There is some potential for this local coastal character area to accommodate one medium scale aquaculture development or limited small scale, multi site developments, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the moorland and shoreline.
- Development is sited adjacent areas of low cliff or embankment to exploit natural screening.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of the coast. Small scale, multi sites total no more than two, of any kind.

3.12.4.2 The pier to the jetty LCCA 40 – refer to Figure 11

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the practical considerations of navigational routes and activity associated with the Flotta oil terminal. Although this area would be highly suitable for aquaculture development in terms of landscape and visual aspects i.e. the existing industrial backdrop would largely absorb development, practical constraints, as mentioned previously, would far outweigh the opportunities.

3.12.4.3 The jetty to Tween the Wicks LCCA 41 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture developments provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the moorland and shoreline.
- Development be associated with promontories on the Calf of Flotta.
- Development be sited out of direct alignment with abandoned buildings and the disused war camp to preserve their setting.
- Development be limited to as few rows as possible i.e. cages no more than two, long lines and trestles less than five, to ensure it does not dominate over the narrow proportion of land or result in an adverse cumulative impact.
- Total development does not occupy more than 50% of the area.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of the coast. Small scale, multi sites total no more than four, of any kind. Medium scale, multi sites total no more than two, of any kind.

3.12.4.4 Tween the Wicks to Quoy Ness LCCA 42 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale aquaculture development or small scale, multi site shellfish developments, provided:

- Development be considered for northern shores before southern shores and aligned with and as close to the shore as possible and maintain a neat and

orderly layout to reflect the simple horizontal dynamic of the moorland and shoreline.

- Development be sited out of direct alignment with abandoned buildings and the disused war camp to preserve their setting.
- Development along southern shores be and aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the pattern of fieldscapes or be associated with promontories such as Lurdy's Taing.
- Development is sited away from shoreline properties, piers and jetties and central locations within the bay.
- The scale or amount of development does not dominate the bay or result in a cumulative impact with the oil terminal i.e. total development does not occupy more than 30% of the bay.
- Individual, small scale development takes up no more than one tenth of the bay. Small scale, shellfish, multi sites total no more than two, of any kind.

3.12.4.5 Quoy Ness to House Geo LCCA 43 – refer to Figure 11

There is some potential for this local coastal character area to accommodate one small to medium scale aquaculture development, provided:

- Development is aligned with and as close to the shore as possible or associated with promontories.
- Development preferably backed by areas of linear cliff or dark intertidal zones.
- Development is sited out of direct alignment with Coastal Batteries to maintain the integrity of military history.
- Development is sited away from shoreline properties to the north and any striking geological cliff features.
- Development be limited to as few rows as possible i.e. cages no more than two, long lines and trestles less than five, to ensure it can be largely absorbed into the backdrop and be less visible to passengers on the Pentland ferry or adjacent headlands e.g. Hoxa Head.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast.

3.12.4.6 House Geo to Innan Neb LCCA 44 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale aquaculture development provided:

- Development avoids impacting on views of Switha or 'open sea' to the southeast.
- Scale or amount of development does not dominate or impact on the natural pattern of bays and headlands or interrupt the central line of view out of a bay.
- Development be associated with promontories/headlands such as Head of Banks or be aligned with and as close to the shore as possible.
- Development is sited away from shoreline properties and roads.
- Development be located adjacent areas of low cliff or embankment to the outer extents of bays and maintain alignment with the coast.
- Individual, small scale development takes up no more than one tenth of the coast.

3.12.5 Flotta CCA: summary of cumulative development

In considering cumulative issues which may arise from the development of multiple sites around Flotta, Fara, Switha and off the Mainland Hoy Coast, it is concluded that the capacity for development on Flotta as a whole is considerably less than assessed for each individual LCCA. For example, if development were to be proposed for LCCA

21 on Hoy, this would preclude any development in the southern portion of LCCA 39 and it is considered that the capacity would reduce to a single, small scale development. The overall capacity of the southern, northern and eastern coasts of the island to accommodate development is considered to be less than that assessed for the combination of each individual LCCA. It is recommended that, depending of development pressure, up to two medium scale developments could be accommodated in LCCA 41 and one in LCCA 43 with the remaining LCCAs being capable of accommodating only small scale developments with these occurring in either LCCA 42 or 44.

3.13 Switha Coastal Character Area

Landscape Character Types: Holms.

3.13.1 Switha CCA: character analysis – refer to Figures 3 and 7 – LCCAs 45 and 46

Switha forms a distinctive small island, isolated within strong tidal waters. It is simple in profile with a uniform cover of pasture and rough grassland. Pronounced cliffs form an atypical feature at The Ool, while the majority of the coastline comprises rock platforms and shingle bays. The influence of the sea is strong in relation the scale of the island and is heightened by open sea/sky horizons to the south.

3.13.1.1 The Ool to North Taing LCCA 45: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Holms.



Plate 52: The Ool to North Taing LCCA 45

- This large, semi enclosed expanse of strong, tidal water, animated by tidal races, is framed between Flotta and South Walls with views towards Hoy.
- The isolated, small scale island is dominated by the vast seascape but maintains a strong visual relationship with both Flotta and South Walls.
- The relatively consistent, west facing, coastal edge is comprised of low cliffs, sloping rock platforms and a shingle bay, is highlighted by breaking waves and defined at the southwest by a dynamic cliff face known as The Ool.
- The simple hinterland is characterised by gently sloping rough grassland and patches of heath with a smooth profile and little distinction except for small waterbodies and incising watercourses.
- The composition of sea, land and sky is largely horizontal with a predominance of sea and sky.
- There is no apparent evidence of settlement thus emphasising the island's remote character. Standing stones and cairns suggest man's primitive influence.
- Access to the coast is limited solely by boat.

- Views are focused on the cliffscapes of Flotta and South Walls and channelled towards the backdrop of Hoy.

3.13.1.2 North Taing to The Ool LCCA 46: key landscape and visual elements – refer to Figure 7

Landscape Character Types: Holms.



Plate 53: North Taing to the Ool LCCA 46

- This large, open expanse of water, bordered by South Ronaldsay to the southeast, has expansive views of 'open sea' within the Pentland Firth and a backdrop of landmasses concluding with the hills on Hoy.
- It forms a significant extent of strong tidal water animated by wind action and tidal races, and is seldom calm.
- Views of oil tankers and the Pentland ferry service approaching and leaving the oil terminal and St Margaret's Hope respectively, create a distant maritime influence.
- The isolated, small scale island is easily dominated by the vast seascape.
- The island has a stepped, east facing, coastal edge comprised of both low and high, sheer cliffs, sloping rock platforms, skerries, caves, and a shingle bay, highlighted by breaking waves and defined at the southwest by the dynamic cliff face of The Ool.
- The simple hinterland is characterised by gently sloping rough grassland and patches of heath with a smooth profile and little distinction except for small waterbodies.
- The island forms part of a dominant horizontal seascape when viewed at distance.
- There is no apparent evidence of settlement thus emphasising remote character of the island. Standing stones and cairns mark man's primitive influence.
- Access to the coast is limited solely by boat.
- Views are predominantly focused south towards 'open sea'.

3.13.2 *Switha CCA: opportunities and constraints*

There is currently no apparent aquaculture development within Switha CCA. Landscape opportunities and constraints, which are like to affect any development, are noted below.

3.13.2.1 The Ool to North Taing LCCA 45: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- No settlement or public use across entirety of island or along the coast.
- Limited visibility from properties or roads on distant shores.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow inorganic, geometric shapes and layouts to be better accommodated.
- Areas of cliff would offer opportunity to absorb development into the backdrop and into the shadow and dark reflections provided from it, when viewed from relatively low angles.
- No easy coastal access would allow trestles to be accommodated along the shore without being evident.

Landscape and visual constraints for aquaculture development:

- The coastline is currently classed as ‘isolated’; new development would be prominent.
- The simple, small scale island character of Switha would be affected by development and inorganic shapes would be more prominent against the natural pattern of the coast.
- Extensive development would impact on the wild character of tidal races when viewed from South Walls or Flotta.
- The Ool forms a characteristic cliff feature on Switha and would be affected by development.

3.13.2.2 North Taing to The Ool LCCA 46: opportunities and constraints – refer to Figure 7

Landscape and visual opportunities for aquaculture development:

- No settlement or public use across entirety of island or along the coast.
- Limited visibility from properties or roads on distant shores and from passengers the passing Pentland ferry.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow inorganic, geometric shapes and layouts to be better accommodated.
- Points such as The Kiln would allow development to maintain a relationship with the coast and potentially emphasise these coastal features.
- Areas of cliff would offer opportunity to absorb development into the backdrop and into the shadow and dark reflections provided from it, when viewed from relatively low angles.
- No easy coastal access would allow trestles to be accommodated along the shore without being evident.

Landscape and visual constraints for aquaculture development:

- The coastline is currently classed as ‘isolated’; new development would be prominent.

- The simple, small scale island character of Switha would be affected by development and inorganic shapes would be more prominent against the natural pattern of the coast.
- The Ool forms a characteristic cliff feature on Switha and would be affected by development.
- Development would impact on the impression of Orkney when approaching from the south i.e. Switha forms an important part of the coastal gateway to Orkney.

3.13.3 Switha CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	The Ool to North Taing LCCA 45	North Taing to The Ool LCCA 46
Maritime Influences	<p>Moderate sensitivity</p> <p>Open, exposed aspect to Switha Sound and backed by 'open sea' but limited by surrounding shores.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed with breaking waves and tidal races.</p> <p>Distant passage of local ferry service and maritime traffic, and navigational aids such as Cantick Head lighthouse.</p>	<p>High sensitivity</p> <p>Open, exposed aspect to 'open sea' – seascape and tidal races dominate small, simple island.</p> <p>Tidal patterns revealing intertidal zones of rock, shingle and seaweed with breaking waves and tidal races.</p> <p>Passage of ferry service and maritime traffic, including oil tankers, and navigational aids.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by distant shores on Flotta and South Walls.</p> <p>Development could be aligned with linear sections of coast or associated with promontories and be accommodated by the largely horizontal, simple dynamic of the island.</p> <p>The Ool forms a characteristic element of the coastline with its dramatic protruding cliff face.</p>	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by ferry passengers.</p> <p>Development could be aligned with linear sections of coast or associated with promontories and be accommodated by the largely horizontal, simple dynamic of the island.</p> <p>The Ool forms a characteristic element of the coastline with its dramatic protruding cliff face.</p>
Setting of Landmarks and Features	<p>Not sensitive</p> <p>Apart from a couple of standing stones and a cairn the island is void of significant features.</p>	<p>Not sensitive</p> <p>Apart from a couple of standing stones and a cairn the island is void of significant features.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>The isolated nature of the island and general inaccessibility would be affected by development, however largely un-experienced.</p>	<p>Low sensitivity</p> <p>The isolated nature of the island and general inaccessibility would be affected by development, however largely un-experienced except by passing maritime traffic.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>Although the island forms a</p>	<p>Low sensitivity</p> <p>Although the island forms a characteristic</p>

	characteristic feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.	feature of the seascape it does not bare any exceptional scenic qualities which would be affected by development.
Key Viewpoints	Low sensitivity The coastline is visible at distance from locations on Flotta and South Walls.	Low sensitivity The coastline is visible at distance from locations on South Ronaldsay and by passing maritime traffic.

Table 19: Sensitivity assessment – LCCAs 37 – 38

3.13.4 Switha CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

3.13.4.1 The Ool to North Taing LCCA 45 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island.
- Development avoids obstructing views towards The Ool.
- Development is restricted to as few rows as possible i.e. cages no more than two, long lines or trestles less than five, to avoid dominating the island or destroying its undeveloped character.
- Individual, small scale development takes up no more than one tenth of the coast.

3.13.4.2 North Taing to The Ool LCCA 46 – refer to Figure 11

There is some potential for this local coastal character area to accommodate small scale aquaculture development, provided:

- Development be aligned with and as close to the shore as possible and maintain a neat and orderly layout to reflect the simple horizontal dynamic of the island or associated with promontories such as The Kiln.
- Development is restricted to as few rows as possible i.e. cages no more than two, long lines or trestles less than five, to avoid dominating the island or destroying its undeveloped character and to ensure that it becomes largely absorbed into the backdrop thus being less visible by passengers on the Pentland ferry service.
- Individual, small scale development takes up no more than one tenth of the coast.

3.13.5 Switha CCA: summary of cumulative development

Given the locational guidance for LCCA 20 on Hoy, it is considered that the capacity of Switha would remain as assessed for the two LCCAs individually.

4 WIDE FIRTH

4.1 Landscape and Seascape Context

The Wide Firth study area, including Bay of Firth, Bay of Kirkwall, Inganess Bay and Shapinsay Sound, lies between the east coast of east mainland, the north coast of Kirkwall and Tankerness, and includes Gairsay and Shapinsay at the northern and eastern extents. Refer to Figure 1.

A semi enclosed, large sea bay, Wide Firth is notoriously shallow with depths often reaching no more than 20m. The deepest areas are Shapinsay Sound, north of Veantrow Bay, the waters between Shapinsay and Gairsay, and navigational channels occupied frequently by boats and ferries.

The whole area lies within 'Deposition Coasts of Islands' seascape character type as identified in 'An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore wind farms, Scottish Natural Heritage Commissioned Report No.103', refer to Annex SIX.

It is surrounded by a range of SNH Landscape Character Types, nine in total, and three SNH Island Character Areas. The majority of landscape character types share similar characteristics at a strategic level which creates coherent hinterland and coastline. Refer to Figure 2 and Annex SEVEN and EIGHT.

Seascapes are generally low lying, enclosed or semi enclosed by constant views of surrounding land, however views of open sea/sky horizons are found to the eastern extents of the study area especially from Shapinsay. Smaller bays offer a sense of intimacy, but as a whole the area is typical of a medium to large scale seascape. The coastline is largely consistent characterised by low lying, sweeping shores; deep bays; shallow bays; out-stretched headlands and promontories; ayres; and developed harbours. Settlement ranges from isolated dwellings and farmsteads scattered throughout the hinterland to harbour villages and the town and port of Kirkwall.

Two Sites of Local Landscape Character at Bay of Firth and Woodwick, as identified in the Orkney Islands Local Plan 2004, extend into the study area and along parts of the coast.

The study area as a whole is scattered with Scheduled Ancient Monuments (SAMs) including cairns, brochs, and tumuli; Listed Buildings including Hall of Rendall on east mainland opposite Gairsay, and Saeva Ness lighthouse on Helliær Holm; and Coastal Batteries located at strategic points along the coast. Balfour Castle, listed under Historic Scotland's Historic Gardens and Designed Landscapes, is located on the south western corner of Shapinsay. Refer to Figures 12 - 14.

4.2 Wide Firth Coastal Character Areas

This study has identified a total of five Coastal Character Areas (CCAs) within the Wide Firth study area. Refer to Figure 3.

- Wide Firth
- Kirkwall
- Shapinsay Sound - Inganess Bay
- Shapinsay West
- Gairsay

Each CCA has been further sub-divided to form a more detailed set of Local Coastal Character Areas (LCCAs). Refer to Figures 12 - 14. The following takes each CCA, and associated LCCAs, in turn and provides:

- Local character area analysis – key landscape and visual elements;
- Opportunities and constraints for aquaculture development;
- Sensitivity of character areas to aquaculture development; and
- Conclusions and relevant guidance.

4.3 Wide Firth Coastal Character Area

Landscape Character Types: Holms, Inclined Coastal Pastures, Coastal Basins, Urban and Rural Development, Rolling Hill Fringe.

4.3.1 *Wide Firth CCA: character analysis – refer to Figures 3 and 12 – LCCAs A, B, C, D, E, F and G*

Wide Firth stretches from Tingwall in the north to the western pier at Kirkwall in the south, including Bay of Isbister, Bay of Firth, Holm of Grimbister and Damsay. This extensive area is united by low lying coastal agriculture that rises gently to moorland hills and plateau thus framing and providing a consistent backdrop to the firth. The coastline is undramatic, gently indented and defined by bays and skerries, with a wide intertidal zone. Largely sheltered and semi-enclosed by adjacent and neighbouring landmasses, the area is well settled and easily accessed.

4.3.1.1 Tingwall to North Aittit LCCA A: key landscape and visual elements – refer to Figure 12

Landscape Character Types: Inclined Coastal Pastures.



Plate 54: Tingwall to North Aittit LCCA A

- This area comprises a relatively small, stretch of strong tidal water extending from Gairsay Sound to Wide Firth. It is fairly shallow, but animated by wind action and by tidal races and includes a deep intertidal zone defined by dark seaweed.
- There is a wide sense of semi-enclosure provided by Rousay, Wyre and Egilsay to the north, Gairsay to the east and Shapinsay and the mainland to the southeast and south respectively.
- The coast maintains a close visual relationship with Gairsay.
- Within close proximity of the shoreline, views of frequent boat and ferry traffic, including associated navigational aids such as Seal Skerry, create a strong maritime influence together with prevalent sounds and smells of the sea.
- The low lying, subtly indented coastal edge is comprised of rock platforms and stretches of shingle, and points and skerries including Holm of Rendall.

- Pasture and arable land inclines relatively evenly, with localised undulations, from the shoreline over both concave and convex slopes. Views of the coastline are generally interrupted by convex slopes at higher elevations creating a degree of separation and in some locations screening sea views completely.
- There is a dispersed, linear pattern to well spaced settlement strung out from roads and across the immediate coastal hinterland, mostly residing at low level below moorland hills and around Enyas Hill and Gorseness Hill.
- Stonewalls and fence lines strengthen regular field patterns and enhance or break up the topography.
- Access to the coast is limited over agricultural land, private track or by boat.
- Views are primarily focused on Gairsay with distant views to Rousay, Wyre, Egilsay and Shapinsay across the open water.

4.3.1.2 North Aittit to Broad Taing LCCA B: key landscape and visual elements – refer to Figure 12

Landscape Character Types: Inclined Coastal Pastures.



Plate 55: North Aittit to Broad Taing LCCA B

- A large, open, expanse of tidal water within the northern extents of Wide Firth. Open views towards Gairsay, Shapinsay and the mainland create a wide sense of semi-containment.
- The coastline is essentially sheltered by the regular pattern of bays and gently inclined, undulating pastures yet highly influenced by the large expanse of Wide Firth to the immediate east. Together with changeable light conditions, tidal movements, tidal races, boat and ferry traffic, visible navigational aids, and a deep intertidal zone exploiting the prevalent smells and sounds of sea this area has a strong maritime character.
- The low lying, subtly indented coastal edge is comprised of fragmented rock platforms, wide stretches of rock, shingle and sand, and points and skerries including Puldrite Skerry.
- Pasture and arable land inclines relatively evenly, with localised undulations, from the shoreline over both concave and convex slopes.

- Views of the shoreline are typically interrupted by convex slopes at higher elevations creating a degree of separation and in some locations screening sea views completely.
- Scattered dwellings and farmsteads reside across the hinterland, generally at low level below Enyas Hill and Gorseness Hill.
- Stonewalls and fence lines strengthen regular field patterns and enhance or break up the topography.
- Access to the coast is via local roads and lanes, agricultural land, private track or by boat.
- Views are predominantly focused externally across open water towards Gairsay or Shapinsay by nature of the sloping hinterland.
- Existing finfish farm activity is visible within close proximity of the coastline in the Bay of Puldrite.

4.3.1.3 Broad Taing to Point of Backaquoy LCCA C: key landscape and visual elements – refer to Figure 12

Landscape Character Types: Coastal Basins.



Plate 56: Broad Taing to Point of Backaquoy LCCA C

- This small, semi-enclosed, area of water within Wide Firth, is known as the Bay of Isbister. Its south facing, sheltered aspect remains relatively shallow with a deep intertidal zone defined by dark seaweed.
- Tidal movements and the innate sounds and smells of sea create an intimate maritime influence.
- There is a sense of wide shelter and semi containment from extensive rolling agriculture and moorland hills to the north and west and to the distant south.
- The low lying, subtly indented coastal edge is comprised of fragmented rock platforms, wide stretches of rock and shingle, points and an ayre and a burn mouth.
- An expanse of pasture and arable land, with patches of wet peatland, lochans and burns, and sheltered pockets of vegetation cover, lies at low level remaining relatively flat, but with localised undulations, before rising steeply into moorland hills due west, and Enyas Hill and Gorseness Hill due north.

- Scattered dwellings and farmsteads across hinterland, feature at low level below Enyas Hill and Gorseness Hill and below moorland hills to the west.
- Stonewalls, fence lines and telegraph poles provide vertical structure within a dominantly horizontal landscape.
- Access to the coast is via local roads and lanes, agricultural land, private track or by boat.
- Views are largely contained within the low lying, flat landform and by surrounding moorland ridgelines and low horizon lines.

4.3.1.4 Point of Backaquooy to Finstown LCCA D: key landscape and visual elements – refer to Figure 12

Landscape Character Types: Coastal Basins, Inclined Coastal Pastures.



Plate 57: Point of Backaquooy to Finstown LCCA D

- This small, semi-enclosed, stretch of shallow, tidal water from Finstown to Wide Firth, has framed views northeast across the Bay of Firth to Wide Firth and then towards Shapinsay.
- There is a strong sense of shelter and semi containment provided by agricultural land and moorland hills to the north, west, south and southeast.
- Deep intertidal areas at low tide strengthen the close visual relationship with Holm of Grimbister, Damsay and the opposing mainland including Finstown.
- The low lying, southeast facing, indented coastline comprises fragmented rock platforms and skerries, and stretches of rock and shingle shores. Inherent sounds and smells of the sea create an intimate maritime influence from shoreline locations strengthened by views of small boats and buoys.
- Pasture and arable land, including sheltered pockets of vegetation cover, forms a simple low lying, relatively narrow band of hinterland backed by moorland hills.
- Dispersed, linear settlement is strung off roads running almost parallel with coast and rises gently within fieldsapes overlooking the bay.
- Fence lines and stonewalls emphasise and break up the topography and strengthen regular, small scale field patterns. Telegraph poles form vertical elements within a predominantly horizontal landscape.
- Access to the coast is limited to local roads and lanes, agricultural land, private track or by boat.

- Views are largely focused on the urban edge of Finstown, towards the rolling ridgeline of Wideford Hill, Burray Brae and Keeylang Hill, or east across Wide Firth to Shapinsay in the distance.

4.3.1.5 Finstown to Rennibister LCCA E: key landscape and visual elements – refer to Figure 12

Landscape Character Types: Inclined Coastal Pastures, Urban and Rural Development, Rolling Hill fringe.



Plate 58: Finstown to Rennibister LCCA E

- This stretch of coast is characterised by a small, semi-enclosed, stretch of shallow, tidal water from Finstown to Wide Firth, with framed views northeast across the Bay of Firth and Wide Firth towards Shapinsay.
- There is a strong sense of shelter and semi containment provided by agricultural land and moorland hills to the southeast, south, west and northwest and the built form of Finstown.
- Deep intertidal areas at low tide, including the causeway across to Holm of Grimbister from the mainland, strengthen the close visual relationship with Holm of Grimbister, Damsay and the opposing mainland.
- The low lying, north facing, subtly indented coastline comprises fragmented rock platforms and skerries, stretches of rock, shingle and intertidal mud and sand flats, and man made edges including Finstown and associated piers, slipways and bridges, and the adjacent A965 which skirts very close to the shoreline.
- Prevalent sounds and smells of sea create an intimate maritime influence from easily accessed shoreline locations including views of small boats and buoys.
- The immediate hinterland is typified by rolling pasture and arable land, including sheltered pockets of vegetation cover, to the west opening out across flat pasture and arable land to the east, and backed by steeply rising moorland hills to the south.
- Settlement is concentrated at Finstown with a typical urban character of hard surfaces, highway elements and street lighting. Settlement is dispersed thereafter along roads and scattered within the lower lying areas of hinterland to the southeast.

- Fence lines, stonewalls and dykes emphasise and break up the topography and also strengthen regular, small scale field patterns.
- Access to the coast is readily available from the A965, A966 and from within Finstown.
- Views are typically contained within the Bay of Firth by nature of the surrounding moorland hills, with focus on the urban edge of Finstown or the islands of Holm of Grimbister and Damsay.

4.3.1.6 Holm of Grimbister and Damsay LCCA F: key landscape and visual elements – refer to Figure 12

Landscape Character Types: Holms.



Plate 59: Holm of Grimbister and Damsay LCCA F

- A relatively small, shallow area of tidal water known as the Bay of Firth surrounds Holm of Grimbister and Damsay.
- Framed views are gained northeast towards Shapinsay, but are typically contained within the bay by surrounding moorland hills and opposing shores.
- The low lying, exposed coastline and hinterland is overlooked by the surrounding mainland maintaining a strong visual relationship especially at low tide when deep intertidal zones are revealed and Holm of Grimbister becomes physically connected to Holm Point via the causeway.
- The seascape and surrounding moorland hills largely dominates the simple character of the islands, however they do form unique visual features within the wider seascape.
- Prevalent sounds and smells of the sea create an intimate maritime influence across the islands strengthened by views of small boats and buoys.
- Both islands have a largely consistent, low lying, coastal edge comprising rock platforms, and stretches of shingle shore with a relatively deep intertidal zone defined by dark seaweed. There are two piers on Damsay.
- A very simple hinterland characterised by flat pasture on Holm of Grimbister and rough grassland on Damsay creates a smooth profile with little distinction to both islands.
- There is a dominant horizontal dynamic to the arrangement of sea, land and sky contained within the sweeping landscape of the wider, surrounding mainland.

- Settlement is limited to a solitary farmstead and access track on Holm of Grimbister.
- Access to the coast is limited solely by boat or via the causeway at low tide to Holm of Grimbister.
- Views are typically contained within the surrounding nature of moorland hills and focused on the urban edge of Finstown, or northeast across open water to Shapinsay.

4.3.1.7 Rennibister to the pier LCCA G: key landscape and visual elements – refer to Figure 12

Landscape Character Types: Inclined Coastal Pastures, Rolling Hill fringe.



Plate 60: Rennibister to pier LCCA G

- This large, semi-enclosed, expanse of relatively shallow tidal water from Bay of Firth to Kirkwall Bay, is known as Wide Firth.
- Open views northeast across towards Shapinsay and north and northwest towards opposing mainland shores creates a degree of wide shelter and semi containment.
- The coast maintains a close visual relationship with Damsay to the west.
- The low lying, typically north facing, coastline is defined by a narrow intertidal zone. Western extents are characterised by long stretches of rock and shingle shore whilst eastern extents are comprised of fragmented rock platforms and short stretches of sand and shingle shores.
- Large, convex agricultural fields largely separate the coast from the A965 limiting views of and accessibility to the shoreline and in turn the experience of seaside sounds and smells.
- Views of small boats and buoys and the passage of ferry and fishing traffic to and from Kirkwall create a strong maritime influence to eastern extents.
- An irregular pattern of pasture and arable land forms the simple low lying hinterland backed by Wideford Hill to the south.
- Settlement is limited to a number of farmsteads and dwellings around the base of Wideford Hill.

- Fence lines and stonewalls emphasise field patterns and create a sense of scale within the expansive, flat landform. Telegraph poles form vertical elements within the predominantly horizontal landscape.
- Access to the coast is limited to agricultural land, private track or by boat.
- Views are typically contained by panoramic moorland ridgelines and focused on marine activity towards Kirkwall.
- Existing fish farm activity located within close proximity of the shoreline is visible from eastern reaches.

4.3.2 *Wide Firth CCA: opportunities and constraints*

There are two apparent medium scale aquaculture developments within Wide Firth CCA, situated in the Bay of Puldrite and consisting of 10 circular cages and northwest of Bay of Kirkwall consisting of seven circular cages with no apparent permanent feeding facilities. Feeding appears to be via a boat and long-arm. A further six oyster trestle license sites are listed within the Wide Firth area at Cursiter, Damsay, Ferry Point, Holm of Grimbister, Rennibister and Scava Taing, however these were not visible during fieldwork and may not be active. Landscape opportunities and constraints, which are like to affect any further development, are noted below.

4.3.2.1 Tingwall to North Aittit LCCA A: opportunities and constraints – refer to Figure 12

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Tingwall would be more appropriate for any for shore based infrastructure than locations within this LCCA.
- There is little visibility from opposite shores.
- Convex landform and areas of low cliff allow development to be ‘tucked in’ and largely screened from view if located close to shoreline.
- Predominantly linear character of coastline and the regular pattern of fieldscapes across the hinterland allows for inorganic, geometric shapes and layouts to be absorbed.
- Trestles could be accommodated within the intertidal zone following the line of the coast with little impact to landscape resource or visual amenity.
- The coastline is not readily accessed for recreation.

Landscape and visual constraints for aquaculture development:

- There is a close visual relationship between the coast and Gairsay, including clear, framed vistas north and south, which could be interrupted by development.
- Recreational sea users would have open views of development.
- Elevated panoramic views can be gained from relative close range including from Enyas Hill and Gorseness Hill, properties, local access routes and a National Cycle Network route.
- The coastline is currently undeveloped; new development would be prominent.
- The coastal setting is important for a number of Listed Buildings/Structures including the Hall of Rendall, a number of Scheduled Ancient Monuments, and a Coastal Battery.



Plate 61: Puldrite Bay finfish farm in Bay of Puldrite, Wide Firth

4.3.2.2 North Aittit to Broad Taing LCCA B: opportunities and constraints – refer to Figure 12

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Tingwall or Finstown would be more appropriate for any for shore based infrastructure than locations within this LCCA.
- There is little visibility from opposite shores or from passing boats and ferries.
- Headlands/promontories lacking in visual receptors offer opportunity to site development and potentially emphasise these coastal features.
- An existing finfish farm in the Bay of Puldrite offers opportunity for expansion or for further development to be accommodated without a significant magnitude of change to the current coastal character.

Landscape and visual constraints for aquaculture development:

- Bays are generally well settled with some properties on the shoreline; development within the bays would be prominent and visible at close range.
- The coastline is currently undeveloped; new development would therefore be prominent.
- Elevated panoramic views can be gained from relative close range including from Enyas Hill and Gorseness Hill, properties, local access routes, core footpaths, and a National Cycle Network route.
- Recreational sea users would have open views of development.
- The coastal setting is important for a number of Scheduled Ancient Monuments.
- The existing finfish farm in the Bay of Puldrite poses potential cumulative effects for further development resulting in development as a whole becoming more prominent along the coast.

4.3.2.3 Broad Taing to Point of Backaquoy LCCA C: opportunities and constraints – refer to Figure 12

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Finstown would be more appropriate for any for shore based infrastructure than locations within this LCCA.
- Deep intertidal zones offer opportunity to largely absorb development into the backdrop including trestles along the shore, when viewed from opposite shores.
- Headlands/promontories offer opportunity to site development and potentially emphasise the sheltered aspect of the bay.
- Linear stretches of coastline and the low lying hinterland would allow inorganic, geometric shapes and layouts to be better accommodated.
- The generally flat, low lying hinterland limits the number of close range, elevated views.

Landscape and visual constraints for aquaculture development:

- Properties and local roads, including the A966 and a National Cycle Network route, lie within close proximity of the bay, with some properties on the shoreline.
- Views are focused within the bay and channelled out towards Wide Firth; development located centrally would be prominent.
- Dyce of Isbister, a coastal ayre forms an important coastal feature along the shore of the bay.
- The coast is classed as undeveloped; new development would be prominent.
- A number of Scheduled Ancient Monuments rely on the coastal setting.
- Views are generally focused on and contained within the bay.
- Sea users would have open views of development.

4.3.2.4 Point of Backaquoy to Finstown LCCA D: opportunities and constraints – refer to Figure 12

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Finstown would be more appropriate and easily accessible for any for shore based infrastructure than locations within this LCCA.
- An existing shellfish farm licence exists along this stretch of coast which appears inactive – there is opportunity for this site to be utilised.
- Deep intertidal zones offer opportunity to largely absorb development into the backdrop including trestles along the shore, when viewed from low lying, opposite shores.
- Promontories offer opportunity to site development and potentially emphasise the pattern of smaller bays.
- The location of Finstown and the developed coastal edge would offer a degree of opportunity to absorb further man made elements when viewed against it as a backdrop.

Landscape and visual constraints for aquaculture development:

- Close range views are gained from Finstown and the A965, A966 and local roads and properties and are generally contained within the Bay of Firth with focus on the shorelines.
- There is a strong visual relationship between opposing shores within the Bay of Firth including the islands of Holm of Grimbister and Damsay.
- Elevated views are gained from properties within Finstown and from Heddle Hill and from core footpaths overlooking the coast.

- Sea users would have open views of development.
- The area lies within an Area of Local Landscape Character with a number of Scheduled Ancient Monuments and a Listed Building/Structure relying on the coastal setting.
- Existing shellfish farm licences pose a potential cumulative risk if new development is granted and they subsequently also become operational again.

4.3.2.5 Finstown to Rennibister LCCA E: opportunities and constraints – refer to Figure 12

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Finstown would be more appropriate for locating shore based infrastructure within this area.
- A number of existing shellfish farm licences exists along this stretch of coast which appear inactive – there is opportunity for these sites to be utilised.
- Deep intertidal zones offer opportunity to largely absorb development into the backdrop including trestles along the shore, when viewed from low lying, opposite shores.
- Linear stretches of coastline would allow inorganic, geometric shapes and layouts to be better accommodated.
- The developed coast of Finstown and the built backdrop of the village would offer opportunity to absorb further man made elements.

Landscape and visual constraints for aquaculture development:

- Close range and elevated views are gained from properties and roads within and around Finstown including the A965 which skirts close to the coast for the entire length of this area and the viewpoint on Heddle Hill.
- Existing shellfish farm licences pose a potential cumulative risk if new development is granted and they subsequently also become operational again.
- Western extents lie within an Area of Local Landscape Character with a selection of Scheduled Ancient Monuments and Listed Buildings/Structures relying on the coastal setting.
- There is a very close visual relationship between this coast and Holm of Grimbister and Damsay which would be interrupted by development.
- Stretches of the coast are classed as undeveloped; development would appear prominent and within close range.
- Views are generally contained within the Bay of Firth with focus on the coastline and between Holm of Grimbister and Damsay, but some are channelled by the nature of the bay towards Wide Firth.
- Recreational sea users would have open views of development.

4.3.2.6 Holm of Grimbister and Damsay LCCA F: opportunities and constraints – refer to Figure 12

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Finstown would be more appropriate for locating shore based infrastructure within this area rather than on the shores of the islands.
- A number of existing shellfish farm licences exists within this area of water which appear inactive – there is opportunity for these sites to be utilised.
- Deep intertidal zones offer opportunity to largely absorb development into the backdrop including trestles along the shore, when viewed from low lying, opposite shores.
- The developed coast of Finstown and the built backdrop of the village would offer opportunity to absorb further man made elements.

Landscape and visual constraints for aquaculture development:

- Close range and elevated views are gained from properties and roads within and around Finstown including the A965 which skirts close to the coast and the viewpoint on Heddle Hill which offers views over the entirety of the two islands.
- Existing shellfish farm licences pose a potential cumulative risk if new development is granted and they subsequently also become operational again.
- Western extents lie within an Area of Local Landscape Character with a selection of Scheduled Ancient Monuments and Listed Buildings/Structures relying on the coastal setting.
- The coast is classed as undeveloped and isolated; development would appear prominent and dominate the simple character of the islands.
- Views are generally contained within the Bay of Firth with focus on Holm of Grimbister and Damsay.
- The area is commonly used for recreational fishing, kayakers, and jet skis who would experience views of development.



Plate 62: Quarterness finfish farm northwest of Bay of Kirkwall, Wide Firth

4.3.2.7 Rennibister to the pier LCCA G: opportunities and constraints – refer to Figure 12

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Finstown or Kirkwall would be more suitable for locating shore based infrastructure within this area.
- An existing finfish farm at Quarterness offers opportunity for expansion or for further development to be accommodated without a significant magnitude of change to the current coastal character.
- An existing shellfish farm licence also exists along this stretch of coast which appears inactive – there is opportunity for this site to be utilised.
- There are limited views from properties and roads within this area with the central, northern reaches of the coastline being generally well screened and isolated from view or access.
- There are limited views from opposite shores.

- Linear stretches of coastline would allow inorganic, geometric shapes and layouts to be better accommodated.
- The distant backdrop of Finstown and Kirkwall would offer some opportunity to absorb further man made elements.

Landscape and visual constraints for aquaculture development:

- Some relatively close range views are gained from the A965 which runs close to the coast to the east and west.
- Distant, elevated views are gained from Wideford Hill.
- Existing shellfish farm licences pose a potential cumulative risk if new development is granted and they subsequently also become operational again.
- Existing finfish farm development in Quarterness also poses a cumulative risk for further development resulting in development as a whole appearing more prominent.
- There is a very close visual relationship between the western reaches of this area and Holm of Grimbister and Damsay, which would be interrupted by development.
- The coast is classed as undeveloped; further development would appear prominent.
- Recreational sea users would have open views of development.

4.3.3 *Wide Firth CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development*

Potential sensitivity of the seascape to aquaculture development	Tingwall to North Aittit LCCA A	North Aittit to Broad Taing LCCA B	Broad Taing to Point of Backaquooy LCCA C
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and maritime traffic, including local ferry services, and navigational aids are visible from many locations along the coast.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells but limited accessibility.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and distant maritime traffic and navigational aids are visible from many locations along the shore including some distant, framed views of 'open sea'.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>An existing finfish farm is highly visible and close but could aid integration of further development or extensions.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, and distant maritime traffic and navigational aids are visible from many locations around the bay.</p> <p>Undeveloped low lying shoreline and sheltered waters offering intimate experience of seaside sounds and smells.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect the linear sections of coast and geometric shapes</p>	<p>Moderate sensitivity</p> <p>Further development could be associated with promontories and enhance the shelter of bays,</p>	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect the linear sections of coast and geometric shapes and</p>

	<p>and layouts accommodated by the regular pattern of fieldscapes.</p> <p>Coastline not readily accessed for recreation.</p> <p>Strong visual relationship with Gairsay.</p>	<p>however development could also dominate the settled shore.</p> <p>Low lying shore and hinterland is scattered with properties and local roads.</p>	<p>layouts accommodated by the regular pattern of fieldscapes.</p> <p>The bay could easily 'fill up' with development dominating the low lying shore and settled hinterland.</p>
Setting of Landmarks and Features	<p>Moderate sensitivity</p> <p>A number of Listed Buildings/Structures, Scheduled Ancient Monuments and a Coastal Battery overlook the coast or rely on it as part of their coastal setting.</p>	<p>Low sensitivity</p> <p>A number of Scheduled Ancient Monuments overlook the coast or rely on it as part of their coastal setting.</p>	<p>Low sensitivity</p> <p>A number of Scheduled Ancient Monuments overlook the bay or rely on it as part of their coastal setting.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Visual influence of settlement throughout hinterland, including main roads and the harbour at Tingwall, limits the sense of wildness. The landscape as a whole is characterised by well managed agriculture.</p>	<p>Low sensitivity</p> <p>Visual influence of settlement throughout hinterland and an existing finfish farm limit the sense of wildness. The landscape as a whole is characterised by well managed agriculture.</p>	<p>Low sensitivity</p> <p>Visual influence of settlement and roads throughout hinterland limits the sense of wildness. The landscape as a whole is characterised by well managed agriculture.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>The coastline offers attractive, clear views of Gairsay and represents a typical coastal agricultural Orcadian landscape, however bares no exceptional scenic characteristics.</p>	<p>Low sensitivity</p> <p>The coastline offers open views across Wide Firth towards Gairsay, Shapinsay and distant mainland, and represents a typical coastal agricultural Orcadian landscape, however bares no exceptional scenic characteristics.</p>	<p>Low sensitivity</p> <p>The coastline offers framed views across Wide Firth towards distant mainland and represents a typical coastal agricultural Orcadian landscape backed by moorland hills, however bares no exceptional scenic characteristics.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coast is overlooked by a number of properties located throughout the hinterland the majority experiencing elevated views. A local road and NCN runs parallel with the coast and also experiences elevated views.</p> <p>However, the convex form of hinterland slopes prevents the immediate coastline being visible from most locations.</p> <p>Open views from Gairsay are gained but from very limited receptors.</p>	<p>Low sensitivity</p> <p>The coast is overlooked by a number of properties located throughout the hinterland, local roads and an NCN.</p> <p>However, the undulating landform sloping to the shore interrupts views along the coast and from within the hinterland.</p> <p>Limited shoreline roads and properties have clear views.</p>	<p>Moderate sensitivity</p> <p>The coast is overlooked by a limited number of properties located throughout the hinterland, local roads and an NCN most of which have clear, framed views focused on the bay and channelled towards Wide Firth which development is likely to interrupt. Limited views from the A966.</p> <p>Few distant views are obtained from opposite mainland shores.</p>

Table 20: Sensitivity assessment – LCCAs A – C

Potential sensitivity of the seascape to aquaculture development	Point of Backaquooy to Finstown LCCA D	Finstown to Rennibister LCCA E
Maritime Influences	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells and a close affinity with the sheltered waters of Bay of Firth.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed.</p> <p>Areas of undeveloped and developed shoreline offering close experience of seaside sounds and smells and a close affinity with the sheltered waters of Bay of Firth.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>Development could be associated with promontories and enhance the shelter of bays, however development could also dominate the settled shore.</p> <p>The A966 runs largely parallel to the coast.</p> <p>Strong visual relationship with Holm of Grimbister, Damsay and Finstown.</p>	<p>Moderate sensitivity</p> <p>The urban character of Finstown and close route of the A965 influences experience of the coast</p> <p>Development could be aligned with linear sections of coast and noise, light, activity and structures largely absorbed by urban influences from Finstown.</p> <p>Strong visual relationship with Holm of Grimbister, Damsay and Finstown.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>One Listed Building/Structure and a Scheduled Ancient Monument overlook the coast.</p>	<p>Low sensitivity</p> <p>One Listed Building/Structure and a number of Scheduled Ancient Monuments overlook the coast.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Visual influence of settlement including the urban edge of Finstown and main roads, limit the sense of wildness. The coastal landscape as a whole is characterised by well managed agriculture.</p>	<p>Low sensitivity</p> <p>Visual influence of settlement including the urban edge of Finstown and main roads, limit the sense of wildness. The coastal landscape as a whole is characterised by well managed agriculture.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>The coastline itself bares no exceptional scenic characteristics, however together with surrounding hinterland and coast, forms an Area of Local Landscape Character.</p>	<p>Low sensitivity</p> <p>The coastline itself bares no exceptional scenic characteristics, however together with surrounding hinterland and coast, forms an Area of Local Landscape Character.</p>
Key Viewpoints	<p>Moderate sensitivity</p> <p>The coast is overlooked by a number of properties located throughout the hinterland and on opposite shores within Finstown. The main A966, the A965 and other local roads also</p>	<p>High sensitivity</p> <p>The coast is overlooked by a number of properties located throughout the hinterland, within Finstown, and on opposite shores. The main A965</p>

	experience views. Panoramic views are gained from the elevated viewpoint on Hill of Heddle and Wideford Hill.	experiences close range views along the majority of the area. Other local roads also experience views. Panoramic views are gained from the elevated viewpoint on Hill of Heddle and Wideford Hill. Views are focused out towards Wide Firth over Bay of Firth.
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Table 21: Sensitivity assessment – LCCAs D – E

Potential sensitivity of the seascape to aquaculture development	Holm of Grimbister and Damsay LCCA F	Rennibister to the pier LCCA G
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed. Areas of undeveloped and isolated low lying shoreline dominated by close experience of seaside sounds and smells and a close affinity with the sheltered waters of Bay of Firth.</p> <p>Simplicity of sea surface and relationship between surrounding shores could be compromised by clutter.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock and seaweed, the passage of maritime traffic to and from Kirkwall, including associated navigational aids, and an existing finfish farm.</p> <p>Areas of undeveloped low lying shoreline with an open aspect to Wide Firth and Bay of Firth.</p>
Character and Experience of the Coast	<p>High sensitivity</p> <p>The isolated nature of the coast results in limited direct appreciation and experience of it.</p> <p>The characteristic juxtaposition of two similarly small, largely uninhabited islands within surrounding habited shores creates a unique coastal character.</p> <p>Limited opportunity to accommodate development without dominating the islands.</p>	<p>Low sensitivity</p> <p>The coastline is not readily access for recreation resulting in limited direct appreciation and experience of it.</p> <p>Development could be accommodated along linear sections of coast or associated with the existing finfish farm.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>The falls within an Area of Local Landscape Character and contains one Scheduled Ancient Monument.</p>	<p>Not sensitive</p> <p>The area as a whole does not provide the coastal setting for any significant features.</p>
Experience of Wildness	<p>Moderate sensitivity</p> <p>The exposed, largely uninhabited character of the two isolated islands instills an inherent sense of wildness, however surrounding shores, the A965 and Finstown have a limiting effect.</p>	<p>Low sensitivity</p> <p>Eastern and western extents are largely influenced by Kirkwall and Finstown respectively. The landscape as a whole is characterised by well managed intensive agriculture with views towards an existing finfish farm. The degree of exposure to Wide Firth including framed views towards 'open sea' along central sections creates a sense of wildness.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>The area as a whole does not exhibit any exceptional scenic qualities,</p>	<p>Not sensitive</p> <p>The area as a whole does not exhibit any exceptional scenic qualities or</p>

	however it does fall within an Area of Local Landscape Character.	distinguishing characteristics.
Key Viewpoints	<p>Moderate sensitivity</p> <p>The two islands are overlooked at close proximity by surrounding shores including Finstown and main roads with the majority of all shores visible due to the low lying profiles. Elevated viewpoints including Hill of Heddle and Wideford Hill.</p> <p>Limited opportunity to screen any development.</p>	<p>Low sensitivity</p> <p>The coast is largely screened by convex fieldscapes from lower elevations to the south and by Holm of Grimbister and Damsay interrupting views from the west. Wideford Hill and Hill of Heddle gain elevated views over the coast.</p> <p>Distant views from opposite northern shores and from east of Kirkwall are also gained including from local ferry services leaving and arriving at Kirkwall.</p>

Table 22: Sensitivity assessment – LCCAs F – G

4.3.4 Wide Firth CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

4.3.4.1 Tingwall to North Aittit LCCA A – refer to Figure 15

There is some potential for this local coastal character area to accommodate small scale aquaculture development or limited small scale, multi sites, provided:

- Development is aligned with and as close to the shore as possible or associated with promontories such as Salta Taing.
- Development is limited to as few rows as possible i.e. cages no more than two, long lines and trestles less than five, to maximise natural screening by convex slopes and areas of low cliff or embankment.
- Development avoids obstructing views across to Gairsay.
- Development is sited away from shoreline properties.
- Development is not located within close proximity of Hall of Rendal.
- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi sites total no more than two, of any kind.

4.3.4.2 North Aittit to Broad Taing LCCA B – refer to Figure 15

There is some potential for this local coastal character area to accommodate small scale aquaculture development or extensions to existing, provided:

- Development be associated with promontories/headlands such as Tor Ness and be aligned with and as close to the shore as possible.
- Development avoids impacting on open views over Wide Firth from within or aligned with any bay.
- Scale or amount of development does not dominate or impact on the natural pattern of bays and headlands.
- Development is sited away from shoreline properties.
- It is suggested, should additional finfish cages be proposed for existing farms or additional units elsewhere within the area, that all existing locations be revised to prevent clutter and a ‘filling up’ of the bays, thus aligning all existing and proposed developments with and as close to shorelines as possible or associated with promontories.
- Trestles or intertidal long lines are not located within the inner reaches of any sand or shingle bay.

- Individual, small scale development takes up no more than one tenth of the coast.
- Total development, including existing finfish farm or extensions to, does not occupy more than 30% of the coast.

4.3.4.3 Broad Taing to Point of Backaquooy LCCA C – refer to Figure 15

There is some potential for this local coastal character area to accommodate limited small scale aquaculture developments or one medium scale aquaculture development, provided:

- Development avoids impacting on open views over Wide Firth.
- Development is aligned with and as close to linear sections of shore as possible or associated with promontories.
- Scale or amount of development does not dominate the bay or impact on the sense of 'quiet'.
- Development be sited away from shoreline properties and the ayre.
- Development avoids central locations within the bay.
- Individual, small scale development takes up no more than one tenth of the bay. Single, medium scale development takes up no more than one quarter of the bay. Small scale, multi site development totals no more than two, of any kind.

4.3.4.4 Point of Backaquooy to Finstown LCCA D – refer to Figure 15

This area is not deemed suitable for finfish development largely due to the small scale of the bay and the potential for visual intrusion when viewed from Finstown. There is some potential for this local coastal character area to accommodate limited small scale shellfish developments provided:

- Development be associated with promontories/headlands such as Tor Ness and be aligned with and as close to the shore as possible.
- Development avoids impacting on open views over the Bay of Firth or Holm of Grimbister and Damsay from within or aligned with any bay.
- Scale or amount of development does not dominate or impact on the natural pattern of bays and promontories.
- Development is sited away from shoreline properties.
- Individual, small scale shellfish development takes up no more than one tenth of the coast. Small scale, multi site shellfish development totals no more than two, of any kind.
- Existing, apparently inactive, licensed sites should be reviewed on expiry of the licences.

4.3.4.5 Finstown to Rennibister LCCA E – refer to Figure 15

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the experience of the coast along the A965, the close proximity of Finstown and the visual relationship between the coast and Holm of Grimbister and Damsay. Existing, apparently inactive, licensed sites should be reviewed on expiry of the licences.

4.3.4.6 Holm of Grimbister and Damsay LCCA F – refer to Figure 15

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the visual and experiential qualities of the islands and the likelihood that the intimate scale unique character of the islands would be easily dominated by development. Existing, apparently inactive, licensed sites should be reviewed on expiry of the licences.

4.3.4.7 Rennibister to the pier LCCA G – refer to Figure 15

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture developments, small to medium scale multi sites, or extensions to existing provided:

- Development be aligned with and as close to linear sections of shore as possible and a tidy layout maintained to reflect the simple, regular pattern of fieldscapes.
- Development is preferably concentrated along the north facing shores furthest from roads and settlement and restricted to as few rows as possible i.e. cages no more than two, long lines or trestles less than five.
- It is suggested, should additional finfish cages be proposed for existing farms or additional units elsewhere within the area, that all existing locations be revised to prevent clutter, thus aligning all existing and proposed developments with and as close to shorelines as possible or associated with promontories such as Ramberry.
- Northern shores are considered for larger scale trestles or intertidal long lines due to the distance from visual receptors, lack of important landscape elements or character, and limited public access.
- Existing, apparently inactive, licensed sites for shellfish farms be considered for reuse before additional ones are applied for to reduce potential cumulative impacts.
- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi site development totals no more than five, of any kind.
- Individual, medium scale development takes up no more than one quarter of the coast. Medium scale, multi site development totals no more than two, of any kind.

4.3.5 Wide Firth CCA: summary of cumulative development

Given that there is no capacity identified for LCCAs E and F and that it is recommended that the existing licenses be reviewed on their expiry, Wide Firth CCA would have a buffer area at Bay of Firth separating any development on the western and southern shores.

As there is no capacity identified for Gairsay, there would be no cumulative issues arising and the capacity of 2 small developments in LCCA would remain for LCCA A.

Given that there is visual separation between LCCAs A and B, the capacity for two small developments (including the existing finfish farm) in LCCA would remain although it is recommended that these be located in the southern portion of this area to increase the visual separation afforded by the indented coastline.

As there is limited capacity along this coastline for medium scale development, it is recommended that, subject to demand, area C be considered for a single medium scale development rather than two small scale developments.

Should LCCAs A – C be developed as per the capacity assessment, it is concluded that area D would not have capacity for development.

For LCCA G, it is recommended that any development be located east of Ferry Point and that the capacity, taking into account cumulative issues with LCCA C which is visible on the western shore, be revised to 2 medium sized developments or three small scale.

4.4 Kirkwall Coastal Character Area

Landscape Character Types: Urban and Rural Development, Rolling Hill Fringe, Low Island Pastures.

4.4.1 *Kirkwall CCA: character analysis – refer to Figures 3 and 13 – LCCAs H and I*

This character area is heavily influenced by the hard urban edge of Kirkwall, the spread of development, and constant boat activity. Contained within the Bay of Kirkwall, from the western pier to Car Ness, and by views of adjacent shores and islands, the area is sheltered and focused primarily on the hub of port activity. The north eastern shore, where development is beginning to extend, remains influenced by Kirkwall and the movement of boats however the hard, urban edge is lost to agriculture and clusters of new built dwellings.

4.4.1.1 The pier to Craigiefield LCCA H: key landscape and visual elements – refer to Figures 12 and 13

Landscape Character Types: Urban and Rural Development.



Plate 63: The pier to Craigiefield LCCA H

- This moderately small, semi-enclosed, extent of tidal water from Hatston to Kirkwall, is known as the Bay Kirkwall and has framed views north across Wide Firth towards the mainland, Gairsay and Shapinsay. It is animated by wind action and is seldom completely calm.
- There is a degree of shelter and semi containment provided by the built urban edge of Kirkwall and the rising agricultural land to the east and west including moorland hills to the west and distant west.
- A strong maritime influence exists from the frequent passage of boats and ferries to and from the numerous piers and slipways around the harbour plus associated navigational aids. The smells and sounds of the sea, harbour and fishing trade are prevalent around the bay and experienced at close range often by members of the public and tourists.

- The low lying, generally north facing, subtly indented coastline comprises fragmented rock platforms and skerries, stretches of rock, shingle and sand, and man made edges such as piers, slipways and retaining walls.
- Rolling pasture and arable land rises to the west, beyond the urban edge, and backed by steeply rising moorland hills. To the east pasture and arable land forms a low lying horizon line beyond the urban edge.
- Settlement is concentrated at Kirkwall and has a typical urban character consisting of hard surfaces, highway elements, street lighting and commercial and light industrial development. Settlement is dispersed thereafter along roads and scattered throughout the urban fringe areas of the hinterland to the west, south and east.
- Access to the coast is readily available from Kirkwall and surrounding coastal roads.
- Views are largely focused on harbour activity and the passage of boats and ferries from both the shoreline and from the sea. Sea users experience views focused on Kirkwall.

4.4.1.2 Craigiefield to Car Ness LCCA I: key landscape and visual elements – refer to Figures 12 and 13

Landscape Character Types: Low Island Pastures.



Plate 64: Craigiefield to Car Ness LCCA I

- A large, open, expanse of tidal water on the eastern extents of Wide Firth.
- Although the coastline is essentially sheltered within Wide Firth and the backdrop of moorland hills, there is a degree of exposure felt from the significant expanse of water in relation to the low lying skyline of the hinterland.
- A strong maritime character is formed from tidal movements, boat and ferry traffic, visible navigational aids, and the intrinsic smells and sounds of the sea which can be easily experienced at close range within a fairly deep intertidal zone.
- The low lying, subtly indented coastal edge is comprised of low cliff, sloping rock platforms and skerries including Iceland Skerry and Thieves Holm.
- Pasture and arable land inclines relatively evenly from the shoreline terminating along a low ridgeline.

- Small, linear clusters of settlement form urban extensions along the shoreline from Kirkwall. Lone farmsteads are found in the northern reaches of hinterland towards Car Ness. A disused military campsite forms a focal feature on the Car Ness peninsula.
- Stonewalls and fence lines strengthen field patterns and enhance or break up the topography.
- A strong horizontal dynamic is formed by the simple linear arrangement of sea, land and sky.
- Access to the coast is via local roads and lanes, agricultural land, private track or by boat.
- Views are primarily focused externally across the open water towards opposing mainland shores or on the frequent passage of boat and ferry traffic.

4.4.2 *Kirkwall CCA: opportunities and constraints*

There is currently no apparent aquaculture development within Kirkwall CCA. Landscape opportunities and constraints, which are like to affect any future development, are noted below.

4.4.2.1 The pier to Craigiefield LCCA H: opportunities and constraints – refer to Figures 12 and 13

Landscape and visual opportunities for aquaculture development:

- The complex appearance of the developed harbour area offers opportunities to absorb further man made influences e.g. inorganic shapes would be less prominent.
- Existing harbour facilities/space could be used for shore based infrastructure.

Landscape and visual constraints for aquaculture development:

- The relatively small scale bay could easily 'fill up' with development resulting in cumulative issues in relation to other harbour, ferry and maritime activities and infrastructure.
- High numbers of people would have a direct, often elevated and close range view of the development especially from core footpaths along the coast. Channelled vistas north towards Wide Firth would be interrupted by centrally located development.
- Wideford Hill offers distant, but elevated views of the bay.
- Kirkwall has a concentration of Listed Buildings/Structures of which their setting includes the harbour.

4.4.2.2 Craigiefield to Car Ness LCCA I: opportunities and constraints – refer to Figures 12 and 13

Landscape and visual opportunities for aquaculture development:

- The close location of Kirkwall offers opportunity to locate shore-based infrastructure outwith this length of coast.
- The backdrop of Kirkwall and constant maritime activity within the bay would allow further man made influences to be accommodated.
- Linear stretches of coastline and the horizontal dynamic of the hinterland backdrop, would allow inorganic, geometric shapes and layouts to be better accommodated including rows of trestles within the intertidal zone.
- The dark backdrop of intertidal zone would allow development to be largely absorbed when viewed from low lying locations on opposite shores.
- There are limited views from properties within northern extents.

Landscape and visual constraints for aquaculture development:

- Southern extents of the coast are overlooked by residential development and shore aligned roads.
- Northern extents of the coast are classed as undeveloped; development would therefore be prominent.
- Passengers on ferry service to and from Kirkwall and recreational users of the sea would have close, range open views of development.
- A collection of Scheduled Ancient Monuments is located at Car Ness.

4.4.3 Kirkwall CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	The pier to Craigiefield LCCA H	Craigiefield to Car Ness LCCA I
Maritime Influences	<p>Low sensitivity</p> <p>Maritime influences limited to tidal patterns, especially on eastern and western shores, and existing maritime activity and traffic within the harbour which could make development easier to accommodate.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock and seaweed, the passage of maritime traffic to and from Kirkwall, including associated navigational aids which could make development easier to accommodate.</p> <p>Areas of undeveloped low lying shoreline with an open aspect to Wide Firth.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>Extensively developed coast could absorb, noise, light, activity and structures. Busy harbour could easily become cluttered and 'fill up' with development.</p>	<p>Moderate sensitivity</p> <p>Noise, light, activity and structures could be largely absorbed into the backdrop of Kirkwall however coastal roads and shoreline properties would be affected at close range.</p> <p>Development could be aligned to the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with promontories such as Iceland Skerry.</p>
Setting of Landmarks and Features	<p>Moderate sensitivity</p> <p>A high number of Listed Buildings/Structures including Kirkwall Conservation Area overlook the bay, however the eastern and western sides are characterised by urban extensions and light industrial development.</p>	<p>Low sensitivity</p> <p>A collection of Scheduled Ancient Monuments and Coastal Batteries are located at Car Ness but rely on The String as their principal coastal setting.</p>
Experience of Wildness	<p>Not sensitive</p> <p>Majority of coast is well settled and forms the busy port of Kirkwall.</p>	<p>Low sensitivity</p> <p>Southern extents are largely influenced by Kirkwall and the frequent passage of maritime traffic. The landscape as a whole is characterised by well managed intensive agriculture with clusters of development extending from Kirkwall. The degree of exposure to Wide Firth particularly within more exposed, northern extents creates a sense of wildness.</p>

Aesthetic Qualities	<p>Low sensitivity</p> <p>Although individual architectural features and buildings provide aesthetic interest and the busy harbour offers much colour and detail the area as a whole holds no exceptional scenic quality potentially affected by development.</p>	<p>Not sensitive</p> <p>The area as a whole does not exhibit any exceptional scenic qualities or distinguishing characteristics.</p>
Key Viewpoints	<p>High sensitivity</p> <p>The harbour is largely an internally focused area overlooked by a number of concentrated, elevated viewpoints including residential properties. Close range views are readily experienced from shoreline and harbour side locations, channelled over the bay towards Wide Firth. Development would be prominent.</p>	<p>Moderate sensitivity</p> <p>Shoreline and elevated roads and properties throughout the hinterland especially at concentrated locations such as Craigiefield overlook the majority of the coast.</p> <p>Views from Kirkwall can be gained including close range views by passengers on ferry services.</p>

Table 23: Sensitivity assessment – LCCAs H – I

4.4.4 Kirkwall CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

4.4.4.1 The pier to Craigiefield LCCA H – refer to Figures 15 and 16

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with views from Kirkwall.

4.4.4.2 Craigiefield to Car Ness LCCA I – refer to Figures 15 and 16

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture developments, provided:

- Development be associated with promontories/headlands such as Iceland Skerry and be aligned with and as close to the shore as possible with a tidy layout maintained to reflect the simple, regular pattern of fieldscapes.
- Development avoids impacts on open views over Wide Firth from coastal roads and be sited away from shoreline properties.
- Development be restricted to as few rows as possible i.e. cages no more than two, long lines or trestles less than five, and located adjacent areas of low cliff or embankment away from shoreline properties.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast.

4.4.5 Kirkwall CCA: summary of cumulative development

Given the fact that there is no capacity in LCCA H and the visual separation from LCCA J, it is considered that this stretch of coastline would retain an ability to accommodate one small or medium sized development when taking cumulative issues into account.

4.5 Shapinsay Sound - Inganess Bay Coastal Character Area

Landscape Character Types: Low Island Pastures, Coastal Plain.

4.5.1 *Shapinsay Sound - Inganess Bay CCA: character analysis – refer to Figures 3 and 13 – LCCAs J, K, L, M and N*

Shapinsay Sound/Inganess Bay extends from Car Ness in the west to Rerwick Point in the east, including Bay of Carness, Bay of Work, Bay of Meil and Inganess Bay. The area is characterised by its low agricultural skyline, sparsely scattered with dwellings and farmsteads, overlooking sheltered sandy bays, shingle shorelines, rock platforms, and areas of low cliff. It has a simple composition of land, sea and big skies, however the complex coastline of deep bays and long headlands creates a repetitive mix of land and sea when viewed from higher elevations – lower elevations result in the constant feeling of being within a bay looking out.

4.5.1.1 Car Ness to Head of Holland LCCA J: key landscape and visual elements – refer to Figure 13

Landscape Character Types: Low Island Pastures.



Plate 65: Car Ness to Head of Holland LCCA J

- This area is characterised by moderately small series of shallow, tidal bays with deep intertidal zones, between the String and Shapinsay Sound, with framed views north to Helliar Holm and Shapinsay and east to the open North Sea.
- The coastline is essentially sheltered by the regular pattern of bays, gently inclined, undulating pastures, and proximity of Helliar Holm and Shapinsay, yet highly influenced by the large expanse of Shapinsay Sound and the tidal races of The String.
- Changeable light conditions, tidal movements, boat and ferry traffic, visible navigational aids, and prevalent smells and sounds of the sea create a relatively strong maritime influence over the land.
- The low lying, dynamically indented coastal edge is comprised of relatively deep bays, low cliffs, short ravines, deep rock platforms, ayres, stretches and bays of

rock, shingle and sand, and points and skerries including Skerry of Work which is a unique extended rock platform.

- Pasture and arable land inclines relatively evenly, with localised undulations, from the shoreline over both concave and convex slopes. Views of the coastline are interrupted by convex slopes at higher elevations creating a degree of separation, however the constant pattern of land and sea maintains a strong visual connection with coast.
- Settlement is limited to lone dwellings and farmsteads typically viewed on ridgelines from lower elevations. A disused military campsite forms a focal feature on the Car Ness peninsula.
- Stonewalls and fence lines strengthen field patterns and enhance or break up the topography.
- A strong, repetitive horizontal dynamic is formed from the pattern of outstretched bays and headlands.
- Access to the coast is limited to agricultural land, private track or by boat.
- Views are primarily focused east towards the open North Sea or north towards Helliar Holm and Shapinsay.
- Existing finfish farm activity is visible within close proximity of the coastline in the Bay of Carness and the Bay of Meil.

4.5.1.2 Head of Holland to Heatherquoy LCCA K: key landscape and visual elements – refer to Figure 13

Landscape Character Types: Low Island Pastures.



Plate 66: Head of Holland to Heatherquoy LCCA K

- This area is formed by a relatively small, semi enclosed expanse of water within Inganess Bay.
- There are framed views northeast towards Shapinsay and the open North Sea, but typically contained within the bay by the surrounding agricultural hinterland.
- The east facing coastline is largely sheltered within the bay, yet influenced by views of 'open sea' and animated tidal waters.

- Deep intertidal zones defined by dark seaweed, changeable light conditions, tidal movements and prevalent smells and sounds of the sea create a maritime character.
- The coastal edge is generally low lying and punctuated by the Bay of Berstane, with low cliffs either side including Craigs of Berstane. Rock platforms, stretches and bays of rock, shingle and sand, and points and skerries including Taing of Berstane add detail and dynamic to the coastline.
- Pasture and arable land inclines relatively evenly, with localised undulations, from the shoreline over both concave and convex slopes. Views of the coastline, from higher elevations, are interrupted by convex slopes thus creating a degree of separation.
- Settlement is sparse. Berstane House and its associated woodland forms a visual feature within the hinterland together with a number of properties visible on the skyline.
- Stonewalls and fence lines strengthen field patterns and enhance or break up the topography.
- There is a strong horizontal emphasis on the landscape composition due to the simple, linear arrangement of sea, land and sky.
- Access to the coast is limited to agricultural land, private track or by boat.
- Views are predominantly focused northeast towards the 'open sea' or south towards activity at Kirkwall airport.

4.5.1.3 Heatherquoy to Taing of the Clett LCCA L: key landscape and visual elements – refer to Figure 13

Landscape Character Types: Low Island Pastures, Coastal Plain.



Plate 67: Heatherquoy to Taing of the Clett LCCA L

- Similar to LCCA K, this area is characterised by the relatively small, semi enclosed expanse of tidal water of Inganess Bay.
- The north facing coastline is essentially sheltered within Inganess Bay and enclosed by surrounding and adjacent shores and framed views towards Shapinsay, yet influenced by animated tidal waters.

- Deep intertidal zones defined by dark seaweed, changeable light conditions, tidal movements and inherent smells and sounds of the sea instil a maritime character.
- The coastal edge is low lying and characterised by a pattern of sandy bays, such as Sand of Wideford, and outstretched rock platforms, such as Taing of the Clett.
- The hinterland is heavily influenced by Kirkwall airport thus creating a degree of separation from and limited access to the coast. In contrast, Sand of Wideford forms a popular, readily accessed, recreational beach.
- Views are primarily contained within Inganess Bay or focused on the visual clutter and activity of Kirkwall airport.

4.5.1.4 Taing of the Clett to Yinstay Head LCCA M: key landscape and visual elements – refer to Figure 13

Landscape Character Types: Low Island Pastures, Coastal Plain.



Plate 68: Taing of the Clett to Yinstay Head LCCA M

- This west facing coastline is essentially sheltered within Inganess Bay by surrounding shores and agricultural hinterland, but with views towards Shapinsay Sound, Shapinsay and Helliær Holm.
- A deep intertidal zones defined by dark seaweed, changeable light conditions, tidal movements and prevailing smells and sounds of the sea create a maritime character.
- The coastal edge is essentially low lying comprising rock platforms, stretches and bays of rock, shingle and sand, and points and skerries. Long Ayre forms a unique coastal feature.
- The pattern of small pasture and arable fields, incline evenly and gently, with localised undulations, from the shoreline over both concave and convex slopes. Views of the coastline, from higher elevations, are interrupted by convex slopes thus creating a degree of separation.
- Settlement and access roads are well spaced throughout the pattern of small-scale fields, with some properties forming features on the low level skyline.

- Fence lines strengthen the pattern of fields and provide visual vertical elements, together with telegraph poles, within what is fundamentally a horizontal landscape.
- Access to the coast is limited to agricultural land, private track or by boat.
- Views are primarily contained within Inganess Bay by surrounding shores, or focused northwest towards Helliær Holm, or southwest towards activity at Kirkwall airport.

4.5.1.5 Yinstay Head to Rerwick Point LCCA N: key landscape and visual elements – refer to Figure 13

Landscape Character Types: Low Island Pastures.



Plate 69: Yinstay Head to Rerwick Point LCCA N

- This north facing coastline is defined by Yinstay Bay between Yinstay Head and Rerwick Point, overlooking the large tidal flow of Shapinsay Sound.
- There are open views towards Helliær Holm, Shapinsay and northeast to the open North Sea.
- Deep intertidal zones defined by dark seaweed, changeable light conditions, animated tidal waters and races, views of 'open sea', and prevalent smells and sounds of the sea create a strong maritime character over the land.
- The coastline is largely low lying comprising some stretches of low cliff, rock platforms, bays of rock, shingle and sand, and points and skerries. The collection of skerries around Skerry of Yinstay create dynamic, visual interest and enhance the maritime character of the area as animated waters break over them and tidal patterns are apparent.
- Pasture and arable fields, incline evenly and gently, with localised undulations, from the shoreline. Areas of flat wetland flank the shore and together with areas of convex slope create a degree of separation.
- Settlement is limited and sporadic throughout the pattern of small scale fields, with some properties forming features on the low level skyline.
- Fence lines strengthen the pattern of fields and provide visual vertical elements together with telegraph poles.
- Access to the coast is limited to agricultural land, private track or by boat.

- Views are focused northeast towards 'open sea' or north to the shores of Shapinsay.

4.5.2 *Shapinsay Sound - Inganess Bay CCA: opportunities and constraints*

There are currently two existing aquaculture developments within Shapinsay Sound - Inganess Bay CCA. These are located in Bay of Carness, consisting of nine circular cages with feeding hoppers, and Bay of Meil, consisting of 10 circular cages. Both appear to be feed by boat and long-arm. A further shellfish farm license site (*muscle/long lines*) is listed within the Shapinsay Sound/Inganess Bay area at Bay of Berstane, however it was not visible during fieldwork and may not be active. Landscape opportunities and constraints, which are like to affect any further development, are noted below.



Plate 70: Finfish farm in Bay of Carness, Shapinsay Sound



Plate 71: Finfish farm in Bay of Meil, Shapinsay Sound

4.5.2.1 Car Ness to Head of Holland LCCA J: opportunities and constraints – refer to Figure 13

Landscape and visual opportunities for aquaculture development:

- Existing finfish farm development in Bay of Car Ness and Bay of Meil would offer opportunities for extensions to existing or for further development to be accommodated without a significant magnitude of change to the current coastal character.
- There are limited views from properties and roads and the coast is not readily accessed for recreation.
- The pattern of outstretched promontories offers opportunity for development to effectively emphasise the sheltered nature of the bays.
- Deep intertidal zones with little visibility or general access provide ideal stretches of coast in which to locate trestles or intertidal long lines.

Landscape and visual constraints for aquaculture development:

- The small scale nature of the bays could quickly ‘fill up’ with development and interrupt the natural channelling of vistas.
- Further development would result in cumulative impacts and development as a whole appearing more prominent; the bays could ‘fill up’ with development.
- A number of Scheduled Ancient Monuments including a disused war camp and Coastal Batteries rely on the coastal setting.
- The coastline is classed as undeveloped; further development would be harder to accommodate.
- Recreational sea users would have views of further development including users of the core footpath along Head of Work.
- Balfour Castle lies to the distant north and experiences important views towards this stretch of coastline.

4.5.2.2 Head of Holland to Heatherquoy LCCA K: opportunities and constraints – refer to Figure 13

Landscape and visual opportunities for aquaculture development:

- Stretches of low cliff and convex hinterland allow development to be ‘tucked in’ and largely screened from some locations if located close to the shoreline.
- There is a lack of settlement or public use across the majority of the hinterland or along the immediate coast.
- Promontories and points offer opportunity to site development which may emphasise these coastline features such as Taring of Berstane.
- The dark seaweed and rock intertidal zone allows for cages, buoys and lines to be largely absorbed into the backdrop when viewed from low angles on opposite shores. It also allows trestles to be absorbed along the shore itself.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated.
- An existing shellfish farm licence exists along this stretch of coast which appears inactive – there is opportunity for this site to be utilised.
- Views are generally focused out of the bay to the ‘open sea’.

Landscape and visual constraints for aquaculture development:

- Views from the Listed Berstane House overlook this stretch of coast and rely on its coastal setting.
- Views are largely contained within the bay or channelled out towards Shapinsay Sound; development would be prominent.

- Existing shellfish farm licences pose a potential cumulative risk if new development is granted and they subsequently also become operational again.
- A popular recreational beach, Sand of Wideford, is located on the southern reaches of this stretch of coast where development would be visible.
- Recreational sea users would have open, close range views of development.
- The coastline is undeveloped; development would be prominent.
- Inganess Bay forms part of the coastal setting for passengers on flights to Orkney.

4.5.2.3 Heatherquoy to Taing of the Clett LCCA L: opportunities and constraints – refer to Figure 13

Landscape and visual opportunities for aquaculture development:

- Kirkwall airport provides a relatively complex backdrop of man made influence with potential to absorb views of development from northern locations.
- The location of the airport restricts easy access to eastern sections of the coast.
- Promontories and points offer opportunity to site development which may emphasise these coastline features such as Taing of the Clett.
- There are limited residential receptors within close vicinity and with direct or elevated views.

Landscape and visual constraints for aquaculture development:

- Sand of Wideford to the western extents of the area is a popular recreational beach with uninterrupted views towards a wartime shipwreck. A core footpath leads to the sands with direct views channelled along the bay.
- Inganess Bay forms part of the coastal setting for passengers on flights to Orkney.
- Recreational sea users would have open, close range views of development.
- The coastline is undeveloped; development would therefore be prominent.
- Views are generally contained within the bay or channelled north along the length of the bay towards Shapinsay and the 'open sea'.

4.5.2.4 Taing of the Clett to Yinstay Head LCCA M: opportunities and constraints – refer to Figure 13

Landscape and visual opportunities for aquaculture development:

- There is a lack of shoreline settlement or public use along the immediate coast.
- Promontories and points offer opportunity to site development which may emphasise these coastline features such as Point of Greenbanks.
- The dark seaweed and rock intertidal zone allows for cages, buoys and lines to be largely absorbed into the backdrop when viewed from low angles on opposite shores. It also allows trestles to be absorbed along the shore itself.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated and reflect the regular pattern of fieldscapes.

Landscape and visual constraints for aquaculture development:

- Long Ayre forms an important coastal feature.
- Views are typically contained within the bay or framed along it to Shapinsay and Helliars Holm; development would be noticeable.
- Recreational sea users would have open, close range views of development.
- The coastline is undeveloped; development would therefore be prominent.
- Inganess Bay forms part of the coastal setting for passengers on flights to Orkney.

- A Listed Building/Structure relies on the coastal setting at Scarpigar.

4.5.2.5 Yinstay Head to Rerwick Point LCCA N: opportunities and constraints – refer to Figure 13

Landscape and visual opportunities for aquaculture development:

- Promontories and points offer opportunity to site development which may emphasise these coastline features such as Rerwick Point.
- The coastline is not readily accessed for recreation or provides the setting for any important historical features.
- Areas of dark seaweed and rock intertidal zone would allow for trestles and intertidal long lines to be largely absorbed and screened from view by stretches of low cliff or embankment.
- Short linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated.

Landscape and visual constraints for aquaculture development:

- The dynamic character of skerries around western extents could easily be dominated and lost by development.
- Open views from a number of properties, some along the immediate shoreline, and local roads would be affected by development.
- Recreational sea users would have open views of development.
- The coastline is classed as undeveloped; development would be prominent and impact on the sense of wildness when experiencing 'open sea' views.

4.5.3 Shapinsay Sound - Inganess Bay CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Car Ness to Head of Holland LCCA J	Head of Holland to Heatherquoy LCCA K	Heatherquoy to Taing of the Clett LCCA L
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns animate the dynamic form of the coastline and reveal deep intertidal zones of rock, shingle and seaweed.</p> <p>Maritime traffic including navigational aids such as Saeva Ness lighthouse are visible from many locations along the coast and from within bays.</p> <p>Existing finfish farm activity within bays may make further development easier to accommodate.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, shingle, sand and seaweed, visible from many locations along the coast. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Views out to 'open sea'.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, shingle, sand and seaweed, visible from many locations along the coast. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Simplicity of sea surface could be compromised by clutter.</p>

	Simplicity of sea surface and organic pattern of bays and headlands could be compromised by further clutter.		
Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Development could be associated with promontories and enhance the dynamic form of the coastline, however development could also interrupt the natural organic pattern of bays and headlands. Existing finfish farms already create visual clutter that dominates. Further development could easily 'fill up' the bays.</p> <p>Coastline not readily accessed for recreation.</p>	<p>Low sensitivity</p> <p>Development could be associated with promontories or aligned with linear sections of coast.</p> <p>Coastline not readily accessed for recreation.</p>	<p>Low sensitivity</p> <p>Development could be associated with promontories or aligned with linear sections of coast and largely accommodated by the presence of the airport.</p> <p>Sand of Wideford is a popular recreation spot to the west of the area and would be affected by development.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A collection of Scheduled Ancient Monuments and Coastal Batteries, including a disused military camp, overlook the area and rely on the setting of the coast.</p> <p>Coastal features such as Skerry of Work and North and South Campi Geo.</p>	<p>Low sensitivity</p> <p>The coast is overlooked by Bernstane House a Listed Building/Structure with associated wind shape vegetation, but does not contain any other significant features.</p>	<p>Low sensitivity</p> <p>A shipwreck is visible located off Sand of Wideford forming central feature when looking north along the bay.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Majority of coastal hinterland is characterised by well-managed agriculture with bays characterised by existing finfish developments thus limiting wildness. However, the lack of settlement and exposure to 'open sea' views to the east from narrow headlands creates a degree of wildness.</p>	<p>Moderate sensitivity</p> <p>Majority of coastal hinterland is characterised by well-managed agriculture, however, the lack of settlement and exposure to 'open sea' views to the east from elevated locations creates a degree of wildness.</p>	<p>Moderate sensitivity</p> <p>Although Kirkwall airport influences the area limiting wildness, the expanse of runway fronting the coast creates an open void and largely empty backdrop.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>While the area contains no exceptional scenic qualities the dynamic pattern of bays and headlands creates an attractive series of sequential views and an interesting relationship between sheltered bays</p>	<p>Low sensitivity</p> <p>Although the area contains no exceptional scenic qualities, the Craigs of Bernstane form impressive, low cliffs viewed at close range from Sand of Wideford, a popular beach.</p>	<p>Low sensitivity</p> <p>Sand of Wideford is an attractive sandy bay overlooked by impressive, low cliffs, however the majority of the area is dominated by Kirkwall airport.</p>

	and open water.		
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is overlooked from limited properties and local roads with views channelled along bays; additional development is likely to interrupt views further.</p> <p>Distant views from passengers on ferry services, and from properties and roads on southern shores on Shapinsay can be gained.</p>	<p>Low sensitivity</p> <p>The coastline is predominantly viewed from local roads and properties on opposite shores, from Kirkwall airport or from Sand of Wideford, a popular beach.</p> <p>Limited views are gained from properties within the hinterland.</p>	<p>Low sensitivity</p> <p>The coastline is predominantly viewed from Sand of Wideford, a popular beach or adjacent shores, with views channelled along the bay towards Shapinsay Sound.</p> <p>Kirkwall airport interrupts and dominates the majority of views.</p>

Table 24: Sensitivity assessment – LCCAs J – L

Potential sensitivity of the seascape to aquaculture development	Taing of the Clett to Yinstay Head LCCA M	Yinstay Head to Rerwick Point LCCA N
Maritime Influences	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, shingle and seaweed, visible from many locations along the coast. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Limited by surrounding shores.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns animate the dynamic form of the coastline and reveal intertidal zones of rock, shingle, sand and seaweed.</p> <p>Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Dominant 'open sea' views and the passage of maritime traffic and ferry services.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>Development could be aligned to reflect the linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories.</p> <p>Coastline not readily accessed for recreation.</p>	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect the linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with promontories.</p> <p>Although the coastline is not readily accessed for recreation, the location of sandy bays, exposed promontories, skerries and an ayre together within a shallow bay creates a relative interesting and dynamic coastline.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>One Listed Building/Structure overlooks the coast or relies on it as part of its coastal setting. Long Ayre forms a striking ayre.</p>	<p>Low sensitivity</p> <p>No significant features rely on the coast for setting except for exposed coastal promontories, skerries and an ayre.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Visual influence of settlement</p>	<p>Moderate sensitivity</p> <p>Moderate influence of settlement</p>

	throughout hinterland, including local roads and Kirkwall airport, limits sense of wildness. The landscape as a whole is characterised by well managed agriculture.	throughout hinterland, including local roads and well managed agricultural landscape limits sense of wildness. 'Open sea' views, exposed promontories, views of distant imposing headlands, and animated seas creates a strong sense of wildness which would be affected by development.
Aesthetic Qualities	Low sensitivity A typical coastal agricultural Orcadian landscape, however bares no exceptional scenic characteristics.	Low sensitivity A typical coastal agricultural Orcadian landscape with skerries, sandy bays and exposed promontories, but no exceptional scenic qualities.
Key Viewpoints	Low sensitivity The coastline is predominantly viewed from local roads and properties within the hinterland however the low lying undulating landform largely screens views. Views are largely contained within the bay or channelled out to Shapinsay Sound. Distant views are also gained from Kirkwall airport or from Sand of Wideford, a popular beach.	Moderate sensitivity The coastline is predominantly viewed from elevated and shoreline local roads and properties within the hinterland. Distant views are also gained by passengers on ferry services and from some locations on Shapinsay.

Table 25: Sensitivity assessment – LCCAs M – N

4.5.4 Shapinsay Sound - Inganess Bay CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

4.5.4.1 Car Ness to Head of Holland LCCA J – refer to Figure 16

There is some potential for this local coastal character area to accommodate limited small scale, shellfish aquaculture developments or extensions to existing finfish developments, provided:

- Shellfish development be aligned with and as close to linear sections of shore as possible or associated with appropriate promontories/headlands such as the eastern extents of Head of Work or Head of Holland.
- Shellfish development avoids impacting on open views towards Shapinsay or to 'open sea' from within or aligned with any bay or from properties.
- It is suggested, should additional finfish cages be proposed for existing farms or additional shellfish units elsewhere within the area, that all existing locations be revised to prevent clutter, thus aligning all existing and proposed developments with and as close to shorelines as possible or associated with promontories.
- Individual, small scale shellfish development takes up no more than one tenth of the coast. Small scale, multi site shellfish developments total no more than three, of any kind.
- Total development, including existing finfish farms or extensions to, does not occupy more than 50% of the coast.

4.5.4.2 Head of Holland to Heatherquoy LCCA K – refer to Figure 16

There is some potential for this local coastal character area to accommodate small scale aquaculture developments, small scale, shellfish multi sites, or one medium scale development, provided:

- Development be associated with promontories/headlands and be aligned with and as close to the shore as possible with a tidy layout maintained to reflect the simple, regular pattern of fieldscapes.
- Development avoids impacting on open views to 'open sea' from properties particularly Berstane House.
- Development is sited away from Sand of Wideford and out of immediate view i.e. restricted to the outer extents of the bay.
- Existing, apparently inactive, licensed sites be considered for reuse before additional ones are applied for to reduce potential cumulative impacts.
- Trestles or intertidal long lines be sited away from sand and shingle bays i.e. Sand of Wideford and Sand of Gillies.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of the coast. Small scale, multi site shellfish developments total no more than two, of any kind.
- Total development, including potential existing shellfish farm, does not occupy more than 30% of the coast.

4.5.4.3 Heatherquoy to Taing of the Clett LCCA L – refer to Figure 16

There is some potential for this local coastal character area to accommodate small scale shellfish development, provided:

- Development be associated with promontories/headlands and be aligned with and as close to the shore as possible.
- Development avoids impacting on open views to 'open sea' from Sand of Wideford and out of immediate view.
- Development is sited away from the shipwreck north of Sand of Wideford.
- Trestles or intertidal long lines be sited away from sand and shingle bays i.e. Sand of Wideford and Sand of Essonquoy.
- Individual, small scale development takes up no more than one tenth of the coast.

4.5.4.4 Taing of the Clett to Yinstay Head LCCA M – refer to Figure 16

There is some potential for this local coastal character area to accommodate small scale aquaculture developments, small scale, shellfish multi sites, or one medium scale development, provided:

- Development be associated with promontories/headlands and be aligned with and as close to the shore as possible with a tidy layout maintained to reflect the simple, regular pattern of fieldscapes.
- Development is sited away from and out of sight of shoreline properties and Long Ayre preferably to the north of Point of Greenbanks.
- Trestles or intertidal long lines be sited away from sand and shingle bays i.e. Sand of Essonquoy and either side of Long Ayre.
- Individual, small scale development takes up no more than one tenth of the coast. Single, medium scale development takes up no more than one quarter of the coast. Small scale, multi site shellfish developments total no more than two, of any kind.
- Total development, including potential existing shellfish farm, does not occupy more than 30% of the coast.

4.5.4.5 Yinstay Head to Rerwick Point LCCA N – refer to Figure 16

There is some potential for this local coastal character area to accommodate limited small scale aquaculture development, provided:

- Development be associated with promontories/headlands and be aligned with and as close to the shore as possible with a tidy layout maintained to reflect the simple, regular pattern of fieldscapes.
- Development is sited away from shoreline properties, skerries, sandy bays and Ayre of Hestercruvie.
- Development avoids interrupting open views towards 'open sea' or being located centrally with the bay.
- Trestles or intertidal long lines be sited away from sand and shingle bays i.e. Sand of Redbanks, Sand of Heatherhouse, Rough of Rewick, and be limited to less than five rows to maintain a degree of natural screening behind low cliff or embankment.
- Individual, small scale development takes up no more than one tenth of the coast.

4.5.5 Shapinsay Sound – Inganess Bay CCA: summary of cumulative development

Taking into account the fact that no capacity has been identified for Helliars Holm and the visual separation between LCCAs J and K formed by Head of Holland, there would be no cumulative issues arising and the capacity for LCCA J would remain as described above.

Given the lack of capacity for medium sized developments along this coastline, it is recommended that priority be given to a medium sized development in LCCA K with LCCAs L and M being reserved for a total of three small developments.

Given the visual separation afforded by Yinstay Head, the cumulative capacity for LCCA N would remain as one small development.

4.6 Shapinsay West Coastal Character Area

Landscape Character Types: Ridgeline Island Landscapes, Holms.

4.6.1 *Shapinsay West CCA: character analysis – refer to Figures 3 and 14 – LCCAs O, P, Q, R, S and T*

This area extends from Dead Wife's Geo in the southeast, clockwise, to Ness of Ork in the north, including Helliær Holm. The area as a whole is characterised by a regular patchwork of intensive agriculture that overlies the low, ridgeline landscape. Settlement is well spaced and aligned geometrically with the field pattern; long straight roads, following ridgelines, emphasise the ridged geometry. The coastline comprises rock platforms, low cliffs with long shingle beaches, sandy bays, and Ayres. The western and southern coast of Shapinsay is easily visible from the mainland and from ferries travelling to and from Kirkwall, as is the mainland from Shapinsay. This close proximity provides a sense of shelter and semi enclosure.

4.6.1.1 Dead Wife's Geo to Holm Sound LCCA O: key landscape and visual elements – refer to Figures 13 and 14

Landscape Character Types: Ridgeline Island Landscapes.



Plate 72: Dead Wife's Geo to Holm Sound LCCA O

- Shapinsay Sound is a large, semi enclosed, flow of tidal water semi-contained by surrounding landmasses including west mainland, Helliær Holm and Shapinsay itself.
- Changeable light patterns, tidal movement over a relatively deep intertidal zone, animated water, sounds and smells of the sea, and views out to the 'open sea' creates a relatively strong maritime influence over the land.
- The indented, generally low lying coastal edge is comprised of low cliffs, rock platforms and stretches of sand and shingle, defined by a dark seaweed tide line and breaking waves.
- A regular pattern of well managed, pasture and arable fieldsclapes inclines over gently undulating ground from the shoreline to the characteristic ridge of the ridgeline island landscape.
- Irregularly scattered settlement is well spaced throughout the hinterland.

- Stonewalls, fence lines and telegraph poles strengthen the regular pattern of fields and provide a strong sense of perspective and scale.
- Access to the coast is limited over agricultural land, private track or by boat.
- Views from the coast and hinterland are generally semi-contained within Shapinsay Sound or by the indented character of the coastline itself, or focused out to 'open sea' in the east.

4.6.1.2 Helliar Holm LCCA P: key landscape and visual elements – refer to Figures 13 and 14

Landscape Character Types: Holms.



Plate 73: Helliar Holm LCCA P

- This relatively small flow of tidal water from The String to Shapinsay Sound, including Elwick Bay, effectively surrounds Helliar Holm. Views west and east towards Wide Firth and Shapinsay Sound respectively, create a sense of exposure to the sea.
- The low lying coastline and hinterland is overlooked from many locations on Shapinsay thus creating a strong visual relationship especially from within Elwick Bay.
- The juxtaposition of Helliar Holm to Shapinsay creates unique coastal character and, together with the lighthouse at Saeva Ness, acts as a gateway feature to Shapinsay.
- Passing boat and ferry traffic and associated navigational aids, existing finfish farms and buoys, tidal patterns, races and breaking waves, and views of 'open sea' all create a strong maritime influence over the small island.
- The low lying, coastal edge can be divided east west – narrow intertidal zone, low cliff, shallow ravines, and exposed rocky promontories to the east; rock platforms, and stretches of shingle shore and a relatively deep intertidal zone defined by dark seaweed to the west.
- The simple hinterland is characterised by rough grassland and moorland with a smooth profile and little distinction.
- A simple sea, land, sky composition creates a dominant horizontal dynamic.

- The island is uninhabited. A number of abandoned buildings and ruins and a pier and access track to Saeva Ness lighthouse form the only man made influences.
- Access to the coast is limited solely by boat or via causeway at low tide across Holm Sound resulting in limited appreciation of seaside sounds and smells from the island itself.
- Views are typically contained by land north and south, especially within Elwick Bay or focused on Balfour Castle to the west. Views west are semi-contained within Wide Firth or framed east out to 'open sea'.

4.6.1.3 Holm Sound to Stromberry LCCA Q: key landscape and visual elements – refer to Figures 13 and 14

Landscape Character Types: Ridgeline Island Landscapes.



Plate 74: Holm Sound to Stromberry LCCA Q

- This relatively small stretch of sheltered, tidal water from Wide Firth to Elwick Bay, including The String, is semi-contained between the mainland, Shapinsay and Helliars Holm.
- There is a strong visual relationship between this coastline and Helliars Holm resulting in the creation of a natural sheltered harbour and gateway.
- Passing boat and ferry traffic and associated navigational aids, and tidal patterns, all create a maritime influence experienced at close proximity along parts of the shore.
- The built harbour edge at Balfour together with Balfour Castle and its associated wind shaped woodland cover forms an attractive and well kept coastal edge. The coastline also comprises a deep intertidal zone and sloping rock platforms, points and pockets of shingle.
- The hinterland is characterised by large, regular agricultural fields with patches of coastal grazing rising steadily to the low level ridgeline.
- Settlement is concentrated at Elwick and Balfour with Balfour Castle forming an important architectural and historical feature overlooking the coast.
- Access to the coast is readily available from local roads and from the harbour. Western extents past the castle are less easily accessible.

- Views are typically contained within Elwick Bay or by Helliars Holm to the east and the mainland to the south with focus largely maintained on Balfour Castle. External views are semi-contained within Wide Firth to the west and framed out to 'open sea' to the east over Holm Sound.

4.6.1.4 Stromberry to The Galt LCCA R: key landscape and visual elements – refer to Figures 13 and 14

Landscape Character Types: Ridgeline Island Landscapes.



Plate 75: Stromberry to the Galt LCCA R

- This area of coast is characterised by its exposed aspect to Wide Firth in the west, the backdrop of moorland hills on the mainland and the close proximity of Gairsay.
- The significant expanse of tidal water together with the frequent passage of boat and ferry traffic, navigational aids such as Skerry of Vasa, and coastal sounds and smells, creates a degree of maritime character.
- The undeveloped coastline, although easily accessed in some locations, maintains a sense of remoteness which becomes more intense along northern reaches at Galt Ness where agriculture ceases and moorland and rough grassland covers the narrow promontory.
- The coastline comprises sweeping stretches of low lying shingle shore, low cliff and embankments, narrow and fragmented rock platforms, points and skerries, and ayres such as Vasa Loch.
- The intertidal zone is fairly narrow resulting in the immediate agricultural hinterland bordering close to the water edge.
- The hinterland is characterised by a gently sloping patchwork of regular pasture and arable fields through which a grid pattern of roads and tracks run. Localised undulations and low points typically contain lochans or wetland and are scattered throughout.
- Settlement is sparse and well spaced within the arrangement of fields and largely comprises isolated farmsteads or lone dwellings.
- Access to the coast is via local lane, agricultural access track or by boat.
- Views are predominantly contained within Wide Firth and focused on the expanse of water or towards Gairsay or the opposing mainland backdrop.

4.6.1.5 Veantrow Bay LCCA S: key landscape and visual elements – refer to Figures 13 and 14

Landscape Character Types: Ridgeline Island Landscapes.



Plate 76: Veantrow Bay LCCA S

- Veantrow Bay is characterised by a wide expanse of tidal water contained by shores to the east, south and west with framed views, between Galt Skerry and Holm Taing, north across Stronsay Firth towards Egilsay and Eday.
- There is a wide sense of semi-enclosure provided by the bay which opens out further through Stronsay Firth to reveal glimpses of 'open sea' between outlying islands.
- Changeable light patterns, onshore winds, tidal movements over deep areas of intertidal zone, breaking and rolling waves, the passage of boats and ferry traffic, existing finfish farm activity, and sounds and smells of the sea all come together to create a strong maritime influence within the bay.
- The coastline is dominated by Lairò Water and Ling Holm which form unique coastal features of great visual and geomorphologic value. Sweeping stretches of shingle, sandy bays, low cliff and embankment, short ravines, fragmented and sloping rock platforms, and points and skerries comprise typical features along the coast.
- A regular pattern of well managed, pasture and arable fieldscapes slope gradually over undulating ground to the shoreline providing sheltering backdrop to the bay.
- Irregularly scattered settlement is well spaced throughout the hinterland connected by a grid of linear roads and tracks aligned to the regular pattern of fields.
- Stonewalls, fence lines and telegraph poles strengthen the regular pattern of fields and provide a strong sense of perspective and scale.
- Access to the coast is via local road, over agricultural land, private track or by boat. Lairò Water is a popular visitor attraction.
- Views from the coast and hinterland are generally semi-contained within the bay and focused on Lairò Water and Ling Holm, or guided out to 'open sea' via the nature of the bay.

4.6.1.6 Holm Taing to Ness of Ork LCCA T: key landscape and visual elements – refer to Figure 14

Landscape Character Types: Ridgeline Island Landscapes.



Plate 77: Holm Taing to Ness of Ork LCCA T

- This stretch of coast is dominated by its exposed aspect to Stronsay Firth, with open views towards Wyre, Rousay, Egilsay, and Eday and glimpses of 'open sea' between outlying islands.
- Changeable light patterns, onshore winds, tidal movements over areas of intertidal zone, breaking waves and tidal races, the distant passage of boats and ferry traffic, and sounds and smells of the sea all come together to create a strong maritime influence experienced in close proximity to the shoreline.
- The sweeping coastline is punctuated by shallow bays and comprised of small sandy shores, low cliff and embankment, short ravines, wide sloping rock platforms, and points.
- Well managed, pasture and arable fieldscape incline gradually over undulating ground from the shoreline to the low lying ridgeline providing little shelter to the coastline.
- Settlement is scattered and well spaced throughout the hinterland connected by a network of linear roads and tracks aligned to the regular pattern of fields.
- Stonewalls, fence lines and telegraph poles strengthen the regular pattern of fields and provide a strong sense of perspective and scale.
- Access to the coast is via local road, over agricultural land, private track or by boat. A car park and picnic area offers ready access at Sandy Geo.
- Views from the coast and hinterland are expansive and focused across Stronsay Firth towards outlying islands.

4.6.2 *Shapinsay West CCA: opportunities and constraints*

There is one existing aquaculture development within Shapinsay West CCA, lying in a central position in Veantrow Bay and consisting of 10 circular cages with no apparent permanent feeding facilities, at time of visit. Landscape opportunities and constraints, which are like to affect any further development, are noted below.

4.6.2.1 Dead Wife's Geo to Holm Sound LCCA O: opportunities and constraints – refer to Figures 13 and 14

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Balfour could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Headlands and promontories, such as Ness of Howe, could accommodate development away from residential receptors and enhance the sheltering nature of associated bays.
- Dark intertidal zones allows for cages, buoys, lines, and trestles to be somewhat absorbed into the backdrop from low angles – when viewed from opposite shores on the mainland.
- Intertidal zones with lengths of low cliff or embankment and convex hinterland slopes allow for trestles or intertidal long lines to be largely absorbed or screened from view from low lying hinterland locations.
- Linear sections of coastline would allow inorganic, geometric shapes and layouts to be accommodated and reflect the regular pattern of well-kept fieldscapes.

Landscape and visual constraints for aquaculture development:

- Areas of concave slope allow a clear visual relationship between properties and the coast therefore development would be highly noticeable.
- A number of properties and roads overlook the coast including roads and core footpaths running perpendicular with the shore and from a height.
- The coastline is currently undeveloped; therefore development would appear prominent.
- The settled nature of the coast could be dominated by development.

4.6.2.2 Helliard Holm LCCA P: opportunities and constraints – refer to Figures 13 and 14

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Balfour could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- Dark seaweed and rocky intertidal zone allows for cages, buoys, lines, and trestles to be absorbed into backdrop from low angles – when viewed from passing ferry services and adjacent shores.
- Lack of settlement or public use across entirety of island or along the coast.
- Linear stretches of coastline and the simple, horizontal dynamic of the island and sea would allow inorganic, geometric shapes and layouts to be better accommodated.
- Areas of low cliff would offer opportunity to absorb development into the backdrop and into the shadow and dark reflections provided from it, when viewed from relatively low angles.

Landscape and visual constraints for aquaculture development:

- Passengers on the passing local ferry service gain close views of the coast.
- The coastline is currently classed as isolated; new development would be prominent.
- The simple, small scale island character would be affected by development and inorganic shapes would be more prominent against the simple, moorland backdrop.
- The simple island character could easily be dominated by development.
- The remote nature of abandoned buildings could be lost through development sited within close proximity.
- Development may interrupt the maritime character and feature of the lighthouse.
- The island forms an important part in the coastal setting of Balfour Castle.

4.6.2.3 Holm Sound to Stromberry LCCA Q: opportunities and constraints – refer to Figures 13 and 14

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Balfour could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- The built nature of the harbour could offer opportunity to absorb further man made influences.
- Development could emphasise coastal features along western extents of the coast such as promontories like Twi Ness and be largely absorbed into the dark intertidal backdrop at low tide.

Landscape and visual constraints for aquaculture development:

- The coastline forms an important part of the coastal setting for the inventory listed Historic Garden and Designed Landscape of Balfour Castle, a number of Listed Buildings/Structures in Balfour, and the entrance to Shapinsay.
- The coastline is highly visible on approach from the mainland; development would impact on open views of the coast and Balfour Castle.
- The majority of the coast is classed as undeveloped; development would therefore be prominent.
- Views from Elwick, Balfour, and local roads and core footpaths are focused on the bay or channelled either side of Helliars Holm; development is likely to dominate views and 'fill up' the bay.

4.6.2.4 Stromberry to The Galt LCCA R: opportunities and constraints – refer to Figures 13 and 14

Landscape and visual opportunities for aquaculture development:

- Harbour facilities/space at Balfour could more easily accommodate shore based infrastructure than anywhere else within this LCCA.
- The coastline and immediate hinterland is largely free from settlement.
- Stretches of low cliff and embankment would offer opportunity to screen or 'tuck in' development, when viewed from relatively low angles within the hinterland.
- The sweeping nature of the coast and associated promontories and skerries could be emphasised through carefully sited development.
- Linear stretches of coastline and the regular pattern of landscapes would allow inorganic, geometric shapes and layouts to be better accommodated.

Landscape and visual constraints for aquaculture development:

- Southern extents of the coast form part of the coastal setting for Balfour Castle.
- The coastline is classed as undeveloped; development would be prominent and visible in relative close proximity from passengers on local ferry services.
- Vasa Loch forms an important coastal ayre which is popular with tourists.
- Local roads and core footpaths offer elevated and direct views of the coast and allow access to the shoreline.



Plate 78: Finfish farm in Veantrow Bay, Shapinsay West

4.6.2.5 Veantrow Bay LCCA S: opportunities and constraints – refer to Figures 13 and 14

Landscape and visual opportunities for aquaculture development:

- Existing finfish farm development in the bay would offer opportunities for extensions to existing or for further development to be accommodated without a significant magnitude of change to the current coastal character.
- Linear stretches of coastline and the regular pattern of fieldscapes would allow inorganic, geometric shapes and layouts to be better accommodated.
- Stretches of low cliff and embankment would offer opportunity to screen or ‘tuck in’ development, when viewed from relatively low angles within the hinterland.
- Development could be accommodated to the eastern and western sides of the bay without interrupting views north.

Landscape and visual constraints for aquaculture development:

- Additional development would pose cumulative impacts and result in development as a whole becoming more prominent.
- Laird Water and Ling Holm are important and popular coastal features that could be easily dominated by development.
- Framed vistas north would be further interrupted by additional development.
- Views contained within the bay from eastern and western shores would be focused on development.

- There is a strong visual relationship between the hinterland and the coast due to the concave nature of the topography; development would be visible from local roads and properties throughout the hinterland.
- A number of roads run directly towards the coast focusing views on the bay.
- The coastline is also classed as undeveloped; further development would be prominent.

4.6.2.6 Holm Taing to Ness of Ork LCCA T: opportunities and constraints – refer to Figure 14

Landscape and visual opportunities for aquaculture development:

- Areas of low cliff and embankment would offer opportunity to screen or ‘tuck in’ development, when viewed from relatively low angles within the hinterland.
- Headlands and promontories, such as Point of Veniver, could accommodate development away from residential receptors and enhance the sheltering nature of associated bays.
- A dark seaweed and rocky intertidal zone allows for trestles and intertidal long lines to be largely absorbed into the shore when viewed from locations within the hinterland.

Landscape and visual constraints for aquaculture development:

- Development would pose cumulative impacts and result in development as a whole becoming more prominent when viewed together with existing fish farm activity in Veantrow Bay.
- Open views north and the experience of wildness would be interrupted by significant development.
- The coastline is classed as undeveloped; development would be noticeable.
- Northern reaches of the area at Sandy Geo are popular for recreation.
- The coast is overlooked by a number of properties, core footpaths and local roads including the main B9058.
- A Scheduled Ancient Monument located at Sandy Geo relies on the coastal setting.

4.6.3 Shapinsay West CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	Dead Wife’s Geo to Holm Sound LCCA O	Helliar Holm LCCA P	Holm Sound to Stromberry LCCA Q
Maritime Influences	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock, shingle, sand and seaweed, visible from many locations along the coast. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Passage of ferry services and maritime traffic.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock and seaweed.</p> <p>Passage of maritime traffic and local ferry services.</p> <p>Undeveloped and isolated low lying shoreline dominated by close experience of seaside sounds and smells and a close affinity with surrounding waters.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock and seaweed.</p> <p>Passage of maritime traffic and local ferry services.</p> <p>Areas of developed and undeveloped low lying shoreline overlooking sheltered waters.</p>

Character and Experience of the Coast	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect the linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories.</p> <p>Coastal roads and properties throughout elevated hinterland are generally set back from the indented shore.</p> <p>Helliar Holm shares a close relationship with the coast via Holm Sound.</p>	<p>Moderate sensitivity</p> <p>The isolated nature of the coast results in limited direct appreciation and experience of it.</p> <p>The island forms an integral coastal element sheltering Elwick Bay and harbour and is experienced predominantly by passengers on local ferry services.</p> <p>Limited opportunity to accommodate development without dominating the island.</p>	<p>Moderate sensitivity</p> <p>Development could be associated with subtle promontories, however development is likely to dominate the small scale bay and interrupted the undeveloped character of the coast above which Balfour Castle dominates.</p> <p>Helliar Holm shares a close relationship with the coast and creates a sense of enclosure and shelter.</p> <p>The coastline is frequently experienced by visitors visiting the castle.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>One Listed Building/Structure and a Scheduled Ancient Monument overlook the coast or rely on it as part of their coastal setting.</p>	<p>Low sensitivity</p> <p>One Listed Building/Structure and a Scheduled Ancient Monument are located on the island and rely on it as part of their isolated, coastal setting.</p>	<p>High sensitivity</p> <p>A number of Listed Buildings/Structures including Balfour Castle are located along the coast and rely on it as part of their coastal setting.</p> <p>Balfour Castle is also a designated Garden and Designed Landscape – the coast forms an important setting.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Visual influence of settlement throughout hinterland, including local roads limits sense of wildness. The landscape as a whole is characterised by well managed agriculture.</p>	<p>Moderate sensitivity</p> <p>Visual influence of settlement within Shapinsay, including local roads limits sense of wildness, however abandoned buildings and the isolated, exposed nature of the island creates a degree of wildness easily lost to development.</p>	<p>Low sensitivity</p> <p>Visual influence of settlement throughout hinterland, including local roads, shoreline and harbour development, and Balfour Castle limits sense of wildness. The landscape as a whole is characterised by well managed agriculture.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>A typical coastal agricultural Orcadian landscape, however bares no exceptional scenic characteristics.</p>	<p>Low sensitivity</p> <p>The island as a whole does not exhibit any exceptional scenic qualities, however it does form a characteristic feature of the seascape with a dramatic eastern coastline animated by tidal patterns.</p>	<p>Moderate sensitivity</p> <p>The harbour provides an attractive gateway to the island and complements the castle and attractive grounds which it keeps. A significant block of woodland surrounds the castle to the north – a unique feature within the Orcadian environment.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is predominantly viewed</p>	<p>Moderate sensitivity</p> <p>The coastline is predominantly viewed from</p>	<p>High sensitivity</p> <p>The coastline is predominantly viewed from</p>

	<p>from local roads and properties within the elevated hinterland.</p> <p>Distant views are also gained from mainland and by passengers on ferry services.</p>	<p>local roads and properties within the elevated hinterland of Shapinsay and from shoreline locations at Balfour and Elwick.</p> <p>Distant views are also gained from mainland and by passengers on ferry services.</p>	<p>the approach to the island by passengers on local ferry services.</p> <p>Local roads and properties within the elevated hinterland experience views focused on Elwick Bay or channelled either side of Helliar Holm. Views of the coastline in front of Balfour Castle are limited from the island.</p> <p>Distant views are also gained from mainland.</p>
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Table 26: Sensitivity assessment – LCCAs O – Q

Potential sensitivity of the seascape to aquaculture development	Stromberry to The Galt LCCA R	Veantrow Bay LCCA S	Holm Taing to Ness of Ork LCCA T
Maritime Influences	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle, sand and seaweed. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Open views over Wide Firth.</p> <p>Passage of ferry services and maritime traffic.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle, sand and seaweed. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Open views north to 'open sea', distant islands, and an existing finfish farm.</p> <p>Distant passage of ferry services and maritime traffic.</p>	<p>Moderate sensitivity</p> <p>Tidal patterns revealing intertidal zones of rock, shingle, sand and seaweed. Undeveloped shoreline offering intimate experience of seaside sounds and smells and close experience of animated waters.</p> <p>Open views north and east to 'open sea' and distant islands.</p> <p>Distant passage of ferry services and maritime traffic.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>Development could be aligned to reflect the linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories.</p> <p>Coastal roads and properties throughout elevated hinterland are generally set away from the sweeping shoreline.</p> <p>The coast is not readily accessed for recreation.</p>	<p>Low sensitivity</p> <p>Development could be aligned to reflect linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories. An existing finfish farm may make further development easier to accommodate.</p> <p>Despite Laird Water and adjacent sandy beaches the area is not readily accessed for recreation.</p>	<p>Moderate sensitivity</p> <p>Development could be aligned to reflect linear sections of the coast and geometric shapes and layouts accommodated by the regular pattern of fieldscapes or associated with subtle promontories.</p> <p>The dynamic character of the coast and the exposed nature of the headland are readily experienced from the visitor spot at Sandy Geo.</p>
Setting of Landmarks	Moderate sensitivity	Low sensitivity	Low sensitivity

and Features	<p>Two Coastal Batteries overlook the coast or rely on it as part of their coastal setting. Southern reaches lie within the setting of Balfour Castle and its designated Garden and Designed Landscape.</p> <p>A number ayres are located along the shore including Vasa Loch.</p>	<p>The area is void of significant features except for the impressive ayre of Laird Water and the adjacent Ling Holm located centrally within the bay.</p>	<p>A Scheduled Ancient Monument overlooks the coast and relies on it as part of its coastal setting.</p>
Experience of Wildness	<p>Low sensitivity</p> <p>Visual influence of limited settlement throughout hinterland, including local roads limits sense of wildness. The landscape as a whole is characterised by well managed agriculture, but generally open to Wide Firth with northern reaches of exposed promontory experiencing views of 'open sea'.</p>	<p>Low sensitivity</p> <p>Visual influence of limited settlement throughout hinterland, including local roads limits sense of wildness including an existing finfish farm in Veantrow Bay. The landscape as a whole is characterised by well managed agriculture, but generally exposed to northern waters with views of 'open sea'.</p>	<p>Moderate sensitivity</p> <p>Although the hinterland is largely settled within a well managed agricultural landscape the undeveloped coast is exposed to northern waters with views of 'open sea' and animated waters.</p>
Aesthetic Qualities	<p>Low sensitivity</p> <p>A typical coastal agricultural Orcadian landscape, however bares no exceptional scenic characteristics except for a number of interesting ayres.</p>	<p>Low sensitivity</p> <p>A typical coastal agricultural Orcadian landscape, however bares no exceptional scenic characteristics except for the impressive ayre of Laird Water and the adjacent Ling Holm.</p>	<p>Low sensitivity</p> <p>A typical coastal agricultural Orcadian landscape, however bares no exceptional scenic characteristics.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is predominantly viewed from local roads and properties within the elevated hinterland, however the convex landform limits views of the immediate shoreline.</p> <p>Passengers on ferry services experience close range, sequential views along the entire length of coast. Distant views are also gained from mainland.</p>	<p>Moderate sensitivity</p> <p>The coastline is predominantly viewed from local roads and properties within the sloping hinterland with distant views from passing maritime traffic.</p> <p>Although views out to 'open sea' are strong views are also contained within the extents of the bay and focused on Laird Water which would be affected by further development.</p>	<p>Low sensitivity</p> <p>The coastline is predominantly viewed from local roads and properties within the sloping hinterland with distant views from passing maritime traffic.</p>

Table 27: Sensitivity assessment – LCCAs R – T

4.6.4 *Shapinsay West CCA: conclusions*

The conclusions from the capacity assessment are as follows including accompanying guidance.

4.6.4.1 Dead Wife's Geo to Holm Sound LCCA O – refer to Figures 16 and 17

There is some potential for this local coastal character area to accommodate small scale aquaculture development or limited small scale, multi site developments, provided:

- Development is associated with promontories, such as Ness of Howe, and be aligned with and as close to the shore as possible with a tidy layout maintained to reflect the simple, regular pattern of fieldscapes.
- Development is sited away from shoreline properties and where roads are aligned perpendicular towards the shore.
- Development be sited away from Helliar Holm and the setting of Balfour Castle.
- Trestles and intertidal long lines are located away from Pool of Haroldsgarth.
- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi site developments total no more than two, of any kind.
- Total development, including potential existing shellfish farm, does not occupy more than 30% of the coast.

4.6.4.2 Helliar Holm LCCA P – refer to Figures 16 and 17

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the isolated nature of the island's coast and the likelihood that the simple character would be easily dominated by development.

4.6.4.3 Holm Sound to Stromberry LCCA Q – refer to Figures 16 and 17

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with setting of Balfour Castle and the likelihood that the intimate scale and sheltered character of Elwick Bay would be easily dominated by development.

4.6.4.4 Stromberry to The Galt LCCA R – refer to Figures 16 and 17

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture development or multi site developments, provided:

- Development is associated with promontories, such as Salt Ness, and be aligned with and as close to the shore as possible with a tidy layout maintained to reflect the simple, regular pattern of fieldscapes.
- Development is sited away from shoreline properties and features such as Vasa Loch and where roads are aligned perpendicular towards the shore.
- Development is sited away from southern extents where Balfour Castle relies on the coastal setting.
- Trestles and intertidal long lines are restricted to less than five rows, located adjacent areas of low cliff or embankment, reflect the sweeping line of the coast and are sited away from tracks/footpath routes such as Banks of Runabout.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast.
- Small scale, multi site developments total no more than four, of any kind. Medium scale, multi site developments total no more than two, of any kind.
- Total development does not occupy more than 50% of the coast.

4.6.4.5 Veantrow Bay LCCA S – refer to Figures 16 and 17

There is some potential for this local coastal character area to accommodate additional small scale aquaculture developments or extensions to existing provided:

- Development be aligned with and as close to linear sections of shore as possible or associated with appropriate promontories/headlands.
- Development avoids impacting on open views north towards 'open sea' from within or aligned with the bay or from properties.
- It is suggested, should additional finfish cages be proposed for existing farms or additional units elsewhere within the area, that all existing locations be revised (subject to permissions) to prevent clutter, thus aligning all existing and proposed developments with and as close to shorelines as possible or associated with promontories.
- Development is sited away from Laird Water and neighbouring beaches and geomorphologic features.
- Development be restricted to as few rows as possible i.e. cages no more than two, long lines and trestles less than five, to avoid dominating the bay and becoming overly prominent from hinterland locations.
- Individual, small scale development takes up no more than one tenth of the coast. Small scale, multi site developments total no more than three, of any kind, including the existing finfish farm.
- Total development does not occupy more than 30% of the bay.

4.6.4.6 Holm Taing to Ness of Ork LCCA T – refer to Figure 17

There is some potential for this local coastal character area to accommodate small to medium scale aquaculture developments provided:

- Development is associated with promontories, such as Point of Veniver, and be aligned with and as close to the shore as possible with a tidy layout maintained to reflect the simple, regular pattern of fieldscapes and avoid interrupting the natural pattern of bays and promontories.
- Development should be sited away from shoreline properties and sandy bays.
- Development is sited away from and out of immediate view of the visitor point and car parking at Sandy Geo.
- Individual, small scale development takes up no more than one tenth of the coast. Individual, medium scale development takes up no more than one quarter of the coast.

4.6.5 Shapinsay West CCA: summary of cumulative development

Given the nature of the coast, the visual separation between the different LCCAs, the way in which the coast is experienced from land and sea and the fact that no capacity has been identified on Gairsay, it is concluded that when considering potential cumulative issues that the capacity for each of the six Shapinsay LCCAs will remain as assessed above.

4.7 Gairsay Coastal Character Area

Landscape Character Types: Whaleback Island Landscapes.

4.7.1 Gairsay CCA: character analysis – refer to Figures 3 and 14 – LCCAs U and V

The island of Gairsay is characterised by its smooth, domed profile sweeping down over moorland and pasture to a low lying shore below. The even coastline is formed from long stretches of shingle shore and shingle bays that wrap around the island, broken only by rock platforms the majority of which flank the eastern shores of Hen of Gairsay and Sweyn Holm. Low cliffs run a short distance on the northern shore where the landform falls steeper to the sea. Gairsay is sparsely settled; only one habited farmstead and a couple of ruins exist; however proximity to the mainland from the west dilutes the sense of isolation.

4.7.1.1 North Head to Millburn Bay inc. Sweyn Holm east and Hen of Gairsay LCCA U: key landscape and visual elements – refer to Figures 12 and 14

Landscape Character Types: Whaleback Island Landscapes.



Plate 79: North Head to Millburn Bay inc. Sweyn Holm east and Hen of Gairsay
LCCA U

- This area comprises a fairly large flow of tidal water and races between Gairsay and Shapinsay, before opening out into Wide Firth in the southwest and Stronsay Firth in the northeast. There is a strong sense of exposure to the open expanse of sea within Stronsay Firth.
- Intertidal zones defined by dark seaweed, changeable light conditions, animated tidal waters and races, views of local boat and ferry traffic and associated navigational aids, and inherent sounds and smells of the sea create a strong maritime character which dominates the island.
- The coastline is characterised by the dynamic arrangement of Sweyn Holm, Hen of Gairsay and the resultant Russness and Millburn Bays. It is largely comprised of sweeping stretches of rock and shingle, deeply indented bays, fragmented rock platforms, points, and distant scattered skerries to the south over which tidal patterns and breaking waters can be seen.

- Pastureland and rough grazing inclines smoothly and evenly from the shoreline to meet moorland slopes with rough grass and moorland blanketing the lower lying holms.
- Settlement is limited to a collection of abandoned and ruined buildings.
- The simple composition of sea, land and sky has a strong sweeping dynamic which is emphasised by the outstretched limbs of Sweyn Holm and Hen of Gairsay.
- Access to the undeveloped coast is by boat alone.
- Views from Gairsay are focused on Shapinsay or south across Wide Firth, however these are limited to the island's lone residents. Views from Shapinsay and passing ferry and boat traffic are relatively distant and are characterised by the graceful, uninterrupted profile of Gairsay.

4.7.1.2 Millburn Bay to Odin Ness LCCA V: key landscape and visual elements – refer to Figures 12 and 14

Landscape Character Types: Whaleback Island Landscapes.



Plate 80: Millburn Bay to Odin Ness LCCA V

- This relatively narrow flow of tidal water and races between Gairsay and the mainland, before opening out into Wide Firth, has a large sense of semi-enclosure by surrounding landmasses.
- Intertidal zones defined by dark seaweed, changeable light conditions, animated tidal waters and races, views of local boat and ferry traffic and associated navigational aids, and prevalent smells and sounds of the sea create a strong maritime character along the coast.
- The coastline is largely low lying comprising sweeping stretches of rock and shingle, fragmented rock platforms, points, and distant scattered skerries to the south over which tidal patterns and breaking waters can be seen.
- Pastureland and rough grazing inclines smoothly and evenly from the shoreline to meet moorland slopes.
- Settlement is isolated and limited to one farmstead and a collection of abandoned and ruined buildings.

- The simple composition of sea, land and sky has a strong sweeping dynamic which characterises the iconic contour of the island and its undeveloped coastline.
- Access to the coast is by boat alone.
- Views from Gairsay are focused on the adjacent mainland or south across Wide Firth, however these are limited to lone residents. Views from the mainland are relatively distant and are characterised by the graceful, uninterrupted profile of Gairsay.

4.7.2 *Gairsay CCA: opportunities and constraints*

There is currently no apparent aquaculture development within Gairsay Sound CCA. Landscape opportunities and constraints, which are like to affect any future development, are noted below.

4.7.2.1 North Head to Millburn Bay inc. Sweyn Holm east and Hen of Gairsay LCCA U: opportunities and constraints – refer to Figures 12 and 14

Landscape and visual opportunities for aquaculture development:

- The close location of Tingwall offers opportunity to locate shore-based infrastructure outwith this length of coast.
- The outstretched nature of promontories and islands, such as Hen of Gairsay and Sweyn Holm, could be emphasised with well sited development.
- Linear stretches of coastline would allow inorganic, geometric shapes and layouts to be better accommodated.
- The island itself has very few visual receptors.
- Natural screening for and semi-containment is provided by the arrangement of Hen of Gairsay and Sweyn Holm for external visual receptors such as passengers on the local ferry services.
- The coast is not readily accessed for recreation.

Landscape and visual constraints for aquaculture development:

- The undeveloped and isolated nature of the island and coast would result in development being highly prominent.
- Development would dominate the simple character of the island and dilute the sense of wildness.
- The island forms one of the most attractive islands in Orkney's seascape.
- The majority of the shore is visible by passengers on the local ferry services.
- Panoramic views are gained from the highest point on the island itself.
Two Scheduled Ancient Monuments rely on the coastal setting.

4.7.2.2 Millburn Bay to Odin Ness LCCA V: opportunities and constraints – refer to Figures 12 and 14

Landscape and visual opportunities for aquaculture development:

- The close location of Tingwall offers opportunity to locate shore-based infrastructure outwith this length of coast.
- Promontories such as The Taing and Ness of Boray could be emphasised with well sited development.
- Linear stretches of coastline would allow inorganic, geometric shapes and layouts to be better accommodated.
- The island itself has very few visual receptors.
- The coast is not readily accessed for recreation.

Landscape and visual constraints for aquaculture development:

- The undeveloped and isolated nature of the island and coast would result in development being highly prominent.
- Development would dominate the simple character of the island and dilute the sense of wildness.
- The shore is highly visible from neighbouring locations on the mainland including elevated views from the A966, the National Cycle Network route, and a number of properties. Framed vistas between Gairsay and the mainland are likely to be interrupted by development located centrally.
- Panoramic views are gained from Enyas Hill and Gorseness Hill and also from the highest point on the island itself.
- A Listed Building/Structure and a Scheduled Ancient Monument rely on the coastal setting.

4.7.3 Gairsay CCA: summary of the potential sensitivity of the local coastal character areas to aquaculture development

Potential sensitivity of the seascape to aquaculture development	North Head to Millburn Bay inc. Sweyn Holm east and Hen of Gairsay LCCA U	Millburn Bay to Odin Ness LCCA V
Maritime Influences	<p>Moderate sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, visible from many locations along the coast including the passage of maritime traffic and local ferry services from Kirkwall. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Views of 'open sea'.</p>	<p>Low sensitivity</p> <p>Tidal patterns revealing deep intertidal zones of rock and seaweed, visible from many locations along the coast including the passage of maritime traffic and local ferry services from Tingwall. Undeveloped shoreline offering intimate experience of seaside sounds and smells.</p> <p>Limited by adjacent shores.</p>
Character and Experience of the Coast	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by isolated residents.</p> <p>Development could be aligned with linear sections of coast and be accommodated by the largely horizontal, simple dynamic of the Sweyn Holm and Hen of Gairsay.</p>	<p>Low sensitivity</p> <p>The isolated, inaccessible nature of the coast results in limited appreciation and experience of it except by isolated residents.</p> <p>Development could be aligned with linear sections of coast or be associated with promontories, however development would affect the isolated, simple character of the island.</p>
Setting of Landmarks and Features	<p>Low sensitivity</p> <p>A couple of Scheduled Ancient Monuments overlook the coast or rely on it as part of their coastal setting.</p>	<p>Low sensitivity</p> <p>A couple of Scheduled Ancient Monuments overlook the coast or rely on it as part of their coastal setting.</p>
Experience of Wildness	<p>High sensitivity</p> <p>The isolated nature of the coast creates a strong sense of wildness, limited marginally by the close passage of ferry services and maritime traffic.</p>	<p>High sensitivity</p> <p>The isolated nature of the coast creates a strong sense of wildness, limited marginally by the presence of a lone settlement.</p>

Aesthetic Qualities	<p>Moderate sensitivity</p> <p>Although the island bares no exceptional scenic characteristics, the elegant profile and combination of moorland slopes, pasture and dynamic shoreline creates an attractive composition which would be affected by development.</p>	<p>Moderate sensitivity</p> <p>Although the island bares no exceptional scenic characteristics, the elegant profile and combination of moorland slopes, pasture and shoreline creates an attractive composition which would be affected by development.</p>
Key Viewpoints	<p>Low sensitivity</p> <p>The coastline is visible at close range by passengers on local ferry services and from limited, distant locations on Shapinsay.</p>	<p>Moderate sensitivity</p> <p>The coastline is highly visible from mainland shores and hinterland including properties and main roads, at both distance and close range with clear, framed vistas between Gairsay and mainland that would be affected by development.</p>

Table 28: Sensitivity assessment – LCCAs U – V

4.7.4 Gairsay CCA: conclusions

The conclusions from the capacity assessment are as follows including accompanying guidance.

4.7.4.1 North Head to Millburn Bay inc. Sweyn Holm east and Hen of Gairsay LCCA U – refer to Figures 15 and 17

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the isolated nature of the island's coast and its scenic profile and character.

4.7.4.2 Millburn Bay to Odin Ness LCCA V – refer to Figures 15 and 17

No potential for the seascape to accommodate aquaculture was identified in this local coastal character area, largely due to the high sensitivities associated with the isolated nature of the island's coast and its scenic profile and character.

4.7.5 Gairsay CCA: summary of cumulative development

There are no cumulative issues for Gairsay as no capacity has been identified.

5 CONCLUSIONS

In terms of landscape and visual aspects, both Scapa Flow and Wide Firth study areas have the capacity to accommodate further small to medium scale aquaculture developments. This is likely to take the form of single medium scale farms within a specific location or a collection of well-sited smaller scale farms i.e. multi sites. Extensions to existing finfish farms may also be suitable. It may be appropriate to relocate or realign existing finfish farms (subject to planning considerations), especially along the east coast of Hoy, to improve their relationship with the coast and create opportunities for extensions or additional small scale developments.

Typical areas suited to development include those with north facing shores, linear sections of coast or suitable promontories, relatively high cliffscapes or deep intertidal zones of dark rock and seaweed, areas of limited settlement and visibility, and areas least affected by landscape and natural heritage designations.

Cumulative impacts are most likely to occur where it has been suggested that existing development be realigned or relocated to enable additional small scale developments to be accommodated within the same area. Although cumulative impacts result in development as a whole becoming more prominent, it may be more favourable than introducing new development into an area of undeveloped or isolated coast where the magnitude of change will result in a greater overall impact on the landscape resource and visual amenity. This rationale also applies in relation to extensions to existing farms rather than developing new sites. Where new sites are developed, in particular multi sites, cumulative issues still need to be considered to prevent development simply occurring across the study areas in response to the local coastal character areas having capacity. In this case, appropriate assessment would need to be undertaken as and when a development is submitted, for permission and licensing, to determine the current baseline conditions i.e. the existence of other developments in the vicinity.

At present, it is considered that Scapa Flow has the capacity for aquaculture development, of any kind, to occupy no more than one third of the total coastal area, including existing development and excluding areas identified as having no capacity. Wide Firth has the capacity for aquaculture development, of any kind, to occupy no more than one quarter. Of course, these figures should not be applied as broad brush across each study area resulting in an even spread of development. Judgement should be made on the potential cumulative impacts, as stated previously, at the time of application.

It should be noted that other considerations, such as environmental or technical, may override any suggestion of capacity in this assessment.

There appear to be a number of shellfish sites with active licenses that are not in operation. These sites should be considered for reuse before new sites are granted in order to reduce potential cumulative impacts i.e. a new site is developed on the basis that there are no potential cumulative impacts in the local vicinity and then an existing license is suddenly reutilised at the same time.

Following detailed analysis of each LCCA, it is clear that a number of them display similar landscape and visual characteristics. As a result they can be grouped together and a number of generic siting and design principles applied to each as a general 'rule of thumb'. These principles may also be appropriate for other areas outside the assessed study areas that exhibit similar characteristics.

However, as each assessed LCCA is individual in its own right, these broad principles should form only the initial stage in determining the suitability of an area to accommodate the proposed development. Detailed analysis of the local coastal character is integral to highlight site-specific features and characteristics that would determine the capacity and suitability of the area for development.

The following table outlines typical LCCAs which could be grouped together under generic character areas. For guidance on siting and design principles for aquaculture see *The siting and design of aquaculture in the landscape: visual and landscape considerations*. Alison Grant for SNH (2011). Refer to Figure 18 for geographical areas.

Generic LCCAs	Principal landscape and visual characteristics	LCCAs contained within each generic group
Urban harbour	<ul style="list-style-type: none"> • Hard, often complex urban edge. • Detail, colours, shapes and activity. • High number of close visual receptors. 	1, 16, and H
Built focus	<ul style="list-style-type: none"> • Area of undeveloped coast with focus on a concentration of built form e.g. a shoreline village. • Mix of developed and undeveloped coastlines with intervisibility. 	9, 12, 15, 24, 40, E, I, L and Q
Narrow bay	<ul style="list-style-type: none"> • Bay is generally longer than it is wide channelling views externally to open water. • Close visual relationship with opposing shores. • Tidal movements and changeable light conditions are obvious. • Sense of shelter and semi-containment. 	7, 20, 22 and 42
Wide bay	<ul style="list-style-type: none"> • Bay is generally wider than it is long retaining views within the bay and along the coast. • A sense of shelter is maintained within the reaches of the bay, however influenced by its exposed aspect onto open water. 	2, 6, 25, C, N and S
Bay and headland	<ul style="list-style-type: none"> • Generally an obvious pattern of bays and headlands within a single stretch of coastline with similar coastal characteristics. • Pattern of shelter and exposure along coast. 	4, 26, 29, D, J and T
Enclosed bay	<ul style="list-style-type: none"> • Enclosed bay with little maritime influence i.e. could easily be an inland loch. • Typically settled agricultural hinterland. 	19 and 23
Settled coast	<ul style="list-style-type: none"> • Low lying stretch of coast backed by a settled hinterland typically agriculture and scattered settlement. • Generally easy access to the coast. 	3, 11, 13, 17, 44, B, M and O
Isolated/ undeveloped coast	<ul style="list-style-type: none"> • Typically undeveloped or unsettled coastline or an isolated island. • Simple moorland or rough grassland hinterland. 	14, 21, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 41, 45, 46, A, F, G, K, P, R, V and U
Isolated/ remote cliff	<ul style="list-style-type: none"> • Stretch of inaccessible cliff with an undeveloped hinterland typically moorland and rough grassland. • Narrow or absent intertidal zone. 	5, 8, 10, 18, 27, 28 and 43

Table 29: Generic LCCAs

6 ANNEX ONE – EXTRACT OF THE BRIEF

6.1 Landscape/seascape capacity for aquaculture: Orkney Islands Pilot Study

6.1.1 Background

There continues to be considerable interest in the development of aquaculture, both finfish and shellfish farming, around parts of the coastline of Scotland. As with any type of development, aquaculture has impacts upon the natural heritage, including landscape and visual effects. In addition, with ongoing development, the issue of cumulative impacts becomes increasingly relevant.

The landscape and visual impacts of aquaculture can be significant in coastal areas. Shore bases, storage areas, piers and other elements are often part of the development in addition to the sea-based cages or long-lines.

Scotland's coastline is distinctive, much of it is a focus for recreational activities and it is also where a lot of settlement is located. In addition it has a strong cultural component, and the issues of wild land and wildness are becoming more prominent. Scottish Natural Heritage (SNH) has produced a policy document on wildness and it is emerging as a consideration in some casework.

Given that the impacts of aquaculture can be significant, and its location is often sensitive, establishing the likely acceptable limits of coastal aquaculture development is desirable. Some guidance has been produced: SNH, together with The Crown Estate Commission and Scottish Quality Salmon, produced guidance on the design and siting of aquaculture developments. This guidance, aimed at individual installations, is due for revision in 2010-11. There is also capacity study guidance for planning authorities carrying out more strategic studies of larger areas. Some capacity studies (parts of Orkney, Shetland, and in Dumfries & Galloway and Loch Etive – the latter two during preparation of the capacity study guidance) have been completed. There has also been coastal characterisation of the whole coastline.

To comply with a request from the Scottish Government, SNH wishes to commission a capacity study for parts of the Orkney Islands. This will follow the capacity study guidance methodology.

6.1.2 Aims

The aims of the project are:

- To assess the capacity of the landscapes/seascapes of the agreed study area for aquaculture development
- To clearly apply the recommended methodology and thereby assess the landscape/seascape capacity for aquaculture of the study area
- To give a presentation on the study, if required, to an invited audience.

Note that for the purposes of this brief, aquaculture development shall include both finfish and shellfish farms. It shall also include shore bases as well as marine cages and long-lines or other structures such as feed barges.

The results from this work will be used to help inform SNH staff, and others, in developing policy and responding to casework. It needs to be clearly and concisely written for a wide but informed audience.

6.1.3 Methodology

6.1.3.1 Background information

There is national coverage of landscape character assessments. The relevant sections of the coastal characterisation study of Scotland will be made available to the successful consultants on award of the contract.

The study methodology shall follow that described in 'Landscape/Seascape carrying Capacity for Aquaculture', and be compatible with that outlined in the "Guidelines for Landscape and Visual Impact Assessment"¹. Any departure from this would require justification and explanation, as they are the basis of SNH's approach to landscape casework and research. LCA Topic Paper 62 on capacity and sensitivity may also be relevant.

6.1.3.2 Pilot studies

The probable study area will comprise Scapa Flow and Wide Firth (Kirkwall – Shapinsay – Tor Ness to include the Bays of Isbister, Kirkwall and Bay of Firth). The final study area will be agreed and confirmed at the initial contract meeting. Contact details for the relevant local authority and industry representatives will be given to the successful consultant.

6.1.3.3 Method

The methodology is detailed in "Landscape/Seascape Carrying Capacity for Aquaculture"

In summary, it involves the following stages:

- Desk study: review of relevant development attributes. This will be in consultation with the steering group and others
- Define agreed development scenarios, also in consultation with the steering group, and agree scale of working
- Identify character-based areas/subdivisions
- Site survey and analysis and visual assessment
- Identification of Opportunities and constraints
- Assessment of the cumulative issues and capacity of pilot study areas.
- Production of report of capacities.

7 ANNEX TWO – SCOTTISH PLANNING POLICY (SPP)

7.1 Coastal Planning

98. The coast of Scotland is of national, and in some parts international, significance containing many areas of special landscape and ecological significance. A large proportion of Scotland's population live on or near the coast and it is a major focus for economic activity, recreation and tourism. The sustainable development of coastal areas is an important contributor to sustainable economic growth. Rising sea levels and more extreme weather events resulting from climate change will have a significant impact on coastal areas, and planning policy must respond to these challenges. New land-based development in coastal areas should not normally be permitted where it will require significant new defences against coastal erosion or coastal flooding, unless defences are planned as part of a long term settlement strategy.

99. Statutory planning control 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. A new marine planning system is being introduced through the Marine (Scotland) Bill. The purpose of the marine planning system is to provide a framework for the sustainable development of the Scottish marine area, setting economic, social and marine ecosystem objectives and providing a framework for decision making. A national marine plan will be prepared by the Scottish Government and regional marine plans will be prepared by Marine Planning Partnerships to guide decision making within the marine planning system. The powers of the marine planning system will extend up to the mean high water mark. The terrestrial planning system 15 and the marine planning system are legally and functionally separate but overlap in the inter-tidal area. Planning authorities should work closely with Marine Planning Partnerships and neighbouring authorities to ensure that development plans and regional marine plans are complementary, particularly with regard to the inter-tidal area but also for the wider coastal zone. The landward limit of the coastal zone will vary based on the geographical effects of coastal processes and coastal-related human activity. Integrated Coastal Zone Management (ICZM) is a strategic management process which aims to facilitate an integrated approach to the use, development and protection of resources across the interface between land and sea, and may be of use in addressing the areas and issues in which regional marine plans and development plans have a common interest.

100. Development plans should identify coastal areas likely to be suitable for development, areas subject to significant constraints and areas which are considered unsuitable for development such as the isolated coast. The identification of coastal locations which are suitable for development should be based on a clear understanding of the physical, environmental, economic and social characteristics of the coastal area and the likely effects of climate change.

101. Coastal areas which are likely to be suitable for development include existing settlements and substantial free standing industrial and energy developments, particularly where development is linked to regeneration or the re-use of brownfield land. These coastal areas may also contain internationally and nationally designated nature conservation sites, important cultural heritage resources and valuable areas of open space which should be protected from inappropriate development. The risks associated with rising sea levels and coastal flooding should be taken into account when identifying areas that are suitable for development. When identifying areas which are appropriate for development, planning authorities should take into account the locational requirements of different types of development, for example ports, Ministry of Defence related development, marine fish farms and other marine industries, land-based development associated with off-shore renewable energy generation or oil and gas production and tourism and recreation related development.

102. Areas subject to significant constraints on new development may include areas at risk from coastal erosion, areas where conservation or enhancement of the natural and historic environment requires development to be limited and locations of value for recreational uses. Areas which are unsuitable for development will include the isolated coast, which is distant from centres of population and lacks obvious signs of development and is of very significant environmental, cultural and economic value. The special characteristics of the isolated coast should be protected, and there is a presumption against development in these areas.

103. Development plans should protect the coastal environment, indicate priority locations for enhancement and regeneration, identify areas at risk from coastal erosion and flooding, and promote public access to and along the coast wherever possible. Where relevant, development plans should also identify areas where managed realignment of the coast may be appropriate, setting out the potential benefits such as habitat creation and new recreation opportunities. Planning authorities should take the likely effect of proposed development on the marine environment into account when preparing development plans and making decisions on planning applications.

7.2 Fish Farming

104. Aquaculture is a nationally important industry, particularly for coastal and island communities, making an important contribution to the rural economy and providing a significant number of jobs, many in remote locations where alternative employment opportunities are limited. The Scottish Government's policy on aquaculture is set out in *A Fresh Start - the Renewed Strategic Framework for Scottish Aquaculture*. There are three main components of the fish farming industry - marine finfish farms, shellfish farms and freshwater farms. The statutory planning system covers both freshwater farms and marine farms out to three nautical miles. Circular 1/2007 *Planning Controls for Marine Fish Farming* provides guidance on the Acts, Regulations and Orders relevant to planning controls over marine fish farming. Planning authorities should support the development of new and modified fish farms in appropriate locations. There is a presumption against development of marine finfish farm developments on the north and east coasts to safeguard migratory fish species.

105. Development plans should identify areas which are potentially suitable for new or modified fish farm development and sensitive areas which are unlikely to be appropriate for such development. In potential development areas fish farm development may be appropriate, subject to locational and environmental considerations. Sensitive areas are unlikely to be suitable for fish farm development unless adverse impacts can be adequately mitigated. When designating potential development areas and sensitive areas, planning authorities should take into account carrying capacity, landscape, natural heritage and historic environment interests, potential conflict with other users and other regulatory controlled areas. Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters was published by Marine Scotland in 2009. Fish farming framework plans, published as supplementary guidance, can set out a planning authority's approach to fish farm development in specific areas. Supplementary guidance can also be used to provide advice on how the design of fish farms and associated development can minimise landscape and visual impact.

106. Fish farms are likely to require land based facilities and where possible these facilities should be considered as part of or simultaneously with the application for the fish farm. Opportunities for shared use of onshore facilities including jetties, piers and ancillary facilities should be promoted and, wherever possible, access to the foreshore for recreational purposes should not be impeded. Established anchorages and harbours should be safeguarded.

107. When determining planning applications, authorities should take into account the direct and cumulative effects of the proposed development on the environment,

including carrying capacity, visual impact and the effects on the landscape, marine historic environment and the sea or loch bed. The needs of local communities and other interests should also be taken into account alongside the economic benefits of the sustainable development of the fish farming industry and the operational needs of fish farms. The capacity of an area to accommodate fish farm development can be considered on a loch or voe wide basis. Where adverse cumulative impacts are significant and cannot be mitigated, planning permission should not be granted. Fish farms can be fitted into their surroundings to avoid or minimise visual intrusion and mitigation strategies should be incorporated into development proposals. Applications should be accompanied by information on the extent of the site, type, number and physical scale of structures, the disposition of structures across the lease area, on-shore facilities, ancillary equipment, lighting and noise impact and proposed restoration following cessation of operations.

8 ANNEX THREE – ORKNEY ISLANDS STRUCTURE AND LOCAL PLAN

8.1 The Structure Plan, 2001

8.1.1 Policy SP/N5 Landscape Character Assessment

Developments or land-use changes which are considered to have a significant landscape or visual impact will be assessed for their compatibility with the guidance on landscape character as detailed in the Orkney Landscape Character Assessment, and any other national or local guidelines where appropriate.

8.1.2 Policy SP/N6 Designated Sites – Landscape Protection

National sites (National Scenic Area)

Development or land-use change affecting a National Scenic Area, either directly or indirectly will only be permitted where the quality or character of the landscape will not be adversely affected; or, where any significant adverse effects on the National Scenic Area are clearly outweighed by social or economic benefits of national importance.

Local sites

Sites of local scenic character will be safeguarded wherever possible. Detailed policies will be provided within the Local Plan.

8.1.3 Policy SP/C2 Coastal Development

All proposals for development or land use within the coastal zone, other than that identified in the Local Plan will be assessed against the following:

- a) whether or not the development requires a coastal location, and will be resisted when there is no specific locational requirement; and,
- b) in locational terms preference will be given to sites on the developed coast, followed by the undeveloped coast; and only in exceptional circumstances will development within the isolated coast be considered.

The nature and extent of the coastal zone will be identified in the Local Plan.

8.1.4 Policy SP/B2 World Heritage Site

The Council will ensure that any development likely to have any adverse impact on the World Heritage Site, or its zone of visual influence as identified in the Local Plan will not be permitted.

8.1.5 Policy SP/B3 Archaeological Sites

Development proposals which would destroy or adversely affect the appearance, fabric or setting of:

- a) Scheduled Ancient Monuments or nationally important sites will only be permitted in the most exceptional circumstances.

8.1.6 Policy SP/B4 Listed Buildings and Conservation Areas

The Council will seek to preserve the character and setting of Orkney's best historic buildings and groups of buildings through:

- a) supporting the retention and preservation of Listed Buildings and their setting, together with any related features of special architectural or historic interest;
- b) encouraging the most appropriate re-use and/or renovation of vacant or derelict historic buildings where possible;
- c) supporting development within Conservation Areas that is of a quality and design which will conserve and enhance the special character and appearance of these areas; and,
- d) periodically reviewing the boundaries of the Conservation Areas to ensure that they remain relevant and appropriate.

8.1.7 Policy SP/B5 Historic Gardens and Designed Landscapes

The Council will seek to preserve historic gardens and designed landscapes identified in the published Inventory and in any additions to it. The Local Plan will indicate the nature and extent of these areas and contain policies for their protection.

8.1.8 Policy SP/C3 Fish Farming

In anticipation of new legislation regarding the extension of planning controls to marine fish and shellfish farming the Council will prepare a Fish Farming Framework Plan for Orkney which will provide local planning guidance for aquaculture developers on preferred sites for fish-farming development.

8.2 The Local Plan, 2004

8.2.1 Policy LP/N3 Landscape

All development proposals should take adequate and proper account of the Orkney Landscape Character Assessment on how various types of development or land use change might best be accommodated within particular landscape types. In addition, within designated sites the following will apply:

- a) Hoy and West Mainland National Scenic Area

Development or land-use change that may have a significant adverse effect, either directly or indirectly will only be permitted where the quality or character of the landscape will not be adversely affected; or, where any significant adverse effects on the National Scenic Area are clearly outweighed by social or economic benefits of national importance. All development proposals will be referred to Scottish Natural Heritage for consultation.

- b) Sites of Local Landscape Character

In considering development proposals within areas which are designated for their local scenic or landscape character, the Council will seek to safeguard landscape character and quality of the area concerned. The following sites of local scenic character have been identified on the Proposals Maps:

- 1) Areas of Great Landscape Value - Hoy Sea Cliffs; Yesnaby Sea Cliffs; West Westray; and,
- 2) The following sites which represent the most characteristic sites of local landscape character have been identified on the Proposal Map – Areas of Attractive Settled Landscape – Scapa Beach; Northside, Birsay; Waulkmill Bay, Kirbister Loch and Swanbister Bay, Orphir; The Bay of Firth, Firth; Woodwick, Evie; Westside, Rousay; Skaill, Sandwick; Windwick and Herston, South Ronaldsay; Hunda, Burray; Rackwick, Hoy; North Ronaldsay; Papa Westray; and, Calfsound, and Calf of Eday.

8.2.2 *Policy LP/C1 Development within the Coastal Zone*

The nature and extent of Orkney's coastal zone is identified on the Proposals Maps and, subject to the other policies of this plan, the following will apply:

a) Isolated Coast

Development within the 'isolated coast' will not normally be permitted, unless the development is minor in nature and is dependent on the characteristics of the isolated coast. If development is permitted the highest possible standards of design will apply to minimise the impact of the development on the character of the coast.

b) Undeveloped Coast

Development will be permitted in areas defined as 'undeveloped coast' provided that:

- 1) the development is of a minor nature which cannot be expected to have an adverse impact on the character of the coast; or,
- 2) the economic and social benefits of the development outweigh any potential detrimental effect on the environment;
- 3) it cannot be reasonably expected to suffer from coastal erosion or tidal inundation (Policy LP/C4); and,
- 4) there is no feasible alternative site within the 'developed' coast.

c) Developed Coast

Development in areas classified as 'developed' coast will generally be permitted. Proposals, which do not require a coastal location, may be refused if it is considered that the development site has strategic value and should be reserved as a waterfront development site.

8.2.3 *Policy LP/C2 Piers and Harbours*

Development within harbour areas is to be encouraged provided that such development promotes the retention of the harbour for commercial marine related uses whilst other developments remain secondary to the commercial viability of the harbour.

a) Commercial Harbours

Proposals for development within areas designated for harbour related uses will be permitted provided that:

- 1) the proposal requires a harbour-side location or is ancillary to activities takes place within the harbour itself;
- 2) the proposal would not compromise the efficient working of the harbour;
- 3) the design, scale and siting of the new development respects, as much as is reasonably possible in an industrial area, the character or appearance of the adjacent areas; and,
- 4) the improvement of existing properties and their redevelopment is considered before the development of new buildings.

b) Other Piers and Harbours

The development of other piers and harbours for marine leisure and recreational purposes will be supported. Developments associated with the inshore fishing fleet will also be considered favourably in such areas.

c) Fishing

The enhancement and upgrading of piers, landing facilities and other facilities associated with the fishing industry will be supported.

8.2.4 Policy LP/C3 Fish Farms

The Council will produce a Fish Farming Framework Plan to provide policy background for determining applications for marine fish farms and to assist the industry in submitting acceptable proposals. Pending the publication of such guidance, the Council will approve proposals for land based fish farm developments where all of the following criteria are met:

- a) the proposal would result in the generation of additional local employment;
- b) there would be no significant adverse effects on residential amenity, natural and built heritage, landscape or environmental quality, including wild fish populations;
- c) an adequate supply of water is readily available;
- d) adequate arrangements are made for the containment of stock;
- e) settlement tanks are provided and adequate arrangements made for the disposal of waste material;
- f) adequate anti-predator provisions are used, where appropriate;
- g) all necessary consents have been obtained for the marine operations of the fish farm, including, where necessary, fallowing sites;
- h) the proposal complies with other relevant policies of the Local Plan, and,
- i) Section 75 agreements and financial bonds may be used to secure the restoration of the land to an acceptable level at the end of the farm's life.

Formal environmental assessment will be required where the development would be likely to have significant effect on the environment by virtue of its nature, size or location.

8.2.5 Policy LP/B1 World Heritage Site

The World Heritage Site and its zone of visual influence, as identified on the Local Plan Proposals Map, will normally be preserved. Development that would adversely affect this area will normally be refused. Any significant development proposals affecting the site or its zone of visual influence will require formal environmental assessment to ensure their impacts and implications for the longer term are fully evaluated.

8.2.6 Policy LP/B2 Scheduled Monuments and Sites of Archaeological Importance

a) Sites of Archaeological Importance

There is a presumption in favour of the physical preservation of all scheduled ancient monuments and archaeological sites. Developments that would adversely affect such remains or their settings will only be permitted in exceptional circumstances, where there is no practical alternative site and where there are imperative reasons of overriding public need. Development which would affect other sites of archaeological interest not yet included on the Sites and Monuments Record may be permitted after the Islands' Archaeologist confirms that the significance of the remains are not such as to justify their physical preservation when judged against other material considerations and the possible benefits of the development.

8.2.7 Policy LP/B3 Conservation Areas

d) New Development

New development will only be permitted if the scale, form, materials and detailing respect the characteristics of buildings in the area; the plot coverage characteristics; historically significant boundaries; or other elements contributing to the established pattern of development in the area. Open spaces important to the character or historic value of the area and important views within, into and out of the area should be protected and trees and other landscape features contributing to the character or appearance of the area should be retained.

8.2.8 Policy LP/B4 Development Affecting Listed Buildings

d) New Development

Proposals for development will not be permitted if they harm the setting of a listed building by virtue of their location, scale, design or landscaping.

8.2.9 Policy LP/B5 Protection of Historic Gardens and Designed Landscapes

The character and features of historic gardens or designed landscapes and their settings will be preserved and enhanced.

9 ANNEX FOUR – GLOSSARY

Landscape Character relates to land-based areas with consistent overall character generally extending to cliff tops or high water mark. It is defined as '*a distinct recognisable and consistent pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of the landscape*' (Guidelines for Landscape and Visual Impact Assessment, Second Edition, The Landscape Institute and Institute of Environmental Management and Assessment, 2002).

Landscape Character Types and Areas are defined in the SNH's National Programme of Landscape Character Assessment which identifies areas of consistent and recognizable character as a result of a distinct composition of landscape characteristics.

Seascape is the visual and physical conjunction of land and sea which combines maritime, coast and hinterland character.

National Seascape Units are identified in '*An Assessment of the Sensitivity and Capacity of the Scottish Seascape in Relation to Wind Farms, SNH Commissioned Report No. 103, 2005*'. These are at a national scale and are valid only at the broad, strategic level. These cover areas of the coast including the marine environment and hinterland.

Coastal Character Areas are areas identified as part of this study and are regional scale geographical areas with a broadly consistent overall character, such as a stretch of coastline or a single island with a consistent coastal character. They are usually named after the common place name or geographical location.

Local Coastal Character Areas are areas also identified as part of this study and are smaller in size, further subdividing the coast into areas of consistent character with a strong identity such as a specific bay or section of coast with a similar character. These are areas individual occurrences of distinct character defined on the basis of:

- Physical landform, degree of enclosure or openness and an assessment of horizontal and vertical scale;
- Degree of influence of the sea and maritime qualities on both landscape and coast, including coastal dynamics;
- Shape, scale and degree of fragmentation of the coastline;
- Presence of human artifacts, distribution of settlement pattern and amount of human activity;
- Landscape features including historic features and their setting;
- Experience of the coast, landscape and seascape including degree of remoteness and potential opportunity to appreciate wildness; and
- Visual catchment.

These are also generally named after the common place name or geographical location.

Coastal Character Types are the amalgamation of those Local Coastal Character Areas which share the same characteristics but are situated in different geographical locations.

10 INTRODUCTION ANNEX FIVE - TRENDS IN AQUACULTURE

10.1 Introduction

As background to considering the affects of further aquaculture development on the seascape within the study areas, the consultants have tried to identify current trends in the industry and those most likely to accord with Orkney. The following information was gathered through discussion with SEPA staff and general background research. The consultants, however take full responsibility for any errors in the interpretation of the following information.

10.2 International Context

Currently aquaculture is producing near 50% of the fish supplies consumed globally and supporting more than five million jobs worldwide. According to the Global Conference on Aquaculture 2010, it is estimated that to maintain the global rate of fish consumption, aquaculture needs to produce more than 78 million tonnes by 2030 i.e. a further 27 million tones than the current annual production.

'This also means that the sector will have to continue its fast growth to sustain the projected demand for aquatic food, whilst ensuring environmental integrity and social responsibility. Over the past decade aquaculture is being increasingly recognized as the emerging agriculture, the fastest growing food producing sector and the future of fisheries.' Global Conference on Aquaculture 2010.

Europe produces 4.5% of the global aquaculture total, 75% of which is marine. It is the leading region in production of salmon, trout, seabass, seabream, turbot, and mussels.

The UK is the fifth largest producer of farmed fish in Europe, behind Norway, who is by far the largest, followed by Spain, France, and Italy. Atlantic salmon accounts for 37% of the total European fish stocks, followed by rainbow trout at 12%, mussels, carp, seabream, oysters, seabass, and others. Emerging species include Atlantic cod, turbot, Arctic char, and meagre.

Fish farming in general is trending towards larger farms to meet the high biomass demands of the current market, especially in China, and in turn be economically viable. The collapse of the salmon farming industry in Chile and the lack of capacity for new developments in other areas of Scotland, notably Shetland, have produced drivers for expansion in Orkney.

10.3 Finfish Farm Developments

Scotland's current primary farmed finfish species are Atlantic salmon and rainbow trout. Brown trout, sea trout, Arctic charr, halibut and cod have demonstrated poor farming results throughout Scotland and therefore remain unpopular.

The off-shore environment is considered as the next step in aquaculture, but questions remain concerning environmental effects, resource use (dependent on species farmed) and energy dependencies.

10.4 Fallowing of Sites

SEPA do not consider fallowing to be a mandatory requirement, however it does benefit maintaining environmental quality.

10.5 Shellfish Farm Developments

Mussel and oyster farming remain the main species produced in Scottish waters in terms of value and tonnage. Although there has been an increase in scallop production, levels remain low due to poor spat recruitment.

Traditionally the industry has been dominated by small producers, however there is a continued trend towards larger companies meeting demand.

Shellfish sites fall into three categories:

- **Active sites** - Farms in a production growing cycle which may contain stock or be fallow.
- **Inactive sites** - Farms not in a production cycle, without stock and not to be used by the company in the foreseeable future.
- **Severed Order** - An area of the seabed severed from the public right to fish, in order to conserve or enhance named shellfish stocks.

Orkney has seen a decrease in active sites primarily because of poor spat recruitment, but also because the marine environment cannot support commercially viable farm sizes therefore major operators look elsewhere.

11 ANNEX SIX – SEASCAPE CHARACTER AREAS

11.1 Type 12: Deposition Coasts of Islands

11.1.1 Location

Low lying coasts of the Orkney Islands.

11.1.2 Physical Characteristics

Long sandy beaches backed by dunes and low lying machair or pastures and with crofting or farms set back from coast. An open, low lying, largely treeless and windswept landscape with views of the Atlantic Ocean or North Sea, although dunes can often screen views of open sea and coast inland. Sparsely settled, low key land management and lack of coastal development.

11.1.3 Experiential Qualities

Often wild, remote 'edge of ocean' feel. Big breakers and low lying exposure of island landscapes with few sightings of land in large scale sea views. Combination of mountains with coast provides particularly high scenic quality and drama.

12 ANNEX SEVEN – LANDSCAPE CHARACTER TYPES

Extracted from *Land Use Consultants 1998. Orkney landscape character assessment. Scottish Natural Heritage Review No. 100*

12.1 Type 1: Holms

12.1.1 Key characteristics

- small uninhabited oval shaped islands;
- smooth domed topography;
- wavecut platforms and occasional low cliffs;
- rough grassland with occasional heath cover;
- prized gems of near perfect prehistoric landscape;
- occasional ruined croft or fishing station;
- occasional beacon or wartime defence structure;
- frequently grazed by sheep;
- valuable for sites for wildlife, seals and, in particular, a variety of sea birds.

12.1.2 General description

Holms are small islands generally oval in plan and measuring less than 2 kilometers in length. They are mostly low, gently domed in profile and fringed by rock platforms. Occasionally, tilted strata have caused the formation of cliffs on one side.

Holms are uninhabited, but are frequently used for sheep grazing. Remnants of former crofts or fishing stations are occasional built features on these smooth islets. Cairns and tumuli are also characteristic features of holms which stand out as artificial irregularities on the natural contours. More contemporary features are beacons and wartime structures which occupy some of the more strategically located holms. Holms are frequently the focus of views from neighbouring inhabited islands, as they interrupt the surrounding sheets of water and provide foreground interest.

Examples within the study area include Cava, Swona, Switha, Glimps Holm and Hunda.

12.2 Type 2: 'Whaleback' Island Landscapes

12.2.1 Key characteristics

- gently dome shaped islands;
- improved pastures, occasionally in walled enclosures with orientation to the sea;
- scattered settlement associated with the roads;
- abandoned crofts and small farms on more remote islands;
- isolation and solitude;
- consciousness of the plays of light on the sea surrounding the islands.

12.2.2 General description

This landscape type is found on the smaller, mostly inhabited islands in the study area. These islands generally have an uneven oval outline and a domed profile reaching heights of up to 50m. Slopes are generally gentle and convex, dropping to a low undramatic coastline of rock platforms and shingle beaches.

The vegetation is predominantly improved grass with some rougher grass and heathland. The improved pastures are enclosed in fields, sometimes walled, with an orientation down to the sea. The settlement pattern is generally scattered, served by a

sparse road network that crosses and circles the island giving access to individual properties by dead end tracks. Abandoned crofts are a feature of the smaller islands. Feelings of isolation and solitude are generated by the small size of this island landscape and by the scarcity of population.

Examples within the study area include Graemsay, South Walls and Fara.

12.3 Type 3: Ridgeline Island Landscapes

12.3.1 Key characteristics

- elongated narrow islands with a single ridgeline along their length;
- gentle and consistent slopes down to the coast;
- main roads following the ridgeline in straight sections;
- 19th century rectilinear pattern of fields and minor roads;
- shallow bays, shingle beaches and wave-cut platforms;
- rich archaeology along the coastline.

12.3.2 General description

The Ridgeline Island Landscape is typical of the longer narrow islands which have a simple ridge line topography along their length. Strong characteristics of this landscape are the alignment of the main access road along the ridgeline with perpendicular side roads running down the contours towards the coast. The side slopes are generally consistent allowing uninterrupted views to the sea on both sides of the island. This landscape is similar in several respects to the Inclined Coastal Pastures landscape, although it lacks the hinterland and visual backdrop provided in that landscape type. Components of this landscape are generally of more recent origin, stemming from 18th/19th century estate modernisation and resettlement rather than crofting landscapes.

Examples within the study area include the island of Shapinsay.

12.4 Type 4: Low Island Pastures

12.4.1 Key characteristics

- low and generally flat topography;
- open and extensive views;
- prominent built features and local topographic variations such as farm mounds, Treb-dykes, settlements and farmsteads;
- large regular fields with some Machair and links grasslands;
- occasional wetlands often appearing as sheets of water in the landscape with little topographic enclosure;
- dominant skies;
- experiences of exposure and vulnerability;
- mobile landscape – many major changes, often due to human influence, over the last 6,000 years.

12.4.2 General description

The Low Island Pasture landscape type is generally flat and below approximately 10m A.O.D. It typically allows extensive views from one side of the island or headland to another, and from remote viewpoints it registers only faintly on the horizon during misty conditions. It is often the product of sand deposition and, therefore, is closely related to the Coastal Sand landscapes in several areas. Machair and links grasslands are

typical of this landscape type, although not present in all areas. Buildings and isolated topographic features stand out in this landscape; coastal dunes, farmsteads, farm mounds and Treb-dykes have, therefore, significant visual impact. Where machair grasslands occur they contribute seasonal colour and ecological diversity distinct from the predominant cultivated grasslands in Orkney. The generally flat and low lying nature of this landscape type creates an openness that can feel exposed and vulnerable to the elements, particularly the possibility of flooding or inundation by the sea.

Examples within the study area include the eastern side of Flotta and the southern tip of South Ronaldsay.

12.5 Type 6: Coastal Plain

12.5.1 Key characteristics

- flat coastal edge to a higher hinterland;
- remnants of large square field boundaries around rough grassland;
- strong visual relationship with the sea;
- remnants of wartime air defences and airstrips.

12.5.2 General description

This landscape type is found at one location on the coastal edge of Mainland. The land is very flat with a low shoreline, and appears to almost merge with the sea. This contrasts with the hinterland which tends to rise steeply, creating a backdrop to the coastal plain. The consistent level nature of this landscape gives it the appearance of land reclaimed from the sea. This is emphasised by the large rectilinear field patterns. Landcover is predominantly rough grassland. These are grazed by cattle and occasionally sheep. Historically, this landscape east of Kirkwall provided an ideal site for wartime airstrips, the remnants of which are still visible adjacent to the existing airport. Development is otherwise widespread and tends to be located on locally higher ground or further inland.

Examples within the study area include the coastline immediately north of Kirkwall airport.

12.6 Type 7: Coastal Basins

12.6.1 Key characteristics

- wide basin landform open to the sea;
- smooth relief dropping to sea level from surrounding hills and cliffs;
- productive agriculture; improved grazing, cultivated grass and arable crops;
- wetland and small lochs in lower ground and along watercourses;
- 'ouse' waterbodies behind coastline;
- estate farms with rectilinear field walls;
- good road access to lower ground.

12.6.2 General description

The Coastal Basins landscape type extends inland from the coast and is cradled by higher ground in the form of a wide basin. This landscape is generally very productive and well farmed as pasture and some arable fields. The exception is the lowest ground which frequently contains wetland or small lochs. Ouse waterbodies are also characteristic of the basin landscape's coastal edge. This landscape is settled and

typically contains large estate farms with characteristic farmstead buildings and rectilinear field wall patterns. Views out to sea and access to beaches is an attractive aspect of these landscapes, which has no doubt influenced settlement in the past.

Examples within the study area include areas around Widewall Bay, Sandwick and Windwick on South Ronaldsay and area north of Holm Sound.

12.7 Type 8: Inclined Coastal Pastures

12.7.1 Key characteristics

- improved pastures sloping down to coast;
- rectilinear field patterns often with strong orientation to coastline;
- mixture of small scale clusters of resettled crofts and less developed geometric landscape of estate farms;
- roads running parallel to coast, giving access to coastal fringe and higher pastures/moorland;
- occasional large houses/farms with tree frameworks;
- extensive views out to sea and restricted views inland;
- rich coastal archaeology.

12.7.2 General description

This landscape is found in coastal areas, mainly on Mainland, South Ronaldsay and Hoy, where pastures slope gently down to the sea, and includes bay coastlines which lack the topographic enclosure of the enclosed bay landscapes. Heights range from 10-50m. Vegetation is predominantly improved grassland, often with rectilinear field patterns with a strong orientation down to the coast. Occasionally these are walled. This landscape frequently contains resettled crofts which are strung out along the coastal strip. These generally have smaller scale, less regular field patterns than the main estate farms, which are recognisable by their more rigid large-scale geometry.

This landscape, being both accessible to the sea and suitable for cultivation, has a rich archaeological resource. The coastal edge typically contains prehistoric sites; brochs are significant features, as are the more contemporary remains of coastal defences from the Second World War.

The orientation of the land to the sea is a particularly significant feature of this landscape, as the fields appear to drop away and merge with the sea. Views out to sea and to other islands are, therefore, extensive, while views inland are more restricted by topography.

12.8 Type 9: Coastal Granite Pastures

12.8.1 Key characteristics

- steeply sloping pastures with strong coastal relationship;
- granite outcrops;
- granite stone walls.

12.8.2 General description

This landscape type is found on the south western coast of Mainland where granite outcrops from the surrounding sandstones. This is unusual in Orkney, in which there are few areas of exposed granite. The land slopes quite steeply up from the coast to a height of around 130 meters.

The vegetation is largely improved or semi-improved with some arable cropping. The steep topography and granite outcrops create quite an intimate yet rough character. Stone walls are particularly distinctive in this area. The sound and smell of the sea, and the bustle of the harbour at Stromness, are important facets in the character of the area.

Settlement is a major component of this landscape type which contains Stromness, the second largest town in Orkney. Stromness has a highly individual townscape, due to the relationship between its traditional buildings and the topography of hill and seafront. The stone buildings and streets curve around the harbour and up the granite hill, forming a distinctive entry point to Orkney for travellers by sea.

12.9 Type 11: Enclosed Bay Landscapes

12.9.1 Key characteristics

- low lying sheltered coastal basins;
- sand or shingle bays;
- popular visitor areas.

12.9.2 General description

This landscape is found at locations on fault lines, or where locally softer rock has been eroded to form sand or shingle bays. These bays form coastal basins and land within them is generally below 20m. Whilst these bays are all quite distinct, they share the common feature of coastal enclosure which gives the landscapes their essential character.

The vegetation is predominantly improved grassland with some enclosures. Small water courses often drain into these bays. The scenic views out from these landscapes have made the areas popular with visitors, particularly on Mainland.

Examples within the study area include areas around Swanbister Bay and Scapa Bay on Mainland and areas around Bay of Creekaland and Backwick on Hoy.

12.10 Type 13: Cliff Landscapes

12.10.1 Key characteristics

- eroding coastal features – cliffs, stacks and caves;
- rough grass and montane vegetation right up to cliff edge;
- wildlife interest of salt tolerant flora;
- sea birds.

12.10.2 General description

This landscape type is found predominantly along the Atlantic western coasts of the study area, but is also found on the eastern seaboard of South Ronaldsay and East Mainland. Some of the cliff tops are very high, over 200m in places.

The main features of this landscape are formed by marine erosion, creating cliffs, stacks, caves and arches. This makes spectacular scenery, for example in north Hoy, Marwick Head, and at The Gloup on the Deerness coast. Cliff tops are often of rough grass extending right to the cliff edge, the dark greens contrasting with the colour of the sandstone. There is also some montane and peatland vegetation. The influence of sea

spray gives rise to wildlife interest in the salt tolerant flora, creating carpets of colour when in flower. Sea bird colonies are also found here.

12.11 Type 14: Coastal Sand Landscapes

12.11.1 Key characteristics

- generally flat coastlines with sand deposition landforms and features (sand bays, ouses, ayres, dunes, tombolos);
- marram grass and rough grassland;
- important ecological sites;
- extreme archaeological sensitivity;
- pale yellow and green colours, with often vibrant turquoise seas;
- sand stripes from mechanical sand extraction .

12.11.2 General description

This landscape type occurs in coastal areas where the landforms have been created by sand deposition, often creating extensive sand systems. The topography is generally flat, with wide sandy bays and sand flats merging with the sea. Sand dune systems are, therefore, often important topographic features standing proud of the otherwise flat landscape. The principal landforms/features are sandy bays, ouses, ayres, sand dunes (often with 'links' type land inland), and tombolos, linking the main island bodies with adjacent small skerries or holms. These features may occur together or may simply occur as a single significant feature within other landscape types.

Vegetation in this landscape is influenced by the generally high shell content of the sand. Marram grass is common on sand dunes, and the vegetated areas tend to be rough grassland. These sites are often of high ecological value. They are also of a potentially high value for archaeology since the sand may have obscured and hence protected coastal archaeological sites, although coastal erosion may threaten these sites in the future.

Sand landscapes are valued today as a mineral/aggregate resource and many of these areas have planning consent or applications under consideration for sand extraction. This creates sand stripes at the coast where mechanical methods are used. The main colours are pale yellows and greens, and turquoise seas where the sandy bays continue under the water.

Examples of this Type within the study area are on east Burray and at Newark Bay on South Ronaldsay.

12.12 Type 15: Peatland Basins

12.12.1 Key characteristics

- low lying basins associated with coast or inland water;
- unenclosed peatland and wet vegetation, ungrazed;
- roads cutting through;
- wildlife and some archaeological interest .

12.12.2 General Description

This landscape type occurs in low lying topographic basins, associated with the coast and inland water bodies. The land is typically very flat, around 10 or 20m. The vegetation is peatland or wet grassland vegetation which is not enclosed and is largely

ungrazed. This vegetation offers some nature conservation interest. There is very little settlement, with some roads cutting through the basins. Some archaeological interest exists to the east of Settiscarth, in West Mainland, in the group of tumuli.

An important characteristic of this landscape type is that the peatland is found in fairly large extents at low altitudes, and is contained within topographic basins. Other areas of low lying peat do occur in the study area but are not distinct enough to be picked out as discrete units. However, the presence of low lying peat is highlighted as a feature of other landscape character areas where it occurs.

12.13 Type 16: Loch Basins

12.13.1 Key characteristics

- ‘drowned’ landscape dominated by bodies of water;
- open landscapes, some with long views from one basin to another;
- radial pattern of field enclosures around lochs; wetlands, mires, marshes and areas of low peatland;
- settled landscape with villages, large farmsteads and nucleated settlements;
- relatively extensive road network;
- prehistoric ritual landscapes and monuments .

12.13.2 General description

This landscape type is found most extensively on Mainland and is associated with the fresh water and tidal lochs that dominate inland basins. The topography is generally flat or gently inclined towards the water. The scarcity of marginal vegetation endows the landscape with a drowned appearance. Field boundaries generally run perpendicular to the water’s edge creating a radial pattern around the lochs, thereby emphasising the basin character. Long views from one sheet of water to another is an important aspect of this landscape type’s continuity and extent, particularly on West Mainland.

The larger, more sheltered inland basins on Mainland have nucleated settlements, large farmsteads and scattered houses. Evidence of generations of human occupation is represented by some of Scotland’s most significant prehistoric monuments. The legacy of wartime developments is also present, most notably in the form of redundant airfields which occupy the flat ground. In the North Isles, loch basin landscapes are more restricted in extent, often containing scattered farmsteads. Land use is generally improved pastures creating a tapestry of greens. Lines in the landscape are traced by some drystone walls but mostly fences. The former highlight subtle topographic variations by the shadows they cast under low sunlight.

12.14 Type 17: Low Moorland

12.14.1 Key characteristics

- low moorland often isolated from higher moorland hills;
- low undulating hill areas or convex headlands;
- unenclosed heather moorland, and maritime heath at the coast;
- seasonal variation in colours, with dark brown most of the year;
- ecological/ornithological interest;
- coastal cairns and brochs.

12.14.2 General description

This landscape type is generally found in peripheral areas and on low hilly headlands. It is often distinct in its disassociation with higher moorland areas, although it occasionally represents a lowland extension of higher moorland where ground conditions are difficult. It typically occurs below 50m and has gently rolling topography. The vegetation is mostly heather moorland with some rough grassland. The colours tend to be dark browns, seasonally vibrant when the heather is in bloom. Such sites are often of ecological and/or ornithological value. This land is generally unenclosed, although peripheral parts may be grazed. Some peat cutting occurs, although it is local in scale and sub-peat archaeology may be present. In coastal areas the local effects of the sea are noticeable in the presence of maritime heath and the abundance of sea birds.

Examples of this Type within the study area occur at west Flotta, Grimness on South Ronaldsay and Rose Ness.

12.15 Type 18: Plateau Heaths and Pasture

12.15.1 Key characteristics

- locally high ground 50m-100m A.O.D. forming fairly extensive plateau;
- mixture of pastures and heathland;
- large scale field pattern with occasional unenclosed areas;
- scattered farmsteads;
- elevated topography denies views to coast except from the plateau edge;
- generally open and exposed character despite relatively low altitude.

12.15.2 General description

This landscape type is most extensive in East Mainland. It typically lies between 50m and 100m A.O.D. and is fairly flat or gently rolling. It constitutes the inland high ground and has a distinct plateau character. This is emphasised by the denial of views to the coast from the plateau due to the abrupt start of the side slopes and the generally convex nature of the relief.

Landcover is generally a mixture of pastures and heath with some elevated wetlands in local depressions. The open and slightly elevated character of the plateau creates the feeling of exposure, despite the fact that the altitude is relatively low. The presence of occasional arable fields alongside heathland is a reminder of this fact. The colours are generally muted mixtures of fresh greens, straws and ochre browns which reflect the changes in landcover. The extensive views possible along the plateau make built structures obtrusive, despite their wide distribution.

Field patterns are generally of a large scale, utilising fences more than dry stone walls. This landscape harbours a range of archaeological deposits which can be sometimes distinguished by unnatural-looking landforms.

Examples within the study area include areas in the central core of South Ronaldsay and Holm.

12.16 Type 19: Rolling Hill Fringe

12.16.1 Key characteristics

- rolling border between low lying and upland landscapes;
- improved pasture on lower slopes, enclosed in fenced fields;

- rougher grassland, enclosed by stone walls on high ground gives way to unenclosed moorland hills;
- roads and scattered settlement;
- archaeological interest.

12.16.2 General description

This is a transitional landscape found on Mainland and north Hoy, which forms the rolling lower fringe of hill areas and the upper border to low lying loch landscapes or coastal pastures. It is this relationship to both low lying and hill land which gives the rolling hill fringe much of its character. Heights vary between 20 and 150m. The topography is predominantly rolling, (associated with the extensive deposits of boulder clay), although there are steeper slopes in places.

The vegetation in lower areas is predominantly rich improved pastures, enclosed by fences and some stone walls. Fields vary in size and orientation but are generally small to medium, and cattle and sheep are a common sight. On higher ground, the green improved pastures give way to unenclosed brown moorland. This often creates an interesting feature where the contrast in colours clearly highlight moorland areas which have been improved for pasture. On lower lying areas the land has a well settled agricultural appearance with good access via the road network. Settlement becomes more sparse in higher parts, and is generally of scattered farmsteads. A network of minor roads and tracks often traverse the higher parts of this hill fringe.

Archaeological interest is found in the tumuli, burnt mounds and brochs, the most significant areas being those associated most closely with the loch basin landscapes. Tumuli sites on elevated hillsides are also of archaeological significance.

Examples of this Type occur in north western Hoy, south Mainland and north of Scapa bay.

12.17 Type 20: Moorland Hills

12.17.1 Key characteristics

- undulating hill land;
- peat and heather moorland, mostly unenclosed;
- few and isolated farmsteads and tracks;
- active and redundant peat cutting sites;
- occasional hill dykes and signs of sub-peat archaeological farmsteads and field systems;
- Bronze Age barrows on skyline recognizable by the unnatural topographic variations.

12.17.2 General description

This landscape is found on the hilliest parts of Mainland and Hoy. The land varies from being quite steeply undulating, for example on parts of Hoy and Rousay, to more gentle slopes on northern West Mainland. Heights range from 50m up to 350m. The vegetation is largely peat and heather moorland with montane species at higher altitude. The land is completely unenclosed, although some small fenced grazings may be found on the periphery of the hill land.

The relatively recent development of peat over the past thousand years has occurred since initial human habitation of the islands and it is likely that significant sub-peat archaeological features are present, for example, on Rousay and Eday. Earlier boundaries of hill grazing – ‘hill dykes’ – are still visible on some of the lower slopes,

although moorland occasionally extends below these former boundaries. Peat cuttings are often evident, creating dark scars against the orange red and brown moorland colours; or, where peat cutting has been abandoned, there are softer linear impressions resulting from heath vegetation re-establishment. These moorland landscapes can appear monotonous but harbour a diversity of wildlife interest. They offer significant vantage points for views onto lower lying land, and themselves are good reflectors of prevailing weather: in drizzle they appear bleak and less colourful; in sunshine their colours are vibrant and contrast with blue skies and distant views of water.

There are very few and isolated settlements and roads. However, vertical structures of telecommunications, hydro poles and wind power generation are an obvious human influence in the landscape.

12.18 Type 23: Urban and Rural Development

12.18.1 Key characteristics

- predominantly urban or industrial land uses, often situated within shallow basins;
- large structures within large developments which are highly visible from outwith the area;
- focus for further development .

12.18.2 General description

This landscape type is defined primarily by its predominantly urban or industrial land use. Rural development landscapes are often found in slight topographic basins and around sheltered bays, where conditions have been favourable for development, communication and sea trade. The main characteristic of this landscape type is its overtly urban or industrial nature when compared to the rest of the study area. The size, scale and extensiveness of the structures of these landscapes are such that they are often visible from a significant distance. These landscapes are also likely to be the focus for further development and they are, therefore, generally subject to incremental change and expansion.

Orkney's main settlements are, or have been, strategic harbours developed for trade, industry and communication. Most development areas are of modest size, i.e. small villages, however Stromness and the Flotta Oil Terminal are sizeable development areas.

13 ANNEX EIGHT – ISLAND CHARACTER AREAS

Extracted from *Land Use Consultants 1998. Orkney landscape character assessment. Scottish Natural Heritage Review No. 100*

13.1 Shapinsay

Shapinsay is the closest of the North Isles to Kirkwall, lying less than 7 kilometers to the north east. Between Shapinsay and Mainland lies the small uninhabited Helliar Holm.

Shapinsay is roughly boot-shaped; its toe, the Ness of Ork points north east, its heel, Haco's Ness points south. It measures approximately 7km east to west and north to south from its extremities. The island's highest point is the central Ward Hill which reaches 64m. From here, high ground extends as a ridge to the north east and as a plateau to the east. The latter drops to the sea as cliffs, the former ends at the Ness of Ork. The north western corner of the island is defined by a narrow promontory 'The Galt', which is accompanied by a number of small skerries. Between The Galt and the Ness of Ork the wide arc of Veantrow Bay is enclosed. This contains an interesting assemblage of depositional features and skerries which have trapped Laird Water and the tidal Ouse behind storm beaches. Most of Shapinsay's coastline is formed by rock platforms and low cliffs; however, the western coast has long beaches and another 'ayre' Vasa Loch. The most popular sandy beach is in the Bay of Sandgarth.

Fault lines that run north-south through the western part of the island determine the presence of the pronounced valley at Balaclava, and the adjacent ridge that is surmounted by a straight road running due north. Earlier this century, this valley was dammed and flooded to provide waterpower for Elwick Mill. The area, still waterlogged, is now a Local Nature Reserve.

Over 80% of the island under cultivated grass and arable crops. The remainder is rough grazing and moorland, most of which is on the south east plateau. Perhaps the most striking characteristic of Shapinsay is the rigid geometry of its fields and roads and the intensity of cultivation. These result from the extensive agricultural improvements undertaken by David Balfour during the 19th century. David Balfour saw himself as the patriarchal landlord and reinforced this position by the construction of Balfour Castle in the south west corner of the island. This was accompanied by an estate village, home farm (Balfour Mains), walled garden and extensive woodlands. These were constructed in the late 1840s and remain as the most ambitious and extravagant examples of estate architecture in Orkney.

The extensive nature of agricultural landscape changes on Shapinsay have left relatively few archaeological features visible inland, but there is much interest around the coast and in the small areas of remaining moorland. The most significant in the landscape include the chambered cairn of Haco's Ness, Castle Bloody's chambered mound, the Mor Stein standing stone, the coastal brochs of Burroughston, Steiro and Howe Hill, and the ruins of St . Catherine's Chapel. In addition, there are a number of interesting sites less immediately visible. These include burnt mounds, sub-peat dykes, and the remains of old settlements.

The location of Shapinsay makes it clearly visible from the higher ground of West and East Mainland. The vantage point of Ward Hill permits views to several of the North Isles on a clear day. Eday, Stronsay and Rousay are particularly dominant.

13.2 West Mainland

West Mainland comprises the most extensive land area in Orkney. This expanse is emphasised by the two large lochs that occupy much of the lower lying ground. The

topography is varied, ranging from these wide loch basins to moorland hills that reach over 200 meters in height .

The underlying geology mainly consists of Stromness and Rousay Flags from the Middle Old Red Sandstone, but a thin area of Eday Flags borders the North Scapa Fault on the northern edge of Scapa Flow at the extreme south of Mainland. The terrain of West Mainland is generally more characteristic of glacial deposition than glacial erosion. This contrasts with the hills of Hoy which, in clear weather, form a notable backdrop to many views in West Mainland. There are no areas of extensive dune systems on West Mainland.

Agriculture is the dominant land use of much of West Mainland . Woodland is largely absent, although a few mature trees grow within the shelter provided by the buildings of Stromness, and there is some policy woodland around Woodwick House near the north east coast.

Settlement, mostly in the form of farmsteads and scattered groups of houses, is located throughout the lower ground and around the lochs. The main settlement is the town of Stromness, situated on steeply rising ground above its harbour. Although located on the area of granite, sandstone flags have been used for most of its traditional buildings. They are built gable end to the sea to maximise access for boats and this, combined with the strong relationship between the buildings and hilly topography on which Stromness is built, gives it a highly distinctive townscape.

The archaeological interest of West Mainland is outstanding, even in comparison with the rest of Orkney. The coastline and inland lochs provided sites for chambered cairns, standing stones, stone circles, and settlement, world-renowned examples of which can be found in West Mainland. Numerous cairns, tumuli, burnt mounds, standing stones and other relics contribute to the special significance and character of this ritual landscape in a local and national context. On the south coast, at Orphir, the Earl's Bu is located, with nearby the Hall of Clestrain which has a distinctive wall pattern. Several brochs, for example Broch of Gurness, are located on the east coast, on Eynhallow Sound. The most noticeable recent development is the cluster of wind turbines on Burgar Hill and Hammars Hill.

13.3 East Mainland

The East Mainland character area lies to the north west of Scapa Flow, and takes in the parishes of St. Andrews, Holm and Deer Ness. The area extends westwards to include Orkney's main town, Kirkwall.

The headlands of Tanker Ness, Deer Ness and north of Kirkwall are low and undulating, the land rising up towards the central area of Holm, which is an undulating plateau at about 70m AOD. On these headlands, views are afforded north eastwards towards the North Isles. The southern and western coasts border Scapa Flow where views are dominated by the islands of Flotta and Hoy, with mainland Scotland in the distance.

Land use is predominantly agricultural with the emphasis on beef cattle rearing. The urban influence of Kirkwall is considerable, with urban fringe development extending over much of the St. Ola area.

Kirkwall is Orkney's main town, and is the focus for urban expansion and the location of new manufacturing industry. The townscape of Kirkwall is a dominant feature in the north of East Mainland, particularly the tower of St. Magnus' Cathedral, which can be seen from great distances and is a welcoming landmark on arrival by sea. Proximity to Kirkwall has created particular development pressures in Tankerness, Deer Ness, and along the arterial roadways radiating out from the town. The topographic basin around

Kirkwall has been the focus for most urban expansion; however, the spread of the town southwards onto higher ground has removed much of the town's pastoral backdrop. This effect may be repeated if the western flanks of the basin are developed more extensively in the future.

East Mainland has a wealth of archaeological sites and monuments dating from prehistoric times up to 20th century remains of Orkney's wartime history. A number of early domestic or burial sites have been recorded, for example, the 'Five Hillocks' site which comprises nine earthen mounds and is sited near the airport, and The Howie which is an unenclosed settlement mound now protected as a scheduled monument. A number of burnt mounds have been recorded, for example, at Campston and Howell, and there are also numerous broch sites, although most are not immediately visible as such. Eves Howe broch is one of the more prominent mounds which is grass covered, and only on the north side is there any exposure of the underlying structure. This site has been scheduled. The Churchill barriers, which lie off the south coast of East Mainland, were constructed to prevent passage into Scapa Flow by German submarines. Roads have now been built on top of the barriers, thereby allowing direct access onto Lamb Holm, Glims Holm, Burray, and South Ronaldsay.

The extent of improved pasture has reduced some of the ecological value of the area. In those fields which have not been improved so intensively there is still a richer grassland species including iris, meadowsweet and lady's smock. Scapa Bay is important for wading birds. In all sites where the wildlife diversity is richer, diversity is added to the colours and texture of the landscape.

13.4 Burray

The island of Burray is located to the south of East Mainland, forming the eastern passages to Scapa Flow. It is 5km by just over 3km in size. The island is now linked to East Mainland (via Glims Holm and Lamb Holm) and to South Ronaldsay by the Churchill Barriers, constructed during the last war.

Over much of Burray, vegetation is arable or permanent pasture. On the shell sand, dune pastures and silverweed pastures occur, while on the saline gleys there are sea plantain-crowberry heaths and maritime grassland. From a distance, the brown heathland of Hunda, Burray Ness and the highest ground at Hillside stand out in contrast against the improved grassland and clearly illustrate the effects of peat stripping and heathland reclamation in their abrupt transition and squared outline.

The landscape is predominantly agricultural, with beef and dairy cattle, sheep and pigs raised on the improved pastures. The fields are of medium size and are bounded by fences and walls. The main walled areas coincide with the larger farms such as The Bu of Burray where the local impact is considerable.

The island also has a number of sandy bays which are popular for watersports. The sand areas of the North Links were once briefly designated as SSSI, and are used as a scramble track. Recently, planning consent has been given for sand extraction in this area.

Fishing is also important to the island's economy, including shellfish. Ecological interest on Burray is largely ornithological. There is a bird sanctuary with a range of species: grouse, lapwing, curlew and Arctic tern. On the coast are puffin, oystercatcher, cormorants, and ducks and gulls. Along the coast are common and grey seals.

Historically, settlement and agriculture has focused on the eastern half of Burray where the soils are lighter, thicker and less acid. The western half of the island was left as common moorland until the 19th century when crofts were developed around its north and south flanks. The relatively scant development of eastern Burray reflects the large

landholdings in this area, in particular the Bu of Burray which covered 300 acres. In the west, numerous small crofts developed in close proximity and ultimately became small farms, coalescing over time to become medium sized farm units. The herring fishing industry was an important part of the crofters' existence and was also responsible for the development of the main settlement, Burray village.

The most prominent archaeological sites are the Brochs after which Burray was named (the Viking 'borgarey' meaning broch island). Many brochs, some with masonry exposed, others as green mounds, contribute to the landscape. More contemporary features of cultural heritage value are the wartime defence structures, especially the Churchill Barriers and views of the Italian Chapel on Lamb Holm (a nissen hut converted by Italian prisoners of war).

13.5 South Ronaldsay

South Ronaldsay is the southernmost island of Orkney and lies at the south east of the South Isles group. To the north west is Scapa Flow; to the east the North Sea; and to the south and south west is the Pentland Firth. The land mass is separated from Burray to the north by the narrow Water Sound, but communication with East Mainland is facilitated by the causeway links between South Ronaldsay, Burray, Glims and Lamb Holm.

The island is roughly rectangular in shape, approximately 12 km from north to south, 4km across the centre and over 9 km between extremities in the north (i.e. between Hoxa Head and Grim Ness). The main irregularities to this elongated island form are the headlands of Hoxa and Herston that enclose the large submerged Widewall Bay, which has a curious hammerhead shape and dominates the north west corner of the island. South Ronaldsay's other bays are more typical in form but generally narrow and well defined including St. Margaret's Hope and the Dam of Hoxa.

The topography of South Ronaldsay is characterised by its rolling succession of valleys, basins and hill ridges which cross the island and create an interesting coastline of alternate cliffs and bays. The island is agriculturally productive and has a predominant cover of improved grassland with arable crops in lower areas. The main exceptions are the heather moorland and rough grasslands of the hill ridges and high coastal areas and the marsh/wetlands of the valleys and basin areas. Cattle rearing for both beef and dairy production is the main agricultural activity. Sheep are also kept in significant numbers. Crops are grown to provide winter feeding for livestock, but the arable acreage has generally declined since the 1940s.

Agriculture is the main employer in South Ronaldsay, although the oil and tourism industries have made important contributions in the last 20 years. In the last century South Ronaldsay supported a significant fishing industry, particularly in the north of the island. St. Margaret's Hope developed as a herring fishing village on reclaimed land adjacent to Ronaldsvoe, an old Norse settlement site. The community of Herston on the side of Widewall Bay also developed as a fishing village. The New Statistical Account (1845) describes how 245 herring boats and 11 cod-fishing sloops were employed in South Ronaldsay at that time.

Reclamation of hill land has extended the areas of improved grassland and the patterns of fenced enclosures. The almost exclusive use of fences in South Ronaldsay is a notable characteristic of the island; only in the north west corner are drystone walls used around the main farms of the island: Roeberry House, Widewall and Blanster.

South Ronaldsay's archaeological resource is most evident in the coastal areas and uncultivated areas. The most prominent sites are cairns, burnt mounds and brochs. The main scheduled sites include the Brochs of Hoxa and Sandwick. More recent

structures of heritage interest are the wartime coastal defences, like those on Hoxa Head guarding the south passage to Scapa Flow.

13.6 Hoy and South Walls

Hoy is the south westernmost island of Orkney, lying at the west of Scapa Flow. To the east it is flanked by a series of small islands and islets including Graemsay, Flotta, Fara and Cava. To the west it is open to the Atlantic Ocean. Together with South Walls, which is joined to the south tip of Hoy by the narrow spit of "the Ayre", it is the largest Orkney island after Mainland.

The highest land in Orkney is found on Hoy, named from the Norse for "high land". Ward Hill, one of the hills at the north end of the island, reaches a height of 479 meters. Agriculture, principally improved pasture, is the dominant land use on the gentler slopes of the Middle Old Red Sandstone at the north west of the island and on South Walls.

Settlement is confined to the low-lying areas of the islands. Therefore, all of South Walls is settled while on Hoy itself there are farms and houses all along the south east coast from The Ayre to Muckle Rysa, and also on the northeast coast at Quoysdale. Lyness, where the vehicle ferry runs from, is probably the most concentrated area of settlement. Melsetter House at the head of North Bay is of architectural interest, being designed in the "Arts and Crafts" style. The wind-shorn woodland around it adds variety to the surrounding landscape which is typically devoid of trees.

There are several remnants of brochs, unenclosed settlements and nausts on the islands, mostly located near the coast.

The strategically important location of Hoy, on the west side of Scapa Flow, made it useful as a base for shipping both naval and mercantile. Longhope provided a sheltered anchorage for vessels prior to an Atlantic crossing, and was large enough to accommodate the convoys that became compulsory during times of war, for example in the late 18th and early 19th centuries. It was at this time that the two Martello Towers which flank the entrance to the sound were built. Harkness Martello tower has been restored, and the adjacent Battery it complements is also in good condition. The strategic location of Scapa Flow remained important during the two World Wars of the 20th century. Consequently, the amount of relics from these wars is a feature of Hoy. At Lyness the remains of the military presence in Orkney during the Second World War are significant. They include many large-scale, mostly derelict buildings; a museum; and a naval cemetery.

13.7 Flotta

The island of Flotta is located in the south of Scapa Flow and is one of Orkney's South Isles. It is roughly 3 km long by 5 km wide at its broadest point. It is encircled by other islands in the archipelago; to the west, the hills of Hoy loom on the horizon, the green pastures of South Walls lie to the south, and South Ronaldsay lies to the east. Across Scapa Flow, to the north, the hills of West Mainland are visible.

Much of the east and southern areas are given over to permanent pasture, moorland vegetation in the west, and some arable crops. The west of the island is mostly covered by moorland. This distribution has not changed significantly this century. The main habitats are, therefore, heathland in the north and west, and improved grassland in the south and east. Arctic skua and Arctic terns breed on the moorland areas. The small island of Switha, to the south of Flotta, has important sea bird colonies.

The main land uses on Flotta are agricultural and industrial. The latter is focused on the Oil Terminal developed in the 1970s on the site of Second World War naval camps.

This development is extensive and involved considerable engineering and landscaping works to accommodate the huge storage tanks unobtrusively. This was largely successful, but the presence of the terminal is belied by its flare stack which can be seen from many parts of Mainland and beyond. The main archaeological features on Flotta are of relatively recent origin and relate to the coastal defences which were established on Flotta in the Second World War to guard the main entrance through the Sound of Hoxa. Some of these are Scheduled Ancient Monuments.

14 ANNEX NINE – LOCAL COASTAL CHARACTER AREA FIELD SURVEY SHEET

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

Topic	Analysis of Physical Characteristics	Analysis of experiential characteristics	Judgements	Recognised values
Maritime influence	<ul style="list-style-type: none"> • aspect and orientation • existing marine based activities and aquaculture • maritime processes and dynamics • scale, distance and expansiveness of open sea 	<ul style="list-style-type: none"> • sense of space and light • sense of exposure • sense of containment or open-ness • sounds associated with the sea, smell of the sea 	<ul style="list-style-type: none"> • unity of landscape character • aesthetic qualities, including characteristics, experiences, and perceptions which create exceptional aesthetic quality • assessing significance of physical characteristics • assessing intensity and significance of experiential characteristics • identification of dominant physical or experiential characteristics • identification of aesthetic attributes • determining the extent of the relevant setting for significant features and landmarks • identifying relevant cultural associations with place 	<ul style="list-style-type: none"> • landscapes and seascapes designated because of their scenic, landscape or recreational value • landmarks designated because of their cultural or historic significance • roads designated as scenic or tourist routes
Character of coastal edge	<ul style="list-style-type: none"> • shape and scale of coastline • degree of indentation and enclosure • presence of offshore islands • fragmentation of edge • deposition features, tidal variations • landmarks • shoreline development 	<ul style="list-style-type: none"> • sense of exposure • sense of containment or open-ness 		
Character of immediate hinterland	<ul style="list-style-type: none"> • description of key elements of landscape character • topography and relief • vegetation pattern • existing settlement pattern • landmarks 	<ul style="list-style-type: none"> • sense of containment or open-ness • presence of maritime influence 		
Wildness	<ul style="list-style-type: none"> • presence of natural processes • presence of development/ human activity • actual accessibility • ruggedness of terrain 	<ul style="list-style-type: none"> • sense of naturalness • perceived remoteness • sense of isolation 	<ul style="list-style-type: none"> • intensity of sense of wildness • degree of ruggedness and perceived accessibility • degree to which natural processes dominate the experience of place 	<ul style="list-style-type: none"> • Wild land search areas

Topic	Analysis of physical elements	Analysis of type of views	Judgements	Recognised values
Visual assessment	<ul style="list-style-type: none"> • presence of the coastal edge • presence of the open sea • focal points or features within the views • aspect and orientation of viewpoint, character of seascape 	<ul style="list-style-type: none"> • overlook from settled areas • views experienced as part of a sequence • elevated viewpoints • panoramas • sudden revelations • glimpse views 	<ul style="list-style-type: none"> • significance of views and viewpoints • significance and dominance of compositional elements • quality of visual composition from viewpoints • significance of aspect and transient qualities such as quality of light and reflectivity 	<ul style="list-style-type: none"> • views which contribute to the experience of a landscape or seascape designated for its scenic quality • views to and from features designated because of their historic significance • views from recreation facilities and informal provision

15 ANNEX TEN – BIBLIOGRAPHY

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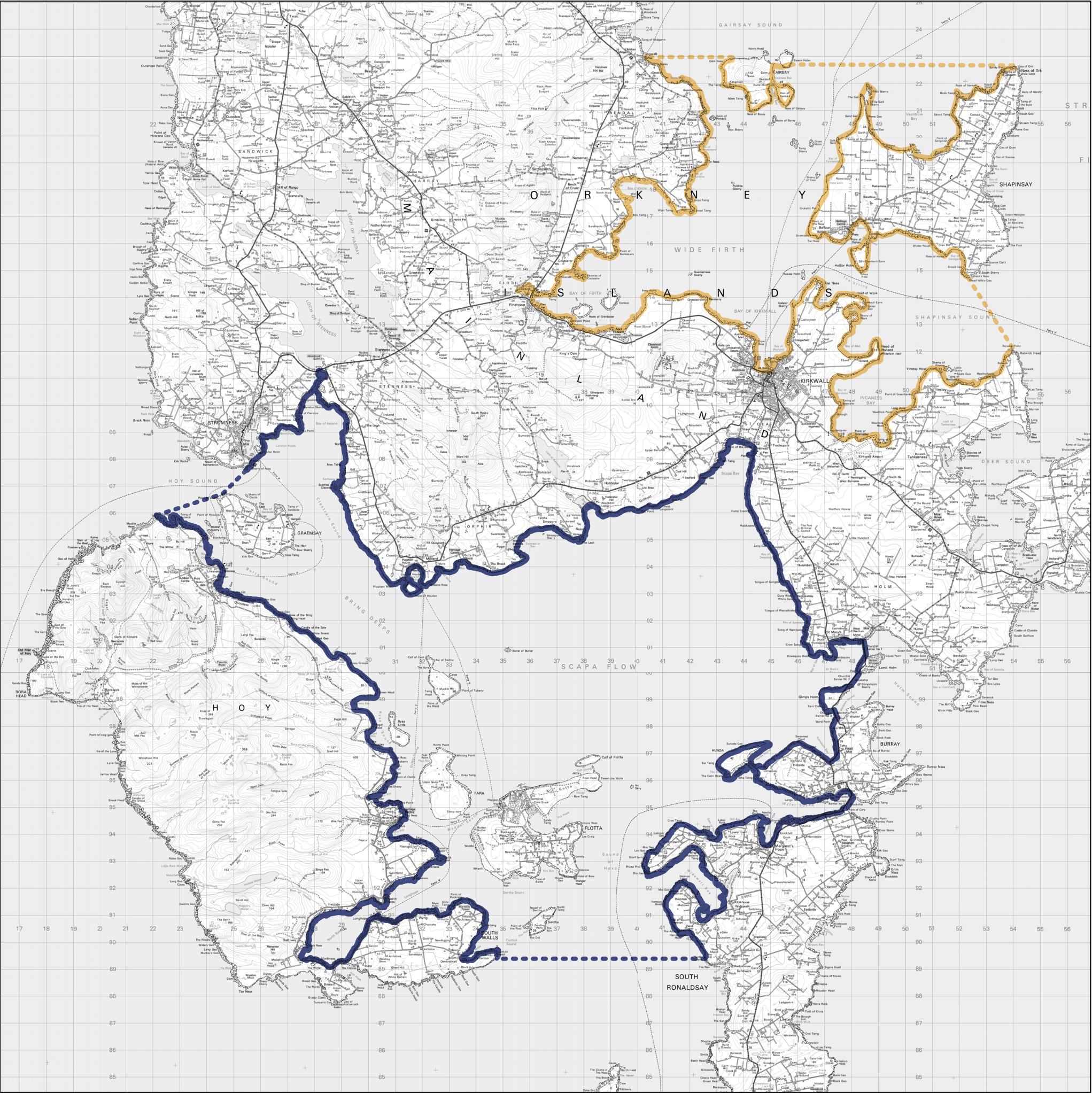
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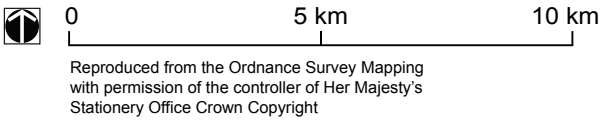
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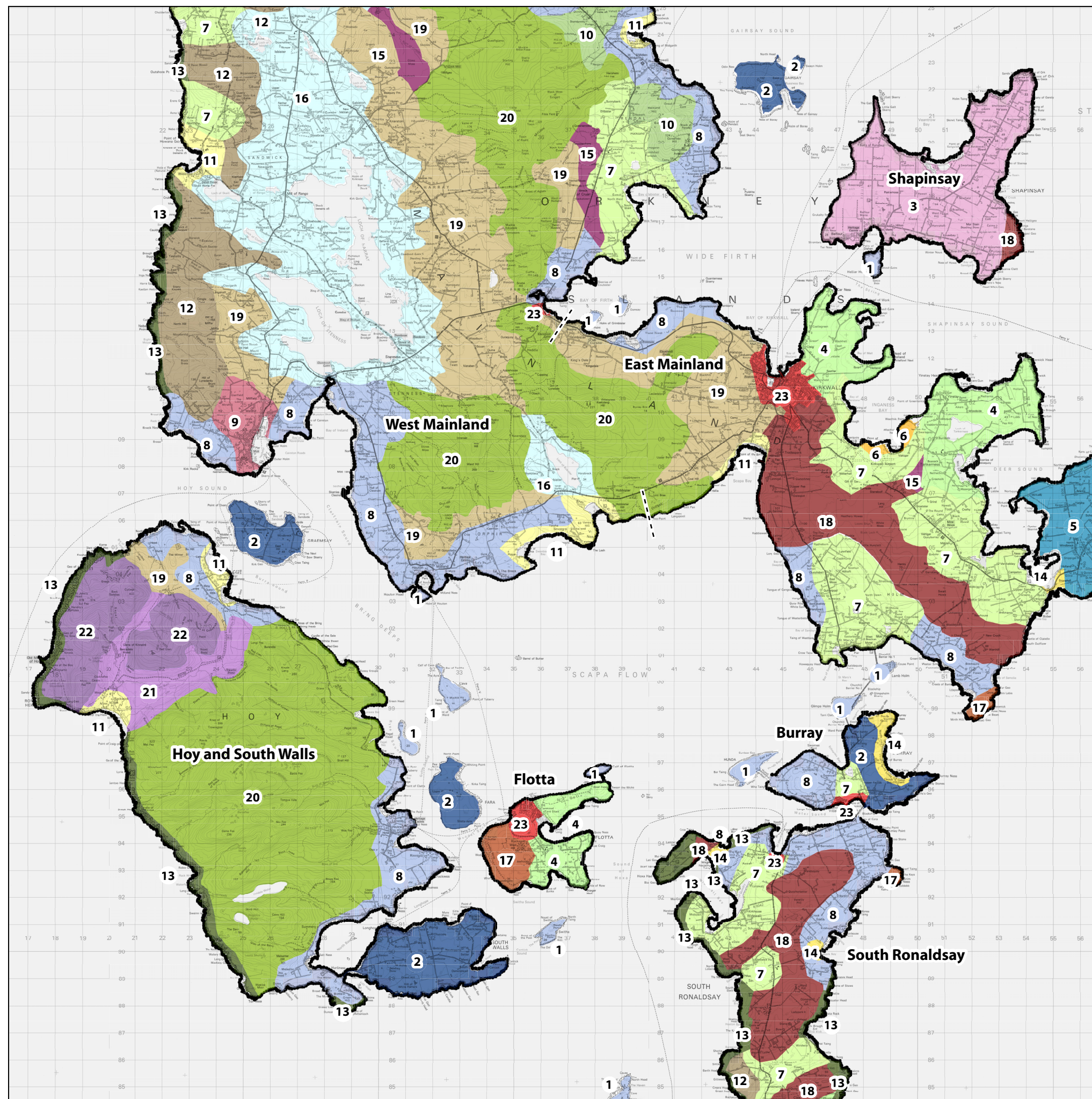
Study Areas

- Scapa Flow
- Wide Firth



Orkney Islands
Aquaculture Capacity Study
The Study Areas

Figure 1



Legend

SNH Landscape Character Types

- 1 Holms
- 2 Whaleback Island Landscapes
- 3 Ridgeline Island Landscapes
- 4 Low Island Pastures
- 5 Undulating Island Pastures
- 6 Coastal Plain
- 7 Coastal Basins
- 8 Inclined Coastal Pastures
- 9 Coastal Granite Pastures
- 10 Isolated Coastal Knolls
- 11 Enclosed Bay Landscapes
- 12 Coastal Hills and Heath
- 13 Cliff Landscapes
- 14 Coastal Sand Landscapes
- 15 Peatland Basins
- 16 Loch Basins
- 17 Low Moorland
- 18 Plateau Heaths and Pasture
- 19 Rolling Hill Fringe
- 20 Moorland Hills
- 21 Glaciated Valley
- 22 Rugged Glaciated Hills
- 23 Urban and Rural Development

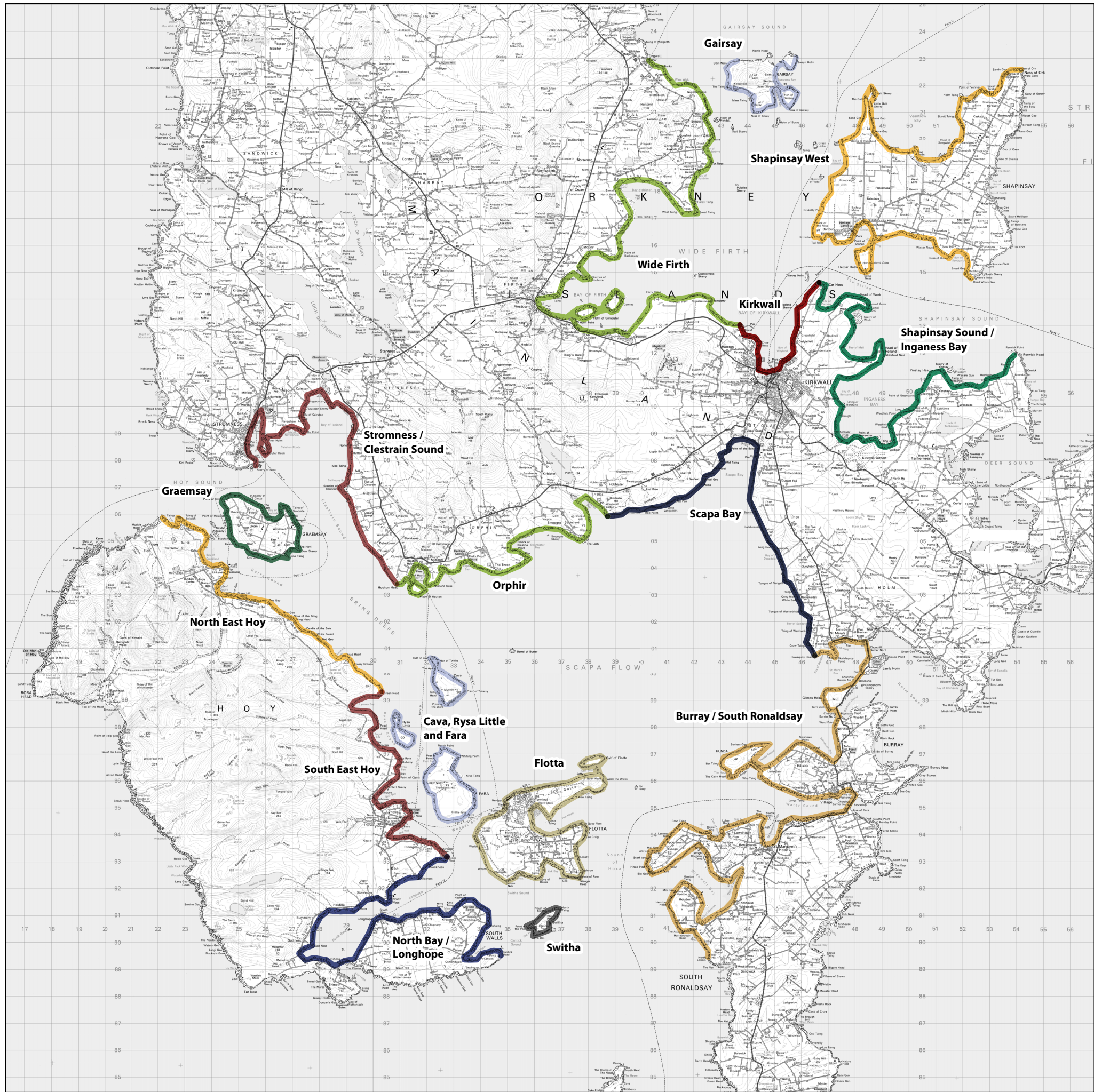
SNH Island Character Areas

- Shapinsay, West Mainland, East Mainland, Burray, South Ronaldsay, Flotta, Hoy and South Walls

0 5 km 10 km

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Orkney Islands
Aquaculture Capacity Study
Landscape Character



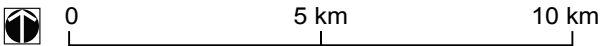
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Scapa Flow Coastal Character Areas

- Stromness / Clestrain Sound
- Orphir
- Scapa Bay
- Burray / South Ronaldsay
- North Bay / Longhope
- South East Hoy
- North East Hoy
- Graemsay
- Cava, Rysa Little and Fara
- Flotta
- Switha

Wide Firth Coastal Character Areas

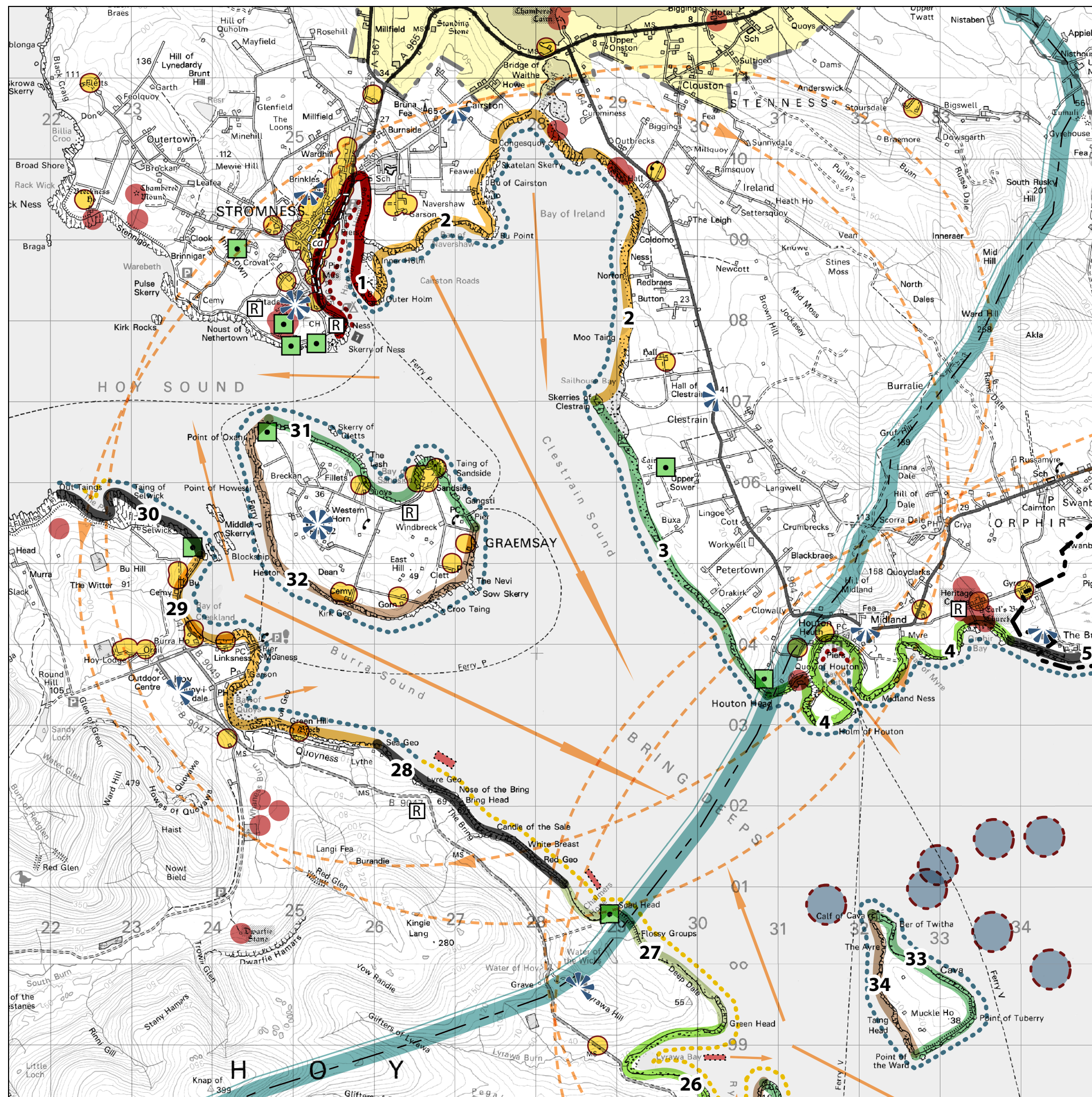
- Wide Firth
- Kirkwall
- Shapinsay Sound / Inganess Bay
- Shapinsay West
- Gairsay



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Orkney Islands Aquaculture Capacity Study Coastal Character

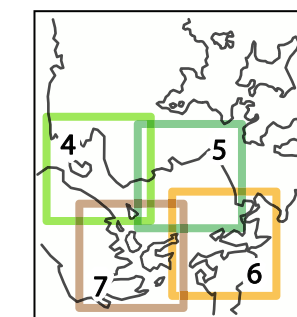
Figure 3



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Local Coastal Character Areas

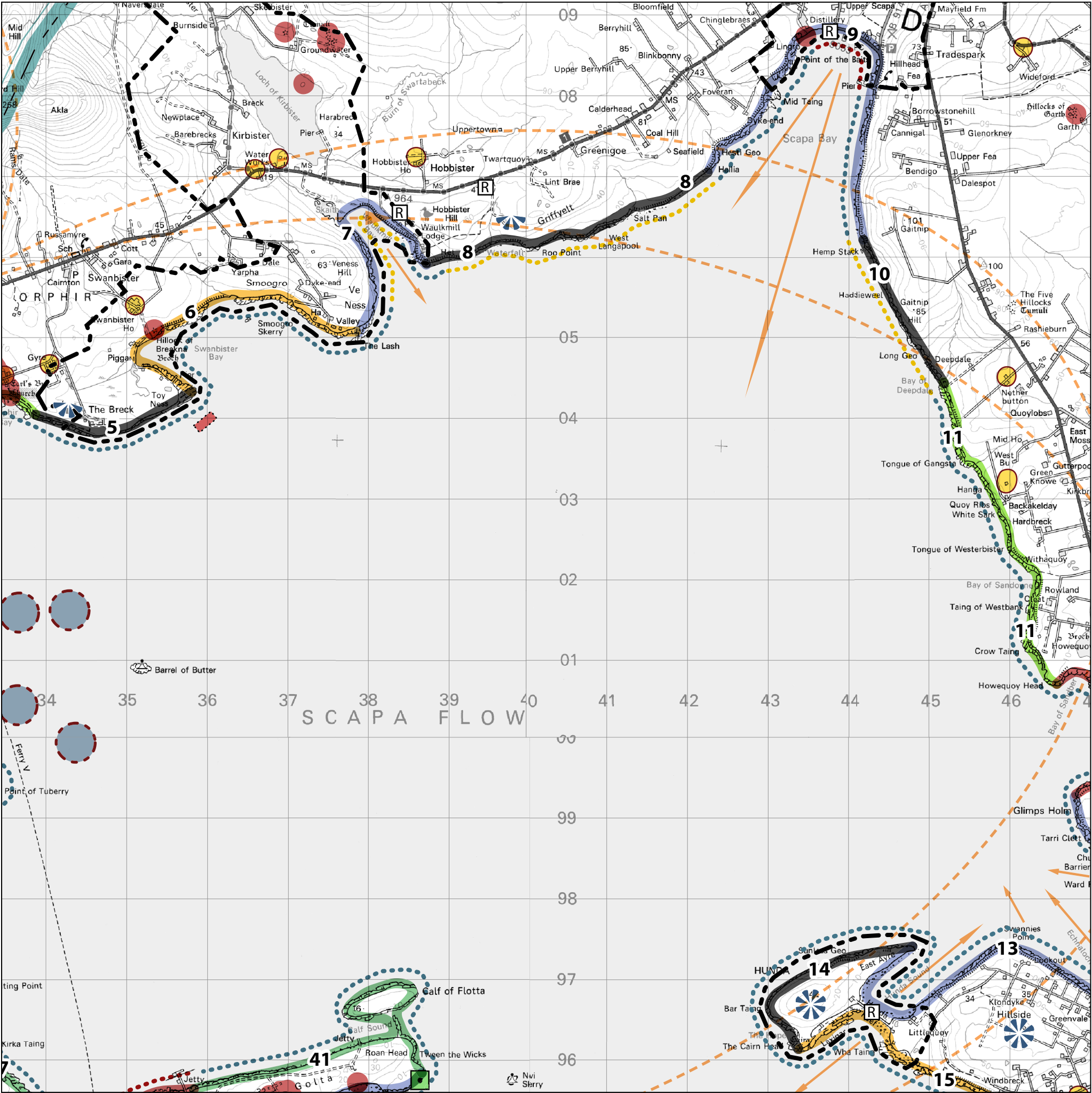
- 1 Scapa Flow Local Coastal Character Areas (1-46 inc. all colours - refer to report for full titles)
- World Heritage Site Buffer Zone
- National Scenic Area (NSA)
- Site of Local Landscape Character
- Conservation Area - inc. Listed Buildings
- Listed Buildings and Structures
- Scheduled Ancient Monument (SAM)
- Maritime Wreck
- Coastal Battery
- ▭ Garden and Designed Landscape
- ⋯ Isolated coastline
- ⋯ Undeveloped coastline
- ⋯ Developed coastline
- R Area of recreational interest
- ✱ Key panoramic viewpoint
- Key framed vista
- ⬢ Key area of semi-enclosure
- ▨ Known existing finfish farms
- ▨ Licenced shellfish farms (not apparent on site)



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Orkney Islands Aquaculture Capacity Study Local Coastal Character

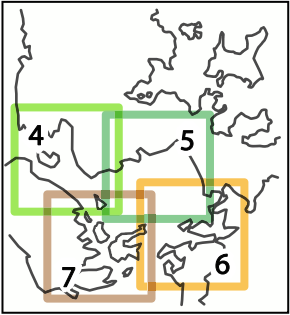
Figure 4



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Local Coastal Character Areas

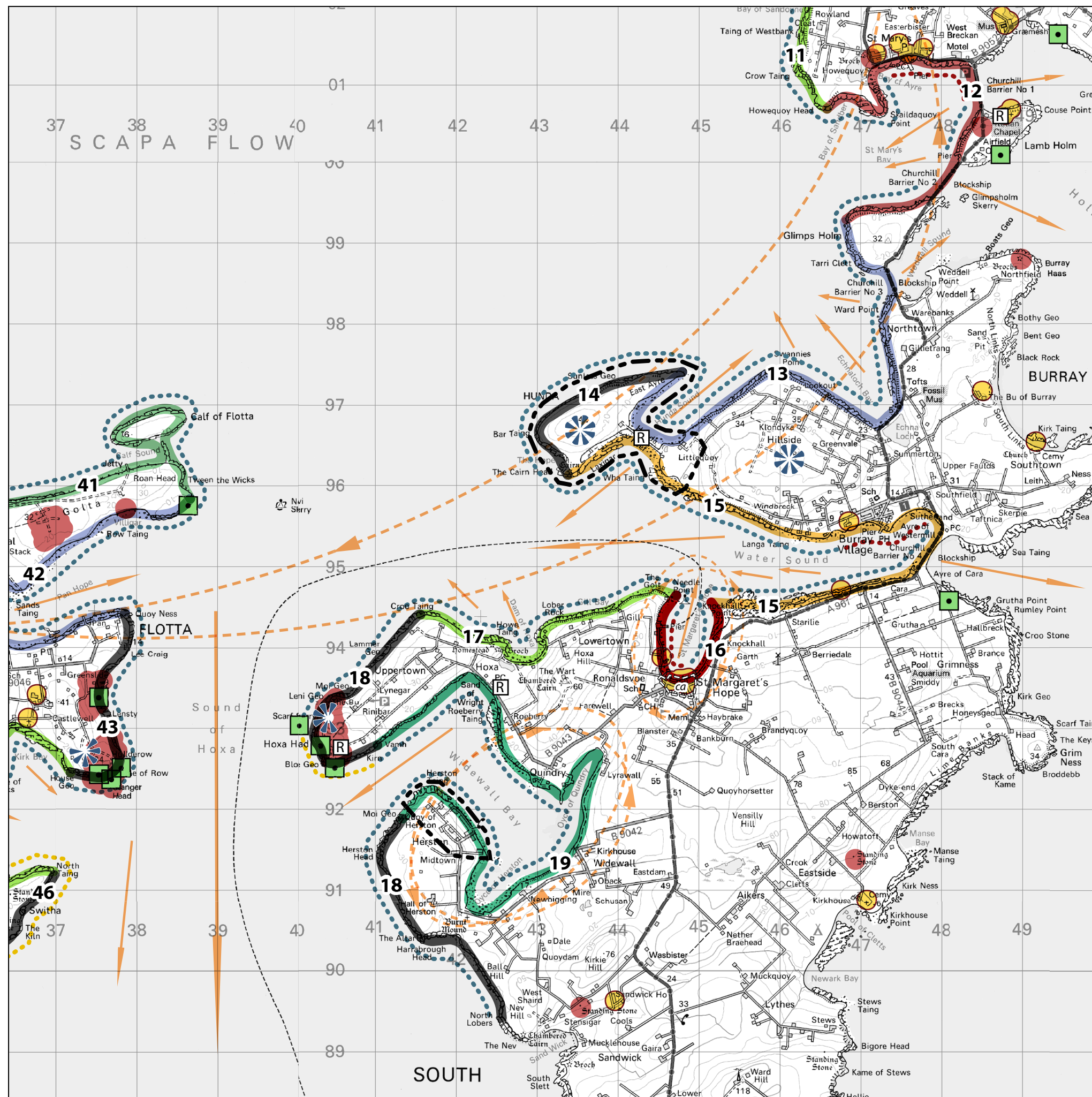
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Orkney Islands
Aquaculture Capacity Study
Local Coastal Character

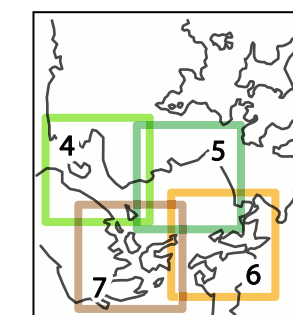
Figure 5



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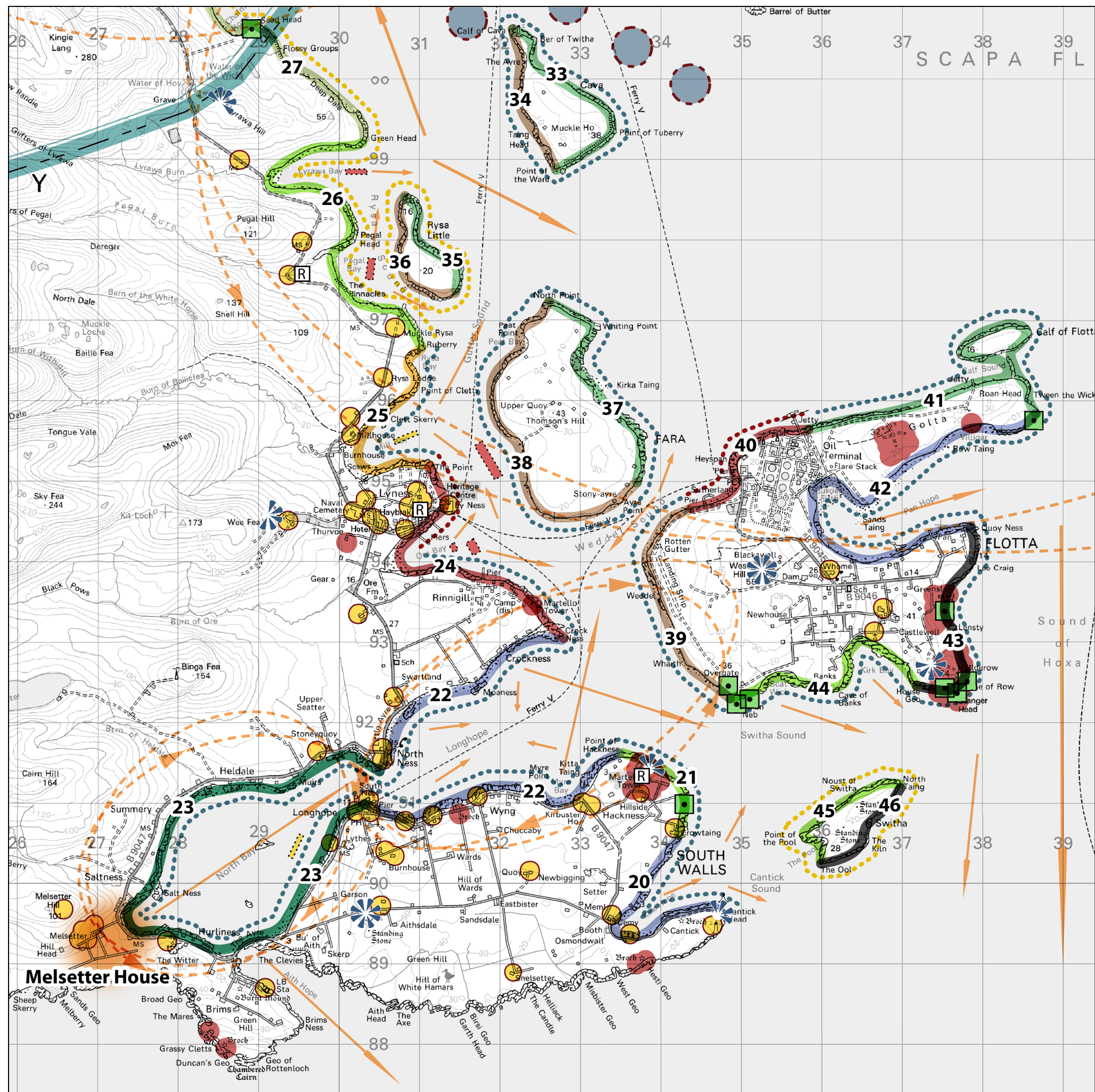
Local Coastal Character Areas

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- Key area of semi-enclosure
- Known existing finfish farms
- Licenced shellfish farms (not apparent on site)



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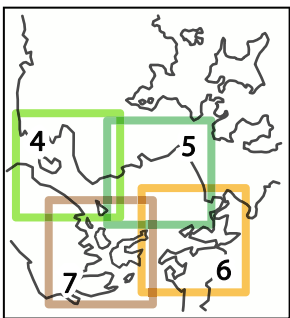
Orkney Islands Aquaculture Capacity Study Local Coastal Character



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Local Coastal Character Areas

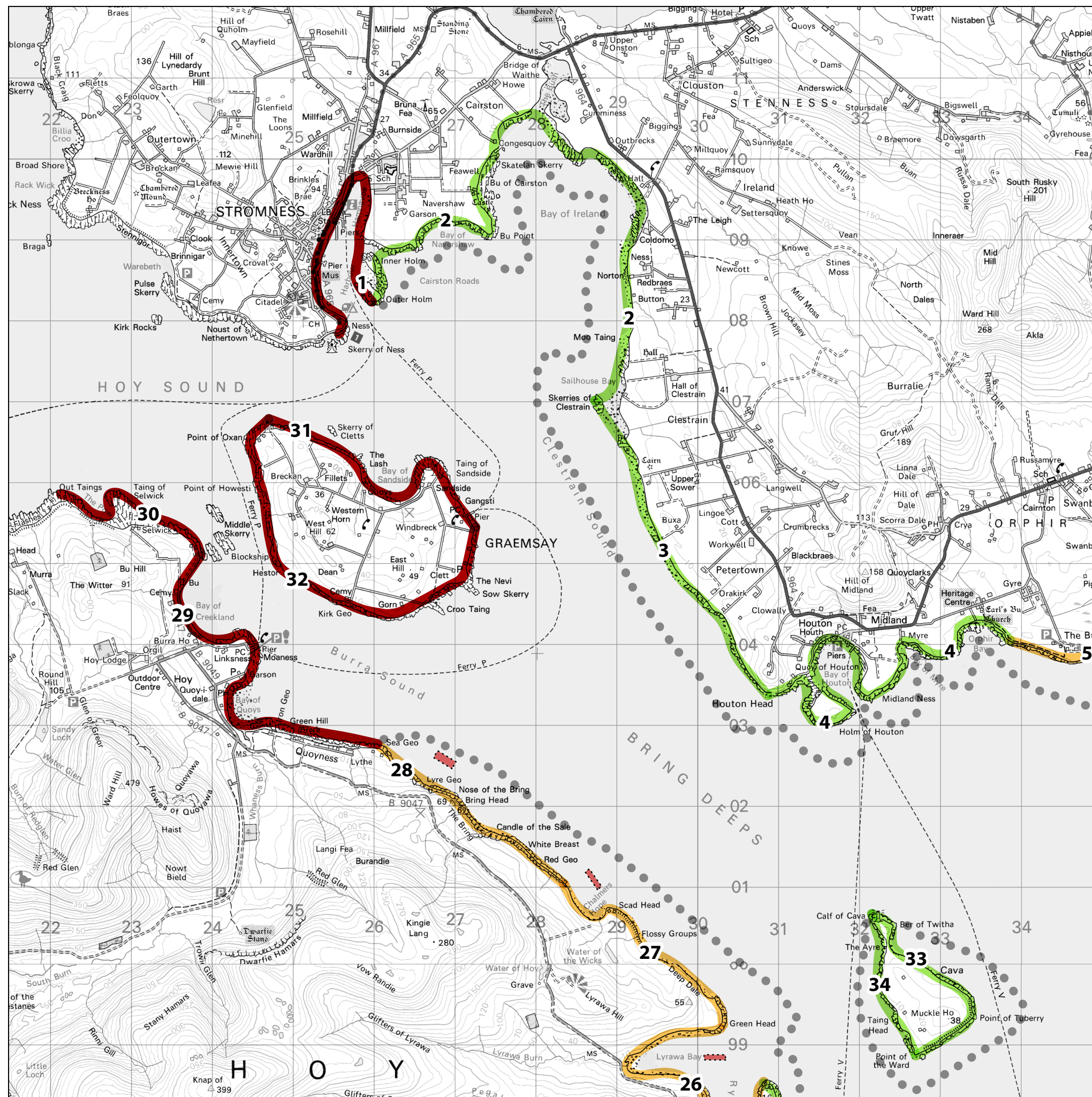
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- Known existing finfish farms
- Licenced shellfish farms (not apparent on site)



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Orkney Islands
Aquaculture Capacity Study
Local Coastal Character

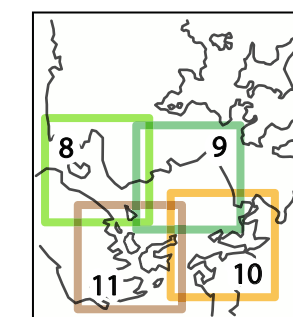
Figure 7



Legend

- 1** Local Coastal Character Areas
(refer to figures 4 - 7)
- No capacity for aquaculture development
- Some capacity for small to medium scale aquaculture development with specific recommendations
- Some capacity for small to medium scale aquaculture development, extensions to existing, or realignment / relocation of existing
- - - Known existing finfish farms
- - - Licenced shellfish farms
(not apparent on site)
- ● ● Area of seascape coverage relevant to assessment
(indicative)

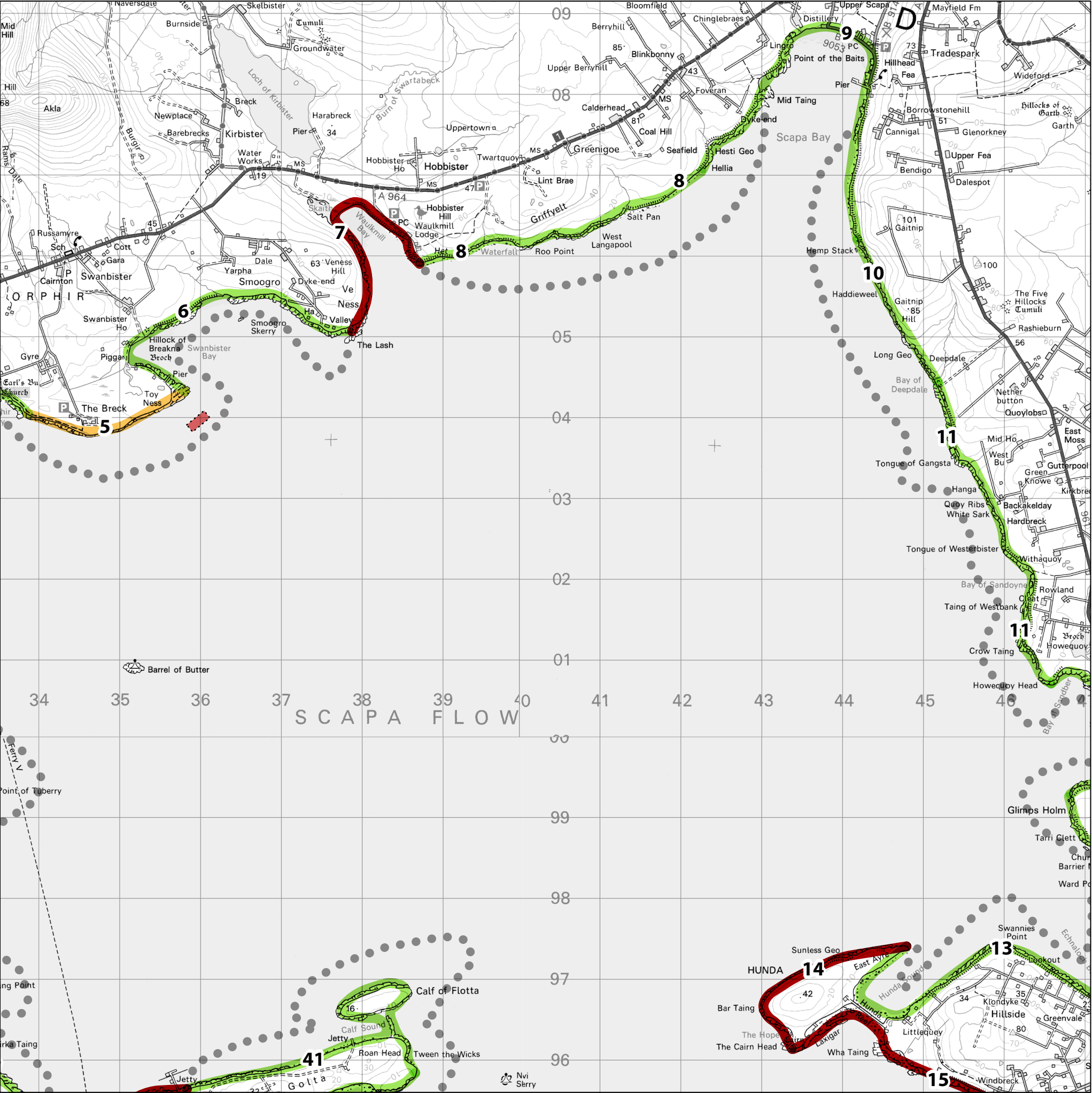
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Orkney Islands
Aquaculture Capacity Study
Aquaculture Capacity

Figure 8



Legend

1

Local Coastal Character Areas
(refer to figures 4 - 7)

No capacity for aquaculture development

Some capacity for small to medium scale
aquaculture development with specific
recommendations

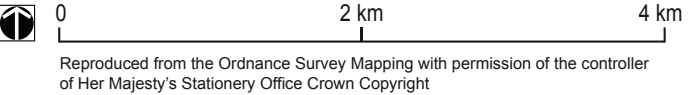
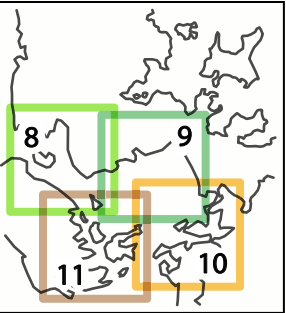
Some capacity for small to medium scale
aquaculture development, extensions to existing,
or realignment / relocation of existing

Known existing finfish farms

Licenced shellfish farms
(not apparent on site)

Area of seascape coverage relevant to assessment
(indicative)

Note: Capacity is shown only for the fish farm itself
and not for onshore infrastructure i.e. the suggested
location for infrastructure and facilities, as referred to
in the report, has not been assessed.

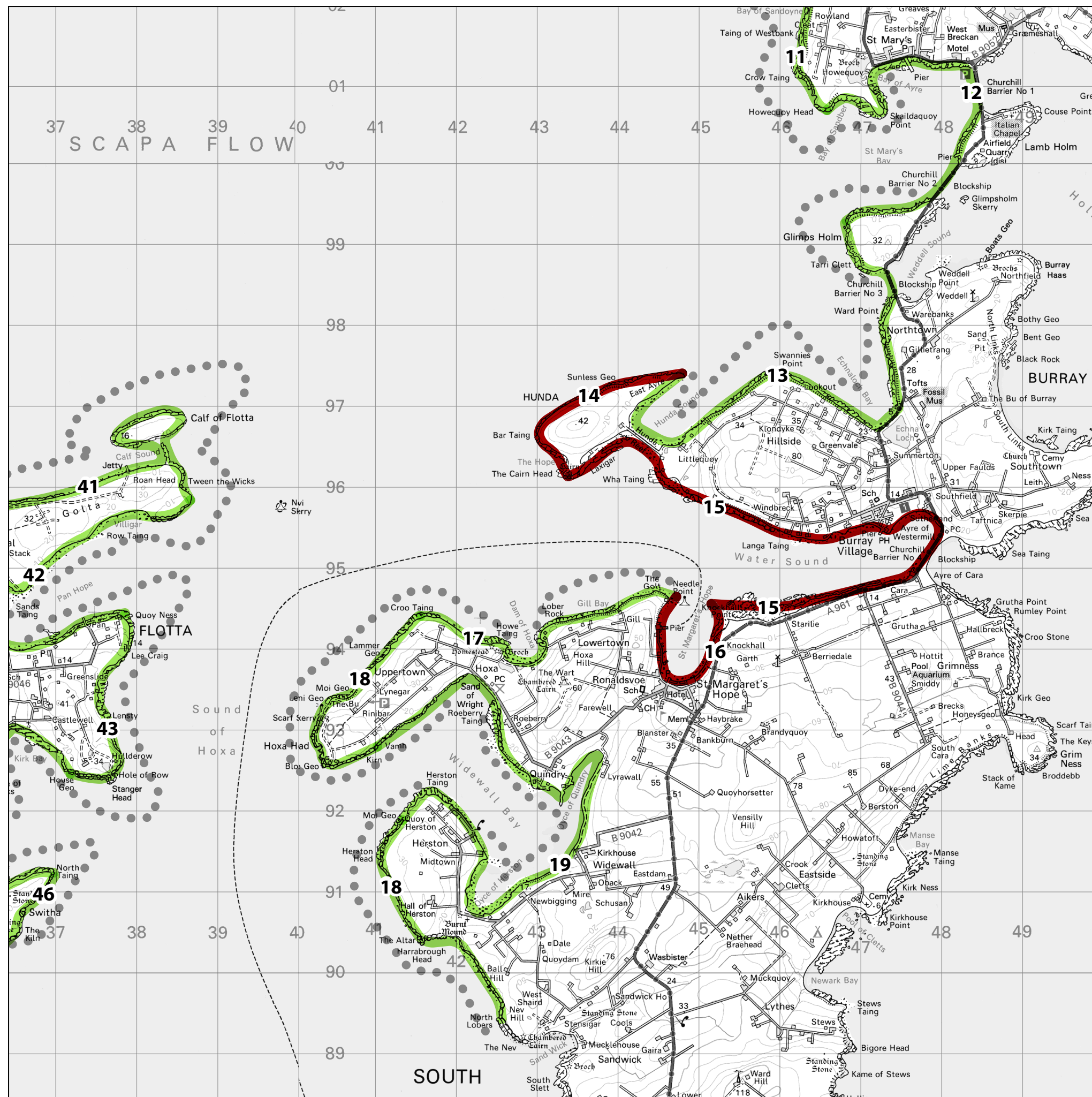


Orkney Islands

Aquaculture Capacity Study

Aquaculture Capacity

Figure 9



Legend

1 Local Coastal Character Areas
(refer to figures 4 - 7)

— No capacity for aquaculture development

— Some capacity for small to medium scale aquaculture development with specific recommendations

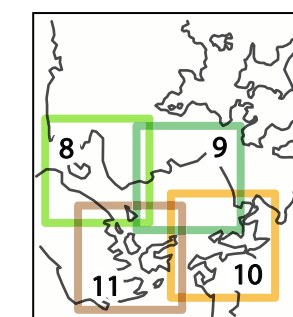
— Some capacity for small to medium scale aquaculture development, extensions to existing, or realignment / relocation of existing

--- Known existing finfish farms

--- Licenced shellfish farms
(not apparent on site)

● Area of seascape coverage relevant to assessment
(indicative)

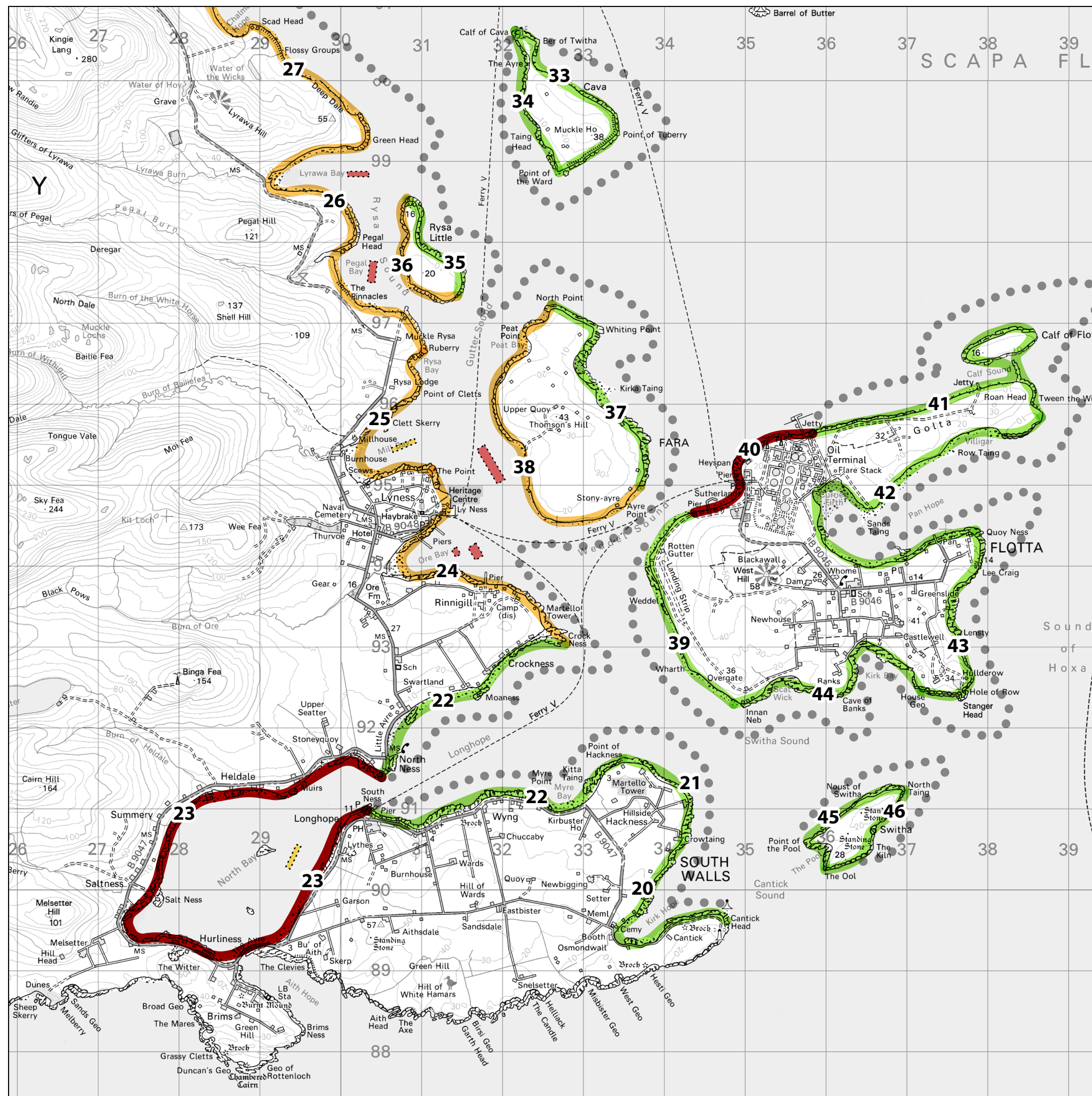
Note: Capacity is shown only for the fish farm itself and not for onshore infrastructure i.e. the suggested location for infrastructure and facilities, as referred to in the report, has not been assessed.



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Orkney Islands
Aquaculture Capacity Study
Aquaculture Capacity

Figure 10



Legend

1 Local Coastal Character Areas
(refer to figures 4 - 7)

— No capacity for aquaculture development

— Some capacity for small to medium scale aquaculture development with specific recommendations

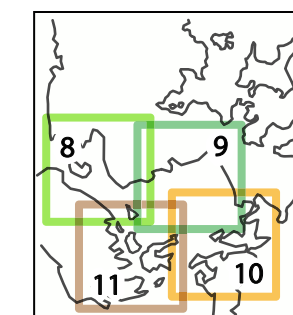
— Some capacity for small to medium scale aquaculture development, extensions to existing, or realignment / relocation of existing

- - - Known existing finfish farms

- - - Licenced shellfish farms
(not apparent on site)

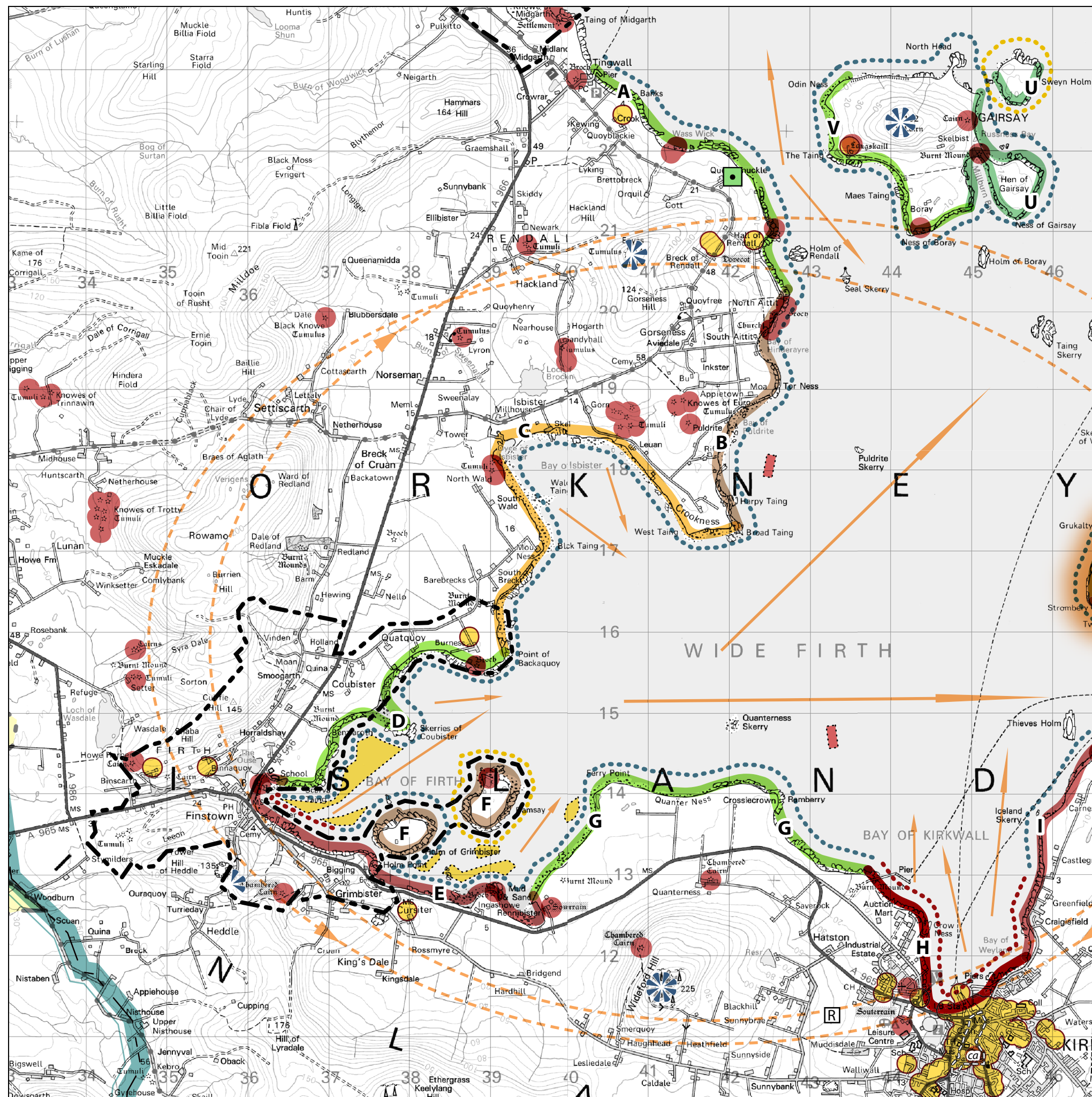
● ● ● Area of seascape coverage relevant to assessment
(indicative)

Note: Capacity is shown only for the fish farm itself and not for onshore infrastructure i.e. the suggested location for infrastructure and facilities, as referred to in the report, has not been assessed.



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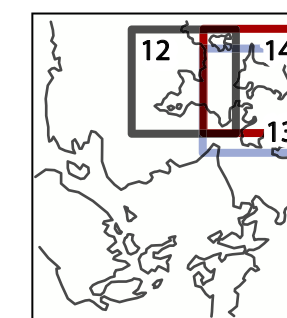
Orkney Islands
Aquaculture Capacity Study
Aquaculture Capacity



Legend

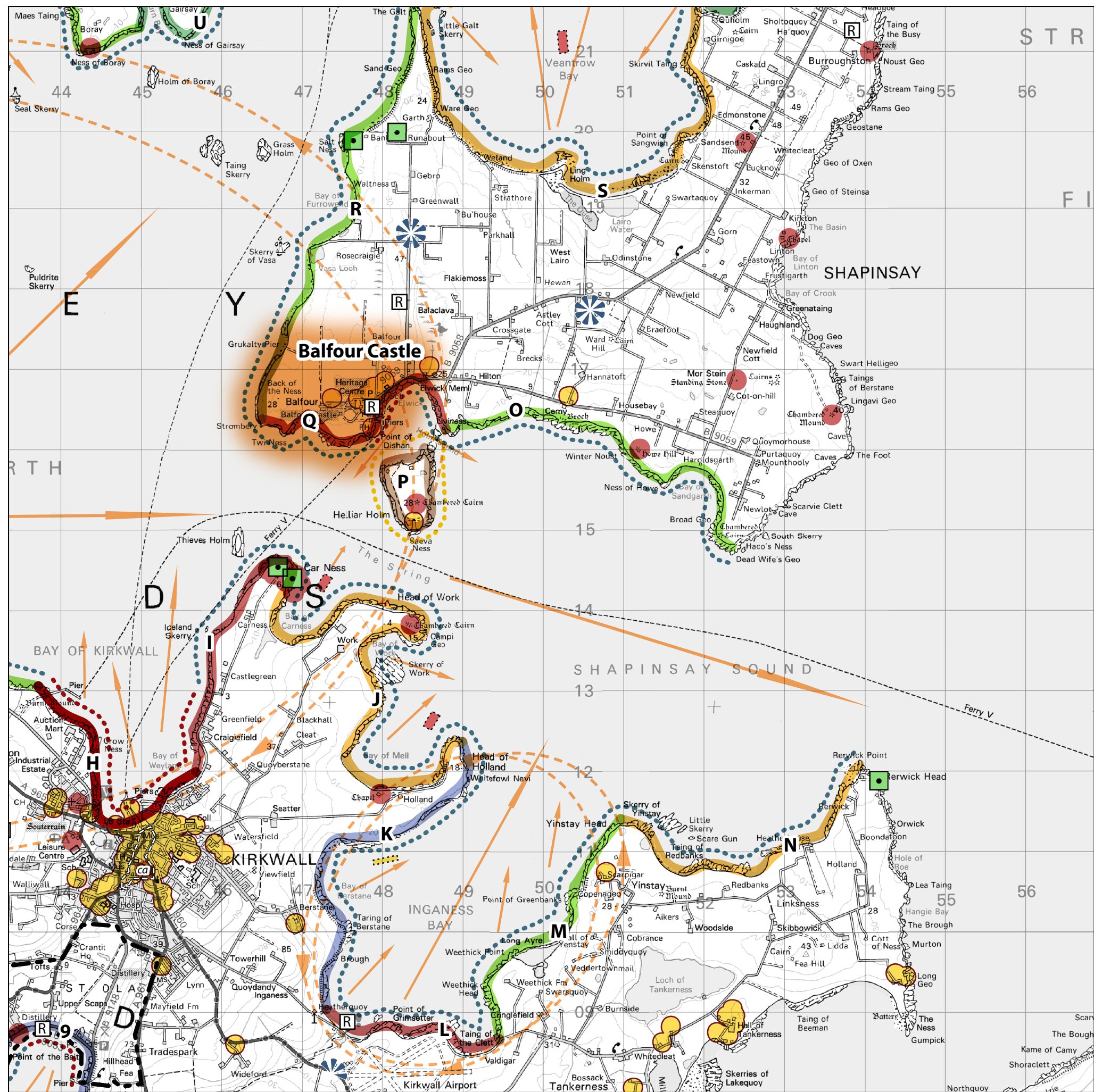
Local Coastal Character Areas

- A Wide Firth Local Coastal Character Areas (a-v inc. all colours - refer to report for full titles)
- World Heritage Site Buffer Zone
- National Scenic Area (NSA)
- Site of Local Landscape Character
- Conservation Area - inc. Listed Buildings
- Listed Buildings and Structures
- Scheduled Ancient Monument (SAM)
- Maritime Wreck
- Coastal Battery
- Garden and Designed Landscape
- ⋯ Isolated coastline
- ⋯ Undeveloped coastline
- ⋯ Developed coastline
- R Area of recreational interest
- ✳ Key panoramic viewpoint
- Key framed vista
- ⬢ Key area of semi-enclosure
- Known existing finfish farms
- Licenced shellfish farms (not apparent on site)



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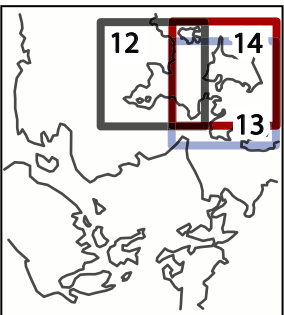
Orkney Islands Aquaculture Capacity Study Local Coastal Character



Legend

Local Coastal Character Areas

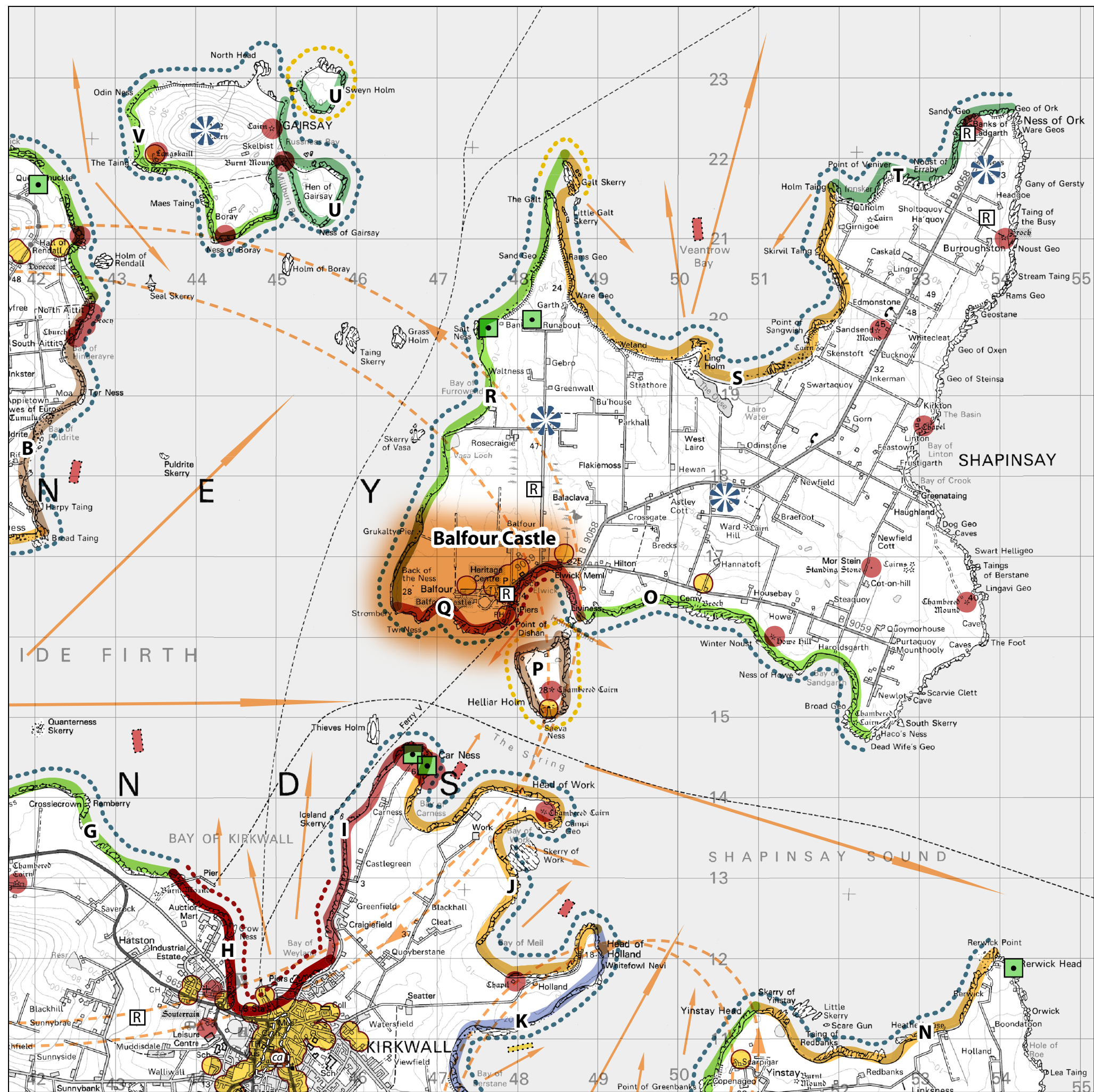
- A** Wide Firth Local Coastal Character Areas (a-v inc. all colours - refer to report for full titles)
- World Heritage Site Buffer Zone
- National Scenic Area (NSA)
- Site of Local Landscape Character
- Conservation Area - inc. Listed Buildings
- Listed Buildings and Structures
- Scheduled Ancient Monument (SAM)
- Maritime Wreck
- Coastal Battery
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Orkney Islands Aquaculture Capacity Study Local Coastal Character

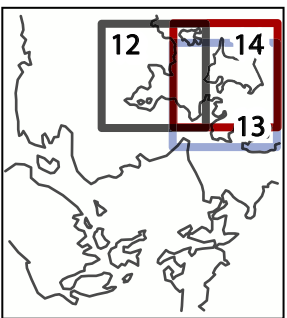
Figure 13



Legend

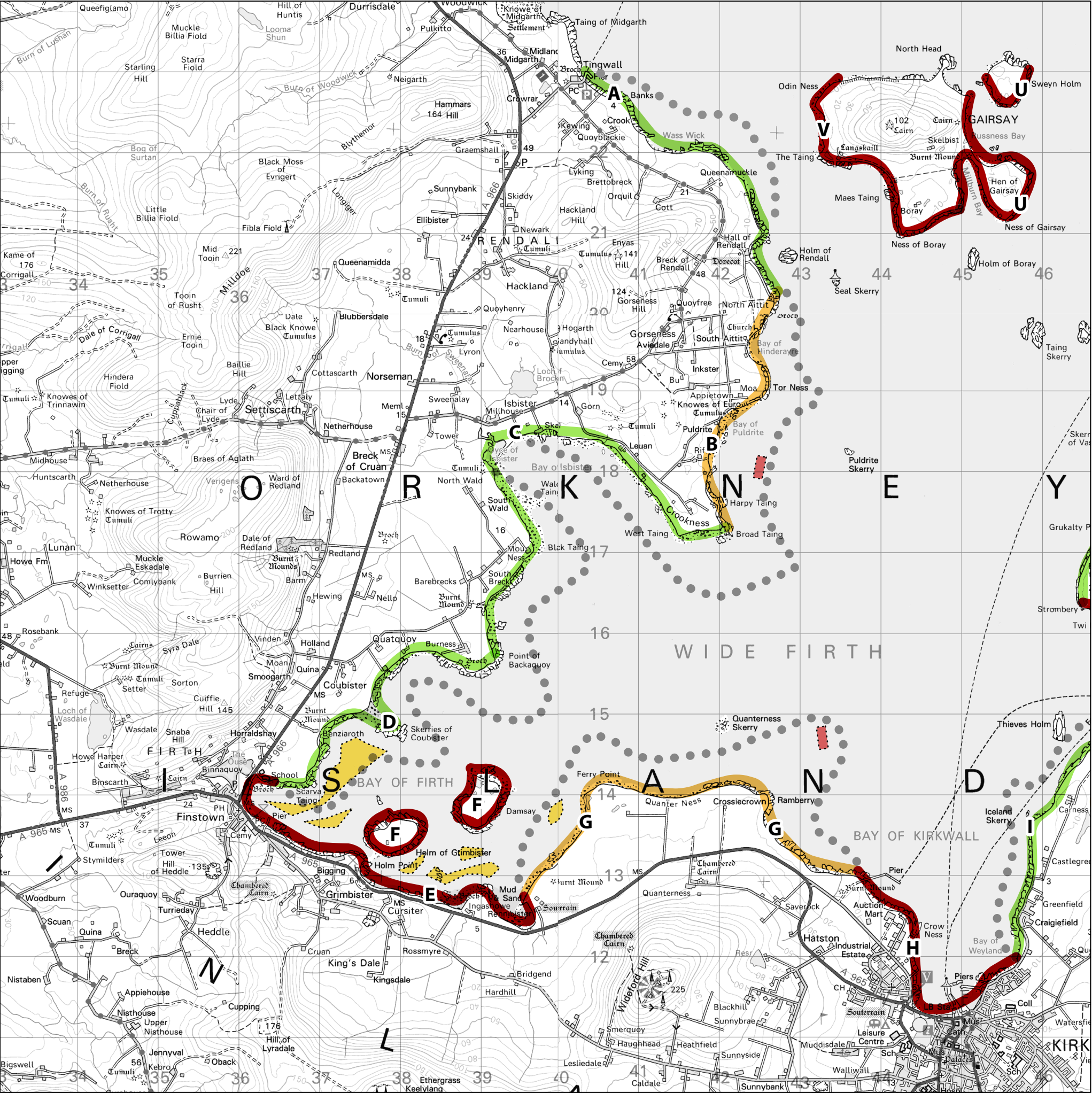
Local Coastal Character Areas

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Orkney Islands Aquaculture Capacity Study Local Coastal Character



Legend

A

Local Coastal Character Areas
(refer to figures 12 - 14)

No capacity for aquaculture development

Some capacity for small to medium scale
aquaculture development with specific
recommendations

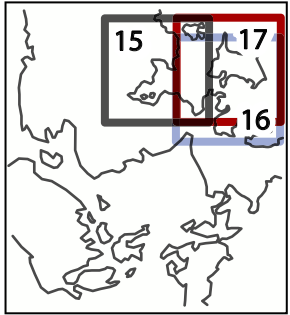
Some capacity for small to medium scale
aquaculture development, extensions to existing,
or realignment / relocation of existing

Known existing finfish farms

Licenced shellfish farms
(not apparent on site)

Area of seascape coverage relevant to assessment
(indicative)

Note: Capacity is shown only for the fish farm itself and not for onshore infrastructure i.e. the suggested location for infrastructure and facilities, as referred to in the report, has not been assessed.



02 km4 km

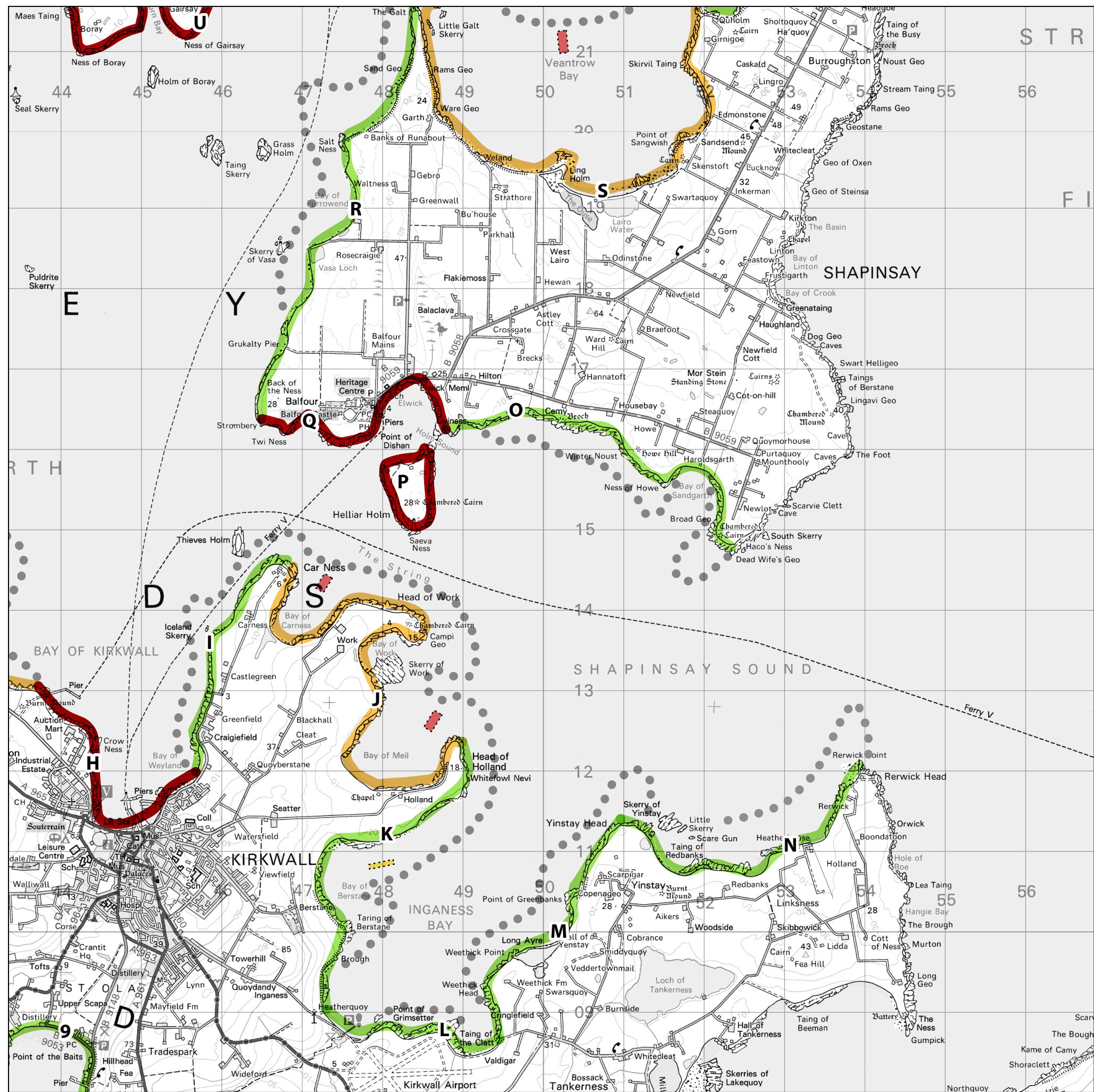
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Orkney Islands

Aquaculture Capacity Study

Aquaculture Capacity

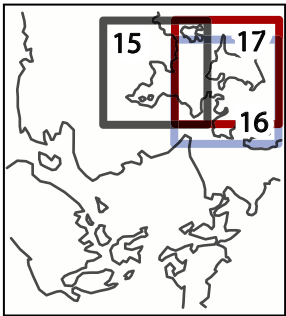
Figure 15



Legend

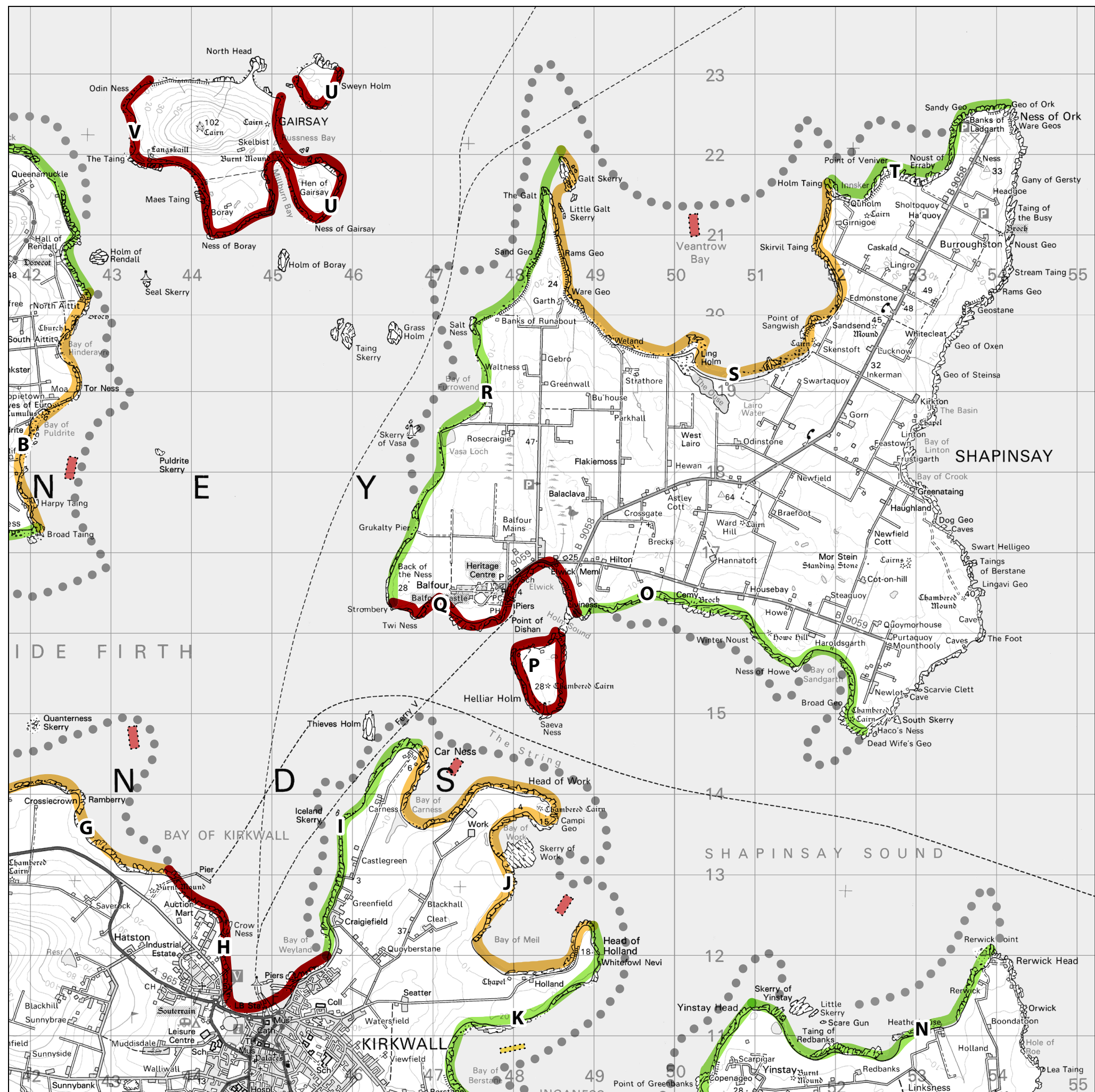
- A** Local Coastal Character Areas
(refer to figures 12 - 14)
- No capacity for aquaculture development
- Some capacity for small to medium scale aquaculture development with specific recommendations
- Some capacity for small to medium scale aquaculture development, extensions to existing, or realignment / relocation of existing
- - - Known existing finfish farms
- - - Licenced shellfish farms
(not apparent on site)
- ● ● Area of seascape coverage relevant to assessment
(indicative)

Note: Capacity is shown only for the fish farm itself and not for onshore infrastructure i.e. the suggested location for infrastructure and facilities, as referred to in the report, has not been assessed.



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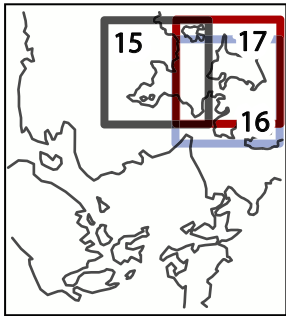
Orkney Islands Aquaculture Capacity Study Aquaculture Capacity



Legend

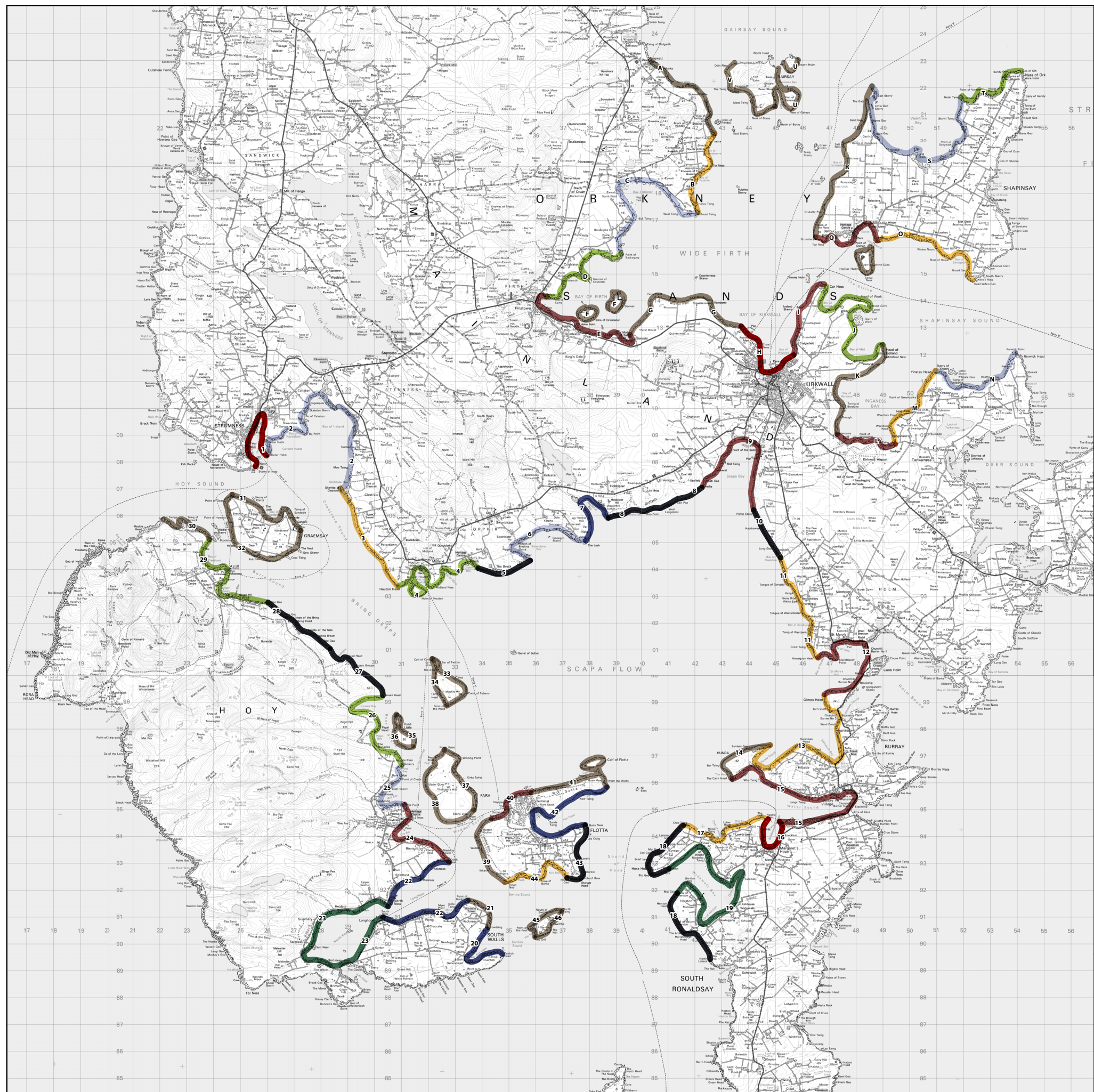
- A** Local Coastal Character Areas
(refer to figures 12 - 14)
- No capacity for aquaculture development
- Some capacity for small to medium scale aquaculture development with specific recommendations
- Some capacity for small to medium scale aquaculture development, extensions to existing, or realignment / relocation of existing
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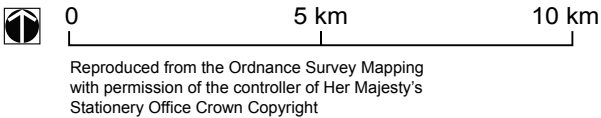
Orkney Islands
Aquaculture Capacity Study
Aquaculture Capacity



Legend

Generic Local Coastal Character Areas

- Urban harbour
- Built focus
- Narrow bay
- Wide bay
- Bay and headland
- Enclosed bay
- Settled coast
- Isolated/undeveloped coast
- Isolated/remote cliff



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