

Aquaculture Supplementary Guidance

Stiùireadh Leasachail a thaobh Tuathanachas Uisge



May
An Cèitean **2015**
Consultation Draft



Foreword

The purpose of this document is to provide supplementary guidance for the aquaculture industry, statutory consultees and third parties to support environmentally, economically and socially sustainable aquaculture development in Highland.

- The aim of this Aquaculture Supplementary Guidance is to guide development to those locations that are considered to have fewer constraints to development; or to where those constraints can be mitigated through sensitive equipment design or working practices. The guidance will also assist in the streamlining of the process of preparing, submitting and determining aquaculture planning applications.
- The guidance is also designed to help improve the quality of planning applications submitted for aquaculture development by ensuring that all relevant information is provided by developers at the outset and that the Council can have a clear policy framework for planning decisions.

Status

This is draft supplementary guidance for aquaculture which is published for public consultation. It sets out the proposed spatial strategy and development criteria against which future fish farming development proposals in Highland would be assessed. It reflects policy advice provided in the Highland-wide Local Development Plan and Scottish Planning Policy. The supplementary guidance does not form part of the development plan until it is finalised and statutorily adopted following this consultation period.

How to Make Comment

The public consultation runs from 25 May – 19 July 2015. During this time the Council is inviting comments on the draft aquaculture supplementary guidance. Questions to guide your responses can be found at the end of each section.

All comments should be made by the 19 July and submitted in one of the following ways:

- By email to devplans@highland.gov.uk; or
- In writing to Coastal Planning, Development Plans Team, Development and Infrastructure Service, The Highland Council, Glenurquhart Road, Inverness, IV3 5NX.

Please note that the consultation is limited to the content of this draft aquaculture supplementary guidance only.

What Happens Next

All comments received during the consultation on this draft aquaculture supplementary guidance will be considered when the Council prepares the final consultation version later this year. There will then be a final consultation on the document, with an accompanying Environmental Report. The final version will be adopted as statutory supplementary guidance and will form part of the development plan. It will therefore be used to assess all planning applications with the Highland area.

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1 Introduction

Purpose

1.1 This Aquaculture Supplementary Guidance provides guidance to support Policy 50 of the Highland wide Local Development Plan (HwLDP). Its preparation will also inform the early stages of any replacement policies in the revised HwLDP. It aims to support sustainable of marine and freshwater aquaculture development within appropriate sites around Highland (see Map 1 in the Spatial Strategy). It provides a spatial strategy and a suite of development criteria against which aquaculture planning applications will be assessed, in agreement with national and local policy guidance and legislation. It is accompanied by a Strategic Environmental Assessment and Habitats Regulation Assessment at the various consultation stages. This Aquaculture Supplementary Guidance must be read in conjunction with the Highland wide Local Development Plan and any related policy guidance.

1.2 The Highland-wide Local Development Plan supports the sustainable development of finfish and shellfish farming subject to there being no significant adverse effect, directly, indirectly or cumulatively on the natural, built and cultural heritage and existing activity (see Box 1). The Council has also produced a range of other supplementary guidance, which are relevant to the consideration of aquaculture development. In particular but not limited to, Supplementary Guidance on '*Highland Statutorily Protected Species*', '*Physical Constraints*', '*Special Landscape Areas*' and the '*Highland Historic Environment Strategy*' and the Aquaculture Framework Plans are relevant.

The Highland wide Local Development Plan (HwLDP) remains the key planning policy document for Highland. The Council is beginning a review of relevant policies in the HwLDP alongside this supplementary guidance. This process will take approximately two years to complete and will include an evaluation of all supporting supplementary guidance. This review includes the associated Aquaculture Framework Plans, integrated coastal plans and the Highland Coastal Development Strategy, which remain in force during this period. However it is recognised that some of these supporting documents, or elements within them, may be somewhat outdated. Whilst the review process is underway, the Aquaculture Supplementary Guidance will ensure it takes the latest available information from the review process into account. The policies that emerge through the review will include reference to and be compatible with this supplementary guidance. This is considered to be the most appropriate approach to ensure that developers have clear policy guidance to support the sustainable growth of the aquaculture industry.

1.3 Section 2 of this document sets out the spatial strategy that guides developers to areas of potential growth and highlights area of sensitivity. Section 3 details the development criteria that will be used to assist the assessment of fish farming development planning proposals. Background information and links to key supporting documents are provided in Section 4. Information boxes are provided throughout the document to clarify key points.

Box 1**Policy 50 of the Highland wide Local Development Plan***

The Council supports the sustainable development of finfish and shellfish farming subject to there being no significant adverse effect, directly, indirectly or cumulatively on:

- the natural, built and cultural heritage, taking into consideration:
 - landscape character, scenic and visual amenity with reference to SNH commissioned report: landscape/seascape carrying capacity for aquaculture;
 - the classification and objectives set out in the river basin management plan for the Scotland river basin district and supplementary area management plans;
 - wild fish populations;
 - biological carrying capacity;
 - and cumulative benthic and water column impacts - for finfish proposals support is conditional on proposals being consistent with Marine Scotland's Locational Guidelines for the authorisation of Marine Fish Farms in Scottish Waters;
 - habitats and species, including designated sites and protected species;
- existing activity, taking into consideration:
 - commercial inshore fishing grounds;
 - existing and consented aquaculture sites;
 - established harbours and natural anchorages and navigation (including recreational);
 - the location of existing/proposed pipelines/outfalls and discharge points for treated waste water and storm water.

The core principles of the Highland Council's aquaculture framework plans and coastal development plans are similar. However, coastal development plans cover all sectors and are relevant to proposals for all types of installations in coastal waters. The aquaculture framework plans will:

- guide the location and scale of aquaculture development;
- ensure that development is environmentally sustainable;
- identify both opportunities and constraints so that developers have a realistic idea of the development potential and other interests which should be taken into account;
- provide an overview for the use of the coastal waters and promote a balanced approach which can safeguard the area's core natural assets and sustain or enhance its productivity over the longer term;
- aim to guide investment, help in the evaluation of development proposals, and help to minimise conflicts of interest.

* see paras 1.2-1.3

1 Introduction

Background

1.4 Aquaculture in Scotland is an important industry, creating and supporting employment, particularly in remote areas. Figures prepared by the Scottish Government indicate that output of the sector in 2012 was around 170,000 tonnes, worth £560 million at the farm gate. Of this, salmon accounted for 96% of the output. In Highland the industry makes an important contribution to the local economy, particularly within areas on the north and west coasts where employment opportunities may otherwise be limited. This economic investment in turn generates social benefits.

1.5 In terms of value and production volume, fin fish farming is the main aquaculture activity taking place in Highland, contributing to food security. Production is focused on Atlantic Salmon in the marine environment, which leads to the need for salmon smolt production in freshwater cages and land based farms. There is a small volume of trout farmed in sea cages and some rainbow trout and brown trout in the freshwater environment. Historically there has been interest in diversifying production into species such as Cod, Haddock and Halibut. There is recent, renewed interest in rearing wrasse and other species to assist in the biological control of sea lice on farmed salmon.

1.6 Shellfish farming is also important to the Highland economy. This is dominated by the rope grown culture of mussels but there are a number of sites farming scallops and an increasing interest in farming both native and pacific oysters. Other novel species such as sea urchins have been considered by developers from time to time.

1.7 The bulk of aquaculture development and activity is situated on the west coast of Highland (see Maps 2 & 3 in the Spatial Strategy). These marine developments are supported by a number of fresh water farms, both loch based and land based which produce the smolts for transfer to sea cages.

Legislation and policy guidance

1.8 When making or determining planning applications for fish farming, there are a number of legislative considerations and policy guidance documents to aid developers and planners, as discussed below. Aquaculture for the purposes of this document covers "fish farming" which is legally defined in the Town and Country Planning (Scotland) Act 1997 as 'the breeding, rearing or keeping of fish or shellfish (which includes any kind of crustacean or mollusc). This was amended by the The Town and Country Planning (Marine Fish Farming) (Scotland) Regulations 2013 to include any kind of sea urchin. Seaweed cultivation is not covered by this Act (see Box 2). In its submission to the consultation on the draft seaweed policy statement, The Highland Council stated it had recommended on several occasions that seaweed farming be included in the meaning of development under the planning acts. It also noted that the only reasonable and feasible option would therefore be for the main consent to be provided through the terrestrial planning regime.

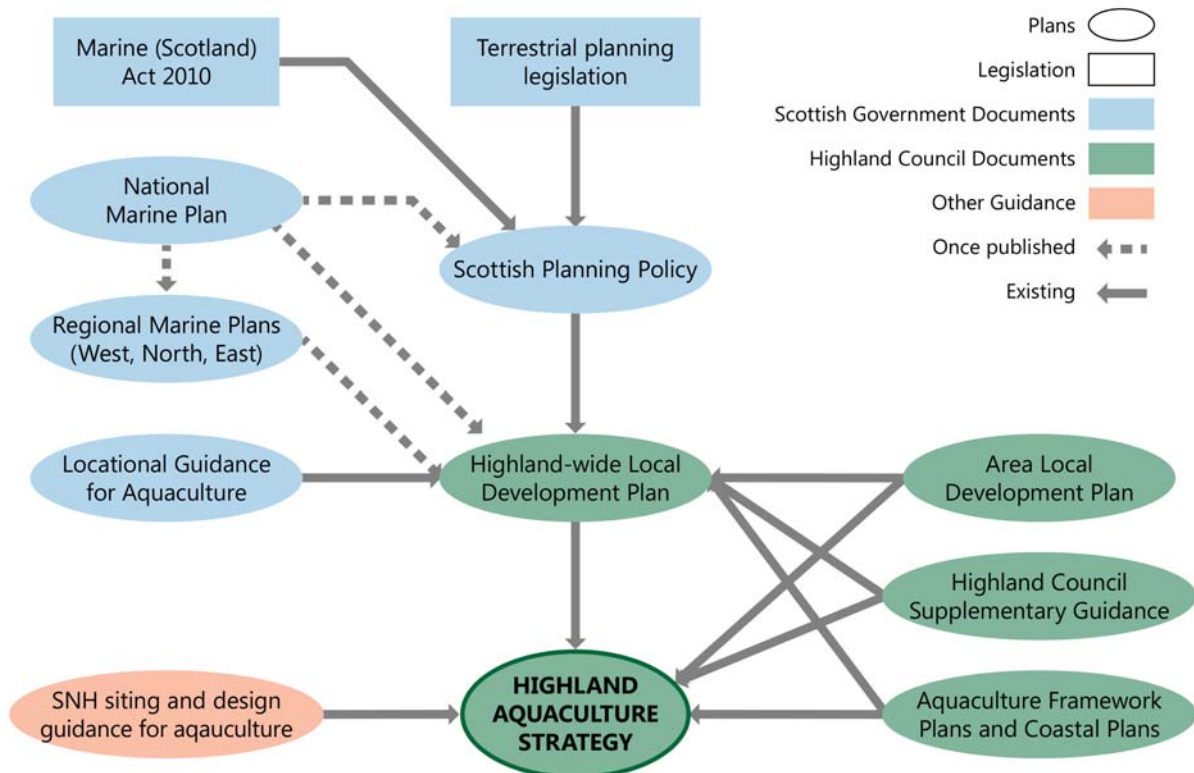
Box 2

Seaweed Harvesting and Culture

The Scottish Government recently consulted on a policy statement regarding commercial seaweed cultivation as well as options for managing the sustainable growth of the seaweed wild harvesting industry. The consultation analysis is now available (see further information Section 4) and the final policy statement will be published in 2015. Once more details are available, subsequent supplementary guidance can be updated.

1.9 Aquaculture development in Highland is governed by various planning regulations that consider both planning permissions and any related environmental issues (see Annex 1). In addition to terrestrial jurisdiction, the Town and Country Planning (Scotland) Act 1997 and the Planning etc (Scotland) Act 2006 bring fish farming within three nautical miles of the mean low water spring tide (MLWS) within planning control. As such, planning permission is required for fish farming on land and at sea up to 3 nautical miles. The Marine (Scotland) Act 2010 extends to the mean high water spring tides (MHWS). The two ‘consenting’ processes therefore overlap in the intertidal area (see Figure 1).

Figure 1 Schematic of where the Highland Aquaculture Supplementary Guidance fits with other key plans, policies and legislation.



1 Introduction

1.10 At national level, Scottish Planning Policy (SPP) notes that '*aquaculture makes a significant contribution to the Scottish economy, particularly for coastal and island communities...*' and '*Planning can help facilitate sustainable aquaculture whilst protecting and maintaining the ecosystem upon which it depends.*' Scottish Government targets are to increase sustainable production of marine finfish by 32% and shellfish by 99% by 2020, based on a 2011/2012 baseline; the National Marine Plan reiterates these ambitious targets.

1.11 To help underpin the growth targets, the government produced '*A Fresh Start – the Renewed Framework for Scottish Aquaculture* (2009). One of the key themes in the Framework was to address 'planning, consents and sites' so that development occurred within the 'right' sites and in the 'right' location. It states that this should be done through transparent, streamlined and proportionate regulation to minimise adverse impacts on other users of the marine and freshwater environment.

1.12 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. It is understood that this circular is being updated at the time of writing. The Aquaculture and Fisheries (Scotland) Act 2013 provides further regulatory and technical guidance.

1.13 To ensure the integration of land use and marine planning, the Marine (Scotland) Act 2010 makes provision for the production of marine plans, which must integrate with land use planning. All public authorities making decisions that affect or might affect the UK marine area must therefore do so in accordance with the UK Marine Policy Statement, the Scottish National Marine Plan and any subsequent Regional Marine Plan, unless relevant considerations indicate otherwise. This applies, but is not limited to, decisions on marine licensing, consents under Section 36 of the Electricity Act 1989 (as amended) and terrestrial planning applications and enforcement.

1.14 Public bodies must have regard to the UK Marine Policy Statement and relevant Marine Plans when making decisions that are capable of affecting the UK marine area but are not enforcement or authorisation decisions. This applies to the preparation and adoption of local development plans and to other terrestrial planning functions.

Decision making processes and application procedures

1.15 Applications for most finfish farms will require assessment under the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011. This involves screening, scoping and Environmental Statement stages, where appropriate. There is currently no requirement for shellfish sites to undergo EIA assessment but the planning authority has the right to request environmental information it requires in order to determine an application.

1.16 Regulation (EC) 853/2004 specifies the health conditions for the production and placing on the market of live bivalve molluscs, tunicates, echinoderms and marine gastropods, such as mussels, oysters, scallops and razor fish. Under Regulation (EC) 854/2004 the Food Standards Agency Scotland, as competent authority, must establish the location and fish the boundaries of shellfish harvesting areas. The local authority health department also has a role in the regulation of the shellfish industry.

1.17 Any proposal in a designated Natura 2000 site (see Box 3; Map 4 in the Spatial Strategy) may also have to undertake an Appropriate Assessment under the Habitats Regulations Appraisal process. The assessment is based on the conservation objectives and qualifying interests of the designated site. The Council must not authorise a development unless, by means of an Appropriate Assessment, it can ascertain that it will not adversely affect the integrity of a Natura site.

Box 3

Natura & Ramsar Sites & Marine Protected Areas

Natura is the term given to Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). These internationally important sites are designated under the EU Habitats and Birds Directives.

Ramsar sites are designated as internationally important wetlands. All Ramsar sites in Scotland are also either SPAs or SACs.

Of the 30 Marine Protected Areas (MPAs) designed in July 2014, 17 fall under the Marine (Scotland) Act 2010 in Scottish territorial waters and 13 in offshore waters under the Marine and Coastal Access Act 2009.

1.18 In addition to the Natura sites, helping to build an ecologically coherent network of sites, Nature Conservation Marine Protected Areas (MPAs) have been identified. These are for the protection of nationally important marine biodiversity and geodiversity features (see Development Criterion 3 for further information).

1.19 The Town and County Planning (General Permitted Development) (Fish Farming) (Scotland) Amendment Order 2012 allows for some minor alterations to aquaculture developments without the need for planning permission. However, developers must notify the local Planning Authority prior to undertaking any site alterations or extensions; this process is known as 'prior notification'.

1.20 The draft Planning Circular '*Planning Scotland's Seas: The relationship between the statutory land use planning system and marine planning and licensing*' requires public bodies to have regard to the relationship between the marine and terrestrial planning systems. This requirement is reflected in the National Marine Plan. This integration will be considered in more detail in the revised Local Plans as they are updated. As most aquaculture developments have some on-shore requirements e.g. shore base, storage, depuration/grading facilities, these should be considered within the planning application submissions.

1.21 Prior to the requirement in the National Marine Plan, The Highland Council established a pre-application advice service to provide clear, detailed guidance on development proposals. This helps ensure developers are aware of the key issues that need to be considered when planning a new site or modification to an existing one. This process can help avoid costly delays at a later stage and ensure developers are aware of the key material planning considerations likely to affect their proposals (see Section 4).

1 Introduction

1.22 Planning applications will be assessed for compliance with the policies of the Highland wide Local Development Plan or any subsequent local authority development plan, any relevant supporting guidance and other material considerations, including this supplementary guidance. Development proposals must therefore comply with all policies within the HWLDP and the supporting guidance. Where compliance cannot be assured in the first instance, the attachment of planning conditions may allow proposals to proceed. The application process is outlined in Annex 1.

1.23 When assessing a planning application, the Planning Authority will consult with various statutory consultees, depending on the type of application to be assessed, in accordance with the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013. Depending on the type of application being assessed, these may include:

- Scottish Ministers (done via Marine Scotland Science)
- Scottish Environment Protection Agency (SEPA)
- Scottish Natural Heritage (SNH)
- Historic Scotland and
- the relevant District Salmon Fishery Board (see Table 1).

In addition, the following may also be consulted, dependant on the type of application: Scottish Ministers via other Scottish Government departments, Ministry of Defence, Scottish Water, local harbour authority or any other organisations as may be applicable.

1.24 In accordance with legislation, applications for fish farms are also advertised, both on The Highland Council e-planning portal and in a newspaper circulating in the location of the development. This gives the local community and any other interested parties the opportunity to comment on proposals. Depending on the location, some freshwater sites may also have 'neighbour notification' requirements whereby residents within 20 meters of a proposed development should be notified.

1.25 The development hierarchy sets scale thresholds at which development become 'Major' development. For marine fish farms, major developments are those with an equipment surface area exceeding 2.0 hectares and therefore require additional consultation (see Section 4 for further information). All applications involving major development are expected to be accompanied by a Processing Agreement. The purpose of these agreements is to set realistic and achievable timescales on when an application will be determined, providing key milestones and targets that allow the process to be progressed in more formal project managed manner. In some instances, it may also be appropriate to have a processing agreement for local (i.e. non-major) planning applications.

1.26 Any planning permission granted will be for the benefit of the particular installation equipment within the specific location and for the culture of the species applied for. Planning permission is generally granted subject to a number of conditions. When a development is not operated within the confines of this permission it may be unauthorised development and, enforcement action may be taken. This is a formal process undertaken in accordance with the Town and Country Planning (Scotland) Act 1997 (as amended).

The role of other organisations

1.27 In addition to planning permission, aquaculture sites require a number of other consents and licences and advice depending on the type of aquaculture development proposed. Table 1 below outlines the main roles of each organisation. The Planning Authority will aim to ensure that planning controls exercised do not duplicate the controls and licensing requirements of other agencies. Further information on the role of the main statutory bodies is provided in the 'Working Arrangement Requirements for Statutory Consultees' document (see Section 4). Scottish Water is listed as one of statutory consultees in the planning legislation, but it is not listed in the aforementioned document or in the planning circular on controls for marine fish farming. Consultation with Scottish Water should therefore be assessed on a case by case basis.

Table 1 Role of key organisations involved in the aquaculture planning process.

Organisation	Applies to Finfish: Y/N	Applies to Shellfish: Y/N
Statutory Consultees		
Marine Scotland (MS)		
Marine Scotland enforces provisions under the Aquaculture and Fisheries (Scotland) Act 2007 in relation to containment and parasite control.	Y	N
It also implements measures that regulate the movement of live fish with a view to preventing the spread of fish/shellfish diseases.	Y	N
It issues a marine licence covering navigation issues and deposits in the marine environment, including discharges from well boats when used for treating fish.	Y	Y
When a commercial activity could cause disturbance to a European Protected Species, MS may issue a licence for the activity.	Y	Y
MS is the licensing authority for seals under the Marine (Scotland) Act 2010. It can issue licenses for the killing of seals to protect the welfare of farmed fish.	Y	Y
It issues consents for an Aquaculture Production Business Authorisation.	Y	Y
Scottish Environment Protection Agency (SEPA)		
Under the Water Environment (Controlled Activities) (Scotland) Regulations 2011, SEPA regulates activities which may pose a risk to the water environment. For finfish farming, SEPA sets limits on the types and amount of fish that be held in a cage configuration (fish biomass) and the amount of medicines (chemotheraputants) that can be administered and thus discharged into the environment from the fish cages. Known as a CAR licence, sites are assessed on	Y	N

1 Introduction

Organisation	Applies to Finfish: Y/N	Applies to Shellfish: Y/N
the likely effects of discharges from a development on both the water column and the benthic environment. CAR licences are not generally required for shellfish farms.		
Scottish Natural Heritage (SNH)		
<p>Scottish Natural Heritage is the statutory advisor in relation to Scotland's natural heritage. It advises on the Conservation (Natural Habitats, &c.) Regulations 1994 with regard to Natura sites (Special Areas of Conservation and Special Protection Areas), Marine Protected Areas and for European Protected Species. It also advises on other biodiversity, such as bird licensing, and landscape issues.</p> <p>It has produced two key documents to aid development:</p> <p><i>The Siting and Design of Aquaculture in the Landscape: Visual and Landscape Considerations 2011</i> and '<i>Guidance on Landscape/Seascape capacity for Aquaculture 2008</i>'.</p>	Y	N
District Salmon Fisheries Boards (DSFBs)		
Where an aquaculture development falls within the boundary of an area covered by a DSFB, that DSFB becomes a statutory consultee. Where developments are proposed outwith such an area Scottish Ministers fulfil the role of the DSFB through Marine Scotland. A review of the Boards' work published by Scottish Government in October 2014, recommends changes to their governance structure, among other things (see Section 4).	Y	N
Ministry of Defence (MOD)		
The MOD is only consulted when there is a possibility that a marine war grave has the potential to be disturbed by a development.	Y	Y
Scottish Water		
Scottish Water requests that aquaculture development does not impact on its assets that provide clean, safe drinking water. Development should therefore ensure it is located where it will not lead to Scottish Water being required to upgrade infrastructure to comply with a shellfish designation.	Y	Y
Statutory Consultees: EIA applications only		
Historic Scotland		

Introduction 1

Organisation	Applies to Finfish: Y/N	Applies to Shellfish: Y/N
Advise on aspects of cultural heritage of national significance. Historic Scotland has responsibility for management of the Historic Marine Protected Areas designated in 2013 to protect historically important shipwreck sites.	Y	N
Transport Scotland		
On behalf of Scottish Ministers, Transport Scotland provide advise on transport related issues.	Y	N
Other organisations with a role in aquaculture planning and consenting		
Crown Estate Commissioners		
<p>The Crown Estate manages approximately 50% of the foreshore, the beds of most tidal rivers and almost all of the territorial seabed out to 12 nautical miles. Most aquaculture developments will therefore require the necessary permissions from them to implement any planning consent, generally in the form of a seabed lease.</p> <p>Naturally occurring oysters and mussels in Scottish territorial waters form part of the ancient rights currently administered by the Crown Estate Commissioners. Preparations have been made for the transfer of existing rights and titles to Marine Scotland, on behalf of the Scottish Ministers.</p>	Y	Y
Harbour Authority		
Where a development lies within or adjacent to a harbour authority area, it may provide advice on navigational or operational issues.	Y	Y

2 Spatial Strategy

Background

2.1 The Spatial Strategy guides aquaculture developers to locations of least sensitivity for sustainable development and highlights areas of constraint. It aligns with the Scottish Government and The Highland Council’s objectives to support sustainable development of the aquaculture industry. It identifies potential areas for growth and areas sensitive to new or further fish farming development (see Maps 1-7 below).

2.2 The areas have been identified through the consideration of a range of material planning issues that have the potential to be affected by aquaculture development. These areas take into consideration the physical character of the area. The strategy also takes into account elements of the physical dynamics of the water bodies that are assessed by Marine Scotland.

2.3 Table 2 provides rationale for the spatial strategy and a brief overview of each map. Due to the large geographic area of Highland, it is recognised that the level of detail that can be shown is limited. However, more detailed mapping, including fine scale aspects, can be found on the National Marine Plan interactive (NMPi) website, hosted by Marine Scotland (see Section 4). In addition to the maps discussed, there are a number of other key spatial considerations that must be taken into account when considering aquaculture developments, as considered below.

Table 2 Background to maps 1-7

Map No./Title	Comment
1: Areas for Potential Growth	This map shows areas of least constraint in relation to designated areas. These areas represent areas for greatest growth opportunity.
2: Existing Aquaculture Sites	This map shows sites that have been granted planning permission or have been registered as “active” with the Fish Health Inspectorate. Some sites granted planning permission under the Scottish Government Audit/Review/Order process (2008-2015) do not have defined planning boundaries therefore the Council will refer to the previous Crown Estate lease where appropriate/available.
3: Shellfish Water Protected Areas	These areas are designated by SEPA to ensure the continued protection and improvement of Scotland’s shellfish growing waters.
4: Environmental Designated Areas	Sites designated for environmental reasons are covered by a range of legislation to ensure these assets and resources are maintained.
5: Wild Land Areas and National Scenic Areas	SNH guidance states that Wild Land Areas “are identified as nationally important in Scottish Planning Policy, but are not a statutory designation.”
6: Seal Hault-Out Sites	These are areas designated under The Protection of Seals (Designation of Seal Haul-Out Sites) (Scotland) Order 2014 to protect seals from harassment at their haul-out sites.

Map No./Title	Comment
7: Presumption Against Further Marine Finfish Developments	Scottish Planning Policy (SPP) (2014) retains a presumption against further marine finfish farm developments on the north and east coasts to safeguard migratory fish species.

2.4 To support developers, Marine Scotland produces locational guidelines maps. These maps classify sea lochs into category 1, 2 or 3 areas based on predictive modelling to estimate the nutrient enhancement and benthic impacts. As these maps are updated quarterly, developers should check the Marine Scotland website for the most up to date classifications. The modelling does not take other factors such as biodiversity, landscape or amenity impacts into account and does not cover large areas of the coast.

2.5 Shellfish Harvesting Classifications are determined and reported on by the Food Standards Agency (FSA). As these are regularly updated, developers should consult the FSA website for the latest information.

2.6 Whilst the HwLDP (2012) and any supporting guidance remains in force, the spatial guidance provided in these documents will be a material consideration (see para 1.3).

2 Spatial Strategy

Spatial Strategy

Spatial Policy 1

Spatial Policy 1: Areas for Potential Growth

The Broad Areas of Search have potential capacity to accommodate sustainable growth of aquaculture.

Broad areas of potential growth are shown in Map 1.

Spatial Policy 2

Areas of Potential Sensitivity

The following areas have the potential to be affected by aquaculture development and may therefore be considered as constraints to development:

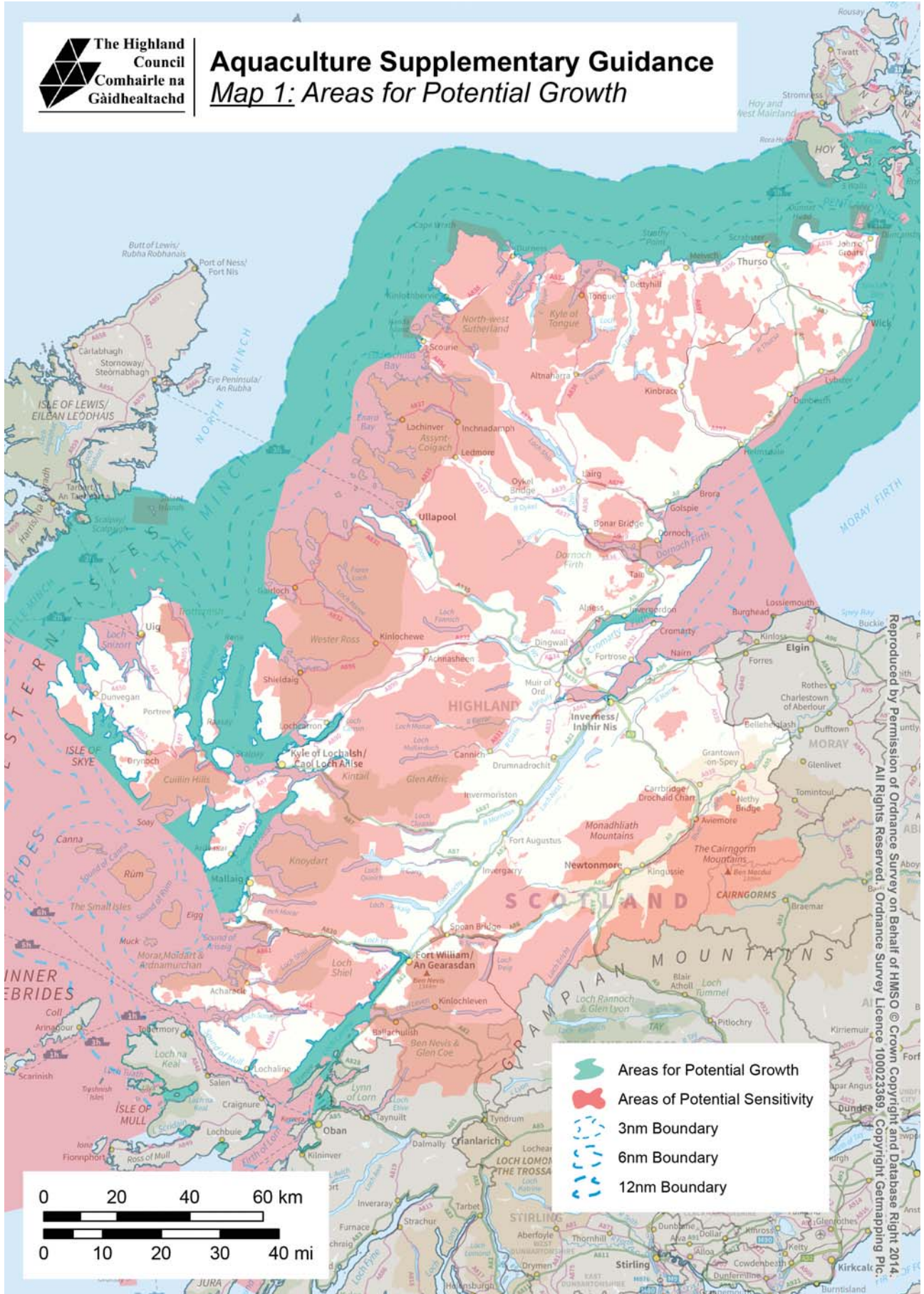
- Special Protection Areas
- Special Areas of Conservation
- Ramsar sites
- Marine Protected Areas
- National Scenic Areas
- Sites of Special Scientific Interest
- Special Landscape Areas
- Shellfish Water Protected Areas
- Scheduled Monuments
- Conservation areas
- Designated war graves
- Ferry and shipping routes
- Admiralty Charted Anchorages
- Harbours
- Marine cables, outfalls and pipelines

The maps at the start of this document show detailed spatial information for some of the sensitivities listed above. Aquaculture proposals will be required to demonstrate these potential sensitivities have been satisfactorily addressed in accordance with the Development Criteria.



Aquaculture Supplementary Guidance

Map 1: Areas for Potential Growth



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2 Spatial Strategy



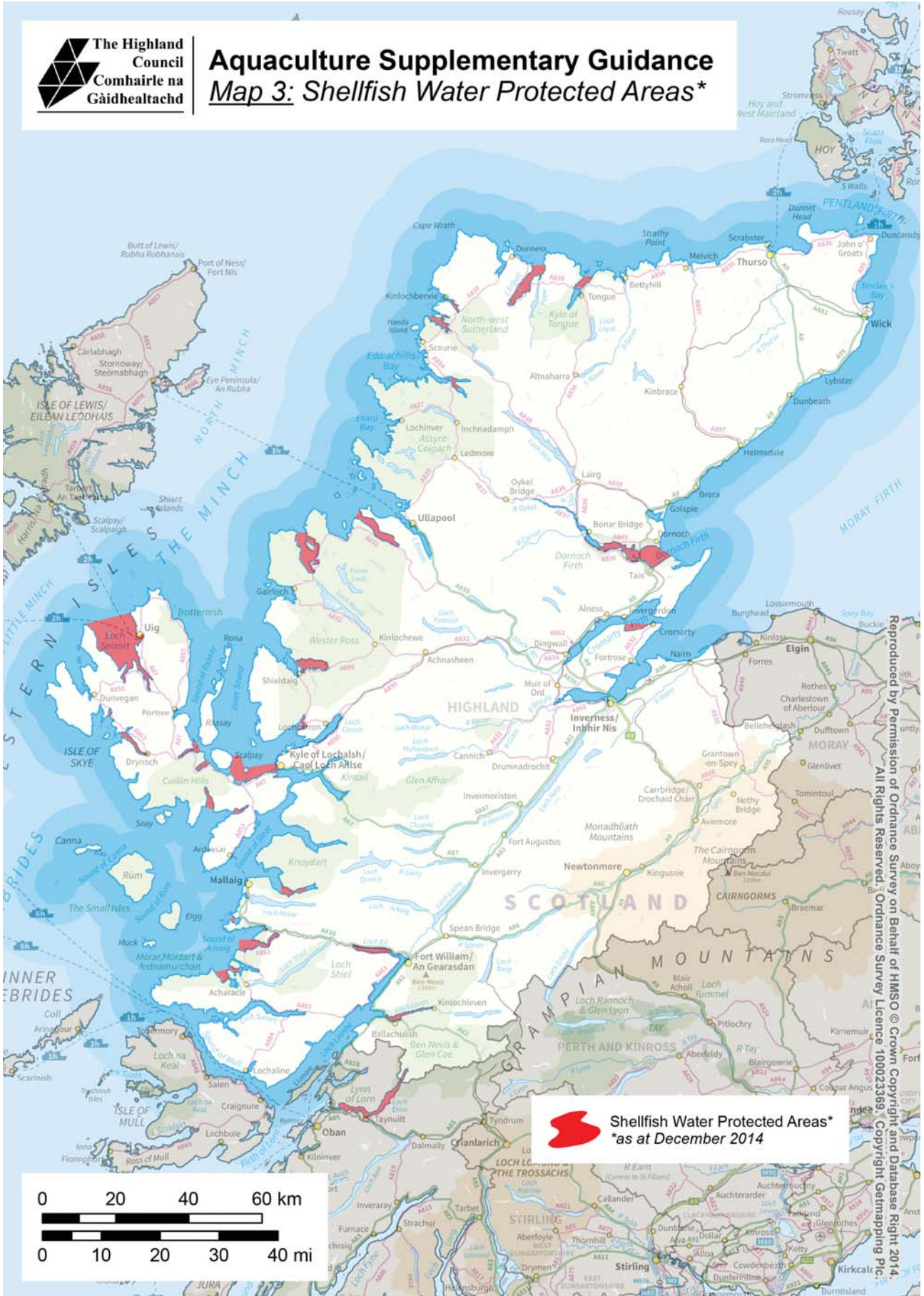
Aquaculture Supplementary Guidance

Map 2: Existing Aquaculture Sites





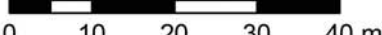


Aquaculture Supplementary Guidance
*Map 3: Shellfish Water Protected Areas**



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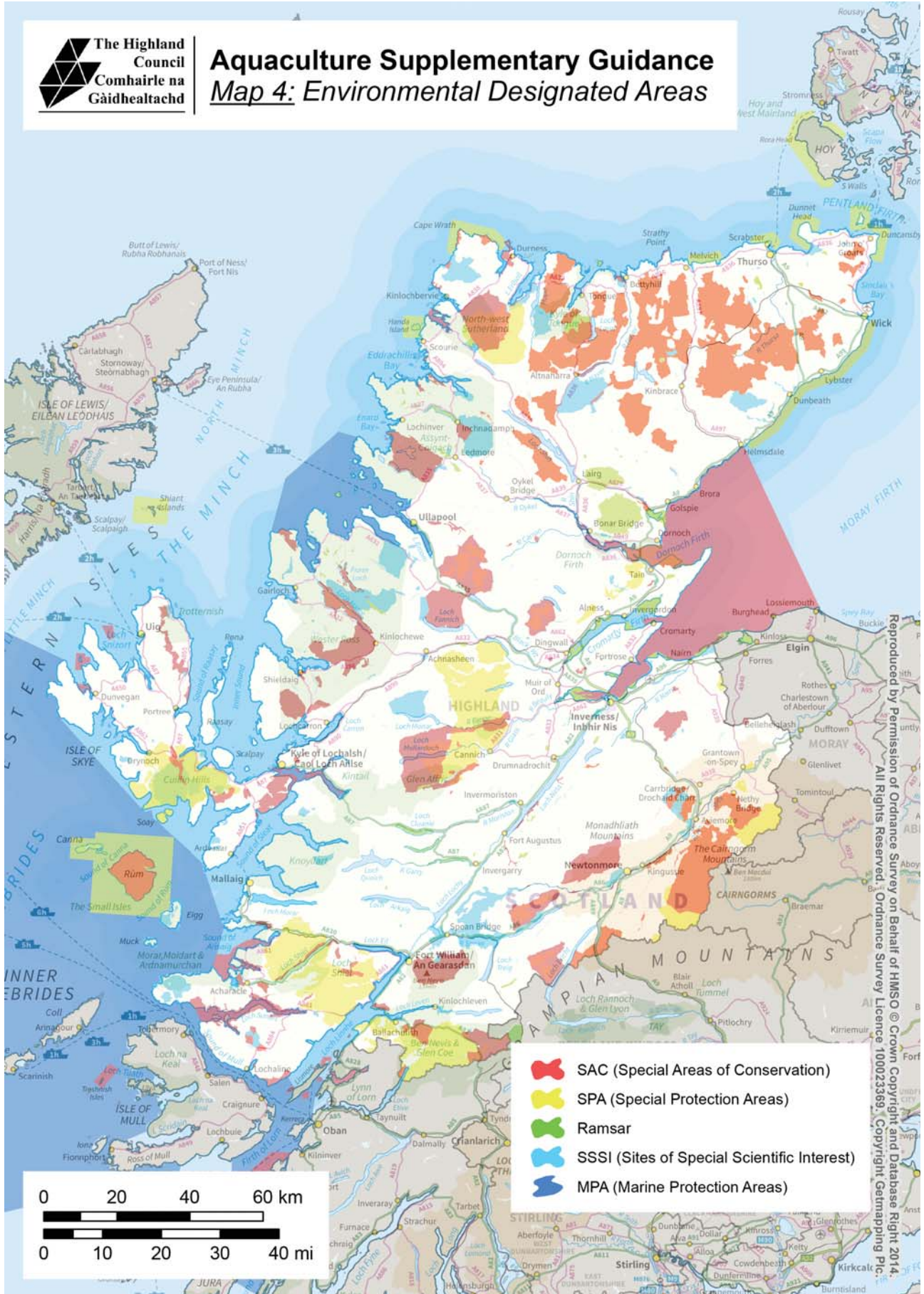
 **Shellfish Water Protected Areas***
 *as at December 2014

0 20 40 60 km

 0 10 20 30 40 mi


2 Spatial Strategy

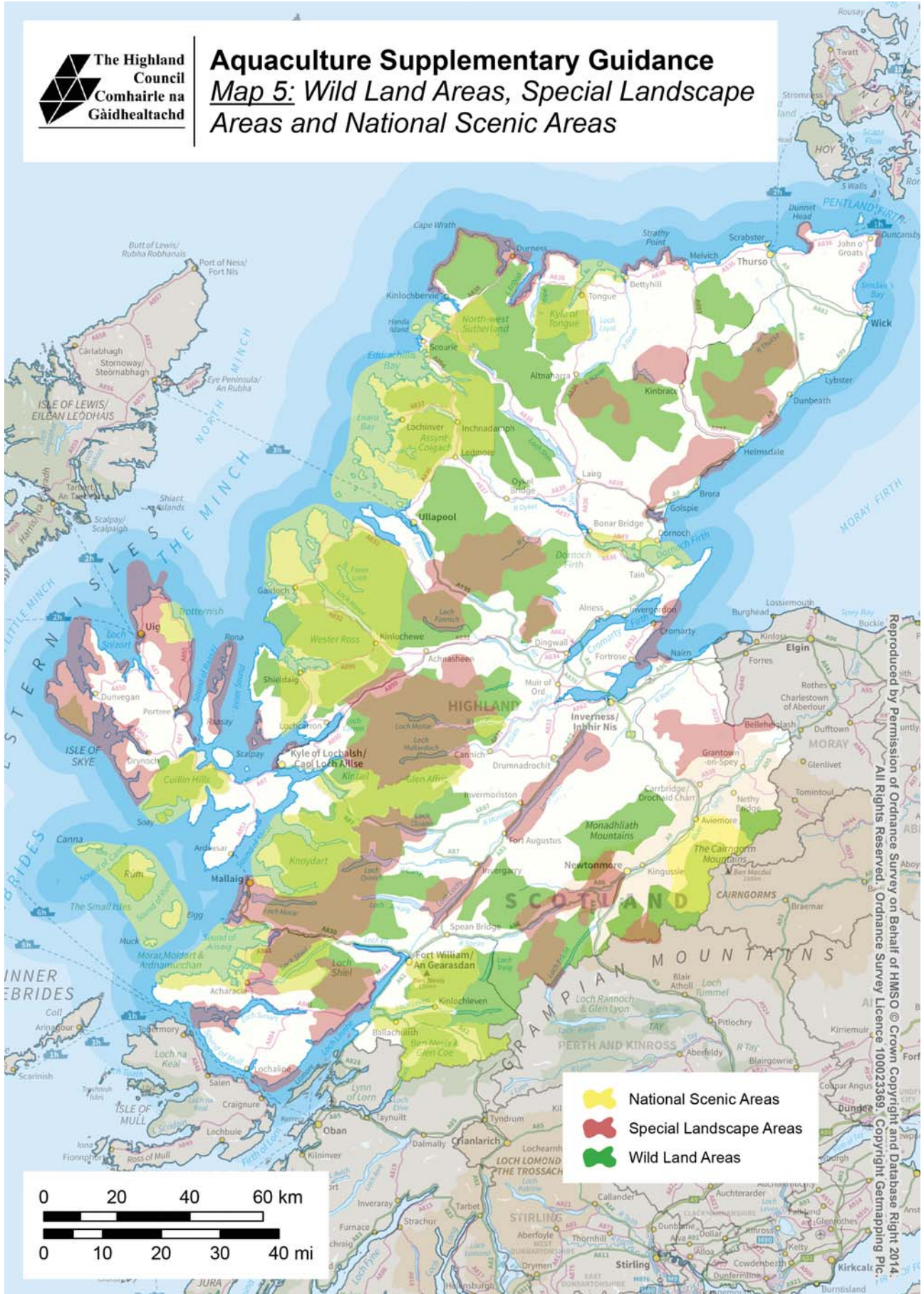


Aquaculture Supplementary Guidance Map 4: Environmental Designated Areas





Aquaculture Supplementary Guidance
Map 5: Wild Land Areas, Special Landscape Areas and National Scenic Areas



2 Spatial Strategy



Aquaculture Supplementary Guidance Map 6: Seal Haul-out Sites



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Aquaculture Supplementary Guidance
Map 7: Areas of Presumption Against Further Fin Fish Development



3 Development Criteria

Development Plan Considerations

3.1 All proposals for aquaculture development in Highland marine and freshwater environments will be assessed against the spatial strategy and the Development Criteria provided in this section, as listed in Table 3. Each development criterion below has supporting text that outlines the various topics covered, followed by the criteria boxes.

Table 3 Development Criteria

Number	Criterion
DC1	Landscape/Seascape
DC2	Historic Environment
DC3	Biodiversity
DC4	Water Quality
DC5	Other Marine Users
DC6	Construction, Operation and Decommissioning

Development Criterion 1: Landscape/Seascape, Siting and Design

Topics covered:

- **Landscape**
- **Seascape**
- **Siting and Design**
- **Wild Land/Unspoiled Coast**
- **Amenity**
- **Separation Distances**

3.2 Aquaculture installations are established features of the Highland coastline. Most of the active sites are located within sheltered sea lochs or in the lee of small islands. In some instances, mussel sites have a much lower impact on the landscape and/or seascape compared to finfish farming due to the low-profile equipment used. However, in some instances a relatively high concentration of developments can have a significant impact, particularly in constrained lochs and bays. Oyster sites currently tend to be located in the intertidal zone where large areas of trestles are visible for less than half of the tidal cycle. Finfish development has moved from relatively compact sites made up of rafts of square cages towards plastic circular cages which are trending towards significantly larger sizes. With increasing farm size and cage infrastructure comes the need for the larger feed barges which have appeared in recent years. Such installations can dominate some landscapes, impacting the amenity value of an area.

3.3 New aquaculture development should not dominate the landscape setting or become the main feature in views. Proposals should not materially impact on the overall quality of the landscape. Material impact includes a change to the established landscape or seascape pattern that significantly affects its general understanding or enjoyment.

3.4 The Highland Council area has 15 National Scenic Areas that are designed for their outstanding scenery, representing some of Scotland's finest landscapes. All but two have a coastal and/or marine element, where seascape is also a consideration. There are 27 Special Landscape Areas, which are features of local or regional importance identified by the Council as being large scale areas of regional importance for scenic quality or as small scale areas of local scenic and recreational value (see Appendix 2 of the HwLDP). Freshwater aquaculture proposals may also have designated landscape site considerations. Out with these designed sites (see Maps 4-5), there may be greater scope for the environment to accommodate development. However, there may still be local sensitivity arising from the characteristics and visibility of a particular site, which has to be addressed in landscape terms.

3.5 The siting, layout and design of aquaculture proposals should reflect the character of the surrounding landscape. Developments should take into account the effects on visual amenity. As per the SNH guidance (Table 1 & Section 4), they should follow the dominant line of the coast and should avoid filling up a bay or its entrance. Where the siting is appropriate, the scale and design of the equipment configuration, including the materials and colour schemes used, should ensure that the proposed development will be absorbed into the landscape/seascape with minimal intrusion.

3.6 Some applications may require a Landscape and Visual Impact Assessment, either as a stand alone document or as part of an Environmental Statement (see para 1.16). The assessment should consider the likely impact from significant receptor points, including popular public viewpoints,

3 Development Criteria

transport routes, the core path network, visitor locations and historic sites. Guidance from the Planning Authority, including viewpoints for photomontages, on key sites and aspects to be considered, will be given at the pre-application advice stage and at the scoping stage, if relevant. The cumulative impacts with existing aquaculture and other maritime developments and activities should also be considered.

DC 1.1

Landscape, Seascape, Siting and Design

Aquaculture development that is likely to have a significant adverse impact, including cumulative impact, on the Highland landscape, seascape or visual amenity that cannot be mitigated to the satisfaction of the Planning Authority will not be permitted.

Proposals for aquaculture developments with the potential to have adverse effect on landscape, seascape or visual amenity should be accompanied by a Landscape and Visual Impact Assessment (LVIA). This should be produced in accordance with current best practice and guidance e.g. the Landscape Institute 'Guidelines for Landscape and Visual Impact Assessment'.

Developers should seek pre-application advice from the Council and Scottish Natural Heritage to inform decisions relating to siting and design and the scope and content of any LVIA. This may be done as part of an Environmental Statement for finfish sites where appropriate or independently for shellfish sites. Visualisations should be done in accordance with Highland Council '*Visualisation Standards for Wind Energy Developments*'.

3.7 The coasts around Highland are famous world-wide for their quality landscapes, tranquil glens and intimate lochs. To help further protect the most important of these areas, a number of 'Wild Land Areas' have been identified (see Map 5). The National Planning Framework recognises wild land as a nationally important asset, and indicates Scotland's wildest landscapes merit strong protection. Wild land is also identified as nationally important in Scottish Planning Policy, but is not a statutory designation. In addition, Highland has many areas of largely unspoilt coast that are generally unsuitable for development. Aquaculture development must therefore be able to demonstrate that any significant effects on the qualities and amenity value of these areas can be avoided by appropriate location or substantially overcome by sensitive siting, design or other mitigation.

3.8 Highland currently has eleven prime beaches with excellent water quality, as recommended by the Marine Conservation Society. These beaches meet higher standards than those required under the revised Bathing Water Directive (2006/7/EC), which was enacted in Scotland by the Bathing Waters (Scotland) Regulations 2008, as monitored by SEPA. Most of these high quality beaches are located on the north and east coasts, with only one on the west coast, namely Achmelvich beach. In addition, there are many other beaches that are of significant tourism and recreational value in Highland. Potential impacts on any beach should therefore be considered by aquaculture development proposals, where appropriate.

DC 1.2**Wild Land & Unspoiled Coast**

Development proposals should ensure that:

- the character of areas of wild land is safeguarded;
- the character of unspoiled sections of coast is safeguarded.

3.9 As the west coast of Highland contains a number of relatively constrained lochs, this limits the carrying capacity for the number of sustainable aquaculture developments it can reasonably contain. Proposals for new aquaculture sites will therefore have to consider the proximity to existing aquaculture sites.

3.10 Historically, the Crown Estate set out indicative separation distances setting minimum distances between finfish and finfish, finfish and shell-fish and shell-fish and shell-fish. These separation distances were removed from Scottish government locational guidelines in 1999 on the basis that the hydrography and tidal excursions between individual sites presented a clear indication of the risk of disease transmission between sites. The Council has reached the view that minimum separation distances between sites remain of value in planning terms in order to avoid additional visual impacts resulting from the cumulative development of sites in close proximity to each other. In this regard the Council considers that the separation distances previously used by the Crown Estate represent a reasonable spatial safeguard to prevent the over development of coastal water-bodies. Adequate separation between individual developments will be required to minimise the potential for disease and infection transmission.

DC 1.3**Separation Distances**

Proposals for new finfish sites will not be granted planning permission for developments situated within 1,000m of the extent of any other approved finfish farm boundary or any water intakes/outfalls associated with shore based finfish rearing facilities, or within 500m of the extent of any approved shellfish farm boundary.

Proposals for new shellfish sites will not be granted planning permission for developments situated within 500m (measured as the water flows) of the extent of any other approved aquaculture developments or any water intakes/outfalls associated with shore based finfish rearing facilities, or shellfish washing and/or depuration facilities.

Where developers seek to address issues of sustainability, biosecurity or environmental benefit through site relocation, amalgamation or revocations, the Planning Authority may be minded to seek greater separation distances as it deems appropriate.

Guidance on separation distances for proximity to rivers supporting wild salmonids will be considered once guidance due from MSS in June 2015 is available.

3 Development Criteria

The impact on 'Views over open Water' will be considered where developments are close to residential properties, roads and heritage and amenity features.

Development Criterion 2: Historic Environment

Topics covered:

- **Historic Environment**
- **Historic Marine Protected Areas**

3.11 Highland's historic environment makes a valuable contribution to the distinctive character of the area, the sense of place, identity and quality of life. As well as fulfilling a vital role in showcasing the vibrancy of Highland culture, the historic environment is a key economic driver. Historic environment assets currently include designations such as Conservation Areas, Battlefields, Gardens and Designed Landscapes, over 3,000 listed buildings, 1,236 scheduled monuments and a further 52,000 historic buildings, structures and archaeological sites.

3.12 To help preserve these valuable and irreplaceable assets, the Highland Historic Environment Strategy Supplementary Guidance defines the Council's approach to the protection of the historic environment through the planning process. The guidance is supported by the Historic Environment Record (HER) that provides details and maps of all recorded historic environment assets. The HER is not, however, a definitive or comprehensive record; it is continually updated as new sites and information comes to the attention of the Council.

3.13 The Marine (Scotland) Act 2010 established a new power to designate Historic Marine Protected Areas. Under these powers, seven MPAs are currently designated, four of which are in Highland. The Highland MPAs currently covers vessels that were wrecked around 1590 to 1690. The wrecks are a key link to understanding historic ship design and use, and may additionally contain artefacts that do not survive on land and that can offer valuable insights to our understanding of the past.

3.14 The terrestrial, coastal and marine historic environment should be a consideration in any Landscape and Visual Impact Assessment and/or Environmental Impact Assessment. The assessment should include the impacts of a development on all historic environment assets, whether designated or undesignated. It should include wrecks, sites, deposits, buildings and both submerged and terrestrial archaeological landscapes, as well as their setting. Some sites, such as designated features and protected war graves, may require additional assessments on potential sedimentary or biological changes that the developments may have.

DC 2.1

Historic Environment

All aquaculture planning applications shall consider potential direct, indirect and cumulative impacts on the historic environment.

Applicants will be required to identify and undertake any mitigation measures required to avoid, reduce or minimize any adverse impacts on the historic environment to the satisfaction of the Planning Authority.

The special characteristics and qualities of Historic Marine Protected Areas shall be safeguarded.

3 Development Criteria

Aquaculture development will not be permitted in locations where it would have a significant adverse effect on historic environment resources.

Development Criterion 3: Biodiversity

Topics covered:

- **Environmental Designated Areas**
- **Protected Species**
- **Appropriate Assessment**
- **Seals**
- **Wild Salmonids**
- **Sea Lice**

3.15 The term 'biodiversity' covers all plants and animals and their habitat, along with their genetic variation. The Highland area is rich in marine habitats and species that collectively make up diverse biological communities. The east coast is dominated by sea cliffs in the far north-east and low-lying firths over much of the rest. The north and north-west coasts are mainly sea cliffs with some narrow sea lochs. The west coast is a mix of relatively narrow sea lochs and sheltered bays. Each coast offers varying opportunities for aquaculture development.

3.16 Along with all other public bodies, the Planning Authority has a duty to further the conservation of biodiversity under the Nature Conservation (Scotland) Act 2004 when exercising its functions. The Wildlife and Natural Environment (Scotland) Act 2011 requires public bodies to prepare and publish a biodiversity report on their compliance with the biodiversity duty. Whilst some marine species, such as many seabirds, have varying levels of protection under the Wildlife & Countryside Act 1981, some are so endangered they require special protection.

3.17 A key mechanism for protecting biodiversity (see Maps 4-6) is the use of designated habitats and species under the Habitats and Birds Directives (see para 1.18 & Box 3). These are protected Natura 2000 areas and the associated flora and fauna represent the most valuable and vulnerable habitats and species in an international and/or national context (see Map 4). In addition, the first qualitative descriptor in the Marine Strategy Framework Directive (see Box 4) requires that biological diversity is maintained. Marine Protected Areas (see Box 5) will also play an important role in helping to safeguard marine biodiversity.

Box 4

Marine Strategy Framework Directive

Fundamental aims of the MSFD are to:

- ensure that priority should be given to achieving or maintaining Good Environmental Status (GES) in the EU Community's marine environment;
- to continuing its protection and preservation and;
- to preventing subsequent deterioration.

This will be done through adherence to targets, for which 'descriptors' of GES have been established.

3 Development Criteria

Box 5

Highland Nature Conservation Marine Protected Areas (MPAs)

The Scottish Marine Nature Conservation Strategy (2011) explains the approach that was taken to develop a coherent network of nature conservation Marine Protected Areas. These designated sites will protect biodiversity and geodiversity but may still allow multiple uses of low impact activities that do no damage the ecological integrity of the sites. The MPAs in Highland are shown on Map 4.

The Planning Authority must notify Scottish Ministers if it believes that there may be a significant risk of hindering the stated conservation objectives of the Nature Conservation MPA.

3.18 Species protected under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) legislation are generally known as European Protected Species. All cetacean species, along with seals (both grey and harbour) are given protection under this legislation. As these are mobile species, particular care is required when any aquaculture development may impact on their migratory routes or key feeding or calving areas, as the animals are unlikely to be present all year round. A license is required from Marine Scotland if the animals are likely to be injured or disturbed by aquaculture activities.

3.19 Other species, such as otters, eagles and some diving birds are also European Protected Species, therefore have the highest level of species protection (see Box 3 for information on Natura sites). Some protected species of diving birds such as eider ducks may pose a threat to mussel sites by stripping the mussels off longlines. Detailed information on the deterrent measures or other types of mitigation proposed should be supplied with an application where such predation is likely to be an issue. The Planning Authority will be advised by Scottish Natural Heritage and Marine Scotland in relation to potential effects on protected species. SEPA will also provide information on the potential impacts on the seabed communities, also known as the benthic habitat, some of which require protection or mitigation measures.

3.20 The Marine (Scotland) Act 2010 makes specific provision for the conservation of seals. However, to protect the health and welfare of farmed fish, the Scottish Ministers may grant a licence authorising the killing or taking of seals. Should a development be likely to require a licence, this aspect should be covered as part of the predator control section of an Environmental Statement.

3.21 The degree of impact that an aquaculture development will have on biodiversity will depend on the scale and type of development. Mussel sites generally have a much lower impact on biodiversity compared to finfish farming due to the limited operational input required. Pacific oyster (*Crassostrea gigas*), a non-native species, forms the bulk of oyster species cultivated. It may complete for habitat and have the potential to harbour disease affecting other shellfish species e.g. native oyster (*Ostrea edulis*). Finfish developments have the greatest potential to have negative impacts on biodiversity due to the volumes, methods of farming and inputs required. Some elements of these aspects are governed by other agencies, as discussed in para 1.28, but are taken into account during the planning process.

DC 3.1**Designated Habitats and Species**

Development or activities will not be permitted that would likely have significant adverse effects, either individually or cumulatively, on the qualifying interests and integrity of Natura 2000 or Ramsar sites.

Development or activities likely to have a significant effect on a Natura 2000 or Ramsar site and not directly connected with, or necessary to the conservation management of the site, would be subject to an Appropriate Assessment in order to assess the implications for the site's conservation objectives.

Aquaculture development will only be permitted where there is no significant adverse impact on the qualifying interests and integrity of a:

- Marine Protected Area;
- European Protected Species;
- Priority Marine Feature;
- Site of Special Scientific Interest.

Development and activities should consider the impacts on wider biodiversity and ensure these are minimised and mitigated.

To the satisfaction of the Planning Authority, planning applications must be supported by an assessment of the likely impact and the potential mitigation measures.

Where the significant effects on a designated habitat or species remain uncertain but there are scientific grounds for believing that severe damage could occur, the Precautionary Principle will apply.

3.22 Salmon and trout are key species of our Highland rivers and coastal waters. An objective of the National Marine Plan is to maintain healthy salmon (and diadromous fish) stocks. This therefore requires effective management of both marine and freshwaters i.e. an integrated approach. In the freshwater environment, some rivers are designated as a Special Area of Conservation (SAC) to protect salmon in the freshwater part of its life cycle. To complement this, both salmon and trout are now designated as Priority Marine Features for the marine part of their life cycle.

Box 6**Trout (*Salmo trutta*)**

The sea trout is a brown trout that migrates to the sea for a part of its life cycle, returning to freshwater burns to spawn. During its sea phase, it tends to transit close to the shore.

Sea trout is a Priority Species in the UK Biodiversity Action Plan list, the Scottish Biodiversity List and is a Priority Marine Feature.

3 Development Criteria

Box 7

Priority Marine Features

Priority Marine Features are listed as habitats and species considered to be of conservation importance in Scotland's seas. Although many PMFs are in Natura sites, not all covered by this designation.

They include many features which are characteristic of the Scottish marine environment, ranging from flame shell beds in coastal waters, to cold-water coral reefs of the deeper seas, and mobile species such as minke whale and basking shark.

The list of PMFs will be used to help focus future conservation action and marine planning, direct research and education and promote a consistent approach to marine nature conservation advice.

To produce the list, species and habitats on existing conservation schedules were assessed against criteria that considered whether a significant proportion of their population occur in Scotland's seas, whether they are under threat or in decline and the functional role they play.

3.23 During their migrations from freshwater to the sea and their return, salmon and trout tend to stay relatively close to shore. In constrained sea lochs along the west Highland coast, their route can take them very close to finfish farms. This can result in:

- Higher than background levels of sea lice and potential disease impacts on wild fish from fish farms;
- Genetic dilution of wild stock from interbreeding of escaped salmon from the fish farms;
- Introduction of non-native farmed species.

3.24 Sea lice occur naturally in wild salmonid populations. Where they encounter a fish farm, the population of lice can increase dramatically due to the intensive nature of finfish farming. These inflated lice numbers in turn can re-infect wild populations, compromising individual infected fish and potentially have wider population-level impacts.

3.25 Whilst Marine Scotland and SEPA have various control measures for sea lice, these mainly relate to the farmed fish. In the apparent absence of any other source of regulation, the use of the planning development regime to seek to safeguard wild salmonids from sea lice infestation from a fish farm would not duplicate a more specific control available under other legislation. Consideration therefore of impacts of aquaculture development on wild salmonids is undertaken by the Local Authority at the planning stage. This is done, in consultation with statutory consultees, to ensure the Planning Authorities' biodiversity duty is upheld.

Development Criteria 3

3.26 Sea lice infestation appears to be a dynamic issue, where new information, research results and management practices are in a state of ongoing development and improvement. For example, Marine Scotland is undertaking a project on aquaculture that includes consideration of the spatial constraints of aquaculture in relation to wild salmonids, which was due to report in March 2015. This information will be considered once it becomes available.

3.27 Where the Planning Authority is of the view there may be a likely significant effect on wild salmonids due to elevated levels of sea lice emanating from a fish farm development, it may require an environmental management scheme as a planning condition. Where appropriate it may be necessary for the Planning Authority to provide an opportunity for alternative forms of sea lice control and culture techniques to be introduced or to time-limit planning applications in order to determine likely impacts on wild salmonids, taking account of improved knowledge and best practice.

3.28 In some regions, Area Management Agreement areas have been established with fish farming companies, owners of significant rivers and other relevant wild salmonid interests.

DC 3.2**Wild Salmonids and Sea Lice**

Aquaculture development will only be permitted where:

- there is no significant adverse impact on wild salmonid populations;
- cumulative impacts on wild salmonids have been assessed and mitigated
- where appropriate.

Where appropriate, mitigation measures to be followed in relation to the management of sea lice and their potential impacts on biodiversity must be contained within an environmental management plan to be submitted in support of the planning application.

3 Development Criteria

Development Criterion 4: Water Quality

Topics covered:

- **Water Quality**
- **Benthic impacts**

3.29 Aquaculture development and activities rely on high water quality. Finfish cages have the potential to impact the water column and seabed (benthic impact) from the discharge of treatment chemicals, waste feed, feed treated with anti-seallice chemicals and fish faeces. Aquaculture development therefore requires a degree of tidal flushing to disperse waste materials and provide plankton for shellfish developments. Under the River Basin Management Planning (RBMP) Process, the status of freshwater, transitional and coastal water-bodies is assessed and monitored against a range of criteria. The aim is for all water-bodies to reach good ecological status within a specified timeframe.

Box 8

Good Ecological Status

The Water Framework Directive (WFD) aims to achieve 'Good Ecological Status' for all waters from Mean High Water Springs out to three nautical miles by 2015. The Directive was transposed into Scottish law by the Water Environment and Water Services (Scotland) Act 2003.

3.30 The RBMP process is managed by SEPA, which provides datasheets for all water bodies. These set out the status and identified pressures within that water-body that will adversely impact on water quality. Measures are suggested that can help mitigate, remove or reduce those pressures. In determining planning applications for aquaculture developments in both the Marine and Freshwater Environment, the Council will have regard to the RBMP status of the receiving water body and whether or not proposed development will result in increased pressures on it.

3.31 When alterations or extensions to an existing fin fish farm would increase the biomass or extend the equipment used, additional information would be required by both the Planning Authority and SEPA to ensure benthic habitats and water quality are not adversely impacted. Evidence would be required to assure SEPA that additional impacts would be within acceptable limits before it can recommend the Planning Authority to approve an application.

3.32 Many Highland fin fish farms make use of well boats for the treatment of fish for sealice or disease. Where these activities require discharges from the boat, which may affect water quality, a Marine Scotland licence is required (see Table 1).

3.33 SEPA guidance suggests that new shellfish development should be located within what are now known as 'shellfish water protected areas' (SWPA) (see Map 3). The boundaries of these may be updated by SEPA as required. Developers should consult with SEPA to ensure they have the latest information. However, for applications which propose to develop outwith these areas, SEPA advise it will not object, but will provide advice as to the likely suitability of the waters and highlight where there may be issues that would impeded a site being designated as SWPA. A

Development Criteria 3

package of Scottish Government measures ensures the continued protection and improvement of these shellfish growing waters. These measures are integrated within the river basin management planning process and the water quality within the designated areas is regularly monitored by SEPA. These areas are ultimately protected to ensure good quality products that are safe for human consumption.

DC 4.1**Water Quality**

Proposals for new marine finfish farming development and/or extensions to existing sites will not be permitted in locations where they would have a significant adverse impact on water quality.

Where appropriate, proposals will require to be accompanied with modelling and calculations that demonstrate that the benthic and water column impacts are localised and within environmental limits.

3 Development Criteria

Development Criterion 5: Other marine users

Topics covered:

- **Inshore fishing**
- **Recreational users**
- **Navigation**

3.34 Development in the marine environment has increased significantly in the last few decades. This has driven the need to a more formalized approach to resource utilization in the form of marine spatial planning. Any proposal for aquaculture development in the coastal area therefore has to consider a wide range of other marine activities and resource use and vice versa (see Table 4). These activities may have an economic, environmental and social impact both in the sea and on neighbouring land.

3.35 Many Highland marine activities make significant contributions to the local economy and support fragile, remote communities. These include fishing, ports and harbours, renewable energy, recreation and leisure.

3.36 Inshore fishing in particular has a long history around the Highland coast and can be one of the main competitors for space with aquaculture. Whilst acknowledging the data limitations, information from the Scotmap projects suggests this pressure may be particularly found along areas off the west coast and off north-west Skye. This project targeted all Scottish registered commercial fishing vessels under 15 meters. The data were collected during face-to-face interviews with individual vessel owners and operators and relate to fishing activity for the period 2007 to 2011.

3.37 Coastal tourism supports a variety of related business such as wildlife tour boats, sailing, accommodation, cafes and restaurants. Further detailed information about each of these sectors will be available once the various Regional Marine Plans are developed by the Regional Marine Partnerships, as proposed by Scottish Government under the Marine (Scotland) Act 2010.

Development Criteria 3

Table 4 Examples of other marine users and potential interactions with aquaculture development*.

User/Activity	Potential Interactions	
	Finfish	Shellfish
Creel fishing	May compete for space, leading to perceived displacement and socio-economic impacts. Detritus from fish farms may have localised effects.	May compete for space, leading to perceived displacement and socio-economic impacts.
Existing aquaculture	Use of shared infrastructure e.g. piers May compete for space. Adequate separation distances between other finfish sites are required to reduce potential for disease and infection transmission.	Use of shared infrastructure e.g. Piers. May compete for space.
Marine renewable energy developments	Negligible at present but may change as offshore wind, wave and tidal schemes develop. May be opportunities for synergistic benefits.	Negligible
Marine cable routes and pipelines	Cable and pipeline routes may affect existing or new fin fish sites but effects likely to be restricted to installation stages.	Negligible
Yachting/Pleasure craft	Poorly sited developments may encroach on or take over natural anchorage or impede navigation.	Poorly sited developments may encroach on or take over natural anchorage or impede navigation.
Recognised dive sites	Opportunity for shared access to piers. Acoustic Deterrent Devices (ADDs) may impacts on divers' enjoyment of a site.	Lines or trestles close to shore may impede access.

*Note: A detailed assessment of interacting factors would be undertaken on a case-by-case basis: this list provides examples only.

3 Development Criteria

DC 5.1

Other Marine Users**

Aquaculture development will only be permitted where, in the view of the Planning Authority:

- there is no significant adverse impact on other marine users;
- existing fisheries have been considered and where appropriate, effects mitigated.

Developers should consult with the relevant harbour authority and Marine Scotland at an early stage in the planning process to consider any potential navigation and shipping issues, where appropriate. Details of such considerations should be provided in any subsequent planning application.

Developers should consult with local fisheries interests at an early stage where there is evidence of fishing activity in the area of the proposed development.

Development will not be permitted where there would be adverse effects on the amenity value of anchorages and harbours, including their approaches, would be compromised.

Where appropriate, opportunities for shared use of jetties, piers and harbours should be considered.

Access to the foreshore for recreational activities, recognised yacht anchorages and dive sites should not be impeded.

**Note: given the large geographic size of Highland, it is impracticable to map the variety of existing users. However, where local information is available, the Planning Authority will aim to provide this information at the pre-application stage. The Planning Authority would expect developers to take a common sense approach to identifying other key marine users likely to be affected, or affect their development proposals and discuss appropriate mitigation in submitted applications.

Development Criterion 6: Construction, Operational & Decommissioning Impacts

Topics covered:

- **Equipment**
- **Amenity**
- **Access**
- **Waste**
- **Light**
- **Noise**
- **Predator Control**
- **Decommissioning**

3.38 Aquaculture developments have the potential to impact on neighbouring users, wildlife and the landscape. The trend for finfish developments to use increasingly larger cages and feed barges and for more extensive mussel and oyster farms has led to increased visual and amenity pressures. Additional or extended aquaculture sites increases the amount of boat traffic and other operational issues.

3.39 To help reduce such impacts, mitigation measures may be required. Developers may therefore be required to provide information on issues such as visual impact, light, noise and odour mitigation measures in support of their applications. The main considerations are:

1. Equipment

Poor choice of colour or design of equipment can have a significant impact on the surrounding landscape or seascape. The height of some equipment can make it more difficult to assimilate in the landscape and seascape therefore low-profile designs are generally preferable. With the growing trend for the finfish farming equipment used to be larger, e.g. 400T feed-barges and higher top-nets, additional mitigation may be required. Whilst there may be a drive within the industry for standardized equipment, a 'one size fits all' approach is not appropriate in some areas of Highland. All aquaculture equipment should fit with Sustainable Design policy (No. 28) in the HwLDP. Equipment, other than navigational markers, should be in muted, matt colours that to blend into the surroundings. Where other colouration would be more appropriate, written permission should be obtained in advance from the Planning Authority.

2. Amenity

The amenity value of an area can be impacted by aquaculture activities that introduce new structures that are unsympathetic to the surroundings or existing pattern of use. Amenity value can be defined as natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes. An assessment of the amenity impacts may be particularly helpful in proposals for new developments or significant amendments to existing sites.

3. Access

Particularly where developments are proposed in remote areas and road access is required, developers may be required to undertake an access assessment. Where operations require access to the intertidal zone e.g. tractors and trailers used for oyster harvesting, an assessment of the impact on pedestrian and leisure use access may be required. Harbours, piers, jetties and pontoon are key access points for both aquaculture and many other marine activities, allowing opportunities for shared use.

4. Waste

3 Development Criteria

Waste from aquaculture has the potential to harm wildlife, cause unsightly litter, particularly in otherwise relatively pristine areas or become an obstruction or navigation hazard.

Development proposals should include information on how waste will be dealt with and a commitment to minimize waste in all aspects of the site's operation. Storm-damaged equipment that has broken free from its moorings or abandoned equipment can also be a hazard to navigation, people and wildlife. Recovery and proper disposal of such equipment is therefore important.

5. **Light**

Above surface lighting on feed-barges and cage systems, along with underwater lighting, can cause light pollution and additional visual impact, particularly in remote sealochs where the sense of naturalness and isolation is a key tourist draw. It also has the potential to impact on the faunal communities, other than the farmed fish, present in the water ecosystem by altering a variety of biological processes.

6. **Noise and Odour**

Operational noise caused by equipment such as generators, feed-blowers and harvesting boats or other mechanised equipment working outwith normal working hours have the potential to affect nearby people, particularly in closely confined loch systems or areas where there is normally little background noise. Noise assessment and potential mitigation measures should be provided where such equipment is to be used. Details of any odour mitigation measures should also be provided.

7. **Predator Control**

Some species may be attracted to the concentrations of fish or shellfish at an aquaculture sites, which can have a significant impact on the operation of the site. In order to enable the determination of site-specific risks, where appropriate, the developer will be required to provide information on the proposed predator management system. This is likely to include the presence and abundance of species that might be at risk from any proposed anti-predator methods.

8. **Decommissioning**

Once a site is no longer required for aquaculture production it may be decommissioned. In most instances, appropriate conditions are attached to a planning consent to ensure timely removal of equipment and adequate restoration of a site.

3.40 To help mitigate some of the potential impacts discussed above, finfish and shellfish developers have access to their respective Code of Good Practice. Whilst these provide standards of practice and a framework for industry development, they do not replace or remove any of the planning requirements outlined in this supplementary guidance.

DC 6.1

Construction, Operation & Decommissioning

All aquaculture development proposals should ensure that any potential significant adverse effects, including cumulative impacts, due to equipment design, colour, amenity, access, lighting, noise, odour, predator control or site closure are appropriately mitigated to the satisfaction of the Planning Authority.

Where appropriate, planning applications should be supported by a predator management strategy.

Development Criteria 3

With regard to all planning permissions granted pursuant to this policy, if any site is not operational for a continuous period exceeding three years, all equipment must be removed from the site to the satisfaction of the Planning Authority.

4 Additional Sources of Information

The Highland Council

Application Form & Guidance

http://www.highland.gov.uk/info/1225/countryside_farming_and_wildlife/62/fisheries_and_aquaculture

Pre-application advice

http://www.highland.gov.uk/info/180/planning_-_applications_warrants_and_certificates/187/when_to_get_planning_permission/4

Major Application guidance (for site equipment > 2.0 ha)

http://www.highland.gov.uk/info/180/planning_-_applications_warrants_and_certificates/143/planning_permission

Highland wide Local Development Plan

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/199/highland-wide_local_development_plan

Supplementary Guidance

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/213/supplementary_guidance

Special Landscape Areas

http://www.highland.gov.uk/downloads/file/2937/assessment_of_highland_special_landscape_areas

Cultural heritage sites

<http://her.highland.gov.uk/>

Highland Historic Environment Strategy

http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/213/supplementary_guidance/19

Aquaculture Framework Plans

http://www.highland.gov.uk/info/1225/countryside_farming_and_wildlife/62/fisheries_and_aquaculture/6

Highland Coastal Development Strategy

http://www.highland.gov.uk/downloads/file/1062/highland_coastal_development_strategy

Additional Sources of Information 4

Enforcement Charter

http://www.highland.gov.uk/downloads/download/203/planning_enforcement_charter

SNH**Natura sites**

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/international-designations/natura-sites/>

Habitats Regulations Appraisal (Appropriate Assessments)

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/international-designations/natura-sites/habitats-regulations/>

MPA guidance

[http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/marine-protected-areas-\(mpa\)/](http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/marine-protected-areas-(mpa)/)

Site and Design guidance

<http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=113>

Landscape and Aquaculture guidance

<http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/landscape-policy-and-guidance/landscape-planning-and-development/landscape-and-aquaculture/>

Protected species

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/>

SEPA**CAR Regulations**

http://www.sepa.org.uk/water/water_regulation.aspx

Shellfish water protected areas

<http://www.scotland.gov.uk/Topics/Environment/Water/15561/shellfishwaters>

Modelling data

http://www.sepa.org.uk/water/water_regulation/regimes/aquaculture/marine_aquaculture/modelling.aspx

4 Additional Sources of Information

SEPA fish farm manual

http://www.sepa.org.uk/water/water_regulation/regimes/aquaculture/marine_aquaculture/fish_farm_manual.aspx

Scottish Government

Permitted Development Rights

<http://www.scotland.gov.uk/Topics/marine/Fish-Shellfish/18716/fish-farm>

Aquaculture and Fisheries (Scotland) Act 2013

<http://www.legislation.gov.uk/asp/2013/7/enacted>

Scottish Planning Policy (SPP)

<http://www.scotland.gov.uk/Publications/2014/06/5823>

A Fresh Start – the Renewed Framework for Scottish Aquaculture (2009)

http://www.google.co.uk/url?url=http://www.scotland.gov.uk/Resource/Doc/272866/0081461.pdf&rct=j&frm=1&q=&esrc=s&sa=U&ei=xnyVU5_CJYu7PZj4gNgl&ved=0CCEQFjAB&usq=AFQjCNFR4uuFrQDUAVMbB_y0rPL6wfX_Cw

Circular 1/2007 Planning Controls for Marine Fish Farming

<http://www.scotland.gov.uk/Publications/2007/03/29102026/1>

Locational Guidelines

<http://www.scotland.gov.uk/Topics/marine/Publications/publicationslatest/farmedfish/locationalfishfarms>

Running a fish farm

<http://www.scotland.gov.uk/Topics/marine/Fish-Shellfish/18716>

Marine Protected Areas

<http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork>

Historic Marine Protected Areas

<http://www.historic-scotland.gov.uk/index/heritage/wrecksites/scotlands-historic-wrecks.htm>

Marine (Scotland) Act 2010

http://www.oqps.gov.uk/legislation/acts/acts2010/pdf/asp_20100005_en.pdf

Environmental Impact Assessment (EIA) Regulations

<http://www.scotland.gov.uk/Topics/archive/National-Planning-Policy/themes/>

Additional Sources of Information 4

[enviro-assessment/eia](#)

National Planning Framework

<http://www.scotland.gov.uk/Topics/Built-Environment/planning/NPF3-SPP-Review/NPF3>

Working arrangement: Requirements of statutory consultees

www.scotland.gov.uk/Resource/Doc/295194/0106302.pdf

Review of DSFBs

<http://www.scotland.gov.uk/Topics/marine/Salmon-Trout-Coarse/fishreview>

Draft Planning Circular 'Planning Scotland's Seas: The relationship between the statutory land use planning system and marine planning and licensing'

www.scotland.gov.uk/Resource/0042/00428395.pdf

Scotmap

<http://www.scotland.gov.uk/Topics/marine/science/MSInteractive/Themes/ScotMap>

Seal haul-out sites

<http://www.scotland.gov.uk/Topics/marine/marine-environment/species/19887/20814/maps>

NMPi

<http://www.scotland.gov.uk/Topics/marine/seamanagement/nmpihome/nmpi>

Scotland's aquaculture

<http://aquaculture.scotland.gov.uk/>

The Wildlife and Natural Environment (Scotland) Act 2011

<http://www.legislation.gov.uk/asp/2011/6/contents/enacted>

Nature Conservation (Scotland) Act 2004

<http://www.legislation.gov.uk/asp/2004/6/contents>

The Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007

<http://www.scotland.gov.uk/Publications/2007/03/29102026/7>

The Town and Country Planning (Scotland) Act 1997

<http://www.legislation.gov.uk/ukpga/1997/8/contents>

4 Additional Sources of Information

The Town and Country Planning (General Permitted Development) (Fish Farming) (Scotland) Amendment Order 2012

<http://www.legislation.gov.uk/ssi/2012/131/contents/made>

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011

<http://www.scotland.gov.uk/Publications/2011/06/01084419/0>

DSFB

Wild fisheries information

<http://www.asfb.org.uk/>

CEC

Seabed lease

<http://www.thecrownestate.co.uk/coastal/aquaculture/working-with-us/aquaculture-leases/>

SSPO

Code of Good Practice (including link to other relevant aquaculture legislation)

<http://www.thecodeofgoodpractice.co.uk/cogp/preface-to-the-2010-edition>

ASSG

Code of Good Practice

<http://assg.org.uk/#/code-of-practice/4536619829>

Miscellaneous

Minimising the impact of ducks on mussel farms.

www.gla.ac.uk/media/media_19794_en.pdf

Light pollution effects

<http://goo.gl/Eajcwt>

Marine Strategy Framework Directive

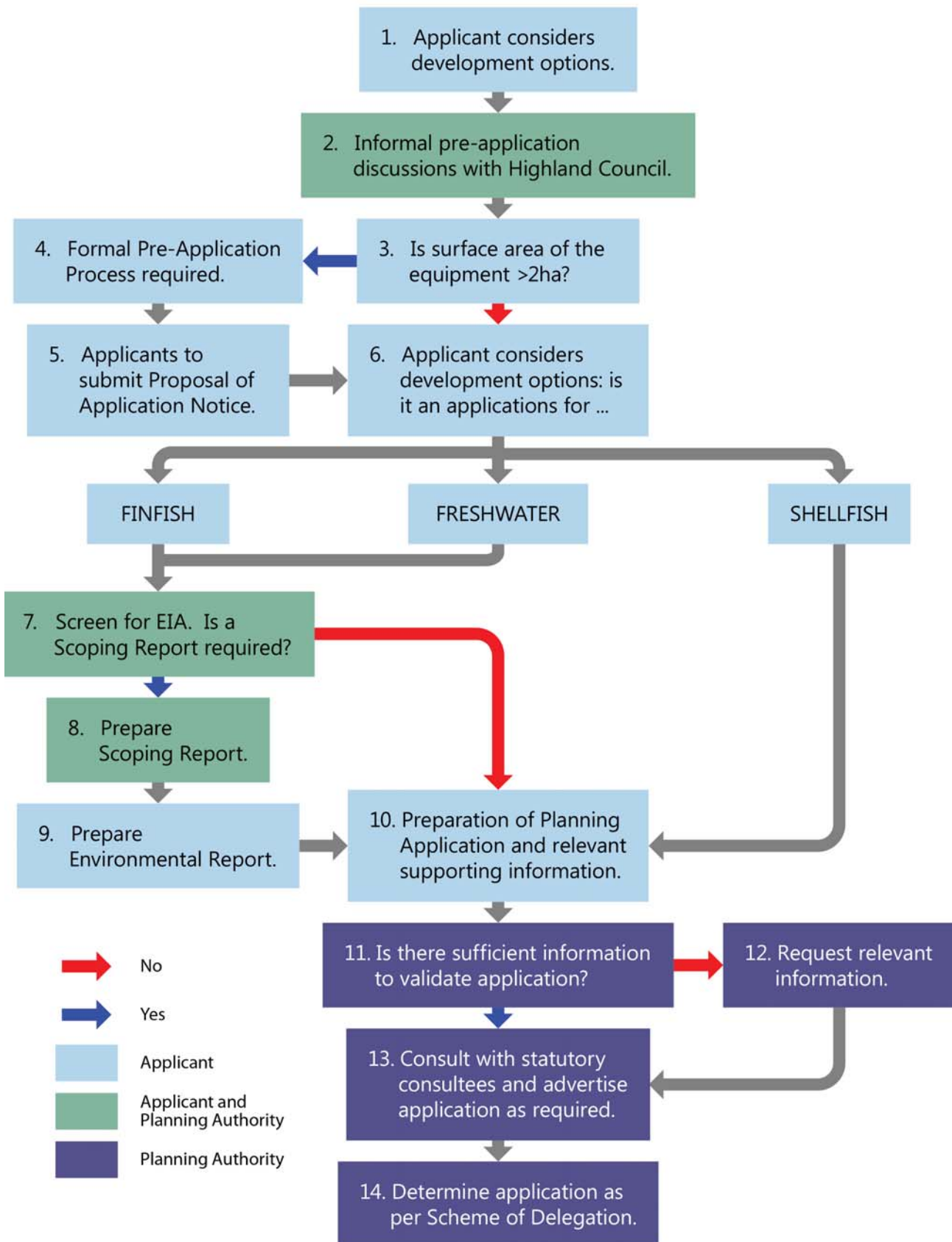
<http://www.msfd.eu/>

National Biodiversity Network

<http://www.nbn.org.uk/>

Diagram of aquaculture planning process 1

Figure 2



1 Non Technical Summary

Purpose of this draft Environmental Report

1.1 This non-technical summary outlines the process, methods, outcomes and future stages of the Strategic Environmental Assessment (SEA) which has been undertaken for the document entitled 'Aquaculture Supplementary Guidance'.

1.2 SEA is an environmental assessment of plans, programmes and strategies (PPS) and is undertaken in parallel with the preparation of the PPS to ensure that any environmental effects are considered during its preparation and adoption. It is required under the EC SEA directive (2001/42/EC), which has been transposed into Scottish law via the Environmental Assessment (Scotland) Act 2005.

1.3 The aim of the non-technical summary is to assist the reader in understanding what the potential environmental effects of implementation of Aquaculture Supplementary Guidance are likely to be if it is adopted by Highland Council.

1.4 The Environmental Report is the main consultation document in the SEA and it provides a description of the environment of Highland in terms of an environmental baseline and the assessment of potential significant environmental effects, alongside proposed measures to mitigate and monitor environmental effects during the lifetime of the Aquaculture Supplementary Guidance.

Key stages of Environmental Assessment

1.5 SEA is a systematic method for considering the likely environmental effects of the programme and aims to integrate environmental factors into policy preparation and decision-making. It also has an important role to play in increasing public participation and enabling openness and transparency in decision-making.

1.6 The key steps of the SEA that have been undertaken so far are:

- A Scoping Report was prepared which set out sufficient information on the Aquaculture Supplementary Guidance to enable the Consultation Authorities (Scottish Natural Heritage, Scottish Environment Protection Agency and Historic Scotland) to form a view on the appropriate scope, level of detail and consultation period;
- Environmental Assessment was undertaken of the introduction to the Supplementary Guidance as well as the spatial strategy and the six Development Criteria. SEA objectives were used to assess the potential effects against the environmental baseline.

Context of Aquaculture Supplementary Guidance

1.7 The Supplementary Guidance provides further detail to the Council's policy on aquaculture development that is provided in Policy 50 *Aquaculture* of the Highland wide Local Development Plan (HwLDP). Policy 50 was consulted on in 2011 as part of the Proposed Plan. To take account of consultation responses received, changes were made to Policy 50 as well as a number of other policies. The revised Policy 50 will go out for consultation on 2014/15 as part of the review of the HwLDP currently being undertaken. For information, a copy of Policy 50 is included in the Aquaculture Supplementary Guidance.

Summary of the Proposed Plan Contents

1.8 Aquaculture Supplementary Guidance is a document that seeks to enable new and modified aquaculture development in appropriate areas of the Highland marine environment. It is also acknowledging and protecting the area's natural and cultural heritage resources, as well as the needs of existing users of the marine environment. It consists of an introductory section, a spatial strategy and a set of six development criteria which provide further policy detail on Landscape/Seascape; Historic Environment; Biodiversity; Water Quality; Other marine users and Construction, Operation & Decommissioning. The development criteria are supported by seven indicative maps.

Current Environmental Conditions and SEA Objectives

1.9 To enable the environmental assessment of the environmental effects that could result from implementation of Aquaculture Supplementary Guidance, a baseline was prepared for the relevant SEA environmental receptors. It is considered that the environmental receptors that are most sensitive to the effects of aquaculture development are **Biodiversity, Water, Landscape, Cultural heritage, Population** and **Material Assets**. Assessment was carried out against the SEA objectives, focusing on those which are relevant to marine aquaculture development.

Environmental Assessment Findings

Biodiversity

1.10 Assessment found the SG to be broadly positive in terms of the policy protection it provides for biodiversity, in areas such as the protection of designated sites, protected species and wider biodiversity interests.

Water

1.11 The effects are broadly positive. DC4 explains how aquaculture development can impact upon water quality and the benthic environment. Further information is provided on the role of SEPA and Marine Scotland in licensing aquaculture-related activities. The Locational Guidelines and Shellfish Water Protected Areas are explained; the latter are shown in Map 3.

Landscape

1.12 The effects are broadly positive. DC1 provides a brief overview of the issues which developers should address, whilst including links to other publications that provide relevant guidance. It sets out the issues which should be addressed in landscape and visual impact assessments.

Cultural heritage

1.13 The effects are broadly positive. DC2 lists the aspects of the historic environment which could be impacted by aquaculture development and provides information on the issues that should be covered in an Environmental Impact Assessment.

1 Non Technical Summary

Population

1.14 The effects are broadly positive. Sources of nuisance such as noise and lighting are addressed, as well as the requirement to consider public safety and ensure that access to the foreshore is not impeded.

Material assets

1.15 The effects are broadly positive. DC6 requires information on waste management and where appropriate requires planning applications to be supported by a decommissioning statement. This is likely to benefit all environmental receptors.

1.16 Overall it is predicted that the environmental effects of Aquaculture Supplementary Guidance will be positive.

1.17 A number of existing environmental issues were identified during the SEA process. Mitigative measures identified to protect the environment are included in **Table 10** of the Environmental Report which is reproduced below.

Table 5 Summary of mitigation measures included in Aquaculture Supplementary Guidance

SEA Issue	Existing Problem?	Impact of PPS	Proposed measures for the reduction/prevention and offset of significant adverse effects
Biodiversity	Incidental harm to non target species due to inappropriately designed or located anti-predator measures	Broadly positive	DC6 highlights the need for a predator management strategy, where appropriate
	Damage to or loss of benthic habitats that are sensitive to aquaculture	Broadly positive	SG highlights the requirement to protect vulnerable benthic habitats
	Impact on wild salmonids, e.g. due to increased exposure to sea lice and their larvae	Broadly positive	DC3.2 states that development will on be permitted where there is no significant adverse impact on wild salmonid populations and where cumulative impacts on wild salmonids have been assessed and mitigated where appropriate
Water	Potential for adverse effects on water quality	Positive or neutral	DC4 identifies and Shellfish Water Growing Areas and signposts to Category 3 areas
Landscape	Potential for adverse impacts on landscape due to poorly sited or designed aquaculture development	Broadly positive	DC1 provides an overview of guidance on siting and design and makes reference to more detailed

Non Technical Summary 1

SEA Issue	Existing Problem?	Impact of PPS	Proposed measures for the reduction/prevention and offset of significant adverse effects
			guidance, supported by a spatial strategy
Cultural heritage	Potential for adverse effects on historic sites, including their settings	Broadly positive	DC2 provides adequate guidance on the need to avoid significant adverse impact on historic resources and their setting
Population	Potential nuisance in terms of noise, lighting and odour	Broadly positive	DC6 provides policy guidance on the need to mitigate, where necessary, sources of nuisance such as noise, lighting and odour
	Potential for obstruction of access to coastal routes or popular amenity sites	Broadly positive	DC6 highlights the requirement to protect access to the foreshore
Material assets	Potential issues arising from inadequate waste management	Broadly positive	DC8 requires appropriate management of waste
Cross sectoral issues	Tensions are possible in balancing expansion with the need for development to be sustainable	Broadly positive	All six Development Criteria aim to enable sustainability in new or modified aquaculture development
	Increased demand for space in the marine environment	Broadly neutral	DC5 requires developers to demonstrate that any potential impacts of proposals on other users of the marine environment have been identified and, where conflicts of interest are likely, to provide details of impacts and the proposed mitigation measures

Monitoring Programme

1.18 The purpose of monitoring is to ensure that the proposed mitigation is effective and that any unexpected effects can be detected at an early stage so that appropriate remedial action can be put in place. Over time it is expected that environmental benefits will become apparent through the trends in the monitoring indicators. Monitoring will be used to provide essential information on which to base future development. A monitoring programme may be developed with targets relating to the SEA objectives, within the wider LDP monitoring. Further changes to the Aquaculture Supplementary Guidance are likely in order to take account of the responses to the consultation.

1 Non Technical Summary

Once the draft Aquaculture Supplementary Guidance and accompanying draft Environmental Report have been consulted upon, the changes made will be summarised in the final Environmental Report.

Next Steps

25 May 2015 Environmental Report and Aquaculture Supplementary Guidance go out for public consultation

19 July 2015 Deadline for consultation responses

Autumn/Winter 2015 Responses considered and taken into account in preparation of a final Aquaculture Supplementary Guidance

Purpose of this draft Environmental Report and key facts

2.1 As part of the preparation of Aquaculture Supplementary Guidance, Highland Council is carrying out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of certain PPS. SEA aims to:

- integrate environmental factors into PPS preparation and decision-making;
- improve PPS and enhance environmental protection;
- increase public participation in decision making; and
- facilitate openness and transparency of decision-making.

2.2 SEA is required by the Environmental Assessment (Scotland) Act 2005. The key SEA stages are:

Screening	determining whether the PPS is likely to have significant environmental effects and whether an SEA is required
Scoping	deciding on the scope and level of detail of the Environmental Report, and the consultation period for the report – this is done in consultation with Scottish Natural Heritage, The Scottish Ministers (Historic Scotland) and the Scottish Environment Protection Agency
Environmental Report	publishing an Environmental Report on the PPS and its environmental effects, and consulting on that report
Adoption	providing information on: the adopted PPS; how consultation comments have been taken into account; and methods for monitoring the significant environmental effects of the implementation of the PPS
Monitoring	monitoring significant environmental effects in such a manner so as to also enable the Responsible Authority to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action

2.3 The purpose of this Environmental Report is to:

- provide information on Aquaculture Supplementary Guidance;
- identify, describe and evaluate the likely significant effects of the PPS and its reasonable alternatives;
- provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this Environmental Report.

2.4 The key facts relating to Aquaculture Supplementary Guidance are set out in Table 6 below.

Table 6 Key facts relating to Aquaculture Supplementary Guidance

Name of Responsible Authority	Highland Council
Title of plan/programme	Aquaculture Supplementary Guidance

2 Introduction

What prompted the plan	The Planning etc. (Scotland) Act 2006. The Council is required by law to prepare and keep under review a Development Plan which sets out the Council's planning policies on the use and development of land in the County. This Supplementary Guidance document provides the detail for Policy 50 <i>Aquaculture</i> of the Highland wide Local Development Plan (HwLDP).
Plan subject	Aquaculture
Period covered by plan	2015 – 2018, then to fall in line with any revised HwLDP
Frequency of updates	Following adoption, the Supplementary Guidance will be monitored and reviewed every five years and updated if required
Plan area	Aquaculture Supplementary Guidance covers the marine environment of Highland from MHWS out to a limit of 3 nautical miles
Plan purpose and/or objectives	The document provides additional policy guidance on the range of considerations which must be considered for planning applications for new aquaculture proposals, including changes to existing developments
Contact point	Development & Infrastructure

SEA activities to date

2.5 Table 7 summarises the SEA activities to date in relation to Aquaculture Supplementary Guidance

Table 7 SEA activities to date

SEA Action/Activity	When carried out	Notes (e.g. comment on data availability, particular issues or any advice from the Consultation Authorities that has now been taken into account)
Screening to determine whether the PPS is likely to have significant environmental effects	October 2014	Screening was considered unnecessary as the assessment of Aquaculture Supplementary Guidance was required under Section 5(3) of the Environmental Assessment (Scotland) Act 2005.

Introduction 2

SEA Action/Activity	When carried out	Notes (e.g. comment on data availability, particular issues or any advice from the Consultation Authorities that has now been taken into account)
Scoping the consultation periods and the level of detail to be included in the Environmental Report	November 2014	
Outline of the PPS	August 2014	
relationship with other PPS and environmental objectives	August 2014	
environmental baseline established	November 2014	
environmental problems identified	November 2014	
assessment of future of area without the PPS	December 2014	
alternatives considered	December 2014	
environmental assessment methods established	January 2015	
selection of PPS alternatives to be included in the environmental assessment	January 2015	
identification of environmental problems that may persist after implementation and measures envisaged to prevent, reduce and offset any significant adverse effects	January 2015	
monitoring methods proposed	February 2015	
consultation timescales <ul style="list-style-type: none"> • Timescale for Consultation Authorities • Timescale for public 	May- July 2015	
notification/publicity action	May-July 2015	

3 Context

Outline and objectives of Aquaculture Supplementary Guidance

3.1 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes “an outline of the contents and main objectives of the plan or programme”. The purpose of this section is to explain the nature, contents, objectives and timescale of the PPS.

National policy context

3.2 In June 2014 the Scottish Government published its consolidated Scottish Planning Policy 2 (SPP) which replaced SPP (2010). The new SPP2 requires local development plans to make positive provision for aquaculture developments and identify sensitive areas which are unlikely to be appropriate for such development. When assessing specific proposals the planning authority could take into account:

- Impact on, and benefits for, local communities;
- Economic benefits of the sustainable development of the aquaculture industry;
- Landscape, seascape and visual impact;
- Biological carrying capacity;
- Effects on coastal and marine species (including wild salmonids) and habitats;
- Impacts on the historic environment and the sea or loch bed;
- Interaction with other users of the marine environment (including commercial fisheries, Ministry of Defence, navigational routes, ports and harbours, anchorages, tourism, recreational and leisure activities); and
- Cumulative effects on all of the above factors.

Highland Local Development Plan policy context

3.3 This Supplementary Guidance accompanies Policy 50 *Aquaculture* of the Highland wide Local Development Plan (the Plan) which seeks to support the development of aquaculture in appropriate locations in Highland. Highland Council is aware of both the economic potential of the industry and the associated challenges. A particular challenge will be accommodating further development within a marine area where there are increasing demands for space, whilst protecting its environmental assets. This policy addresses these and other challenges by providing applicants and the public with a robust framework to assess new development against which maximises the potential for aquaculture development in Highland.

3.4 Highland Council’s policy on Aquaculture was set out in Policy 50 *Aquaculture* of its Proposed Local Development Plan which underwent public consultation in 2009 & 2010. To take account of consultation responses received a number of changes were made to development plan policies and the following revised Policy 50 *Aquaculture* is now included in the Highland wide Local Development Plan:

Policy 50 of the Highland-wide Local Development Plan

The Council supports the sustainable development of finfish and shellfish farming subject to there being no significant adverse effect, directly, indirectly or cumulatively on:

- the natural, built and cultural heritage, taking into consideration:

- landscape character, scenic and visual amenity with reference to SNH commissioned report: landscape/seascape carrying capacity for aquaculture;
- the classification and objectives set out in the river basin management plan for the Scotland river basin district and supplementary area management plans;
- wild fish populations;
- biological carrying capacity;
- and cumulative benthic and water column impacts - for finfish proposals support is conditional on proposals being consistent with Marine Scotland's Locational Guidelines for the authorisation of Marine Fish Farms in Scottish Waters;
- habitats and species, including designated sites and protected species;
- existing activity, taking into consideration:
 - commercial inshore fishing grounds;
 - existing and consented aquaculture sites;
 - established harbours and natural anchorages and navigation (including recreational);
 - the location of existing/proposed pipelines/outfalls and discharge points for treated waste water and storm water.

All proposals will be subject to detailed assessment in these terms. Where proposals are located on a suitable site they will also need to show:

- appropriate operational and site restoration arrangements (including management of noise and lighting impacts, public health and safety, and the effective control of pollution, fish farm escapes, predator interaction and disease);
- good design of cages, lines and associated facilities (please refer to Marine aquaculture and the Landscape: The Siting and Design of Marine Aquaculture Developments in the Landscape SNH);
- that opportunities for shared use of jetties, piers and ancillary facilities are promoted where possible.

There is a national presumption against expansion of marine finfish farms on north and east coasts. This does not preclude shellfish farming in these areas. More detailed policy relating to key pressure areas for aquaculture is given through the Council's Aquaculture Framework Plans and Integrated Coastal Zone Management Plans, which the Council intends to adopt as Supplementary Guidance to this Plan.

Where new fish farm provision will result in existing fish farm infrastructure becoming redundant, we will seek the removal of the redundant infrastructure as a requirement of the development.

The core principles of the Highland Council's aquaculture framework plans and coastal development plans are similar. However, coastal development plans cover all sectors and are relevant to proposals for all types of installations in coastal waters. The aquaculture framework plans will:

- guide the location and scale of aquaculture development;
- ensure that development is environmentally sustainable;

3 Context

- identify both opportunities and constraints so that developers have a realistic idea of the development potential and other interests which should be taken into account;
- provide an overview for the use of the coastal waters and promote a balanced approach which can safeguard the area's core natural assets and sustain or enhance its productivity over the longer term;
- aim to guide investment, help in the evaluation of development proposals, and help to minimise conflicts of interest.

Outline of the draft Aquaculture Supplementary Guidance

3.5 The draft Aquaculture Supplementary Guidance comprises four parts: an introductory section followed by a spatial strategy and maps, a set of six development criteria then additional sources of information. Parts one to three will be assessed in the SEA.

Section 1.0 Introduction

3.6 Paras 1.1-1.4 outline the purpose of the document and includes a copy of Policy 50 Aquaculture from the HwLDP.

3.7 Paras 1.5-1.8 provide the background information and set the scene for aquaculture in terms of its importance as an industry in rural Scotland. Current Scottish Government targets for industry growth are also highlighted.

3.8 Paras 1.9-1.15 outlines the main legislation and policy guidance available.

3.9 Paras 1.16-1.27 provides background on the main decision making processes and application procedures required for local planning authority aquaculture planning applications, including EIA requirements.

3.10 Para 1.28 and Table 1 outlines the role of other organisations involved aquaculture consenting.

Section 2 Spatial Strategy

3.11 Paras 2.1-2.6 outline the background to the rationale for the information provided in the spatial strategy and the accompanying seven maps and provides information on where more detailed guidance can be found.

Section 3 Development Criteria

3.12 This section contains the six development criteria against which all proposals for aquaculture development and/or associated infrastructure will be assessed. Each Development Criterion (DC) begins with a section of explanatory text providing further planning guidance and/or links to additional sources of information or guidance, which is then followed by a relevant policy statement.

DC 1 Landscape/Seascape, Siting and Design

3.13 DC1.1 Landscape, Siting and Design & DC1.2 Wild Land and Unspoilt Coast addresses issues surrounding initial site selection and layout and design of new developments and landscape setting issues for all development. It is highlighted that, as a general rule, aquaculture development should

not dominate its landscape setting or become the main feature in views and proposals should not materially impact on the overall quality of the landscape. Summary guidance on the layout of aquaculture equipment is provided but for more in-depth guidance the reader is directed to relevant publications. DC1 is supported by Map 5 *Wild Land Areas, Special Landscape Areas and National Scenic Areas*.

3.14 DC1.3 Separation Distances outlines the distances that should be maintained between aquaculture developments.

DC2 Historic Environment

3.15 This criterion addresses the potential effects of aquaculture development on cultural heritage interests. It draws attention to the need to protect these assets, including the wrecks protected by the historic Marine Protected Areas in Highland. Guidance is provided on factors which should be considered in any Environmental Impact Assessment and links are provided to useful sources of information.

DC3 Biodiversity

3.16 DC3.1 Designated Habitats and Species addresses the potential effects of aquaculture development on natural heritage interests, i.e. designated sites, protected species and habitats as well as the wider biodiversity. It requires developers to demonstrate that proposals would not result in a significant adverse impact, either individually or cumulatively, on the natural environment which includes the qualifying interests and integrity of Natura 2000 sites; Ramsar Sites; Sites of Special Scientific Interest; protected species, including European Protected Species; and wider biodiversity interests. DC3 is supported by Maps 4, 6 and 7 *Environmental Designated Areas, Seal Haul-out Sites and Areas of Presumption Against Further Fin Fish Development* respectively, which illustrate the boundaries of the various designations.

3.17 DC 3.2 Wild Salmonids and Sea lice requires developers to consider the potential impact of aquaculture development on wild salmonids and other biodiversity from sea lice loadings.

DC4 Water Quality

3.18 All aquaculture development depends on good water quality. This criterion describes the potential for aquaculture development to impact upon the water column and sea bed (benthic impacts). It highlights the role of SEPA and Marine Scotland with regard to water quality issues in relation to aquaculture activities. DC4 is supported by Map 3 which illustrates the boundaries of *Shellfish Water Protected Areas*, as at December 2014. Users are also directed to the Locational Guideline Maps produced by Marine Scotland, which are updated regularly.

DC5 Other marine users

3.19 This criterion outlines some example interactions of aquaculture development with other marine users; it does not provide a comprehensive list of all other marine interests. It addresses the need to ensure that new aquaculture development does not adversely affect the interests of other users of the marine environment.

DC6 Construction, Operational & decommissioning Impacts

3 Context

3.20 The potential for adverse effects of aquaculture during day to day operations are considered. The issues considered are equipment choice, amenity, access, waste, light, noise, predator control and decommissioning. Where appropriate, developers are required to provide details of mitigation measures identified to address these issues.

Section 4 Additional sources of information

3.21 This section includes web-links and information on the main documents consulted in the preparation of the SG and key helpful information for users of the guidance.

Relationship with other Plans, Programmes and Strategies and environmental protection objectives

3.22 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes an outline of the PPS relationships with other relevant PPS, and how environmental protection objectives have been taken into account in the PPS preparation. This section covers these issues and describes the policy context within which the PPS operates, and the constraints and targets that this context imposes on the PPS.

Table 8 Relationship to other Plans, Policies or Strategies (PPS)

<p>Environmental requirements of PPS</p>	<p>How it affects or is affected by Aquaculture Supplementary Guidance (the SG)</p>
<p>BIODIVERSITY</p> <p>The Conservation of Wild Birds Directive (79/409/EEC) protects all wild birds and their associated habitats. The Conservation of Natural Habitats and of Wild Fauna and Flora Directive (92/43/EEC) protects natural habitats and certain species of wild plants and animals. Together these Directives established a commitment to designating a network of sites known as Natura 2000 sites. Special Protected Areas (SPA) are designated under the Birds Directive and Special Areas of Conservation (SAC) are designated under the Habitats Directive. This is a key underlying international policy commitment, to be reflected in the policies of the Local Development Plan.</p> <p>The Convention on Wetlands of International Importance 1971 (amended 1982 and 1987) emphasises the special value of wetland, particularly as a key habitat for waterfowl. The Convention resulted in designation of sites known as Ramsar Sites for management and conservation at an international level.</p> <p>The Wildlife and Countryside Act (1981) is the UK legislation which implements the Habitats and Birds Directives, to protect habitats and species and designated sites (updated by the Nature Conservation (Scotland) Act 2004) and public rights of way (updated by the Countryside and Rights of Way Act 2000).</p> <p>The Nature Conservation (Scotland) Act 2004 introduced the 'biodiversity duty' - a 'duty to further the conservation of biodiversity' for all public bodies, and sets out more specific provisions within this (e.g. for SSSIs).</p>	<p>The SG should set out the natural heritage factors which must be taken into account in planning for aquaculture. These include:</p> <ul style="list-style-type: none"> • Internationally, nationally and locally designated sites; • the requirement for aquaculture proposals to undergo a Habitats Regulations Appraisal where the likelihood of significant effects on a Natura site cannot be ruled out; • Species that are protected by legislation, including European Protected Species and species such as seals which are covered by different areas of legislation; • conservation of the wider biodiversity, and the protection of priority habitats and species outwith designated areas; • Priority Marine Features <p>International and national natural heritage designations should be illustrated through an indicative map.</p> <p>The legislation and other PPS listed will help inform the biodiversity sections of the SG in particular to ensure habitats and species are given</p>

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<p>Environmental requirements of PPS</p> <p>As a public body, Highland Council therefore has a duty, “...in exercising any functions, to further the conservation of biodiversity so far as it is consistent with the proper exercise of those functions.” The Act also states the requirement for the preparation of a Scottish Biodiversity Strategy, to which all public bodies should pay regard.</p> <p>Wildlife and Natural Environment (Scotland) Act 2011 will support sustainable economic activity, particularly in the countryside, and to preserve the high quality of the natural environment for the benefit of the public and many rural businesses</p>	<p>How it affects or is affected by Aquaculture Supplementary Guidance (the SG)</p> <p>appropriate consideration in the aquaculture planning application process, as guided by the SG.</p> <p>The SG should also highlight the need for wider biodiversity interests to be taken into account in planning decisions. The SG should highlight the risks posed to wild salmonids by aquaculture, e.g. in terms of sea lice infestation and fish escapes and propose mitigation.</p>
<p>The UK Biodiversity Action Plan List includes around 400 species and 45 habitats that should be considered to adopt a strategic approach to natural heritage planning by conserving and where appropriate enhancing habitats.</p> <p>2020 Challenge for Scotland’s Biodiversity 2013 is a supplement to the Scottish Biodiversity Strategy 2004. These documents form the Scottish Biodiversity Strategy with aim to protect biodiversity whilst supporting sustainable economic growth.</p>	
<p>Both the UK BAP and the Scottish Biodiversity lists identify priority species and habitats for conservation, providing a basis for biodiversity conservation in Scotland and the wider UK.</p> <p>The Highland Local Biodiversity Action Plan and the updated draft HBAP (2015), along with the eight “county-wide” LBAPS list the priority habitats and species that are found in Highland, highlighting their sensitivities and identifying actions which can be taken locally, and which make a contribution to the conservation of those species and habitats identified as being “at risk” or “threatened” in the UK as a whole.</p>	

<p>Environmental requirements of PPS</p>	<p>How it affects or is affected by Aquaculture Supplementary Guidance (the SG)</p>
<p>Scottish Marine Nature Conservation Strategy provides objectives for marine biodiversity under the three pillar approach, including Priority Marine Features.</p> <p>National Marine Plan: Marine Scotland has considered a wide range of sectoral uses and activities and have determined how these different objectives are reflected and weighted in the marine plan. Land-sea interactions have also been taken into account as part of the marine planning process.</p> <p>Scotland's Marine Atlas - Information for the National Marine Plan is an assessment of the condition of Scotland's seas, based on scientific evidence from data and analysis, supported by expert judgement. It provides baseline information from which the national marine plan was developed.</p>	
<p>The Marine (Scotland) Act (2010) provides for the following:</p> <ul style="list-style-type: none"> ● A new marine planning framework so that increasing use of the seas for energy, fishing, aquaculture, recreation and other purposes is well managed; ● New Marine Planning Partnerships which will involve local agencies, communities and stakeholders to ensure a strong local voice; ● A simpler licensing system to reduce the administrative burden and cut bureaucracy reducing business costs in key growth areas such as renewable energy; ● Improved marine natural and cultural heritage conservation to safeguard and protect Scotland's unique habitats, wildlife and marine archaeology and wrecks; and ● Full regulation of seal management giving improved protection for seals and a new comprehensive licence system. <p>The Scottish Government is currently working to develop A Marine Spatial Plan for the Pentland Firth and Orkney Waters, which will include guidance on the areas which will be promoted for marine energy development.</p>	<p>There will be a degree of overlap between the local authority planning system and the spatial plan for the Pentland Firth and Orkney Waters (PFOW). Supplementary Guidance should be compatible with the emerging PFOW Marine Spatial Plan.</p> <p>Detailed guidance on these designations can be found in the HwLDP. The SG should ensure appropriate protection is given to designated habitats and species in line with HwLDP policies. The SG should seek to prevent or minimise the cumulative effects of aquaculture development on coastal and marine ecosystems.</p>

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<p>Environmental requirements of PPS</p>	<p>How it affects or is affected by Aquaculture Supplementary Guidance (the SG)</p>
<p>Nature Conservation & Historic Marine Protected Areas, European Protected Species, Priority Marine Features, Seal Conservation Areas and Designated Seal Haul-out Areas, SACs, SPAs, Ramsar sites and their related guidance.</p>	<p>The SG should highlight the risks posed to wild salmonids by aquaculture, e.g. in terms of sea lice infestation and fish escapes and propose mitigation.</p>
<p>WATER</p>	
<p>The Water Framework Directive 2000/60/ EC provides an overarching strategy for the aquatic environment, including a requirement for EU Member States to ensure that they achieve 'good ecological status' by 2015.</p> <p>The Water Environment and Water Services (Scotland) Act 2003 (The WEWS Act) transposes the Water Framework Directive into the Scottish context. Aims to protect the water environment including by ensuring a reliable and high quality supply of water, reducing groundwater pollution significantly, and protecting marine and other waters.</p>	<p>The SG should be compatible with the objectives of the Water Framework and the WEWS Act.</p> <p>The SG should make reference to the CAR Regulations and SEPA's role in the aquaculture licensing and consenting process.</p>
<p>The Water Environment (Controlled Activities) (Scotland) Regulations 2005 sets out the process by which activities which have the potential to affect the water environment are regulated.</p> <p>Land Use Planning System SEPA Guidance Note 17: Marine Development and Marine Aquaculture Planning Guidance provides guidance on the approach that SEPA should take when dealing with consultations relating to the marine environment and aquaculture developments.</p>	

<p>Environmental requirements of PPS</p>	<p>How it affects or is affected by Aquaculture Supplementary Guidance (the SG)</p>
<p>The River Basin Management Plan (RBMP) 2009-2015 for the Scotland river basin district (RBD) and supplementary area management plans outline water improvement plans for the next six years (2009–2015).</p>	<p>River Basin Management Planning sets water quality objectives requiring all water bodies to achieve good ecological status with no deterioration in current status.</p> <p>The SG should support these objectives by preventing or minimising adverse impacts on the water environment.</p>
<p>The EC Directive 2006/113/EEC on the quality required of shellfish waters</p> <p>The Surface Waters (Shellfish) (Classification) (Scotland) Regulations 1997 and related Amendment 2007</p> <p>Aquaculture and Fisheries Act 2013</p> <p>The Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2013 and location maps</p> <p>The Water Environment (Shellfish Water Protected Areas: Environmental Objectives etc.) (Scotland) Regulations 2013</p> <p>The Scotland River Basin District (Quality of Shellfish Water Protected Areas) (Scotland) Directions 2015.</p> <p>Guidance contained within: http://www.seaguidance.org.uk/1/Homepage.aspx</p> <p>http://www.environment.scotland.gov.uk/</p> <p>http://www.sepa.org.uk/</p>	<p>These regulations and guidance aim to ensure water quality is maintained. The SG will signpost to the most up to date classifications, which are updated and monitored by SEPA.</p> <p>The current Shellfish Water Protected Areas will be mapped in the SG and therefore guide developers to appropriate locations.</p>

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<p>Environmental requirements of PPS</p>	<p>How it affects or is affected by Aquaculture Supplementary Guidance (the SG)</p>
<p>Locational Guidelines: Marine Fish Farms in Scottish Waters</p> <p>Identifies Category 1, 2 and 3 areas, designated on the basis of Marine Scotland Science (MSS) predictive models to estimate environmental sensitivity of sea lochs.</p>	<p>The SG should provide signpost links to the Locational Guidelines as they are regularly updated.</p>
<p>CULTURAL HERITAGE</p>	
<p>The Scottish Historic Environment Policy (SHEP)</p> <p>The SHEP was originally developed as a series of free-standing publications (SHEPs 1 to 5, published between 2006 and 2008). The series was consolidated into a single document in 2008 and was revised in July 2009. SHEP has now been updated to take account of:</p> <ul style="list-style-type: none"> • the Historic Environment (Amendment) (Scotland) Act 2011 • the Marine (Scotland) Act 2010; • the adoption of a UK Marine Policy Statement; and, • Scottish Ministers’ policies for the designation and management of Historic marine Protected Areas. <p>Historic Buildings and Ancient Monuments Act 1953, the Ancient Monuments and Archaeological Areas Act 1979 and the planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. Additionally, the Scottish Historic Environment Policy (2011) and the Strategy for the Protection, Management and Promotion of Marine Heritage 2012-15 are key policy documents for the historic environment. Further information and links to these and other key legislation, policy and guidance in relation to the historic environment are available here.</p> <p>Scottish Planning Policy sets out how the planning system will contribute towards the delivery of Scottish Ministers’ policies as set out in the current Scottish Historic Environment Policy (SHEP).</p>	<p>The SG should set out the cultural heritage issues which should be taken into account in planning for aquaculture. These include:</p> <ul style="list-style-type: none"> • Scheduled Monuments, other unscheduled sites of archaeological significance and their setting; • Listed Buildings and their setting; • Conservation Areas • Historic Gardens and Designed Landscapes • Designated War Graves; • Unscheduled terrestrial and marine archaeology <p>Many known and unknown wrecks and submerged archaeological features are distributed along Highland’s coastline. The SG should make reference to sources of information such as the Royal Commission on the Ancient and Historical Monuments of Scotland and the Council Historic Environment Record.</p>

Environmental requirements of PPS	How it affects or is affected by Aquaculture Supplementary Guidance (the SG)
<p>The Protection of Wrecks Act 1973 sets out the direct responsibilities of Historic Scotland for the underwater heritage.</p> <p>PAN 2/2011 Planning and Archaeology: as part of its intention to work towards sustainable development, the Government seeks to encourage the preservation of our heritage of sites and landscapes of archaeological and historic interest, so that they may be enjoyed today and passed on in good order to future generations</p>	
<p>Relationship with other PPS and environmental objectives</p> <p>I note that Table 1 lists relevant plans, programmes and strategies which are relevant to the SG. I note and welcome that you have included the historic environment as an environmental protection objective. You have identified the Historic Environment (Amendment) (Scotland) Act 2011 as the key legislation giving rise to the environmental protection objective. However, this Act is a tightly focused technical amending piece of legislation that improves the management and protection of Scotland's historic environment by addressing specific gaps and weaknesses in the pre-existing heritage legislation framework. In view of this, it should be read in conjunction with the three separate pieces of legislation which it amends: the Historic Buildings and Ancient Monuments Act 1953, the Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. Additionally, the Scottish Historic Environment Policy (2011) and the Strategy for the Protection, Management and Promotion of Marine Heritage 2012-2015 are key policy documents for the historic environment. Further information and links to these and other key legislation, policy and guidance in relation to the historic environment are available here.</p>	
<p>POPULATION</p>	

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<p style="text-align: center;">Environmental requirements of PPS</p> <p>The Land Reform (Scotland) Act, Scottish Executive (2003) set out a new right of responsible access in Scotland. Core paths are to be identified in each local authority area, promoting more widespread and functional walking, cycling and riding and thereby supporting improved levels of physical activity.</p> <p>The Highland Core Paths Plan, HC (2011) forms the basic framework of key paths that allow people to enjoy and get around the countryside. This framework of routes will link to, and support, wider networks of other paths. Core Paths will be well maintained and clearly signposted.</p>	<p style="text-align: center;">How it affects or is affected by Aquaculture Supplementary Guidance (the SG)</p> <p>The SG should include policy to safeguard access to the foreshore for recreational activities.</p>
<p style="text-align: center;">MATERIAL ASSETS</p> <p>The Waste Directive 2006/12/EC and 2008/98/EC and subsequent updates, require Member States of the EU to:</p> <ul style="list-style-type: none"> ● establish both a network of disposal facilities and competent authorities with responsibility for issuing waste management authorisations and licenses; ● ensure the recovery of waste or its disposal without endangering human health and the environment. <p>The revised Directive 2008/98/EC sets the basic concepts and definitions related to waste management and lays down waste management principles such as the "polluter pays principle" and the "waste hierarchy", which favours prevention over reuse, recycling, recovery then disposal, guiding choices about waste management options.</p> <p>Scotland's Zero Waste Plan (2010) sets a target of 70% recycling and maximum 5% to landfill by 2025 for all Scotland's waste. Its mission is to achieve a zero waste Scotland, where we make the most efficient use of resources by minimising Scotland's demand on primary resources and recovery of resources instead of treating them as waste.</p>	<p>The Waste Directive requires the planning system to provide policies and sites for waste disposal.</p> <p>The SG should promote the waste hierarchy of prevention, reduction, re-use and recycling of waste.</p> <p>It should highlight the requirement to provide information on how site waste will be dealt with, including steps that would be taken to reduce, re-use and re-cycle wastes and how any residual wastes will be disposed of.</p>

Environmental requirements of PPS	How it affects or is affected by Aquaculture Supplementary Guidance (the SG)
<p>OTHER/CROSS SECTORAL POLICIES</p>	
<p>As part of the commitment to proportionate and practical planning policies, the Scottish Government has rationalised the Scottish Planning Policy and National Planning Policy Guidelines into a single statement of national planning policy, Scottish Planning Policy (2014)</p>	<p>The SG should be consistent with the policy as presented in the consolidated policy document. In particular, paragraphs 249-253 provide the policy background to Aquaculture</p>
<p>Highland-wide Local Development Plan and related local plans, supplementary guidance/supplementary planning guidance. Note the HwLDP is under review, along side all associated guidance</p>	<p>The SG should be compatible with local development plan policies and its related guidance. As the HwLDP is under review, the SG will be updated as required in line with this review</p>
<p>Highland Council Single Outcome Agreement and associated guidance</p>	<p>The SG should be compatible with the structure and themes of the corporate strategic plan and contribute towards achievement of its targets</p>
<p>Planning Circular 1 2007: Planning Controls for Marine Fish Farming was issued to explain and give guidance to planning officers, developers, communities and regulators on the provisions contained in the following Acts, Regulations and Order which pertain specifically to marine fish farming and which come into force on the relevant dates around April 2007.</p> <ul style="list-style-type: none"> ● Water Environment and Water Services (Scotland) Act 2003 ● Planning etc. (Scotland) Act 2006 ● Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007 ● Town and Country Planning (Prescribed Date) (Scotland) Regulations 2007 ● Town and Country Planning (Marine Fish Farming) (Scotland) Regulations 2007 <p>Aquaculture and Fisheries Act 2013</p>	<p>Planning Circular 1 and related legislation will help inform the SG</p>

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Environmental requirements of PPS	How it affects or is affected by Aquaculture Supplementary Guidance (the SG)
<p>The Water Environment (Shellfish Water Protected Areas: Designation) (Scotland) Order 2013 and location maps</p> <p>The Water Environment (Shellfish Water Protected Areas: Environmental Objectives etc.) (Scotland) Regulations 2013</p> <p>The Scotland River Basin District (Quality of Shellfish Water Protected Areas) (Scotland) Directions 2015.</p>	
<p>Delivering Planning Reform for Aquaculture 2 (2010) sets out a shared intention to improve the existing Town and Country planning system as it relates to aquaculture. In terms of Development Planning the shared objectives for a modernised aquaculture planning system are:</p> <ul style="list-style-type: none"> ● An effective planning system and well-conceived development proposals which increase the sustainable economic growth of aquaculture for Scotland; ● The aquaculture industry engages more fully in Development Plan preparation; ● Statutory consultees co-operate with planning authorities in preparing Development Plans; and <p>The new generation of Development Plans are robust and well-informed and give aquaculture developers and communities a greater degree of certainty.</p>	<p>Preparation of Aquaculture Supplementary Guidance should be undertaken in conjunction with consultation with all relevant stakeholder groups</p>

Environmental requirements of PPS	How it affects or is affected by Aquaculture Supplementary Guidance (the SG)
<p>The Aquaculture Working Arrangements sets out the responsibilities of organisations with a formal role in aquaculture development, including how they will consult each other and how information will be shared</p>	<p>The SG should explain the roles of other authorities in terms of licensing and consenting aquaculture. It should not duplicate the roles of other authorities</p>
<p>A Fresh Start: The Renewed Strategic Framework for Scottish Aquaculture (2009) sets out its vision for the aquaculture industry in Scotland and describes the economic, environmental, social and stewardship aspects of the overarching principle of sustainability to which it had regard in developing the document</p>	<p>The SG should include reference to The Renewed Framework for Scottish Aquaculture</p>
<p>A Code of Good Practice for Scottish Finfish Aquaculture was produced in response to the recommendations of the <i>Strategic Framework for Scottish Aquaculture</i> (2003). Since its implementation in 2006, the CoGP has been widely adopted as an industry production standard in Scotland</p>	<p>The SG should include reference to the Code of Good Practice</p>

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3.23 Key points arising from this analysis are that Aquaculture Supplementary Guidance should provide planning guidance which contributes to ensuring that new and modified aquaculture development in Highland is sustainable. The SG should enable the effective protection of:

- Landscape and visual amenity;
- The historic environment;
- Biodiversity;
- The water environment;
- Other users of the marine environment;
- Environmental issues arising from operational considerations.

3.24 The draft environmental report has been drafted and modified in light of comments received from colleagues within the Council and from the consultation authorities. These include suggestions for additional baseline data, minor alterations to the headings or placement of issues and reference required for additional PPS. Where reference was required to data not yet published or finalised, this will be checked for availability for the final documents. The final supplementary guidance and Environmental Report will reflect the changes made throughout the SEA process.

Relevant aspects of the current state of the environment – Environmental Baseline

3.25 Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of “the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme”, and “the environmental characteristics of areas likely to be significantly affected”. This section aims to describe the environmental context within which the PPS operates and the constraints and targets that this context imposes on the PPS. Table 9 summarises the data collected and the source.

Table 9 Data which was collated in order to establish an Environmental Baseline

SEA Issue	Data Required	Source of Data
Biodiversity	International and national designations	www.snh.org.uk and https://gateway.snh.gov.uk/site/link/wwww.highland.gov.uk
	MPAs	http://www.gov.scot/Topics/marine/marine-environment/mpanetwork
	Priority Marine Features in Highland waters	http://www.snh.gov.uk/protecting-scotlands-nature/priority-marine-features/priority-marine-features/
	Designated seal haul-outs	http://www.gov.scot/Topics/marine/marine-environment/species/19887/20814/haulouts
	Seal conservation areas	http://www.gov.scot/Topics/marine/marine-environment/species/19887/20814/sealconareas
	Cetacean routes	SNH Commissioned Report 419: Abundance and behaviour of cetaceans and basking sharks in the Pentland Firth and Orkney Waters http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publicationdetail/?id=1875
	Wild salmon rivers	Marine Scotland (outcome of consultation – see http://www.scotland.gov.uk/Resource/Doc/347210/0115571.pdf) http://www.gov.scot/Publications/2013/07/9185/9

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SEA Issue	Data Required	Source of Data
	General marine biodiversity information	Scotland's Marine Atlas http://www.gov.scot/Topics/marine/science/atlas MarLIN: http://www.marlin.ac.uk/bacs.php NMPI: https://marinescotland.atkinsgeospatial.com/nmpi/
Water	Water classifications & water quality	SEPA website www.sepa.org.uk & links therein
	Locational guidelines – Category 3 areas	Scottish Government Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters http://www.scotland.gov.uk/Topics/marine/science/Publications/publicationslatest/farmedfish/locationalfishfarms
	Shellfish Water Protected Areas	http://www.scotland.gov.uk/Topics/Environment/Water/15561/ShellfishWaters
	Useful background information of relevance to aquaculture	Scotland's environment website www.environment.scotland.gov.uk
Landscape	National Scenic Areas	SNH website http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/
	Special Landscape Areas	http://www.highland.gov.uk/info/178/local_and_statutory_development_plans/213/supplementary_guidance_for_planning/13
Cultural heritage	Scheduled Monuments	http://data.historic-scotland.gov.uk/pls/htmlmidb/f?p=2000:10:0

SEA Issue	Data Required	Source of Data
	Gardens and designed landscapes	http://her.highland.gov.uk/
	Listed buildings	http://historic-scotland.gov.uk/index/heritage/wrecksites/marine.htm
	Conservation Areas	http://historic-scotland.gov.uk/index/heritage/policy/planning-policy-and-legislation.htm
	Protected wrecks (war graves)	http://www.historic-scotland.gov.uk/index/heritage/wrecksites/scotlands-historic-wrecks.htm
	Historic Marine Protected Areas	Royal Commission on Ancient and Historic Monuments www.rcahms.gov.uk
	Historic MPAs	Highland Council Historic Environment Team
	Undesignated/unknown marine/coastal archaeology or land-based designated historic assets for freshwater/land-based aquaculture development	Admiralty charts
Population	Core Paths Plan	http://www.highland.gov.uk/info/1457/tourism_and_visitor_attractions/163/paths_in_the_highlands
	Nature tourism	www.snh.gov.uk/docs/B720765.pdf
	Tourism	http://www.hie.co.uk/growth-sectors/tourism/overview.html
Material assets	Areas leased for aquaculture development	Crown Estate http://www.thecrownestate.co.uk/marine/

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SEA Issue	Data Required	Source of Data
	Areas leased for marine renewable energy development	
	Navigation routes Recognised anchorages Sport diving sites	Admiralty charts
Cross-cutting	Cumulative & cross-cutting issues	www.sepa.org and references therein www.snh.org and references therein

3.26 The following paragraphs describe the area of Aquaculture Supplementary Guidance.

Biodiversity

Designated sites

3.27 Highland has a rich and varied natural heritage which includes international, national and local sites as well as the wider biodiversity. Internationally protected sites include Special Protection Areas (SPA) and Special Areas for Conservation (SAC), designated under the EC Birds and Habitats Directives as part of the EU Natura 2000 network. These sites are strictly protected; a similar level of protection is also afforded in the UK to wetland sites, known as Ramsar sites, which are designated as internationally important under the 1971 Convention on Wetlands. These are shown in Map 4 in the supplementary guidance.

Designation	Number of Sites	Area Covered (ha)
Site of Special Scientific Interest	361	141797.9
Special Area of Conservation	91	151.347.2
Special Protection Area	51	13102385.7
National Nature Reserve	23	134206.7
Site of Local nature Conservation Importance	171	3114.5
Local Nature Reserve	1	55.28
Ramsar	13	167876.7

3.28 In addition, there are six Nature Conservation Marine Protected Areas: East Caithness Cliffs, Noss Head, Wester Ross, Lochs Duich, Long and Alsh, Loch Sunart and the Small Isles. Marine Scotland has now identified Nature Conservation MPAs in Scotland to either protect a range of biodiversity or geodiversity features in their current state for the future, or to allow them to recover to the state in which they should be in order to remain healthy and productive.

3.29 Nationally protected sites are the Sites of Special Scientific Interest (SSSI). The boundaries of SSSIs do not extend below Mean Low Water Springs, nonetheless there is potential for aquaculture development to have an effect upon the qualifying interests of sites either directly or indirectly, e.g. where these qualifying interests include seals or certain bird species.

3.30 Special Landscape Areas have been identified as being of local importance to wildlife or exhibiting features of local natural heritage interest. Although these are predominantly in terrestrial locations, a number are in the intertidal area. Wild Land Areas have been identified at national level, but are not a statutory designation. These areas are shown in Map5 of the supplementary guidance.

3.31 SNH has undertaken reviews of a large number of marine habitats and species in order to identify those it considers to be of greatest marine nature conservation importance in Scottish territorial waters; these are termed Priority Marine Features (PMFs). Information can be accessed

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from the SNH website at

<http://www.snh.gov.uk/protecting-scotlands-nature/priority-marine-features/priority-marine-features/>

3.32 Many of the proposed PMFs are already included in the Scottish Biodiversity List which was compiled to help public bodies carry out their Biodiversity Duty, by identifying the species and habitats which are the highest priority for biodiversity conservation in Scotland. Further information on the Biodiversity List is available from the SNH website at <http://www.snh.gov.uk/protecting-scotlands-nature/biodiversity-scotland/scottish-biodiversity-list/>

Protected species

3.33 The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) enact the provisions of the Habitats Directive. Schedule 2 of the Regulations identifies European Protected Species (EPS) which are afforded the highest level of legal protection available under European and UK legislation. EPS which may be found in the marine environment of Highland and are of relevance to aquaculture include European otter, any cetacean species and any marine turtle species. Information on the distribution of Priority Marine Features in Highland waters is available in Scotland's Marine Atlas which may be accessed at <http://www.scotland.gov.uk/Publications/2011/03/16182005/0>. Species which depend on other species for part of their life cycle also require consideration, e.g. the Freshwater Pearl Mussel.

3.34 SNH Commissioned Report 419: Abundance and behaviour of cetaceans and basking sharks in the Pentland Firth and Orkney Waters provides further information on the distribution of cetacean species and may be accessed at <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id+1875>.

3.35 Highland's marine environment supports many other species and habitats that are legally protected. A list of species that are protected in Scotland, along with information on the legislation which gives protection, can be accessed from the Scottish Natural Heritage website at <http://www.snh.gov.uk/docs/A306244.pdf>.

3.36 Stocked cages attract wild predators, which may include seals and certain bird species, and for this reason information of their distribution is an important factor in the selection of new aquaculture sites.

Seals

3.37 The Marine (Scotland) Act 2010 provides for improved protection of seals by making it an offence to kill or take seals at any time. The Act allows exceptions only under specific licence or for animal welfare and introduces a new offence of harassment of seals at listed haul-out sites (Scottish Government, 2011). Details of designated haul-out sites on the coastlines of Highland may be accessed at <http://www.gov.scot/Topics/marine/marine-environment/species/19887/20814/maps> Further information on seals and licensing is available from the Scottish Government website at <http://www.gov.scot/Topics/marine/Licensing/SealLicensing>.

Fish and shellfish-eating birds

3.38 A number of fish and shellfish-eating bird species, including cormorant and eider, are found around the coasts of Highland. Information on the locations of regionally important colonies or aggregations of these and other fish-eating bird species may be found at <http://jncc.defra.gov.uk/page-4460>. Additional information is also available from the local RSPB office.

3.39 The Highland Local Biodiversity Action Plan (Consultative Draft) <http://www.highlandbiodiversity.com/highland-bap.asp> and the various Local Biodiversity Action Plans provide descriptions and other useful information on selected priority marine habitats and wider coastal wildlife issues. Lists of priority species and habitats which appear on the UK Biodiversity Action Plan list and/or the Scottish Biodiversity List can be found here: <http://jncc.defra.gov.uk/page-5717>; <http://www.biodiversityscotland.gov.uk/advice-and-resources/scottish-biodiversity-list/>.

Marine Mammals

3.40 The Highland waters are rich in protected marine mammal species. The Highland-wide 'Wild Coastal Trail' provides information on the variety of cetaceans and seals: http://www.highland.gov.uk/downloads/file/1016/wild_coastal_trail_-_highland. As some Highland waters are used as migratory routes, nursery areas and/or key feeding sites, these may need to be considered for some aquaculture proposals.

Wild Salmonids

3.41 The sea trout (*Salmo trutta*) and the salmon (*Salmo salar*) are listed as a Priority Marine Features. These salmonids are vulnerable to infection by sea lice, in particular the salmonid-specific *Lepeophtheirus salmonis*. Studies have demonstrated a spatial link between fin fish farming and increased levels of sea lice infection in wild salmonid species. Recognising the increased vulnerability of juvenile sea trout and salmon as they enter the marine environment from spawning burns, the SG should ensure these species are given appropriate protection. Work is underway by Marine Scotland on spatial planning for aquaculture that may help provide further information once the data are available.

Water

3.42 All aquaculture developments rely on high water quality and a degree of tidal flushing. In inshore marine locations it is important to select sites with good water exchange characteristics where tidal currents can disperse waste materials, maintaining well-oxygenated water conditions and, in the case of shellfish cultivation, providing adequate supplies of planktonic food organisms.

3.43 Cage sites may impact upon the seabed, for example by smothering with carbon from waste feed and faecal material and through chemical toxicity, for instance due to deposition of sealice therapeutants and antifoulant agents from nets. The inputs from shellfish farms to the water column are usually minimal as shellfish feed on marine plankton and no additional feed is required. However, where very large scale shellfish farms are proposed, water column and benthic (seabed) impacts may need to be considered.

3 Context

3.44 In order to achieve improvements to water quality, the Water Framework Directive⁽¹⁾ requires member states to identify River Basin Districts and to establish River Basin Management Plans. Most of Scotland is within the Scotland river basin district, which is covered by the Scotland River Basin Management Plan (RBMP). The objectives of the RBMP are implemented at the regional level through Area Management Plans. A key objective of the Scotland RBMP and the various area management plans covering Highland http://www.sepa.org.uk/water/river_basin_planning/area_advisory_groups.aspx is that water bodies achieve a standard known as good ecological status, and that there is no deterioration in current status. Coastal waters in and around Highland are generally classified as being at either good or high ecological status⁽²⁾. Additional sources of data are listed in Table 3.

3.45 Marine Scotland's "*Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters*" categorise sea lochs, voes and embayments into 3 Categories based on predictions of the impacts from the existing scale of development. Models predicting the nutrient enhancement of the water column and the proportion of sea bed likely to be degraded are used to identify areas more likely to be able to support additional farmed fish biomass. Currently, no further increases in maximum biomass are permitted in Category 1 areas. Increases are more likely to be permitted in Category 2 and 3 areas (subject to site specific assessment through EIA and CAR). Whilst most of the enclosed loch systems in Highland have been categorised, the remainder of Highland waters have not been.

3.46 Shellfish growing waters are regulated by European legislation through the EC Water Framework Directive³ and integrated into the wider River Basin Management framework, which supports shellfish life and growth. It contributes to the high quality of edible shellfish products and protects Shellfish Water Protected Areas against pollution and, where necessary, establish programmes to reduce pollution. There are numerous areas in Highland designated as Shellfish Water Protected Areas (see Map 3 in the accompanying Aquaculture Supplementary Guidance). In addition, there are various Shellfish Harvesting Classifications in Highland <https://www.food.gov.uk/scotland/safetyhygienescot/shellmonitorscot/shellclassesscot/shell-class-scot-1415>.

Landscape

3.47 Given the vast geographic area of Highland, it has extensive and varied coastlines and features a wide range of landscapes and seascapes, each with its own capacity to accommodate new development. Five Landscape Character Assessments were done by SNH in the 1980s' <http://www.snh.gov.uk/protecting-scotlands-nature/looking-after-landscapes/lca/>; these are currently under review.

3.48 Scotland's National Scenic Areas (NSA) are areas which are considered to be of national significance on the basis of their outstanding scenic interest, and which must be conserved as part of the country's natural heritage. Unsurprisingly, there are numerous NSAs in Highland, covering all three coasts, with a variety of special qualities. In particular, large areas of the west coast and the small isles are designated for their outstanding scenic value; details can be accessed from the Scottish Natural Heritage website at <http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/>.

1 Water Framework Directive 2000/60/EC

2 North Highland Area Management Plan; West Highland Area Management Plan

3.49 Special Landscape Areas (SLA) are non-statutory but may be designated in order to protect, enhance and encourage the enjoyment and understanding of locally/regionally important landscapes. The Highland wide Local Development Plan (HwLDP) includes protection for 27 SLAs; many of which have a coastal element. Citations have been prepared for each one: http://www.highland.gov.uk/downloads/file/2937/assessment_of_highland_special_landscape_areas. The HwLDP is currently under review and will include consideration of Wild Land Areas and areas of unspoilt coast to ensure these are also appropriately safeguarded.

Cultural heritage

3.50 Highland has a rich and diverse cultural heritage, much of which has a close association with the coastal and marine environments. Many of the Highland Scheduled Monuments have a coastal setting and these include a number of sites which are popular tourist attractions. The remains of many ship wrecks are located in the marine environment around Highland's extensive coastlines. Further information on unscheduled archaeology, wrecks and underwater sites is available from Highland Council's own historic environment team (<http://her.highland.gov.uk/>). The *Interim Supplementary Planning Guidance: Highland Historic Environment Strategy* provides more detailed guidance on the variety of cultural assets of the area. In addition, the Royal Commission on Ancient and Historic Monuments (www.rcahms.gov.uk) and Historic Scotland's Data Services Website (<http://data.historic-scotland.gov.uk/pls/htmldb/f?p=2000:10:0>) provide data on nationally designated heritage assets.

3.51 Conservation Areas, Listed Buildings Historic and gardens and designed landscapes will not normally be affected directly by aquaculture development but their setting may be impacted if the buildings or conservation area have a coastal position. Listed buildings can also be found in locations outside Conservation Areas and many have a coastal setting which may be affected by aquaculture development.

3.52 The Marine (Scotland) Act 2010 has established a new power for Marine Protected Areas (MPAs) in the seas around Scotland, to recognise features of national importance and to meet international commitments for developing a network of MPAs.

3.53 The Act allows for three different types of MPAs to be set up:

- Nature Conservation MPAs
- Demonstration and Research MPAs
- Historic MPAs

3.54 Historic Scotland has been working with Marine Scotland, Scottish Natural Heritage, and the Joint Nature Conservation Committee on the Scottish Marine Protected Areas Project, to make recommendations to Scottish Ministers to development of a network of MPAs in the seas around Scotland. These currently include four Historic MPAs in Highland, designated to protect vessels wrecked around 1590-1690. As the area of seabed protected is relatively small, these MPAs are unlikely to have a significant impact on aquaculture and vice versa, but any development would be considered on a case-by-case basis.

Population

3.55 The population of Highland is approximately 232,950 (figures for mid 2013) (http://www.highland.gov.uk/info/695/council_information_performance_and_statistics/)

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[165/highland_profile_-_key_facts_and_figures/2](#)). Highland generally has an older population profile than that of Scotland with a slightly higher percentage of children, but higher proportions in all the age groups above 45 years. Highland Council serve a third of the land area of Scotland including the most remote and sparsely populated parts of the United Kingdom. The total land area including all islands at low water is 26,484 square kilometres. This is 33 per cent of Scotland and 11.4 per cent of Great Britain and nearly the size of Belgium.

3.56 The length of coastline including islands at low water is 4,905 kilometres, 21 per cent of the Scottish total, and excluding islands is 1,900 kilometres (49 per cent of Scotland). Highland's coastlines and marine environment are important in terms of their amenity and recreational value. Its many sandy beaches are enjoyed by people of all ages and the extensive network of core paths includes a number of recognised coastal walks, guided by Highland Council's virtual ranger, Cameron (see wild coastal trails: http://www.highland.gov.uk/downloads/download/171/wild_coastal_trail). The coastal and marine environment is also extensively used by a range of formal recreation groups for activities which include sport diving, surfing, sailing, sea angling and canoeing/kayaking. Further information on the Highland Core Paths Plan, as well as a full set of maps may be accessed from the Council's website at http://www.highland.gov.uk/info/1457/tourism_and_visitor_attractions/163/paths_in_the_highlands.

Material assets

3.57 The Highland area has a wide range of port and harbours facilities, safe anchorages and coastal industrial estates. Development of the marine renewable energy industry, including the Marine Energy Park and related infrastructure, is also gaining momentum, with areas leased for development, mainly on the north and east Highland coasts. Other commercial users of Highland waters include the local inshore fishing industry, shipping and ferries, cruise ships, defence, tourism and recreation. These are governed by a variety of consents, permits and leases as appropriate. Baseline data gathered to develop the HwLDP provides information on the variety of material assets

http://www.highland.gov.uk/download/downloads/id/2926/appendix_2_baseline_data_and_maps&rct=j&frm=1&q=&esrc=s&sa=U&ei=eo_kvNTuDIHxaJS-gYAO&ved=0CC0QFjAE&usg=AFQjCNFIYWTRjXhutPvP_izD_s2bTUqvrq.

3.58 The aquaculture industry in Highland is well established with many areas currently leased for development. Indicative Map 2 in the *Aquaculture Supplementary Guidance* shows the locations of areas of seabed that are currently leased for aquaculture.

Waste

3.59 In line with the waste hierarchy, developers are encouraged to reduce, re-use and recycle waste with disposal as a final option. Historically there have been waste issues associated with the aquaculture industry in Highland e.g. in the form of seabed and coastal debris from discarded aquaculture equipment.

Data gaps

3.60 The following summarises the likely gaps and/or unreliability of the SEA baseline data, and how they were minimised:

3.61 Although it is understood and agreed that fin fish farming has an effect on sea trout in terms of the transmission of sea lice and their larvae, the extent of this effect on sea trout at population level remains unclear. Given the continued ban on fin fish farming on the north and east coast and the need to treat farmed salmon, it is likely there are similar sea lice effects on wild salmon. Work is underway by Marine Scotland on spatial planning for aquaculture that may help provide further information once the data are available. In the meantime, any impacts will be assessed on a case-by-case basis.

Environmental problems

3.62 Schedule 3 paragraph 4 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of existing environmental problems, in particular those relating to any areas of particular environmental importance. The purpose of this section is to explain how existing environmental problems will affect or be affected by Aquaculture Supplementary Guidance, and whether the PPS is likely to aggravate, reduce or otherwise affect existing environmental problems. These environmental problems are summarised in Table 10.

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Table 10 Environmental problems relevant to Aquaculture Supplementary Guidance

SEA Topic	Local Environmental Issues	Implications for SG Aquaculture
Biodiversity	<p>Wild predators, including seals, otters and certain bird species, may be attracted to stocked fish cages and shellfish sites, and there is potential for sites to sustain considerable losses. Certain measures to deter predators may prove effective in preventing loss of stock but at the same time carry an unacceptable level of risk to marine birds and mammals. Inappropriately designed and deployed anti predator methods pose a risk of incidental entanglement to both seals and other species such as diving birds.</p> <p>There may be potential for adverse effects on the qualifying interests of designated sites and protected species.</p> <p>Anti-predator methods are not always effective against persistent predation and the shooting of seals may be considered as a measure of last resort for a fin fish site.</p> <p>Certain benthic habitats are vulnerable to the effects of aquaculture, which include sediment deposition and nutrient enrichment. Examples are maerl beds, horse mussel beds and seagrass meadows all of which are Priority Marine Features.</p> <p>Cage sites may impact upon the seabed, for example by smothering with carbon from waste feed and faecal material and by chemical toxicity, through the use of sealice medicines.</p> <p>There is potential for the aquaculture industry to impact upon wild salmonids and the major areas for consideration are the potential for:</p>	<p>Scottish Planning Policy requires Development Plans to identify areas which are potentially suitable for new or modified fish farm development and sensitive areas e.g. SACs, MPAs, which are unlikely to be appropriate for such development unless adverse impacts can be mitigated.</p> <p>When designating potential development areas and sensitive areas, SPP requires Development Plans to take into account natural heritage interests. This may be done by providing information spatially on the extent and/or distribution of designated sites, priority habitats and protected species.</p> <p>As a public body the planning authority has a duty under the Nature Conservation (Scotland) Act 2004 '<i>in exercising any functions to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions</i>'.</p>

SEA Topic	Local Environmental Issues	Implications for SG Aquaculture
	<ul style="list-style-type: none"> ● impacts of parasites (sea lice) and disease on wild fish resulting from the presence of fish farms; ● disruption of genetic integrity and local adaptations of wild stocks arising from interbreeding with escapees from salmon farms; ● introduction of non-native farmed species. <p>There is evidence of an effect of sea lice (<i>Lepeophtheirus salmonis</i>) from fish farms on wild sea trout, although the extent to which the fish populations are affected is not clear.</p> <p>The sea trout (<i>Salmo trutta</i>) and the salmon (<i>Salmo salar</i>) are Priority Marine Features, which represents those marine species and habitats that are considered to be of greatest marine nature conservation importance in Scottish territorial waters.</p> <p>Non native species may pose an increasing threat to aquaculture as the climate warms and species expand/contract from their previous ranges.</p>	
Water	<p>There is potential for adverse effects on the water environment, in terms of its chemical and biological quality.</p>	<p>The Council has a duty as a responsible authority under the Water Framework Directive to protect and, where possible improve Highland’s water environment.</p> <p>When designating potential development areas and sensitive areas, the SG should take into account carrying capacity in terms of the Scottish Government’s Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Water, as well as regulatory controlled areas such as Shellfish Water Protected Areas.</p>

3 Context

SEA Topic	Local Environmental Issues	Implications for SG Aquaculture
Landscapes	Highland is valued for its stunning landscapes and seascapes, which draws, among others, a variety of tourists. Poorly sited and designed aquaculture development can have an adverse impact on the landscape and visual amenity of an area.	<p>However, the planning system should not duplicate other control regimes such as Controlled Activities Regulation (CAR) licences from SEPA</p> <p>When designating potential development areas and sensitive areas, the SG should take into account landscape interests, including unspoilt coast and wild land.</p> <p>The SG should provide advice on how the design of fish farms and associated development can minimise landscape, seascape and visual impact.</p>
Cultural heritage	Highland has a rich and varied cultural heritage, much of which has a close association with the coastal and marine environments. There is potential for aquaculture development to have an adverse effect on cultural heritage sites, including their setting.	<p>When designating potential development areas and sensitive areas, the SG should take into account historic environment interests.</p> <p>The SG should address issues such as noise, lighting and odour which could cause nuisance.</p> <p>Wherever possible, access to the foreshore for recreational purposes should not be impeded.</p> <p>Opportunities for shared use of facilities e.g. jetties, can help minimise environmental impacts on resources.</p>
Population and human health	<p>The potential impacts of noise from fish farming activities, for example the use of generators, both on and off shore can be detrimental to neighbouring uses. Other sources of nuisance include odour and artificial lighting.</p> <p>Fish farm activities may obstruct access to coastal routes or popular amenity sites.</p>	<p>The SG should address issues relating to waste and redundant equipment, including the issue of site decommissioning.</p>
Material Assets	There is potential for development to generate waste and/or pollution during construction, operation and decommissioning. Typical residual waste from operations includes redundant parts of	

SEA Topic	Local Environmental Issues	Implications for SG Aquaculture
	<p>fish cages, plastic bags, old ropes, and discarded buoys and floats. These can cause damage to both marine species and the terrestrial and marine environments.</p> <p>Redundant equipment may pose a navigational hazard as well as a risk to other users of the marine environment.</p> <p>Associated onshore facilities may be required.</p>	<p>Opportunities for shared use of onshore facilities including jetties, piers and ancillary facilities should be promoted.</p>
Cross sectoral issues	<p>Tensions are possible, due to a desire by the aquaculture industry to expand in line with Scottish Government targets, and the requirement to ensure that development is sustainable.</p> <p>There may be pressure on available space for other users of the sea, due to increasing levels of development within the marine environment.</p>	<p>The Marine (Scotland) Act 2010 places a duty on public authorities to <i>'act in the way best calculated to further the achievement of sustainable development, including the protection and, where appropriate, enhancement of the health of that area, so far as is consistent with the proper exercise of that function.'</i></p> <p>SG Aquaculture should ensure that adequate information is provided to highlight the potential for environmental effects. This will enable informed decisions to be made on those issues which can be addressed through the planning process.</p> <p>SG Aquaculture should be compatible with the emerging marine planning system and in particular the National Marine Plan. The spatial guidance and development criteria within the SG should inform the development of the future regional marine spatial plans, along with other spatial and policy considerations.</p>

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SEA Topic	Local Environmental Issues	Implications for SG Aquaculture
		<p>Established anchorages and harbours should be safeguarded.</p> <p>The effects of fish farm development on traditional fishing grounds and angling interests should be considered. The needs of local communities and other interests should also be taken into account.</p>

Likely evolution of the environment without Aquaculture Supplementary Guidance

3.63 Marine and freshwater aquaculture is a form of development which has potential to impact upon a number of environmental receptors. Access to a wide range of information and data sources is therefore necessary to inform the identification of potential new sites as well as the determination of planning applications for new development. It is anticipated that the Supplementary Guidance will provide further policy guidance and information which will identify those areas which are potentially suitable for new or modified fish farm development as well as sensitive areas which are unlikely to be appropriate for such development. Without this level of information, developers and planners may be less aware of these sensitive areas and there would be a higher risk of planning applications being approved in areas where aquaculture development could cause significant adverse environmental effects.

SEA Objectives

3.64 A set of SEA objectives was identified. Further minor modifications were made to these objectives as part of the SEA development stages, in particular comments received at the scoping stage. As part of the original HwLDP, Policy 50 *Aquaculture* was assessed as part of the full LDP SEA process. To help ensure consistency, the Aquaculture Supplementary Guidance has been assessed against the existing HwLDP objectives that are relevant to aquaculture development and new guidance e.g. national marine plan. Where appropriate, the questions asked during assessment have been amended or additional questions included in order to focus on the likely effects of aquaculture on the SEA issues.

3.65 Table 11 sets out the SEA objectives and questions used to undertake assessment of SG *Aquaculture*.

Table 11 SEA Objectives

SEA Receptor	SEA Objective	Questions
Biodiversity	Avoid damage to designated wildlife sites and protected species and minimise damage to wider biodiversity.	Is the policy likely to significantly help to protect designated natural heritage sites and their qualifying interests, or is it likely to allow development which would have adverse effects on these sites?
		Is the policy likely to significantly help to protect species that are required by law to be protected?
	Safeguard valuable habitat from loss and fragmentation through development.	Is the policy like to ensure protection of wild salmonids?
		Is it likely to safeguard areas of priority habitat that are sensitive to the effects of aquaculture, for example maerl beds, seagrass meadows or horse

3 Context

SEA Receptor	SEA Objective	Questions
		<p>mussel beds? Alternatively, is it likely to fail to protect sensitive habitat?</p> <p>Where appropriate, is the policy likely to contribute toward achievement of LBAP actions and targets?</p> <p>Is the likelihood of cumulative effects of aquaculture development on natural environment interests, including noise impacts on species, taken into account?</p>
Water	Protect the biological and chemical quality of aquatic environments, maintaining and, where appropriate, restoring key ecological processes (e.g. hydrology, water quality, coastal processes and groundwater).	<p>Is the policy likely to significantly help to protect or enhance water quality, reducing the risk of unacceptable deterioration in water quality or is it likely to allow development which would have significant adverse effects on water quality?</p> <p>Is the likelihood of cumulative effects of aquaculture development on the water environment taken into account?</p>
Landscape	Value and protect the diversity and local distinctiveness of Highland's coastal landscapes and seascapes.	<p>Does the policy protect the diversity and local character of Highland's landscapes and seascapes, including those within National Scenic Areas, other designated and non-statutory designated areas?</p> <p>Does the policy offer effective guidance on the siting and design of aquaculture development? Is it likely to ensure that the design and siting of development is such that it can be effectively accommodated in the landscape?</p>
	Respect urban form, settlement pattern and identity.	Does the policy/proposal promote respect for urban form, pattern and identity?
	Cumulative impacts.	Is the likelihood of cumulative effects of aquaculture development on landscape and seascape taken into account?
Cultural Heritage	Preserve historic buildings, archaeological sites and other culturally important features.	Is the policy likely to significantly protect Highland's historic, archaeological or cultural features from the effects of development, including visual intrusion. Alternatively, is it likely

Context 3

SEA Receptor	SEA Objective	Questions
		<p>to allow them to be adversely impacted by development?</p>
	Safeguard cultural heritage features and their settings through responsible design and siting of development.	<p>Does it safeguard cultural heritage features and their settings through the promotion of responsible design and siting of development?</p> <p>Is the likelihood of cumulative effects of aquaculture development on Highland's cultural heritage taken into account?</p>
Population	Maintain or improve the community environment and quality of life.	<p>Does the policy prevent unacceptable levels of amenity, noise, light and odour pollution?</p> <p>Is the policy likely to help sustain the character and viability of remote communities?</p> <p>Does the policy highlight the need for new development to respect the requirements of existing users of the marine and coastal environment?</p>
	Retain and, where appropriate improve the quality and quantity of publicly accessible open space.	<p>Does it protect public access to the coast?</p> <p>Does it protect areas that are important for recreation and tourism, e.g. Core Paths, key sailing anchorages, recognised wildlife watching sites?</p> <p>Is the likelihood of cumulative effects of aquaculture development on quality of life and access to the marine and coastal environment taken into account?</p>
Material Assets	Promote the efficient use of resources and the minimisation of wastes through their re-use or their recovery, in line with 2020 national targets.	<p>Does the policy encourage use of the waste hierarchy to reduce, re-use and recycle?</p> <p>Does it highlight the requirement for an effective Waste management Plan? Is it likely to ensure the removal of redundant equipment?</p>
	Promote the use of existing infrastructure and buildings.	Does it encourage the use of existing infrastructure and buildings e.g. jetties and storage sheds?

4 Assessment of environmental effects

4.1 This chapter sets out the method used for the environmental assessment of Aquaculture Supplementary Guidance and its reasonable alternatives.

Alternatives to which SEA was applied

4.2 A number of alternative approaches to developing the Council's Aquaculture Supplementary Guidance were considered. These were:

1. A criteria-based policy approach that would identify a set of development criteria against which all aquaculture planning applications would be assessed.
2. An interim approach what would include a set of development criteria supported, as appropriate, by indicative maps illustrating potential constraints to development. The maps would inform developers of the spatial distribution of constraints, enabling them to consider development potential within areas where the level of identified constraint is lower. Planning applications would be assessed for their compliance with the development criteria.

SEA Objectives

4.3 The Scoping Report was submitted to the SEA Gateway 26 February 2015 and the responses received agreed with the SEA issues that had been scoped in for consideration within the environmental assessment, as well as those which had been scoped out. Comments received at the scoping stage suggested some issues should be moved under different headings, some questions be removed and a separate question should be added on wild salmonids. The objective on the historic environment had been lost in error therefore was re-added.

4.4 These objectives (Table 6 above) represent the criteria against which Aquaculture Supplementary Guidance and its reasonable alternatives have been assessed.

Framework used to assess Aquaculture Supplementary Guidance and its alternatives

4.5 The reasonable alternatives described above have been assessed against the range of environmental issues set out in Schedule 3 of the Environmental Assessment (Scotland) Act 2005 and which have been scoped in for assessment. Comments from the Consultation Authorities, SNH, SEPA and Historic Scotland, have been taken into account regarding the methods, scope and level of detail in this Environmental Report.

4.6 Aquaculture Supplementary Guidance and its alternatives were assessed for their compatibility with the SEA objectives using a simple matrix with the following key:

++	Fully compatible with the SEA Objectives which are <u>relevant to the policy</u>
+	Partially compatible with the SEA Objectives which are <u>relevant to the policy</u>
-	No compatibility with the SEA Objectives <u>relevant to the policy</u>
0	No link

Assessment of environmental effects 4

?	Uncertain link
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4.7 The SEA process is carried out in parallel with preparation of Aquaculture Supplementary Guidance and its purpose is to ensure that the natural and built environment is fully considered at all stages of decision making. Evaluation of the likely significant environmental effects of the Plan is undertaken in line with good practice as set out in the following documents:

- Strategic Environmental Assessment Guidance (2013);
- Scottish Executive (2003) 'Environmental Assessment of Development Plans';
- OPDM (2005) A practical Guide to the Strategic Environmental Assessment Directive';
- Environmental Agency (2007) 'Strategic Environmental Assessment and Climate Change';
- SNIFFER (2008) 'Air, Water and Soil Strategic Environmental Assessment Guidance'.

Assessment of PPS and its alternatives - summary

4.8 The alternative approaches considered for Aquaculture Supplementary Guidance were assessed using a framework similar to that described above. The assessment findings are presented in Table 12.

Table 12 Assessment of Aquaculture Supplementary Guidance and alternatives

SEA topic	Alternative 1: A criteria-based policy approach without a spatial element	
Biodiversity	+	<p>This approach could address the effects of aquaculture development on biodiversity issues such as designated sites, protected species, wider biodiversity, priority habitat (Priority Marine Features), potential natural heritage, Nature Conservation Marine Protected Areas, predator management and effects on wild fisheries.</p> <p>International and national natural heritage site boundaries are already included on the HwLDP. However no further information, such as MPAs and areas protected from further finfish development on the north and east coasts, would be illustrated spatially.</p>
Water	+	<p>A criteria-based policy approach could address the likely effects of aquaculture development on the water environment.</p> <p>Information on Locational Guidelines Category 3 Areas and would be provided but boundaries would not be mapped.</p> <p>SEPA undertakes the main regulatory role in protecting the water environment so adverse effects would be unlikely.</p>

4 Assessment of environmental effects

SEA topic	Alternative 1: A criteria-based policy approach without a spatial element	
Landscape	+	<p>A criteria-based policy approach could address the likely effects of aquaculture development on landscape, seascape and possibly siting. However, it could lack the flexibility to address issues relating to design as these tend to be site-specific and vary according to the type of equipment that is available at the time.</p> <p>The boundary of designated landscape sites such as National Scenic Areas and Special Landscape Areas are included in the HwLDP.</p>
Cultural heritage	+	<p>A criteria-based policy approach could address the likely effects of aquaculture development on the historic environment. Scheduled Monuments, Conservation Areas, and Gardens and Designed Landscapes etc are covered in the HwLDP. However there would be no spatial information on the locations of e.g. designated marine war graves and Historic Marine Protected Areas would not be mapped.</p>
Population	++	<p>Policy could effectively address public amenity issues and issues such as surrounding noise, lighting, odour and the protection of access to the foreshore.</p>
Material assets	+	<p>Policy could effectively address issues relating to waste management, in particular the waste hierarchy.</p>
Interrelationships	-	<p>This approach could fail to highlight certain interrelationships, e.g. it would fail to highlight many areas which are sensitive to aquaculture development due to new and existing designations.</p> <p>This could result in:</p> <ul style="list-style-type: none"> • delays in the determination of planning applications if insufficient detail is submitted at an early stage; • unnecessary expense for developers due to time spent undertaking survey work to enable site selection, e.g. benthic surveys. <p>Does not take full account of SPP which requires planning authorities to guide development to coastal locations that best suit industry needs with due regard to the marine environment.</p>

Assessment of environmental effects 4

SEA topic	Alternative 1: A criteria-based policy approach without a spatial element
<p>Conclusions: This option would require the preparation of comprehensive criteria which would identify all planning issues which could be affected by new or modified aquaculture development. There would be limited flexibility as new changes to e.g. national policy or legislative changes would not be mapped until the review of the HwLDP or the Supplementary Guidance. It would make interpretation of the guidance less accessible to the end-users.</p>	

SEA topic	Alternative 2: Supplementary Guidance comprising an introductory section and a set of development criteria supported, as appropriate, by indicative maps showing potential constraints to development	
Biodiversity	++	The policy approach of Policies 28, 50, and 57-61 in particular of the LDP would be supported and expanded in the Development Criteria in relation to aquaculture development. Internationally and nationally designated sites included in the LDP would be included in an indicative map. In addition, spatial information on seal haul-outs or marine protected areas would also be provided, providing clear, mapped and text guidance on potential biodiversity constraints.
Water	+	The policy approach of Policy 28, 63 of the LDP would be supported and expanded in Development Criterion 4 in relation to aquaculture activities. Information on Locational Guidelines Category 3 Areas would be provided but boundaries would not be mapped as these are regularly updated. Shellfish Water Protected Areas, as at December 2014, would be mapped.
Landscape	++	The policy approach of Policies 49, 50 and 61 in particular of the LDP would be supported and expanded in the Development Criterion 1 in relation to aquaculture development. An overview would be provided of guidance on the siting and design of new or modified development with references to further useful publications. Siting and design is a broad subject and guidance needs to be flexible to take account of change over time. Supplementary Guidance has the flexibility to be changed to include the most relevant and current guidance. The boundary of designated sites such as National Scenic Areas and areas such as Wild Land (not a designation) would be shown on an indicative map.
Cultural heritage	++	The policy approach of Policy 57 in particular of the LDP would be supported and expanded in the Development Criterion 1 in relation to aquaculture development. The

4 Assessment of environmental effects

SEA topic	Alternative 2: Supplementary Guidance comprising an introductory section and a set of development criteria supported, as appropriate, by indicative maps showing potential constraints to development	
		location of key historic environment assets would be mapped.
Population	+	Development Criteria 5 and 6 could effectively address issues surrounding interactions with other users that in turn cause an environmental impact, along with issues such as noise, lighting, odour, and the protection of access to the foreshore.
Material assets	+	Development Criterion 6 could effectively address issues relating to waste management, in particular the waste hierarchy.
Interrelationships	+	<p>Supplementary Guidance would bring together the policies of the Local Development Plan and maps relevant information that particularly relate to aquaculture, some of which is already mapped in the LDP; other elements are new guidance/designations made after the production of the HwLDP.</p> <p>Supplementary Guidance would provide useful information to developers, planners, councillors, the aquaculture industry and interested members of the public, showing the different issues that require consideration when assessing fish farm applications.</p>
Conclusions: Supplementary Guidance would support existing Policy 50 <i>Aquaculture</i> by providing an additional level of policy guidance and information and more detailed mapping to support industry growth.		

4.9 The option which has been selected is **Alternative 2** Supplementary Guidance, which comprises an introductory section and a set of development criteria supported, as appropriate, by indicative maps showing potential sensitivities to development.

4.10 Although Alternative 1, a set of development criteria, would provide additional environmental benefit, it was considered that the lack of the additional mapped information proposed by this option was less beneficial and contained slightly more environmental risk.

Components of the Aquaculture Supplementary Guidance to which SEA was applied in this Report

4.11 SEA has been applied to:

- The introductory section
- Spatial strategy

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- The six Development Criteria

4.12 The Aquaculture Supplementary Guidance sets out the policy which will guide aquaculture development throughout Highland over the period 2015 -2017 and it is likely that these developments will continue operation in subsequent years. For this reason, the effects identified in this SEA are assumed to be **long term and regional** unless otherwise stated. The SG will be re-evaluated in line any revisions of the Local Development Plan as appropriate.

Assessment findings

Introduction

4.13 The introduction provides the background rationale for the document i.e. to support Policy 50 of the existing Highland wide Local Development Plan. It then sets the scene, providing background on the value of the industry and its legislative and policy context. Information on the environmental considerations required in the decision making and planning application process are outlines, including Environmental Impact Assessment (EIA) requirements. At the scoping stage for EIA, the Aquaculture Supplementary Guidance will provide a useful framework for identifying issues that should be scoped in for assessment. This section therefore has an overall positive environmental effect.

4.14 Some of the licensing roles of SEPA and Marine Scotland are described, both in the introduction and in certain Development Criteria and this is very useful in explaining other regulatory controls that are relevant to the industry.

Spatial Strategy

4.15 The effects of this element are generally positive. This component provides additional mapped information and signposting to the most up to date data, therefore provides environmental benefits by reducing environmental risk by showing clearly in graphic form the boundaries of key constraints. This in turn will help ensure further support for industry growth by providing this information at an early stage in a format that is readily accessible and steering development to the more appropriate locations and areas of less environmental sensitivity.

Biodiversity

4.16 All the effects are positive. DC2 lists those aspects of the natural environment which require to be protected from significant adverse impact. However, indirect effects are not mentioned and there is no protection for priority benthic habitats such as maerl beds, seagrass meadows and horse mussel beds which are vulnerable to the effects of aquaculture.

4.17 DC3 clearly explains the possible risks to wildlife posed by certain anti-predator measures and sets out the issues which should be addressed in a predator management strategy. Further information on the distribution of designated seal haulouts would be beneficial in identifying areas that are sensitive to the effects of aquaculture. Similarly it would be useful to provide a link to information on the locations of regionally important colonies or aggregations of fish-eating birds.

4.18 DC4 clearly identifies the potential for adverse interactions between fin fish farming and wild salmonid populations and states the Council's preference for new development to avoid areas in the vicinity of the outflows of recognised sea trout spawning burns. Orkney's principal sea trout spawning burns are highlighted on Indicative Map 3.

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Water

4.19 The effects are broadly positive. DC5 explains how aquaculture development can impact upon water quality and the benthic environment. Further information is provided on the role of SEPA and marine Scotland in licensing aquaculture-related activities. The Locational Guidelines and Shellfish Growing Waters are explained and boundaries of Category 3 areas and the Bay of Firth and Bay of Ireland Shellfish Growing Waters are illustrated on Indicative Map 4.

Landscape

4.20 The effects are broadly positive. DC1 provides a brief overview of the issues which developers should address, whilst including links to other publications that provide relevant guidance. It sets out the issues which should be addressed in landscape and visual impact assessment. This is supported by the spatial strategy which maps the key landscape designations and other important landscape features.

Cultural heritage

4.21 The effects are broadly positive. DC6 lists the aspects of the historic environment which could be impacted by aquaculture development and provides information on the issues that should be covered in an Environmental Impact Assessment. The introduction section and the spatial strategy outline the role of other agencies and signpost to sources of up-to-date information.

Population

4.22 The effects are broadly positive. DC 5 & DC6 ensure sources of potential environmental nuisance such as noise, lighting and odour are addressed, along with the requirement to consider public safety and ensure that access to the foreshore for recreational activities is not impeded.

Material assets

4.23 The effects are broadly positive. DC8 requires the preparation of a site waste management plan. DC9 requires planning applications to be supported by a decommissioning statement. This is likely to benefit all environmental receptors.

Assessment of the environmental effects of Aquaculture Supplementary Guidance

4.24 The cumulative effects of **Aquaculture Supplementary Guidance** following mitigation have been assessed, using a matrix similar to Table 13 below.

Table 13 Matrix used to assess the likely cumulative environmental effects of the policies of Aquaculture Supplementary Guidance

SEA Receptors	Weighting	Summary
Introduction section		
Biodiversity	++	Highlights need to conform with various environmental legislation.

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SEA Receptors	Weighting	Summary
Water	+	Outlines the role of other key agencies in ensuring water quality.
Landscape	0	Topic not outlined in any detail in this section.
Cultural heritage	+	Outlines the role of other key agencies in ensuring water quality.
Population	0	Topic not outlined in this section.
Material assets	0	Topic not outlined in this section.
Summary		Inter-relationship between the SEA topics: The introduction section outlines the main environmental considerations that should be considered when undertaking aquaculture development, along with information on the other key agencies and their environmental remits.
Spatial strategy		
Biodiversity	++	This element lists and maps key environmental constraints and signposts to sources of more fine scale mapping.
Water	+	Some aspects linked to water quality are covered.
Landscape	++	This element lists and maps key environmental constraints and signposts to sources of more fine scale mapping.
Cultural heritage	+	Some features are listed but there are too many to be mapped in any meaningful way on a static map.
Population	0	Topic not outlined in any detail in this section.
Material assets	+	Topic not outlined in any detail in this section.
Summary		Inter-relationship between the SEA topics: The spatial strategy is of particular benefit to the biodiversity and landscape environmental objectives. Providing clear guidance on designated species and habitats constraints will steer developers to areas of least constraint.
Spatial strategy		
Biodiversity	++	DC 3 in particular provides detail on the environmental issues concerning protected species and habitats. It steers developers away from the most sensitive areas and outlines the key issues to be considered. It also signposts to further guidance.

4 Assessment of environmental effects

SEA Receptors	Weighting	Summary
Water	++	DC4 in particular helps ensure water quality is maintained and impacts on the benthic habitat are minimised.
Landscape	++	DC1 outlines the key considerations to ensure landscape/seascape quality of the Highlands is not eroded and signposts to further guidance.
Cultural heritage	++	DC2 helps ensure the environmental qualities of Highland's cultural heritage are not eroded.
Population	++	DC5 & DC6 in particular help ensure that public impacts which may lead to public health issues are considered and mitigated appropriately.
Material assets	++	DC6 in particular considers waste minimisation and decommissioning which may bring environmental benefits to all the other receptors.
Summary		Inter-relationship between the SEA topics: While there may be some negative environmental impacts of development on a case-by-case basis, the Aquaculture Supplementary Guidance brings overall positive environmental benefits by ensuring key environmental concerns are addressed or avoided. Most of the development criteria apply to one key receptor whilst some elements apply across receptors.

++	Significant positive environmental effects	--	Significant negative environmental effects
+	Positive environmental effect	-	Negative environmental effect
0	No significant environmental effects	?	Uncertain environmental effects

Assessment of cumulative effects

4.25 The aim of cumulative effects assessment is to identify, describe and evaluate cumulative (including synergistic) residual effects in order that they may be avoided, minimised or enhanced as appropriate. Schedule 3 of the SEA Act refers to secondary, cumulative and synergistic effects and these are described in more detail below.

4.26 Secondary: Effects that are not a direct result of the PPS but occur away from the original effect, or as a result of a complex pathway. An example of a secondary cumulative effect would be the unsustainable planning of roads in sensitive wetland areas causing secondary development activities and increased pressure on the aquatic environment.

Assessment of environmental effects 4

4.27 Cumulative: Effects arise, for instance, where several developments each have insignificant effects, but together have a significant effect. For example, incremental soil sealing in urban and rural areas due to development pressures; and

4.28 Synergistic: effects interact to produce a total effect which is greater than the sum of the individual effects, so that the nature of the final impact is different to the nature of the individual impacts. An example of a synergistic effect is vegetation removal, soil sealing and soil compaction which may all cause an increase in surface runoff and erosion of soils which could have an adverse synergistic effect on aquatic ecosystems. This would be due to increased sediment loading or silting and possible nutrient enrichment.

4.29 The cumulative assessment includes the likely significant residual effects on the environment, including those on biodiversity, water, landscape, cultural heritage, population and material assets and the interrelationship between these environmental receptors.

4.30 The findings of the assessment of the cumulative effects of the Aquaculture Supplementary Guidance are included in Table 14 where the cumulative effects on each of the SEA environmental receptors can be seen by reading across the table.

4 Assessment of environmental effects

Table 14 Assessment of cumulative and synergistic effects

SEA topic	Component part of Aquaculture Supplementary Guidance								Potential cumulative impact of Aquaculture Supplementary Guidance	
	Intro	Spatial	DC1	DC2	DC3	DC4	DC5	DC6		
Biodiversity	++	++	+	0	++	+	+	0	+	Effects are likely to be broadly positive in terms of protecting biodiversity.
Water	+	+	0	0	+	++	0	0	+	Effects are likely to be broadly positive or neutral in terms of protecting the water environment.
Landscape	0	++	++	+	+	0	0	+	+	Effects are likely to be broadly positive in terms of protecting landscape.
Cultural heritage	+	0	+	++	0	0	0	+	+	Effects are likely to be broadly neutral or positive in terms of protecting cultural heritage resources.
Population	0	0	0	0	0	0	0	+	++	Effects are likely to be broadly neutral or positive in terms of protecting public amenity and access to the foreshore.
Material assets	0	0	0	0	+	0	0	0	+	Effects are likely to be broadly neutral in terms of ensuring appropriate waste management.

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SEA topic	Component part of Aquaculture Supplementary Guidance						Potential cumulative impact of Aquaculture Supplementary Guidance
	Intro	Spatial	DC1	DC2	DC3	DC4	
Interrelationships	Strong links between biodiversity and water receptors as water bodies are classified in terms of their chemical and ecological quality. Links are also possible between landscape, other users and the operational requirements with cultural heritage, where historic sites form a significant element of the landscape. Reduction in waste will minimize benthic/coastal species impacts by reducing e.g. entanglement or ingestion of waste by marine and coastal species.						

++	Significant Benefit	--	Significant Adverse
+	Minor Benefit	-	Minor Adverse
0	Negligible	?	Uncertain
?/+	Uncertain Benefit	?/-	Uncertain Adverse

4 Assessment of environmental effects

Measures envisaged for the prevention, reduction and offsetting of significant adverse effects

4.31 Schedule 3 paragraph 7 of the Environmental Assessment (Scotland) Act 2005 requires an explanation of “the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.” Table 15 sets out any environmental problems that are likely to remain on implementation of the PPS and summarises proposed measures for the prevention, reduction and offset of significant adverse effects.

Table 15 Measures envisaged for the prevention, reduction and offsetting of any significant adverse effects

SEA issue	Existing problem?	Impact of PPS	Proposed measures for the reduction/prevention and offset of significant adverse effects
Biodiversity	Incidental harm to non target species due to inappropriately designed or located anti-predator measures.	Broadly positive	DC6 highlights the need for a predator management strategy, where appropriate.
	Damage to or loss of benthic habitats that are sensitive to aquaculture.	Broadly positive	SG highlights the requirement to protect vulnerable benthic habitats.
	Impact on wild salmonids, e.g. due to increased exposure to sea lice and their larvae.	Broadly positive	DC3.2 states that development will not be permitted where there is no significant adverse impact on wild salmonid populations and where cumulative impacts on wild salmonids have been assessed and mitigated where appropriate.
Water	Potential for adverse effects on water quality.	Positive or neutral	DC4 identifies and Shellfish Water Growing Areas and signposts to Category 3 areas.
Landscape	Potential for adverse impacts on landscape due to poorly sited or designed aquaculture development.	Broadly positive	DC1 provides an overview of guidance on siting and design and makes reference to more detailed guidance, supported by a spatial strategy.
Cultural heritage	Potential for adverse effects on historic sites, including their settings.	Broadly positive	DC2 provides adequate guidance on the need to avoid significant adverse impact on historic resources and their setting.

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SEA issue	Existing problem?	Impact of PPS	Proposed measures for the reduction/prevention and offset of significant adverse effects
Population	Potential nuisance in terms of noise, lighting and odour.	Broadly positive	DC6 provides policy guidance on the need to mitigate, where necessary, sources of nuisance such as noise, lighting and odour.
	Potential for obstruction of access to coastal routes or popular amenity sites.	Broadly positive	DC6 highlights the requirement to protect access to the foreshore.
Material assets	Potential issues arising from inadequate waste management.	Broadly positive	DC8 requires appropriate management of waste
Cross sectoral issues	Tensions are possible in balancing expansion with the need for development to be sustainable.	Broadly positive	All six Development Criteria aim to enable sustainability in new or modified aquaculture development.
	Increased demand for space in the marine environment.	Broadly neutral	DC5 requires developers to demonstrate that any potential impacts of proposals on other users of the marine environment have been identified and, where conflicts of interest are likely, to provide details of impacts and the proposed mitigation measures.

5 Monitoring

5.1 The purpose of monitoring is to ensure that the proposed mitigation is effective and that any unexpected effects can be detected at an early stage so that appropriate remedial action can be put in place. Over time it is expected that environmental benefits will become apparent through the trends in the monitoring indicators. Monitoring will be used to provide essential information on which to base future development. A monitoring programme may be developed with targets relating to the SEA objectives, within the wider LDP monitoring. Further changes to the Aquaculture Supplementary Guidance are likely in order to take account of the responses to the consultation. Once the draft Aquaculture Supplementary Guidance and accompanying draft Environmental Report have been consulted upon, the changes made will be summarised in the final Environmental Report.

6.1 Table 16 lists future milestones in the development of the PPS and its SEA, and the dates when these are expected to be completed.

Table 16 Anticipated plan-making and SEA milestones

Expected date	Milestone
25 May 2015	Environmental Report and Aquaculture Supplementary Guidance go out for public consultation
19 July 2015	Deadline for consultation responses
Autumn/Winter 2015	Responses considered and taken into account in preparation of a final Aquaculture Supplementary Guidance

Getting Involved

If you would like more information or to get involved in the production of future plans please contact us in one of the following ways:

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