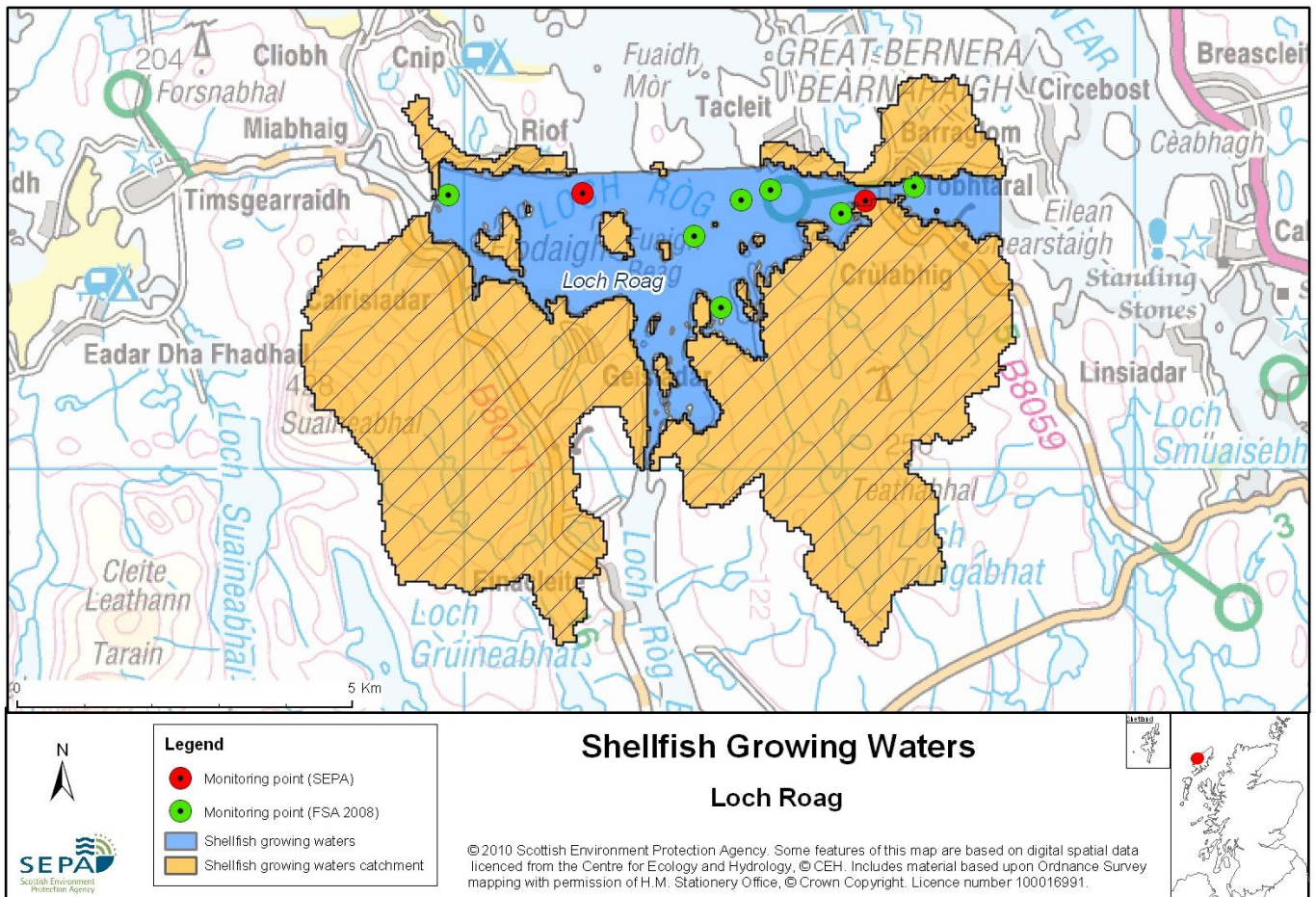


85 Loch Roag



Name	Loch Roag
Report Reference Number	85
WFD Code	UKS7992385
Local Information	An area bounded by lines drawn between NB0956233988 and NB0948833763, between NB1162734393 (Rubh' a' Scarp) and NB1442734501 (Leac na Cudaigean), between NB1800033435 and NB1800034299, and between NB1268930000 and NB1276430000, and extending to MHWS.
Designated Area (km ²)	12.38
Year of Designation	2002
Sampling Points	Loch Roag Mussel Site - NB 16000 34000
Commencement of Monitoring	1998

Loch Roag – UKS7992385

Last Edited – 01/06/11

Page 1

This site was re-designated in 2002, before which it was 4 separate sites designated in 1998.

The Loch Roag shellfish growing water area was revised in the 2002 Regulations and now includes the four separately designated shellfish waters that were established in the 1998 Regulations. The current area also contains the waters between the original four areas.

Due to its remote island nature, sampling and analysis arrangements for these waters had been different from much of the rest of Scotland, and this is the most likely cause of a substantial number of monitoring measurements being returned which appear incompatible with apparent reality. Since 2003 a full sampling regime, compliant with the Directive requirements, has been in place.

85.1 Commercial Shellfish Interests

Loch Roag is also designated as a Shellfish Harvesting Area by the Food Standards Agency (FSA), for the production of Common mussels (*Mytilus edulis*) at 8 sites. All classifications are below. Loch Roag also lies within FSA are North Lewis & Harris which are classified for production of Common Periwinkles (*Littorina littorea*).

Loch Roag: Barraglom (Common mussels)
2011 = A - April & May, December
B - June to November
2012 = A - January to March

Loch Roag: Ceabhaigh (Common mussels)
2011 = A - April to July, December
B - August to November
2012 = A - January to March

Loch Roag: Drovinish (Common mussels)
2011 = A - April to December
2012 = A - January to March

Loch Roag: Eilean Chearstaigh (Common mussels)
2011 = A - April to May, December
B - June to November
2012 = A - January to March

Loch Roag: Eilean Teinish (Common mussels)
2011 = A - April to December
2012 = A - January to March

Loch Roag: Linngeam (Common mussels)
2011 = A - April to December
2012 = A - January to March

Loch Roag: Miavaig (Common mussels)
2011 = A - April to July, December
B - August to November
2012 = A - January to March

Loch Roag: Torranish (Common mussels)
2011 = A - April to July, November & December
B - August to October
2012 = A - January to March

Category A sites are of the highest standard and means that shellfish can go directly for human consumption however category B requires that shellfish must be depurated, heat-treated or re-laid prior to human consumption.

FSA have completed a sanitary survey for Loch Roag

For more information on Food Standards Agency Classification please visit:
<http://www.food.gov.uk/scotland/safetyhygienescot/shellmonitorscot/shellclassesscot/>

85.2 Bathymetric Information

This site on Lewis is very complex with many craggy inlets and islands providing shelter from all but north winds. At its longest point the loch is 7km in length. The growing water extends west of Linish Point (max. depth 25m), east of Fuaigh Beag (max. depth 40m) and south to Áird Orasaigh (max. depth 17.8m). There are no morphological pressures on the waters.

85.3 Conservation Designations

Within the Loch Roag Shellfish Water designated area there are also five Food Standards Agency (FSA), designated Shellfish Harvesting Area, and another three FSA Shellfish Harvesting Areas just outside the Shellfish Water designation.

RAMSAR – [Lewis Peatlands](#)

Designated 07/12/2000 for habitat (upland blanket bog) and internationally important breeding bird species (including Dunlin (*Calidris alpina schinzi*))

Special Protected Area (SPA) – [Lewis Peatlands](#)

Designated 07/12/2000 for internationally important breeding bird species - Black-throated diver (*Gavia arctica*), Dunlin (*Calidris alpina schinzi*), Golden eagle (*Aquila chrysaetos*), Golden plover (*Pluvialis apricaria*), Greenshank (*Tringa nebularia*), Merlin (*Falco columbarius*), Red-throated diver (*Gavia stellata*).

Special Area of Conservation (SAC) – [Traigh na Berie](#)

Designated 17/03/2005 for Supralittoral coastal sediment - Machair

Special Area of Conservation (SAC) – [Langavat](#)

Designated 17/03/2005 for internationally important fish species - Atlantic salmon (*Salmo salar*)

Special Area of Conservation (SAC) – [Loch Roag Lagoons](#)

Designated 17/03/2005 for Inshore sublittoral marine sediment – lagoons

Special Area of Conservation (SAC) – [Lewis Peatlands](#)

Designated 17/03/2005 for internationally important habitats (Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, Blanket upland bog, Acid peat-stained lakes and ponds, upland bogs - Depressions on peat substrates, Wet heathland with cross-leaved heath) and dwarf shrub upland heath) and species (Otter (*Lutra lutra*))

Sites of Special Scientific Interest (SSSI) – [Little Loch Roag Valley Bog](#)

Designated 22/12/1983 for habitat (upland blanket bog and Fen, marsh and swamp (Wetland))

Sites of Special Scientific Interest (SSSI) – [Cnoc a' Chapuill](#)

Designated 31/01/1990 for Mineralogy of Scotland

Sites of Special Scientific Interest (SSSI) – [Glen Valtos](#)

Designated 31/01/1990 for Quaternary geology and geomorphology of Scotland

Sites of Special Scientific Interest (SSSI) – [Tob Valasay](#)

Designated 12/12/1996 for Inshore sublittoral marine sediment – saleen lagoon and Inshore sublittoral marine rock – tidal rapids

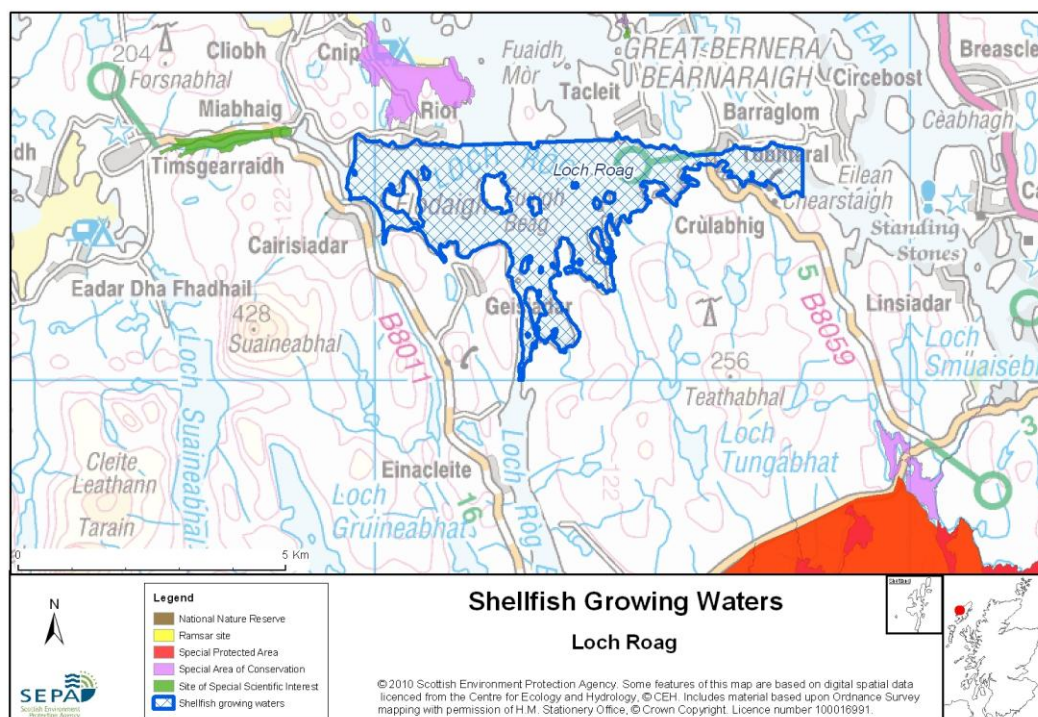
Sites of Special Scientific Interest (SSSI) – [Loch Siadar](#)

Designated 05/12/1996 for Inshore sublittoral marine sediment – saleen lagoon and Inshore sublittoral marine rock – tidal rapids

Sites of Special Scientific Interest (SSSI) –

[Loch Laxavat Ard and Loch Laxavat Iorach](#)

Designated 22/12/1983 for Oligotrophic loch, Broad-leaved, mixed and yew woodland and Breeding bird assemblage



85.4 Topography and Land Use – Potential Diffuse Pollution Sources

The loch is bordered by a mixture of heather moorland, rough ground and lochans, interspersed with small areas of improved pasture. At its eastern end, the loch is cut by a causeway that carries the B8059 road from Lewis to Great Bernera. There are a number of small settlements by the shores of the loch. The main freshwater input comes via Little Loch Roag to the south. Because of the low population density and non-intensive land use in this area, fresh water inputs are of good quality.

The main diffuse pollution potential is expected to be agricultural run-off from sheep farming.

SEPA does not have diffuse source pollution pressures recorded as causing downgrades recorded for this shellfish water.

85.5 Point Source Discharge

Sewage discharges are confined to those from private household septic tanks, the total population equivalent of these discharges being estimated at less than 100 for this area. Out with the area, there is a single Scottish Water septic tank discharge within 2km of the designated area that covers a population equivalent of 144.

Kirkibost Harbour, which lies outside the designated area, is classified as unsatisfactory by SEPA due to the presence of harbour wastes, oil and fish processing effluent.

There are 7 marine cage fish farms within West Loch Roag all of which are for Salmon

Category	Name	Consent No.	NGR	Biomass (t)
Fish Farm	Gousam Island	CAR/L/1002929	NB11103380	850
	Vuia Beag, Lewis	CAR/L/1015852	NB12103310	1290
	Vuia Mor	CAR/L/1011812	NB12683431	1600
	Earshader	WPC/N/59795	NB16003400	250
	Barraglom	WPC/N/59154	NB16803430	490
	Totarol (Keava), East Loch Roag	WPC/N/59752	NB19203430	500
	Glean Scarista	WPC/N/59794	NB19503260	500
	Greinham Island, Lewis	CAR/L/1001793	NB20103570	700

SEPA does not have point source pollution pressures recorded as causing downgrades recorded for this shellfish water.

85.6 Compliance Monitoring Regime

This monitoring regime of the designated area was not fully implemented until the second half of 2005.

Year	Monitoring Regime
2005	<ul style="list-style-type: none">• Quarterly for Sal, DO, pH, temperature, visible oil• Twice yearly for metals in water• Annually for metals and organohalogens in mussels• Quarterly for faecal coliforms in mussels

85.7 Compliance History

UKS7992385 - Loch Roag				
	Compliance history for Waters and Biota, excluding faecal coliforms data			Compliance history for faecal coliforms
Year	Overall Result	Imperative	Guideline	Guideline
2003	Fail	Fail	Fail	Pass
2004	Pass	Pass	Pass	Pass
2005	Pass	Pass	Pass	Pass
2006	Pass	Pass	Pass	Pass
2007	Pass	Pass	Pass	Pass
2008	Pass	Pass	Pass	Pass
2009	Pass	Pass	Pass	Pass
2010	Pass	Pass	Pass	Pass

The waters have complied with the Guideline standard for faecal coliforms since monitoring began in 2003.

Imperative and Guideline values were all passed for all other determinands in 2003 with the exception of dissolved oxygen. Low values for dissolved oxygen in Loch Roag have been encountered in previous years but were thought to be due to sampling error. Following improvement in the analyses, Guideline values for dissolved oxygen were met in both 2001 and 2002. A single value of 59.1% saturation was responsible for the failure of the Imperative standard in 2003, although a second sample also gave a value below the Guideline value.

In previous years Imperative standards for either copper, zinc or salinity have been registered in Loch Roag. There has been no repetition of any of these since 2001, however.

85.8 Future Monitoring

The monitoring regime (85.6 Compliance Monitoring Regime) will be followed. In the event of any chemistry parameter failing to meet any EQS, the site will be revisited and resampled for the failed parameter.

Samplers are asked to identify any evidence of visible harm to the shellfish population at the site.

Faecal coliform data is collected by SEPA from many of the shellfish waters to comply with Guideline Standards ($\leq 300/100\text{ml}$ of shellfish flesh and intervalvular fluid). However many shellfish sites are also by FSA, which can often be more frequent. When this occurs FSA data ($\leq 230 E.coli/100\text{g}$ flesh) can be used to infer pass/fail of Guideline Standards for faecal coliforms.

85.9 Improvement Actions

There are currently no improvement actions planned for this designated Shellfish Water.

WFD Objectives

Under the Water Framework Directive, the target objectives expect this shellfish water to Pass by 2015 (first River Basin Management Plan Cycle) for Imperative and Guideline Shellfish Growing Water Standards, with high confidence.

Objective	First Cycle 2015	Confidence	Second Cycle 2021	Confidence	Third Cycle 2027	Confidence
Imperative Shellfish Growing Waters Standard	Pass by 2015	High	Pass by 2021	High	Pass by 2027	High
Guideline Shellfish Growing Waters Standard	Pass by 2015	High	Pass by 2021	High	Pass by 2027	High

85.10 Summary of Actions

Action	Deadline
No improvement actions currently planned	N/A