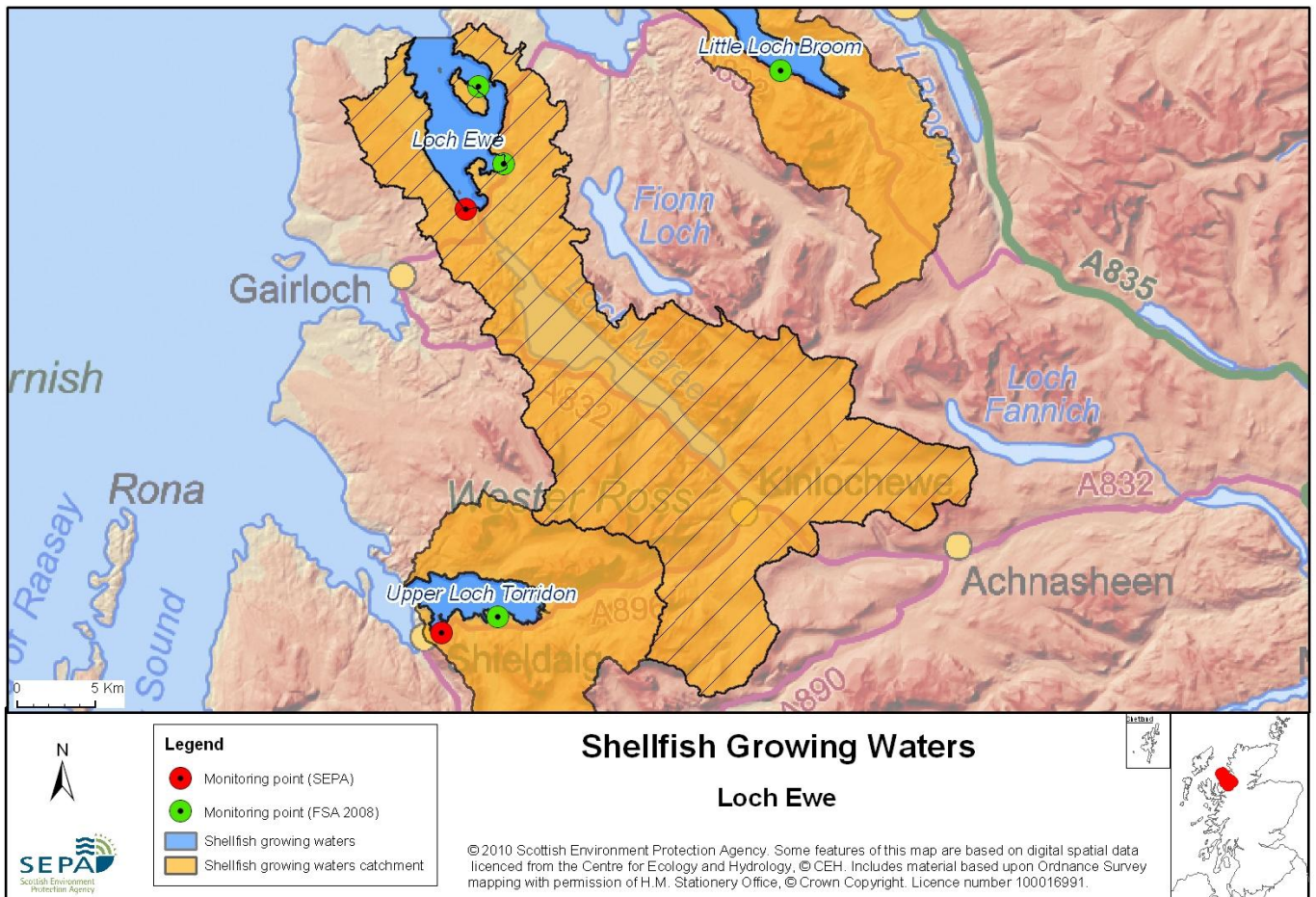


69 Loch Ewe



Name	Loch Ewe
Report Reference Number	69
WFD Code	UKS7992369
Local Information	An area south of a line drawn between NG8165092000 and NG8400392000 and extending inshore to MHWS.
Designated Area (km²)	39.27
Year of Designation	2002
Sampling Points	Loch Ewe Mussel Site - NG 84909 80967
Commencement of Monitoring	2003

69.1 Commercial Shellfish Interests

Loch Ewe is also designated by the Food Standards Agency (FSA) as a Shellfish Harvesting Area (Loch Ewe & Loch Thurnaig). The harvesting area has two sites (Loch Ewe, Loch Thurnaig) classified for the production of Common mussels (*Mytilus edulis*). Loch Ewe is also classified for the production of King scallops (*Pecten maximus*)

Loch Ewe & Loch Thurnaig: both Sites (Common mussels)
2011 = A - April to September & December
B - October & November
2012 = A - January to March

Loch Ewe (King scallops)
2011 = A - April to December
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 yet to carry out a sanitary survey for Loch Ewe & Loch Thurnaig

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

69.2 Bathymetric Information

Loch Ewe is situated on the North West coast, north of Poolewe. It has a north west aspect and is protected from the south west winds but exposed to north westerly winds. The loch has a total length of 11.9km, which is the same length as the growing area. The catchment area is 570km² and has a maximum water depth of 73m.

The loch has two sills which divide the loch into two water areas or basins. The first sill is located near the entrance of the loch at and the second sill is located at the Isle of Ewe. Maximum water depths in each basin are 62m and 73m respectively.

As a whole the loch takes 4 days to flush but each basin has its own local flushing characteristics, with some deep waters exchanging more slowly than this. Fresh/tidal flow ratio indicates a salinity reduction of 0.3 ppt, indicating a low freshwater input to the loch. There are no morphological pressures on the waters.

69.3 Conservation Designations

Loch Ewe is designated by the FSA as a Shellfish Harvesting Area.

Along the coast to the east is Little Loch Broom, which is designated as a Shellfish Water ([UKS7992361](#)), part of which is also designated as a Shellfish Harvesting Area by FSA.

National Nature Reserve – [Loch Maree Islands](#)

Designated 19/09/1977

RAMSAR – [Loch Maree](#)

Designated 19/09/1994 for Oligotrophic loch

Special Protected Area (SPA) – [Loch Maree](#)

Designated 19/09/1994 for internationally important species - Black-throated diver (*Gavia arctica*)

This is also a **Water Dependent SPA** and a **Groundwater Dependent SPA**

Special Protected Area (SPA) – [Wester Ross Lochs](#)

Designated 07/12/2000 for internationally important species - Black-throated diver (*Gavia arctica*)

This is also a **Water Dependent SPA** and a **Groundwater Dependent SPA**

Special Area of conservation (SAC) – [Loch Maree Complex](#)

Designated 17/03/2005 for internationally important habitats - Acidic scree, Alder woodland on floodplains, Alpine and subalpine heaths, upland Blanket bog, Coniferous woodland, Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, Depressions on peat substrates, Dwarf shrub heath (Upland), Montane acid grasslands

Water Dependent SAC and a **Groundwater Dependent SAC**.

Special Area of Conservation (SAC) – [Little Gruinard River](#)

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

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

Designated 17/03/2005 for internationally important habitat – upland blanket bog

Site of Special Scientific Interest (SSSI) – [Loch Maree](#)

Designated 19/03/1992 for species (Beetles, Dragonfly assemblage, Black-throated diver (*Gavia arctica*)), Native pinewood, Oligotrophic loch, Quaternary geology and geomorphology of Scotland, Vascular plant assemblage

Site of Special Scientific Interest (SSSI) – [Ardlair - Letterewe](#)

Designated 24/10/1986 for Upland assemblage (mosaic), Upland birch and oak woodland

Site of Special Scientific Interest (SSSI) – [Wester Ross Lochs](#)

Designated 22/05/2000 for aggregations of breeding bird species (Black-throated diver (*Gavia arctica*))

Site of Special Scientific Interest (SSSI) – [Meall Imireach](#)

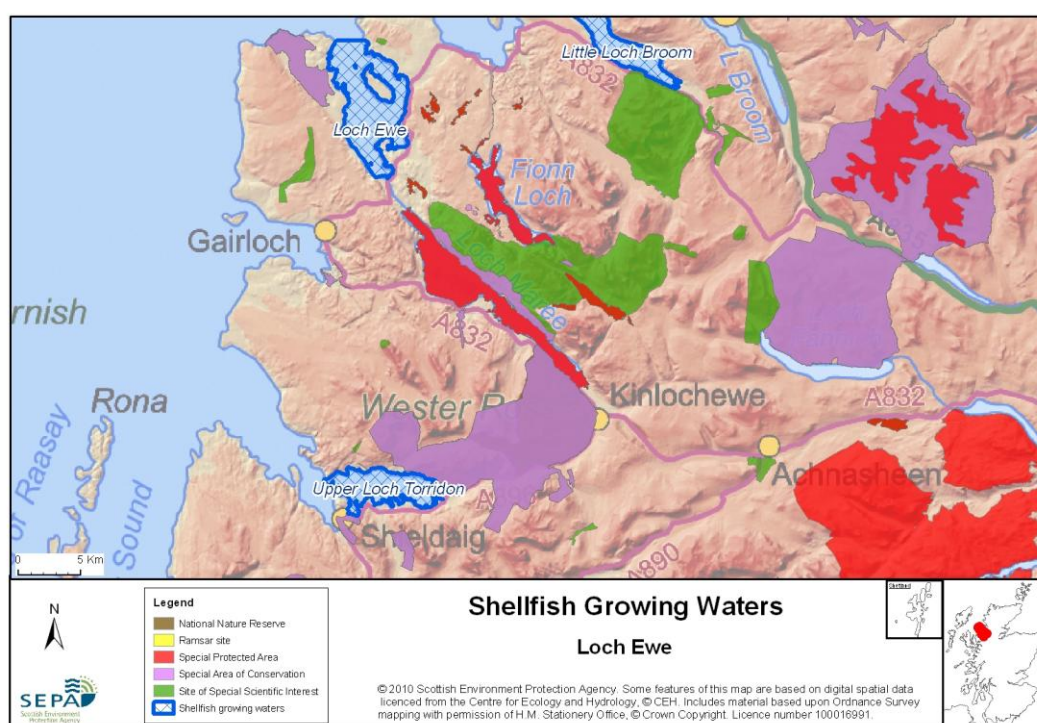
Designated 01/03/1990 Quaternary geology and geomorphology of Scotland

Site of Special Scientific Interest (SSSI) – [Fionn Loch Islands](#)

Designated 24/07/1986 for Upland birch woodland

Site of Special Scientific Interest (SSSI) – [Inverasdale Peatlands](#)

Designated 25/02/1997 for upland blanket bog habitat



69.4 Topography and Land Use – Potential Diffuse Pollution Sources

The land around the designated area is mainly of blanket bog and heather moorland, with isolated areas of improved pasture and semi-natural grasslands associated with the various settlements on the shores of the Loch. The town of Poolewe lies at the head of the Loch, at the mouth of the River Ewe – the principal freshwater input. Roads extend up both sides of the Loch, to the edge seaward extremity of the designated area, linking a series of settlements. The main source of diffuse pollution derives from agriculture around the Loch shore.

The River Ewe is currently classified by SEPA as being of Good quality. There are also a series of other freshwater inputs to the designated area that are, as yet, not monitored by SEPA. Most of these are all considered to be of at least good quality on account of the lack of stresses associate with them. Allt a'Cham Loin Mhoir and Allt Loch nan Uain may be at risk from diffuse pollution from animal farming.

69.5 Point Source Discharge

Public sewage septic tank discharges into the designated area are at Poolewe and at Aultbea, with a combined population equivalent of 757. The National Trust for Scotland also discharges public sewage effluent from its caravan site septic tank and from its restaurant. Marine Harvest Scotland Ltd discharges sewage effluent from its shore base septic tank, and there are several private house septic tanks around the shores of the designated area. There are no point source discharges out with the designated area that impact upon its quality.

There are four fish farms within the designated area with a combined consented biomass of 2620 tonnes. However, the fish farm at Naast is not permitted to operate at the same time as the Isle of Ewe fish farm, so the theoretical total biomass tonnage for the designated area is never achieved.

Type	Name	Treatment	Consent No.	NGR	PE	Additional Information
Scottish Water Asset	Bank Barn Pumping Station	Septic Tank and Collection System	CAR/L/1002135	NG 85946 80996	931	-
	Loch Ewe East	Septic Tank and Sewage System	CAR/L/1031729	NG 83723 92322	931	-
	Poolewe (Phase 1)	Septic Tank	WPC/N/0051679*	NG 8555 8125	610	-
Other	National Trust for Scotland Caravan Site	Septic Tank	WPC/N/0055862*	NG 8605 8115	-	-
Industrial	Fish farm shore base, Boor	Septic Tank	WPC/N/0055070*	NG 8445 8145	-	-
	Inverewe Gardens Restaurant	Septic Tank	CAR/L/1002124	NG 8625 8185	-	-
Category	Name		Consent No.	NGR	Biomass (t)	Additional Information
Fish Farm	Isle of Ewe, Aultbea		WPC/N/0051677*	NG 8475 8955	1	-
	Isle of Ewe		CAR/L/1002963	NG 8368 8856	1369	-
	Aultbea		CAR/L/1001810	NG 8700 8620	500	-
	Naast		CAR/L/1001814	NG 8360 8340	750	-

*There are no CAR authorisations for these sites at present.

69.6 Compliance Monitoring Regime

The following monitoring regime of the designated area was implemented in July 2005.

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

69.7 Compliance History

UKS7992369 - Loch Ewe				
	Compliance history for Waters and Biota, excluding faecal coliforms data			Compliance history for faecal coliforms
Year	Overall Result	Imperative	Guideline	Guideline
2003	Pass	Pass	Fail	Fail
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

This site failed guidance levels for faecal coliforms in 2003, but has passed ever since.

A single sample in 2003 and 2005 gave a result below the Guideline minimum standard for salinity. There are no anthropogenic inputs to the area that could account for a drop in salinity to such levels. The result is almost certainly due to a combination of low tide and high run off from rainwater affecting the sampling site at the time of sampling, and is not representative of the salinity of the designated area as a whole. This being a natural phenomenon, no measures will be taken, in accordance with Article 7(3) of the Directive.

69.8 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.

69.9 Improvement Actions

Major investment in the treatment of waste water in the Loch Ewe East area was completed in 2010. Studies showed that Loch Ewe West did not have an impact on the Shellfish Waters. The septic tank at Poolewe was increased in size and the outfall was extended. Pumping stations in the Poolewe area are due to be upgraded by 2015.

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

69.10 Summary of Actions

Action	Deadline
Loch Ewe East (Aultbea) first time sewage provision	2010
Poolewe septic tank upgrade	2010
Poolewe pumping stations upgrade	2011