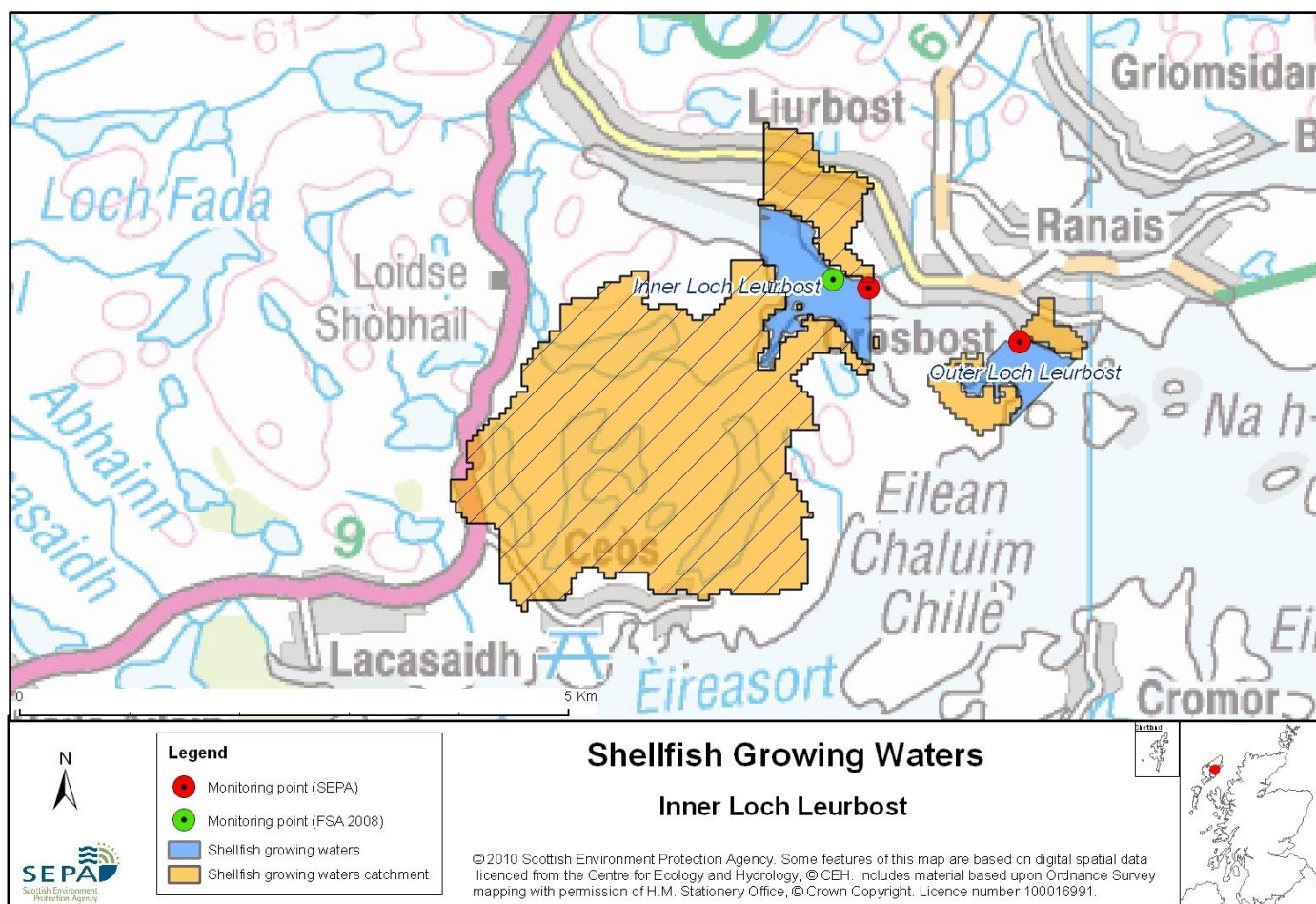


78 Inner Loch Leurbost



| | |
|---|---|
| Name | Inner Loch Leurbost |
| Report Reference Number | 78 |
| WFD Code | UKS7992378 |
| Local Information | An area bounded by lines drawn between NB3700025454 and NB3700025035 and between NB3800024759 and NB3800024043 and extending to MHWS. |
| Designated Area (km²) | 0.71 |
| Year of Designation | 2002 |
| Sampling Points | Loch Leurbost West 57 Mussel Site - NB 37992 24722 |
| Commencement of Monitoring | 2003 |

78.1 Commercial Shellfish Interests

This designated shellfish water is also designated by the Food Standards Agency (FSA) as a Shellfish Harvesting Area, for the production of common mussels (*Mytilus edulis*) from three areas (Creag an Rainich, Eilean Mhiabhaig, Loch Leurbost) all of which are classified as below.

Loch Leurbost (Common mussels)
2011 = A - April to December
2012 = A - January to March

Loch Leurbost (Crosbost) also has 2 production areas (site 1 and site 2) classified for Pacific Oysters (*Crassostrea gigas*).

Loch Leurbost - Crosbost (Pacific Oysters)
2011 = B - April to June
A - July 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 not carried out a sanitary survey for this area

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

78.2 Bathymetric Information

Inner Loch Leurbost (formerly Loch Leurbost (West)) shellfish growing water has a total length of approximately 1.3 km and a maximum water depth of 19 m. It is an enclosed loch which opens into Loch Erisort via two narrow channels to the South and East of less than 300 m width. The catchment area for the whole loch is 26km² and has a rapid flushing time of 1 day. The fresh/tidal flow ratio of 8 and the salinity reduction of 0.3ppt suggest low freshwater input. The inner (west) section contains 1 sill at its east boundary with a length of 720m and a depth of 8m. There are no morphology pressures on the waters.

78.3 Conservation Designations

Inner Loch Leurbost Shellfish Waters is also designated as a Shellfish Harvesting Area by the Food Standards Agency (FSA).

There is a second FSA Shellfish Harvesting Area adjacent and east of Inner Loch Leurbost. Part of the second Shellfish Harvesting Area is also designated as Outer Loch Leurbost ([UKS7992379](#)) Shellfish Water. South of this is a FSA Shellfish Harvesting Area at Loch Eireasort

RAMSAR – [Lewis Peatlands](#)

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

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

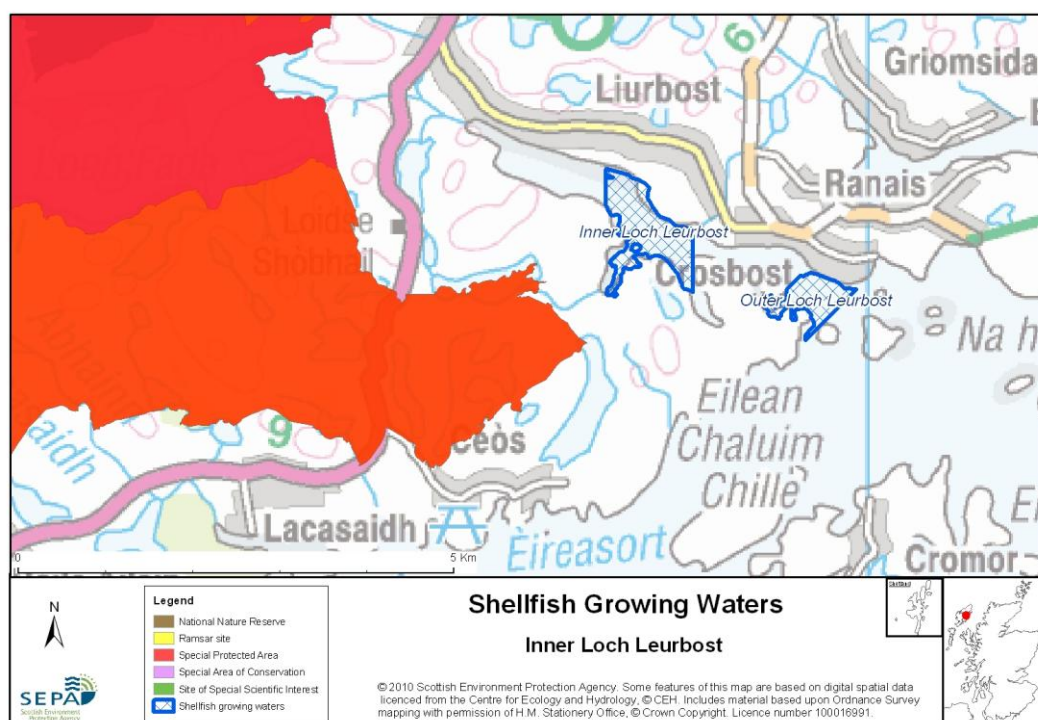
Designated 07/12/2000 for internationally important breeding bird species - Black-throated diver (*Gavia arctica*), Dunlin (*Calidris alpina schinzii*), Golden eagle (*Aquila chrysaetos*), Golden plover (*Pluvialis apricaria*), Greenshank (*Tringa nebularia*), Merlin (*Falco columbarius*), Red-throated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

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*))

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

Designated 22/12/1983 for Oligotrophic loch, Broad-leaved, mixed and yew woodland and aggregations of breeding birds (Greylag goose (*Anser anser*))



78.4 Topography and Land Use – Potential Diffuse Pollution Sources

The predominant land use is rough grazing for sheep and cattle, either on the hills to the South of the loch or on croft land to the North. There is some cultivated land on the North side of the loch amongst the crofts. There are a number of freshwater inputs into the loch, a couple of which drain the crofts on the north side of the loch and will also contain general road drainage. The main freshwater inflow is on the South side of the loch from the Lochs nan Ritheanan, Keose and Hlovat. The area

to the North of the loch is relatively densely populated and there are three significant discharges of sewage effluent to Loch Leurbost, though none of these are made directly into the designated area, in combination they have the potential for significant impacts on the water quality of the designated area.

SEPA has two diffuse source pollution pressures assigned for this Shellfish Waters, for livestock farming and sewage disposal. Bacterial Source tracking may be required to verify the source(s) of this diffuse pollution.

78.5 Point Source Discharge

There are no sewage related discharges to the immediate shellfish growing area, although three Scottish Water septic tanks discharge to the Loch within 2km of the designated area. An unsatisfactory discharge of sewage from Leurbost (West) septic tank has led to 0.1 km of coastline being downgraded to class C according to the SEPA coastal classification scheme. This area is just outside the designated shellfish water to the West but the discharge is likely to impact on the shellfish water. A review of the consent to discharge has been carried out and a modified consent will shortly be issued.

One marine cage fish farms is located in close proximity to this shellfish water, though not in it, it is 800m to the East. The site is consented to use a variety of sea-lime treatments.

| Type | Name | Consent No. | Treatment | NGR | PE | Additional Information |
|----------------------|------------------------------------|---------------|-------------|--------------|-----|---|
| Scottish Water Asset | Leurbost (West) SW Asset No 2869 | CAR/L/1001870 | Septic tank | NB 3642 2538 | 476 | Although outside the designated area, these discharges have the potential to affect water quality within it. Improved treatment is planned. |
| | Leurbost (East) SW asset No 2807 | CAR/L/1001879 | Septic tank | NB 3823 2460 | 230 | |
| | Crossbost (West) SW Asset No. 2771 | CAR/L/1002871 | Septic tank | NB 3920 2450 | 81 | - |

| Category | Name | Consent No. | NGR | Biomass (t) | Additional Information |
|-----------|-----------|---------------|------------|-------------|------------------------|
| Fish Farm | Crossbost | CAR/L/1002370 | NB 388 244 | 550 | - |

78.6 Compliance Monitoring Regime

The following 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 • Quarterly for faecal coliforms in mussels • Twice per annum for metals in water • Annually for metals and organohalogenes in mussels |

78.7 Compliance History

| UKS7992378 - Inner Loch Leurbost | | | | |
|----------------------------------|--|------------|-----------|---|
| | Compliance history for Waters and Biota, excluding faecal coliforms data | | | Compliance history for faecal coliforms |
| Year | Overall Result | Imperative | Guideline | Guideline |
| 2003 | Pass | Pass | Pass | Fail |
| 2004 | Pass | Pass | Pass | Pass |
| 2005 | Pass | Pass | Pass | Fail |
| 2006 | Pass | Pass | Pass | Fail |
| 2007 | Pass | Pass | Pass | Fail |
| 2008 | Pass | Pass | Pass | Fail |
| 2009 | Pass | Pass | Pass | Pass |
| 2010 | Pass | Pass | Pass | Pass |

Of the six samples analysed for Faecal Coliforms in 2003 and 2004, three gave results above the Guideline standard. In 2005, three samples gave results above the Guideline standard. The waters failed to comply with the guideline standards 2005 to 2008 but passed in 2009 and 2010.

78.8 Future Monitoring

The monitoring regime (78.6 Compliance Monitoring Regime) will continue but is reviewed annually.

78.9 Improvement Actions

The discharges of sewage effluent from both the Leurbost septic tanks and Crossbost will be collected and pumped over to Loch Erisort under Scottish Water's Quality and Standards III programme of investment.

WFD Objectives

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

The Guideline Shellfish Growing Water Standards are also predicted to pass by 2015 but with low confidence. This is due to past failures of the Guideline faecal coliform standards. Target objectives may be revised after the first River Basin Management Plan Cycle.

| 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 | Low | Pass by 2021 | Low | Pass by 2027 | Low |

78.10 Summary of Actions

| Action | Deadline |
|---|----------|
| Q&SIII investment and improvements for Leurbost septic tanks and Crossbost septic tanks. Discharge to be pumped over to Loch Erisort. | Done |