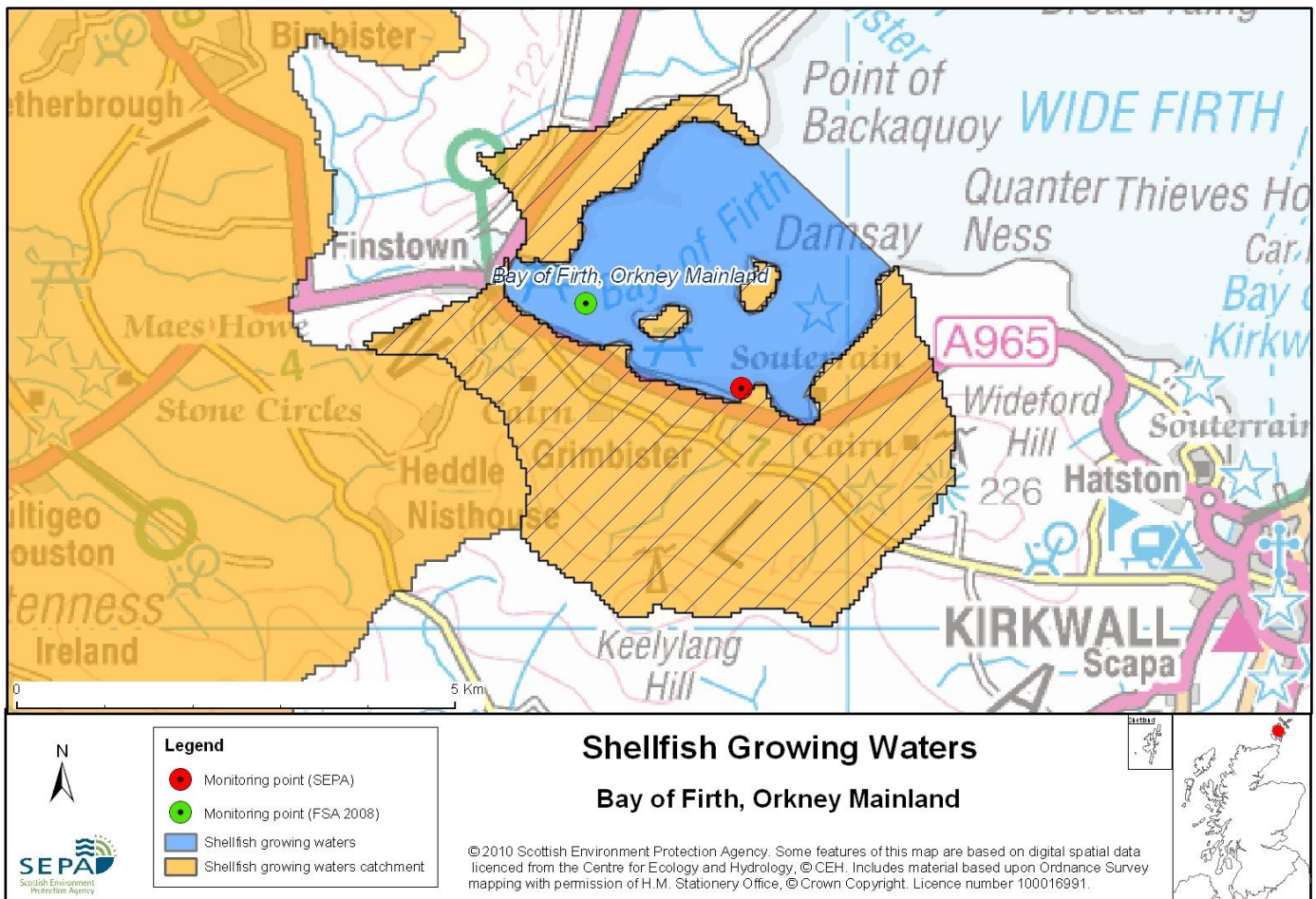


23 Bay of Firth, Orkney Mainland



Name	Bay of Firth, Orkney Mainland
Report Reference Number	23
WFD Code	UKS7992323
Local Information	An area inshore of a line drawn between the points HY4049714110 (Ferry Point) and HY3897015528, and extending to MHWS
Designated Area (km²)	8.04
Year of Designation	2000
Sampling Points	Bay of Firth - HY 38792 12740
Commencement of Monitoring	2000

23.1 Commercial Shellfish Interests

The Food Standards Agency declassified the Bay of Firth Shellfish Harvesting Site for Pacific Oysters (*Crassostrea gigas*) for two areas (Bay of Firth and Bay of Firth – Shore) in 2010, therefore there are no classifications given.

FSA have not yet 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/>

23.2 Bathymetric Information

The growing water comprises the inner area of Wide Firth and has a total length of approximately 3 km and a maximum water depth of 8 m. The firth faces NE but derives little shelter from prevailing winds due to the low lying nature of the hinterland. There are no morphological pressures on the bay.

23.3 Conservation Designations

Bay of Firth, Orkney Mainland Shellfish Water is situated close to Bay of Ireland Shellfish Water ([UKS7992335](#))

Special Protected Areas (SPA) – [Orkney Mainland Moors](#)

Designated for internationally important bird species (Hen harrier (*Circus cyaneus*), Red-throated diver (*Gavia stellata*) and Short-eared owl (*Asio flammeus*)

Sites of Special Scientific Interest – [West Mainland Moorlands](#)

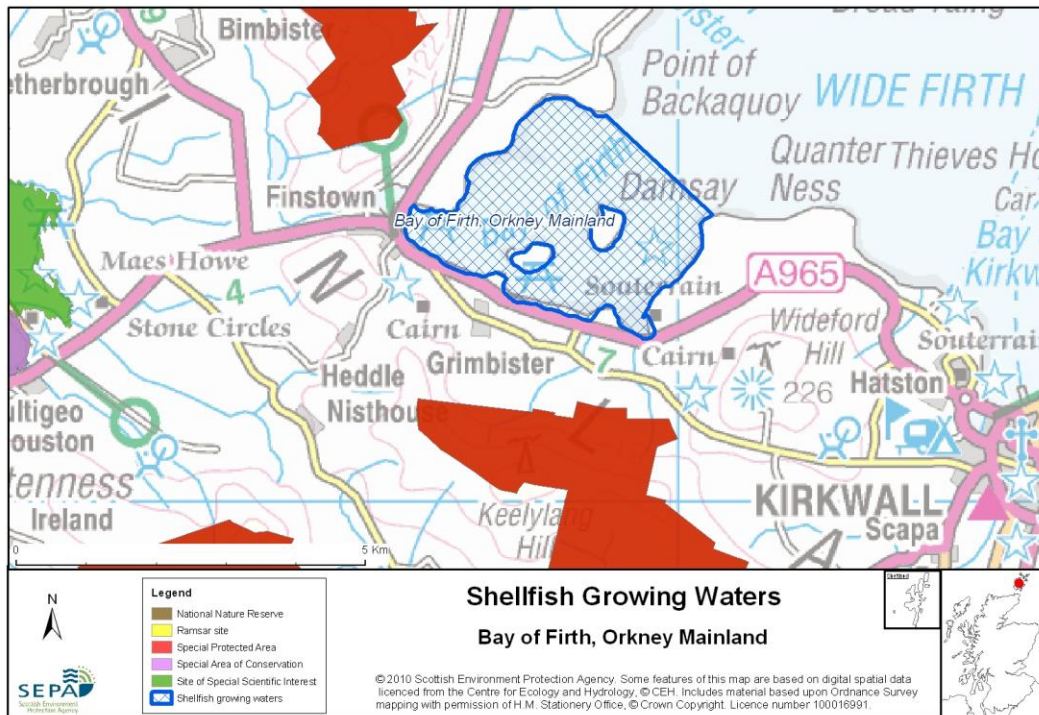
Designated 29/07/2006 for breeding bird species (Hen harrier (*Circus cyaneus*), Red-throated diver (*Gavia stellata*), Short-eared owl (*Asio flammeus*)) and habitat (blanket bog)

Sites of Special Scientific Interest – [Keelylang Hill and Swartabeck Burn](#)

Designated 27/07/1988 for breeding bird species (Hen harrier (*Circus cyaneus*), Merlin (*Falco columbarius*)) and habitat (dwarf upland shrub heath)

Sites of Special Scientific Interest – [Lochs of Harray and Stenness](#)

Designated 15/07 1985 for species (Caddisfly (*Ylodes reuteri*), Freshwater nerite snail (*Theodoxus fluviatilis*)) Bird Species (Goldeneye (*Bucephala clangula*), Pochard (*Aythya ferina*), Scaup (*Aythya marila*), Tufted duck (*Aythya fuligula*) and Inshore sublittoral Marine sediment – saline lagoon.



23.4 Topography and Land Use – Potential Diffuse Pollution Sources

The shellfish water is almost entirely surrounded by improved pasture, the grass being either grazed or cut to make animal feed (hay or silage). Two small quarries (Heddle and Cursiter) discharge surface water into minor watercourses, which in turn drain to the southern shore of the bay. As they are licensed to ensure that they do not pollute their receiving watercourses, their potential impact on the shellfish waters is negligible. The A965 road from Kirkwall to Stromness skirts the southern shore, and the town of Finstown is located in the upper, south-east corner of the bay.

SEPA currently has no identified diffuse source pollution pressures causing a downgrade recorded for this shellfish water.

23.5 Point Source Discharge

Type	Name	Treatment	Consent No.	NGR	PE	Additional Information
Scottish Water Asset	Finstown STW	Secondary	CAR/L/1012990	HY 3947 1644	752	-
	Maitland Place	6mm screening	CAR/L/1012990	HY 3628 1363	752	-
	Heddle Rd CSO	6mm screening	CAR/L/1017640	HY 3616 1384	-	-
	Heddle Road EO	6mm screening	CAR/L/1017641	HY 3616 1384	-	-
	Ouse EO	6mm screening	CAR/L/1017642	HY 3953 1412	-	-
Other	Private Septic Tanks	Primary	-	-	~20	Several septic tanks discharge to the area of water known as the Ouse
Industrial	Cursiter Quarry	Settlement Ponds	CAR/L/1001954	HY 3757 1286	-	-
	Heddle Quarry	Natural settlement lagoons/tiered wetland system	CAR/L/1001862	HY 350 130	-	-

There are no marine cage fish farms within this shellfish water

SEPA currently has no identified point source pollution pressures causing a downgrade recorded for this shellfish water.

23.6 Compliance Monitoring Regime

The following monitoring regime was implemented in July 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

23.7 Compliance History

UKS7992323 - Bay of Firth, Orkney Mainland				
	Compliance history for Waters and Biota, excluding faecal coliforms data			Compliance history for faecal coliforms
Year	Overall Result	Imperative	Guideline	Guideline
2000	Fail	Fail ¹	Fail	Not monitored
2001	Pass	Pass	Fail	Pass
2002	Pass	Pass	Fail	Not monitored
2003	Pass	Pass	Pass	Not monitored
2004	Pass	Pass	Pass	Not monitored
2005	Pass	Pass	Pass	Not monitored
2006	Pass	Pass	Pass	Not monitored
2007	Pass	Pass	Pass	Pass
2008	Pass	Pass	Pass	Pass
2009	Pass	Pass	Pass	Pass
2010	Pass	Pass	Pass	Pass

¹ In 2000 there was a failure to meet the Imperative standard for salinity. This was due to one result out of 11 being marginally over the upper limit. There is no potential source of hypersalinity in this area, and this single failure is believed to have been due to monitoring error. There did not appear to be any harm to local mussel populations and there has been no recurrence. Compliance with mandatory standards has subsequently been complete from 2001 to 2009.

Compliance for guideline faecal coliforms has not failed between 2000 and 2010, however they were not monitored 2002 to 2006.

23.8 Future Monitoring

Monitoring (as described above - 23.6 Compliance Monitoring Regime) will continue. 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.

23.9 Improvement Actions

The secondary sewage treatment system serving the small rural community came into operation in 2002. Tertiary treatment is not proposed for the works.

Outfalls are collected and discharged outside the shellfish growing waters.

There are currently no further improvements planned for this 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

23.10 Summary of Actions

Action	Deadline
Secondary treatment system operational	Done
Outfalls collected and discharged outside shellfish growing waters	Done