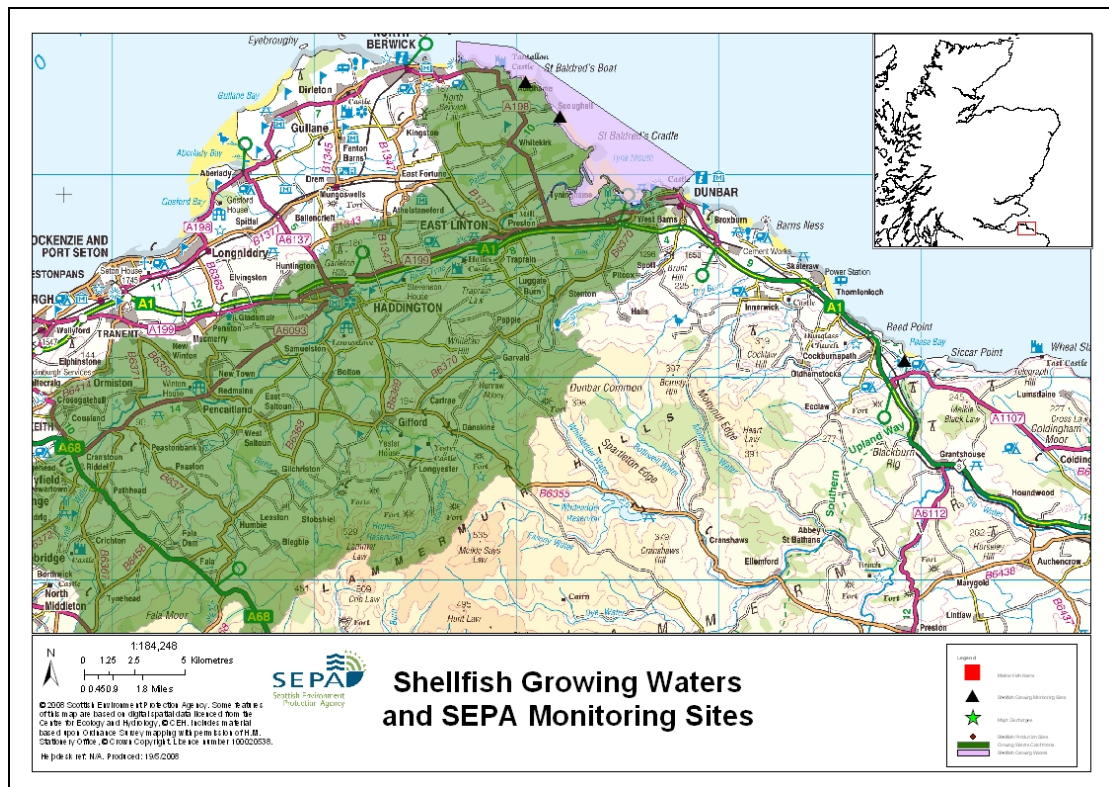


5 North Berwick to Dunbar



Name	North Berwick to Dunbar	
Report reference no.	5	
WFD Code	UKS799235	
Location Information	Area bounded by coast and a line from coast at NT 590 855 N to NT 570 866 then E and S to NT 598 863 then SE to NT 688 801 rejoining coast at point in Dunbar (NT 682 796)	
Designated area (km²)	25.2	
Year of designation	1998	
Sampling points¹	North Berwick to Dunbar	NT 63600 79500
Commencement of monitoring	1986	

¹ mussels

5.1 Commercial Shellfish Interests

There is no known commercial interest in the shellfish waters.

5.2 Bathymetric Information

The growing water has a NE facing aspect and a length of 13.5 km. The shore is gently shelving and has a maximum depth of 20 m. It is moderately exposed. There is morphological pressure from commercial fishing.

5.3 Conservation Designations

The Firth of Forth Ramsar, SSSI and SPA areas extend along the coastline and through the Shellfish waters. The protected areas include Tyne Mouth and Belhaven Bay. For more information follow the link.

http://gateway.snh.gov.uk/portal/page?_pageid=53,854555,53_854604&_dad=portal&_schema=PORTAL&PA_CODE=8163

There is a designated bathing water at Dunbar (Belhaven).

5.4 Topography and Land Use – Potential Diffuse Pollution Sources

Most of the land in this area is used for arable farming, with some patches of woodland close to the coast. The town of Dunbar is at the southeastern edge of the designated Shellfish area. Secondary pressures on the shellfish waters include inputs from Dunbar harbour.

There are three main freshwater inputs to the designated area. The Biel Water is of excellent/good quality and reaches the coast at West Barns. To the northwest, the River Tyne and East Peffer do suffer from mainly agricultural nutrient inputs, and are classed by SEPA as fair/poor quality.

5.5 Point Source Discharges

Type	Name	Consent No.	Treatment	NGR	PE	Additional information
Scottish Water Asset	Dunbar STW	CAR/L/1004837	Secondary	NT 6459 7772	22600	Built and expected to be commissioned by late spring 2008
	West Barns LSO	CAR/L/1003827	Screening	NT 6573 8046	12 500	Consents reviewed
	West Barns STW	WPC/E/5483	SOPRE	NT 6678 7846		
	Shore Rd CSO/short outfall	CAR/L/1004836	Screening	NT 6615 7949		
Other	None					
Industrial	Name	Consent No.	Treatment	NGR	Additional information	
	None					

- There are no marine cage fish farms within the designated shellfish water

5.6 Compliance Monitoring Regime

Year	Monitoring Regime
1987-2007	<ul style="list-style-type: none"> • Annually for metals and organohalogens in mussels • Quarterly for faecal coliforms in mussels

An initial survey in 1986/7 of standards in waters showed that there was no risk of failure so the level of monitoring was reduced (in accordance with Article 7) to annual

monitoring of contaminants and quarterly monitoring of faecal coliforms in shellfish flesh.

5.7 Compliance History

Year	Compliance history for Waters and Biota, excluding faecal coliforms data			Compliance history for faecal coliforms
	Overall Result	Imperative	Guideline	Guideline
1998	Pass	Pass	Pass	
1999	Pass	Pass	Pass	Fail
2000	Pass	Pass	Pass	Fail
2001	Pass	Pass	Pass	Fail
2002	Pass	Pass	Pass	Fail
2003	Pass	Pass	Pass	Fail
2004	Pass	Pass	Pass	Fail
2005	Pass	Pass	Pass	Fail
2006	Pass	Pass	Pass	Fail
2007	Pass	Pass	Pass	Fail

All samples have complied with standards for contaminants in shellfish flesh. This growing water has remained consistently compliant with all imperative and guideline values with respect to chemical parameters since designation.

The waters have consistently failed to comply with the guideline standard for faecal coliforms since 1999. It is hoped that an improvement will be observed in 2008 upon the new Dunbar sewage works becoming operational.

5.8 Future Monitoring

Annual sampling of mussels for organohalogenes and metals will continue.

In the event of any chemistry parameters indicating an upward trend in contaminant levels, or EQS failure, the site will be revisited and re-sampled for the failed parameter. Samplers are asked to identify any evidence of visible harm to the shellfish population at the site.

Dunbar to North Berwick ECSGW will be monitored quarterly for faecal coliforms in mussels. In addition, historical water quality data for the River Tyne and Biel Water will be reviewed to identify the potential risk of pollution from freshwater inputs.

5.9 Improvement Actions

This site in the 1980s was influenced by various sewage outfall pipes serving approximately 6000 people in the Dunbar area. These were reduced to one significant discharge when the current West Barns waste water treatment works (STW) and long sea outfall were commissioned in 1993. Unfortunately, this system suffers from frequent short circuiting with the result that untreated sewage can be discharged via the old West Barns outfall and storm overflow. Consent for a new treatment works at Dunbar to improve the situation was issued. This required Scottish Water to replace the current West Barns STW by the end of 2005.

Unfortunately, due to delays in finalising land purchase, this deadline was not met. This resulted in SEPA issuing Scottish Water with an enforcement notice to ensure that the new Dunbar works was completed by the end of 2007.

The new Dunbar works has now been built and its commissioning is expected to be completed by late Spring 2008. The works is situated inland and will discharge to the Biel Water utilising the existing long sea outfall as a storm overflow. The old West Barns works is to be used as a pumping station to the new works. Upsizing of the main sewer and work at Shore Road combined sewer overflow has also been carried out to improve the sewerage system.

SEPA have highlighted that despite a high degree of treatment to be effected by the proposed membrane technology treatment plant the new STW may require additional disinfection in order to comply with the Shellfish Waters Directive requirements.

5.10 Summary of Actions

Action	Deadline
Scottish Water investment in the sewerage network at Dunbar. Upsizing of the main sewer and work at Shore Road combined sewer overflow	Done
Scottish Water investment in a new sewage treatment works at Dunbar to replace the West Barns works	Late Spring 2008