

47 Portobello (Central)



47.1 Background Information

Portobello (Central) became an identified bathing water in 1999. After a sewer overflow in May 2000 the water authority carried out investigative work on the Joppa sewer. This resulted in removal of debris from the sewer, increasing the flow passing on to Seafield and reducing the frequency of overflows at Joppa. These and other improvements by Scottish Water have reduced the occurrence of storm sewage overflows. The bathing water achieved excellent quality for the first time in 2001, a status which was maintained until 2005. Portobello (Central) was good quality in both 2006 and 2007.

There was one exceedance of the mandatory standards on 25 June 2007, which was considered to be due to heavy rain causing CSOs to operate. It is likely that this exceedance was due to problems with the pumps at the Joppa sewage pumping station. These have been required to operate above their design capacity due to additional flow in the sewer because of minewater from abandoned mineworkings. The Coal Authority is currently examining ways to reduce this minewater flow. In the meantime Scottish Water has installed new pumps of greater capacity to reduce the spill frequency at the pumping station.

Although the threat from diffuse pollution is relatively slight, this bathing water is part of the SEPA electronic signage and Beachline information network. At these beaches (11 in Scotland), SEPA provides daily water quality predictions and displays these forecasts via electronic message signs at each of the 10 beach locations as well as by updates on the SEPA website, Beachline phone (08452 30 30 98) and Beachline text service (text the first beach word to 07797 806503). For further details, or daily updates during the bathing season visit SEPA's website at:

<http://www.sepa.org.uk/data/bathingwaters/signage/index.asp>

In March 2006 the revised Bathing Water Directive (2006/7/EC) entered into force and was enacted in the UK by Regulations in March 2008. Key features are tighter microbiological standards to be met by 2015 and increased provision of public information.

Compliance and pollution improvement required for the designated EU Bathing Waters will be co-ordinated through the Water Framework Directive (WFD) programme of measures which will form part of the river basin management plan. The programme of measures will outline measures (actions) that are being taken to protect and improve the water environment in the river basin district. This EU designated bathing water (protected area) pollution reduction plan will identify measures relevant to this bathing water and associated water bodies that are being undertaken as part of the programme of measures.

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
n/s	Good	Good	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good

Table 47A: Record of Compliance for Portobello (Central), 1997 – 2007.



Figure 47A: Map of Portobello (Central) designated bathing beach and surrounding local area

47.2 Results for 2007

Portobello (Central) Results				
Date	Total Coliforms (colonies/100ml)	Faecal Coliforms (colonies/100ml)	Faecal Streptococci (colonies/100ml)	Abnormal Weather Waiver
21052007	20	2	<2	-
01062007	8200	1100	86	Yes
06062007	900	900	8	-
15062007	1800	700	70	-
18062007	4800	1400	212	-
25062007	8100	7500	1250	-
28062007	240	92	16	-
04072007	400	170	83	-
08072007	22	<2	4	-
11072007	6	2	<2	-
20072007	174	68	26	-
31072007	86	86	185	-
02082007	54	40	8	-
07082007	64	20	14	-
15082007	800	156	160	-
20082007	900	176	40	-
22082007	38	10	<2	-
29082007	32	18	14	-
04092007	900	900	390	-
06092007	26	26	4	-
Number of Samples taken : 20				

Table 47B: Microbiological results for Portobello (Central) bathing water, June – September 2007

47.3 Scottish Water Assets

Seafield sewage treatment works (STW) provides tertiary treatment and lies to the west of the bathing water. Fillyside and Joppa pumping stations are located to the west and east of the bathing water respectively. Eastfield Pumping Station combined sewer overflow (CSO) lies to the east of the bathing water

Duddingston and Mountcastle Drive CSOs both discharge into the Figgate Burn which enters the bathing water between the west and central bathing waters. Duddingston Road CSO was improved in 2003. Mountcastle Drive CSO is currently scheduled for improvement under the Scottish Water Quality & Standards III investment programme.

Scottish Water installed new pumps at the Joppa Pumping Station in spring 2007 which has increased the capacity of the pumping station by about 10%.

47.4 Other Discharges

The Figgate Burn flows onto the beach between the two designated bathing waters, and is known to be a source of faecal contamination due to CSOs which discharge to it.

The SEPA/Scottish Water working group identified a pigeon roost at Baileyfield Bridge as an input of faecal coliforms. In 2003 this was netted to prevent pigeon faeces from being washed into the surface water road drains and into the burn.

47.5 Agriculture

Agriculture is not considered to have any significant impact on this bathing water.

47.6 Hydrometric Network

Figure 47B shows a map of the hydrometric network of the surface water catchment area of Portobello bathing waters.

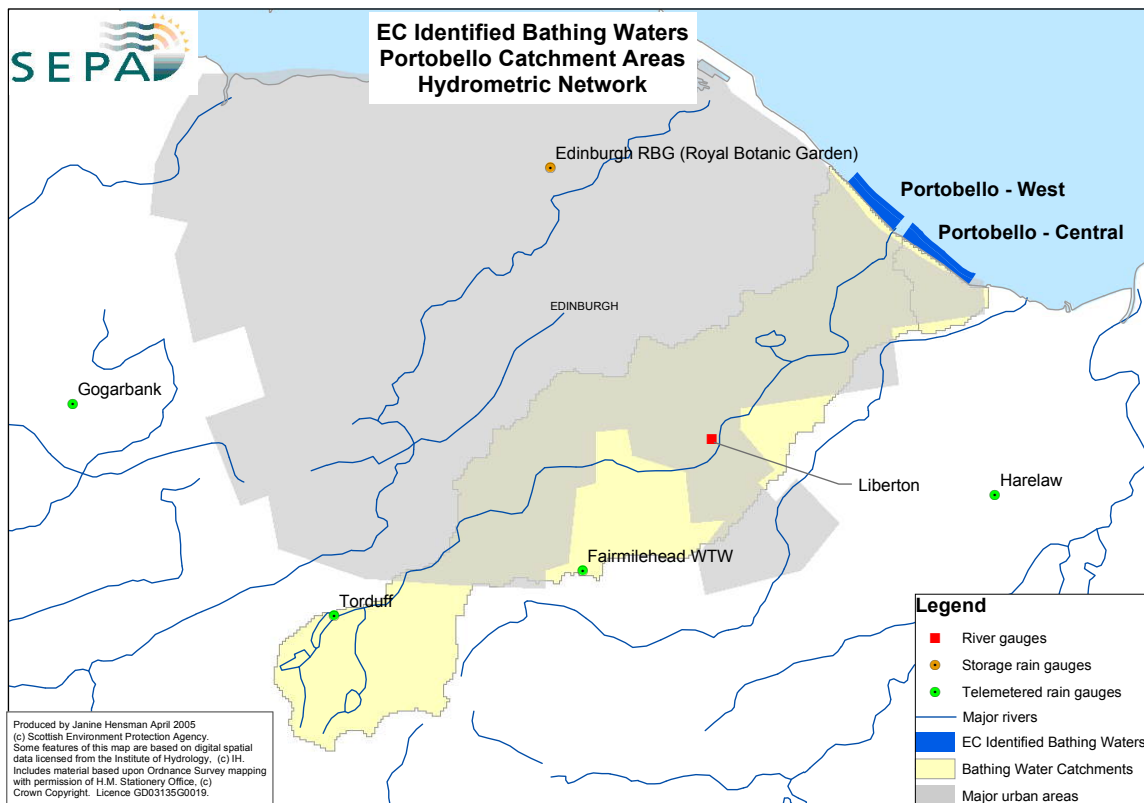


Figure 47B: Hydrometric map of Portobello (Central) and surrounding area

47.7 Further Investigations

Portobello (Central) is included in the Scottish Government/SEPA signage project. For the past three years during the bathing season daily predictions have been made as to likely bathing water quality. This will continue in 2008. In 2004 additional sampling was undertaken to verify the daily predictions. Although Portobello (Central) achieved a guideline pass, a number of samples in exceedance of the mandatory standard were collected as part of the additional sampling. In the vast majority of cases these exceedances were predicted and the public informed via the electronic sign. In all cases heavy rainfall had preceded the sampling. These additional results have been reviewed and compared with the performance of overflow data from the pumping stations discharging into the Portobello bathing waters.

SEPA will continue to work with Scottish Water through the Figgate Burn Focus Group and the Scottish Water Unsatisfactory Intermittent Discharges Study Group in order to determine and oversee the improvements required and to identify and investigate other significant sources of faecal contamination. Microbiological investigations to find sources of surface water run-off contamination are continuing.

SEPA has concerns regarding the volume of minewater present in the sewer system and its impact on Joppa Pumping Station. The Coal Authority is currently undertaking investigations to determine whether the flow of minewater discharge into the sewer at Joppa can be reduced. Scottish Water is also involved in these investigations.

SEPA will continue to monitor these waters as per the requirements of the EC Bathing Waters Directive and will continue to ensure that all sewage discharge consent conditions are met.

47.8 Response to Failure

Portobello (Central) has been assessed for the 2008 season as being of medium risk of failing the mandatory standard.

Should there be a mandatory failure, there will be an immediate response to check all the relevant potential sources in the catchment area to confirm the reason, including follow-up microbiology sampling of the bathing water and nearby river inputs.

The regional Environmental Quality Unit will co-ordinate a response in conjunction with the local Environmental Protection and Improvement team and Environmental Science functions and post the result of the investigation and actions arising on the SEPA bathing waters internet site.