

38. St Andrews (East Sands)



38.1 Background Information

This bathing water was identified in 1999, although SEPA and its predecessors had monitored it for many years. Between 2003 and 2006 the bathing water achieved excellent quality, but it was only good quality in 2007. The new Sewage Treatment works (STW) commissioned in 2001 and described in part 38.3 reduces the risk of non-compliance with the Directive at both the St. Andrews bathing waters.

The bathing water at East Sands began the 2007 season holding a Blue Flag award. However it has lost this status because only EU mandatory standards were achieved during 2007. It appears that the unusually wet summer resulting in increased storm sewage discharge and increased freshwater flow from the Kinness Burn, which flows in to the north end of the bathing water, was the reason for the reduced performance.

In March 2006 the revised Bathing Water Directive (2006/7/EC) entered into force and was enacted in the UK by Regulations in 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
Excellent	Good	Poor	Good	Good	Good	Excellent	Excellent	Excellent	Excellent	Good

Table 38A: Record of Compliance for St Andrews (East Sands), 1997 – 2007.

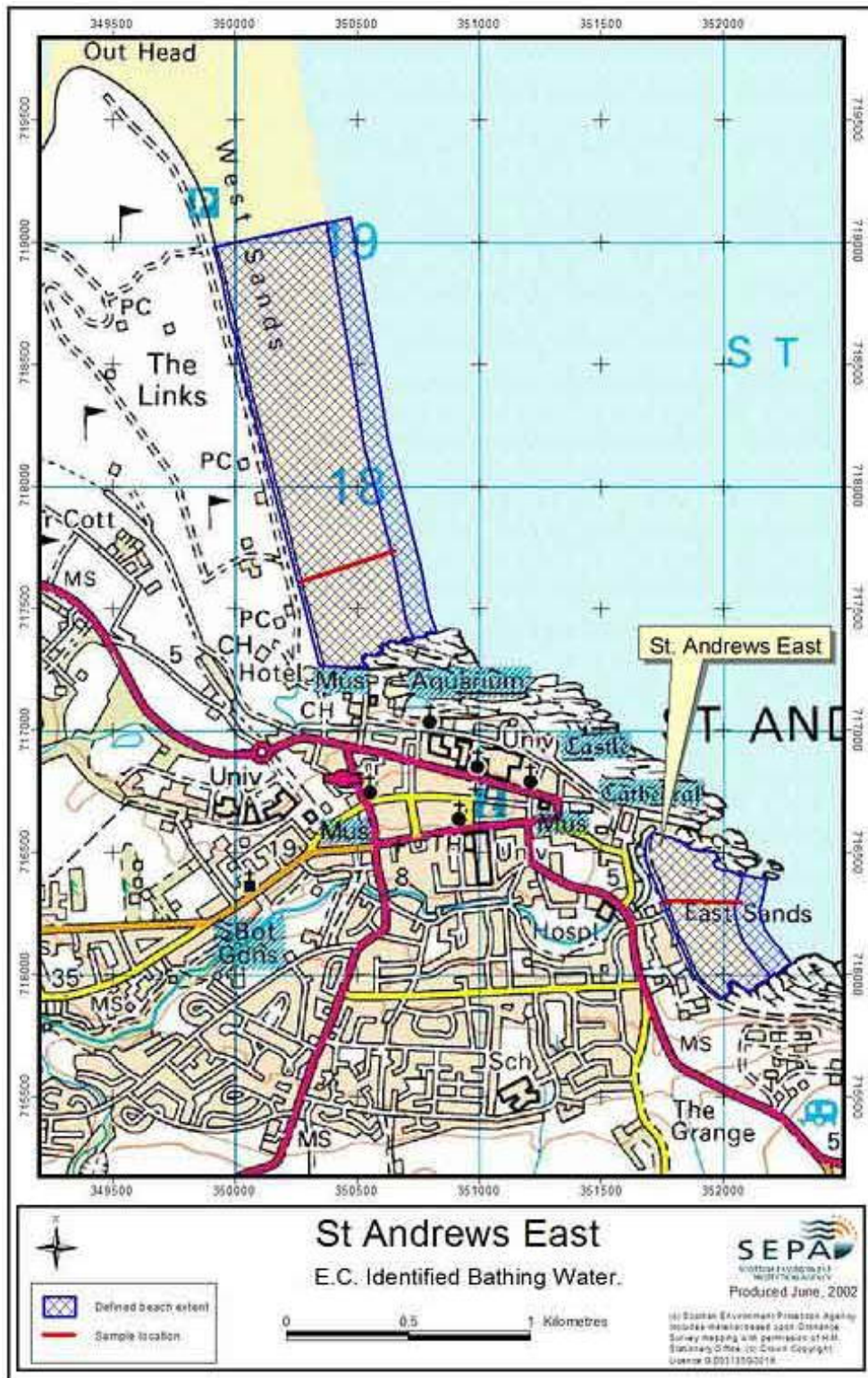


Figure 38A: Map of St Andrews (East Sands) designated bathing beach and surrounding local area

38.2 Results for 2007

St Andrews (East Sands) Results				
Date	Total Coliforms (colonies/100ml)	Faecal Coliforms (colonies/100ml)	Faecal Streptococci (colonies/100ml)	Abnormal Weather Waiver
28052007	66	54	4	-
07062007	34	28	2	-
15062007	400	282	14	-
19062007	72	38	6	-
21062007	9400	4300	1310	Yes
26062007	184	118	16	-
27062007	218	86	4	-
29062007	1200	174	28	-
02072007	800	246	48	-
07072007	182	52	10	-
17072007	146	66	2	-
19072007	2700	282	78	-
24072007	134	80	22	-
31072007	88	88	22	-
03082007	16	16	8	-
07082007	72	32	8	-
13082007	28	28	6	-
24082007	10	10	<2	-
29082007	52	52	14	-
31082007	200	200	34	-
Number of Samples taken : 20				

Table 38B: Microbiological results for St Andrews (East Sands) bathing water, June – September 2007

38.3 Scottish Water Assets

The STW at Kinkell Ness, to which all sewage from St Andrews is pumped, was commissioned in 2001. This works has tertiary treatment including disinfection, and the treated effluent is discharged via a long sea outfall. Storm tanks were also constructed in the Kinness Burn sewer catchment to minimise discharges from storm sewer overflows. The works consistently meets its discharge consent conditions.

In January 2008 Scottish Water carried out major works to replace defective screens at the Bruce Embankment and St Andrews Harbour pumping stations. This should significantly reduce the incidents of sewage debris appearing on East Sands beach.

38.4 Other Discharges

No other significant discharges are considered likely to threaten the quality of this bathing water.

38.5 Agriculture

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

38.6 Hydrometric Network

Figure 38B shows a map of the hydrometric network in the area of St Andrews (East Sands) bathing water.

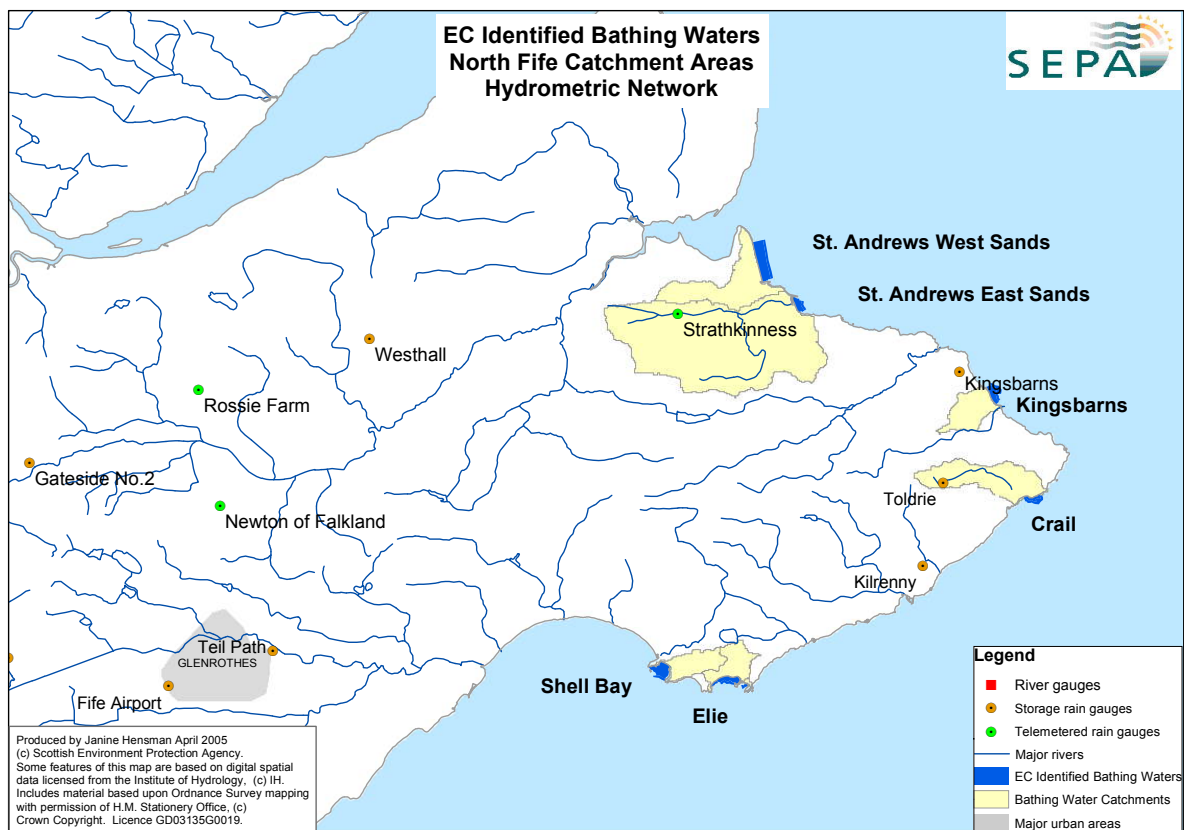


Figure 38B: Hydrometric map of St Andrews (East Sands) and surrounding area.

38.7 Further Investigations

In 2005, an unknown source of pollution contributed to a reduction in bathing water quality from excellent to good in the first half of the season. It is suspected that this source came from the Kinness Burn. SEPA undertook an Environmental Improvement Action Plan in 2006 to identify any bacterial sources discharging into the Kinness Burn with the aim of eliminating and reducing any identified problems. No significant sources were identified but bathing water quality improved in 2006.

In view of the suspected contribution of the Kinness Burn to elevated coliform counts at East Sands, bacteriological sampling of the Kinness Burn was carried out in 2007 and

an extended program of sampling is continuing in 2008 to try to determine and eliminate significant sources of contamination in the catchment.

SEPA is playing a major supporting role in a campaign in St Andrews, championed by Scottish Water, to reduce the amount of fats and oils from trade and domestic premises discharged to sewer. High levels of fats and oils in sewers lead to blockages and premature overflows to the water environment thus threatening bathing water quality.

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.

38.8 Response to Failure

St Andrews (East Sands) has been assessed for the 2008 season as being of low 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.