

7.3 Water quality

- 7.3.1 Respondents to the fourth survey of Public Attitudes to the environment in England and Wales, carried out in 1996/7 were most worried about pollution issues. At least 60% said they were very worried about chemical pollution in rivers or sea and sewage on beaches or in bathing waters.
- 7.3.2 The microbiological quality of bathing waters can be affected by discharges of sewage effluent, storm sewage overflows and river borne pathogens (ie pollutants that could affect human health). In 1990 it was found that around 33 per cent of substantial sewage discharges to coastal waters (ie in population equivalent terms those serving more than 10,000) were untreated, some 54 per cent were screened for the removal of solid materials and around 13 per cent had primary or secondary treatment. Since then the situation has been gradually improving as a result of a bathing waters improvement programme which commenced in 1989. Under the Urban Waste Water Treatment Directive all significant discharges of sewage to estuaries and coastal waters will be treated by the end of 2005. Other factors affecting the quality of inshore waters include farm run-off, waste discharged from ships and boats, and litter.
- 7.3.3 Much of the sewerage system in our region's coastal towns was built by the Victorians in the early 1900's. As the tourist industry grew over the years, waste-water in these towns was usually directed to short pipes, known as sea outfalls, that discharged untreated waste water into the sea. This meant that visible waste water solids were sometimes washed back onto our beaches and the coastline.
- 7.3.4 Under the EC Bathing Water Directive, eleven physical, chemical and microbiological parameters are measured including total and faecal coliforms which are generally considered to be the most important indicators of the extent to which water is contaminated by sewage. Samples of bathing water are taken at regular intervals two weeks before and then during the bathing season, which usually covers the period from mid-May to end-September in England and Wales, and from the beginning of June to mid-September in Scotland and Northern Ireland. In the UK a minimum of 20 samples are normally taken at each site. The Directive gives mandatory values (as well as more stringent guideline values) for a number of the parameters. The mandatory value for total coliforms is 10,000 per 100 ml, and for faecal coliforms 2,000 per 100 ml. For a

bathing water to comply with the coliform standards, the Directive requires that at least 95 per cent of samples taken for each of these parameters over the bathing season are less than or equal to the mandatory values. In practice this means that where 20 samples are taken, a maximum of only one sample may exceed the mandatory value for the bathing water to comply, and where less than 20 samples are taken none may exceed the mandatory value for the bathing water to comply.

7.3.5 The European Waste Water Treatment Directive was introduced in the early 1990's. This required water companies to provide 'primary' treatment for coastal towns by the year 2000.

7.3.6 During the 1980's and early 1990's Yorkshire Water started to tackle years of neglect in coastal sewage treatment, by improving the sewerage collection systems and building long sea outfalls. This work helped our bathing waters to comply with new European standards introduced in the 1970's.

7.3.7 More recently Yorkshire Water's CoastCare scheme, a £120 million coastal sewage treatment improvement programme has led to significant improvements in bathing water quality along the East Riding coast.

7.3.8 Modern waste-water treatment plants along Yorkshire's East Coast at Scarborough, Filey, Whitby, and Bridlington have been installed with ultra-violet disinfection technology. This ensures that discharges into the sea are literally thousands of times cleaner than ever before. Together with investment at Hornsea, Staithes, Robin Hood's Bay, Sandsend and Runswick Bay, this work has been widely welcomed and will greatly improve the bathing water quality on Yorkshire's coastline for local people and visitors. The ultimate goal will be to achieve Blue Flag status.



7.3.9 With this work to reduce the pollution from sewage, the main component of pollution in inshore waters will become "diffuse source" pollution (pollution that does not have one single identifiable source) such as agricultural run-off. This will become a priority for action to improve the quality of bathing waters. Urban surface water run off is also a

cause of concern as any contaminants wash straight into water courses and then into the marine environment. In recognition of this, Sustainable Urban Drainage Systems (SUDS) are being promoted as a means of reducing the speed of run off (and so reducing flood risk) while also reducing pollution entering water courses.

7.3.10 The Seaside Award was introduced in 1992 and is given to beaches that are entered into the Awards, and that comply with the European Bathing Water Directive mandatory standards and are clean, safe, well managed and provide appropriate information including details about current and previous water quality. The Seaside




The Humber Estuary

Award is an annual UK award scheme that encompasses both resort and rural beaches. Its primary functions are to help raise standards of cleanliness, hygiene, safety and environmental management at beaches and to provide a comprehensive and free public information service for beach users.

7.3.11 The European Blue Flag Campaign is an initiative of FEEE (Foundation of Environmental Education in Europe) and is administered in the UK by Tidy Britain Group. It was introduced in 1987, the European Year of the Environment and recognises those resort beaches and marinas which are clean, well managed and promote care for the environment. To be considered a beach must have attained the guideline standard of the EC Bathing Water Directive before being assessed for 24 other criteria. A marina must fulfil a similar range of criteria but does not have to fulfil the Bathing Water Directive standards

7.3.12 Beach cleanliness is an essential factor not only in the attraction of Beach Awards, but also the attraction of businesses, supported by the increase in visitor numbers. The impact of waste arising from new, predominantly small business, and the necessity for trade waste agreements with all seaside businesses to ensure proper containment and disposal of waste is an issue that will need addressing. This may offer opportunities to generate increased materials for recycling, via the implementation of kerbside schemes. However, the impact of further businesses needs to be assessed in terms of existing waste disposal facilities in the East Riding.



7.3.13 A Seaside Award resort beach ensures proper safety and first aid provision, access and facilities for disabled visitors, clean and well-maintained facilities, dog control and hygiene and a range of public information. A Seaside Award rural beach, which has more limited facilities, is clean, considered relatively safe for swimming, provides life-saving equipment, and is checked regularly. Both resort and rural beaches are required to display the bathing water quality results for the current season as well as the previous four years.

7.3.14 The Seaside Awards and Blue Flag have established a set of national beach management standards that local authorities strive to reach and which contribute enormously to the quality of a day out at the coast for the family. The numbers of awards have increased steadily with 272 Seaside Awards in 2000. There are now 80 local authorities and private beach operators participating.

7.3.15 Tidy Britain Group is developing a Beach Management Programme to assist all coastal local authorities to improve standards at their beaches. It will establish a network for the distribution of information about best practice and will enable beach operators to set up an effective and cohesive beach management system.

7.3.16 In the East Riding there are 13 designated bathing beaches (see below), of which three have achieved Seaside awards. These are the two resort beaches of Bridlington South and North and the rural beach at South landing.

7.3.17 Designated bathing beaches in the East Riding:

- North Landing
- South Landing
- Danes Dyke
- Bridlington North
- Bridlington South
- Wilsthorpe
- Auburn farm, Fraisthorpe
- Fraisthorpe Sands, South
- Barmston
- Ulrome
- Hornsea
- Tunstall
- Withernsea

7.3.18 The results of the Tidy Britain Group National Resort Survey of 2000/1 are as follows

Bridlington North A85

Bridlington South A87

(Score out of 100)

7.3.19 The quality of bathing waters at beaches along the Yorkshire and Northeast coastline is continuing to improve according to studies conducted by the Environment Agency. The Agency's findings in 2001 show the best ever results for Yorkshire with 100% of beaches passing the mandatory bathing water quality standard for the first time since monitoring began in 1988.

7.3.20 Of the 56 beaches surveyed by the Agency across Yorkshire and the North, several including Tunstall (near Withernsea) were declared as having water of outstanding quality. Just five failed to come up to standard. In 1990 just 70 per cent of beaches along the same stretch of coastline came up to the standards set by the Department of Environment, Transport and the Regions. None of the five beaches that failed to meet the standards are in the East Riding.



Spurn

7.3.21 Pollution from industrial sources can be a problem in some areas. The Environment Agency keeps a database and monitors industrial discharges that are licensed. There are three sites on the Environment Agency's Pollution Inventory within the coastal zone. These are all related to the gas industry and are the two terminals at Dimlington, and the gas storage facilities north of Atwick. The Pollution Inventory contains details on the amount and nature of releases from large industrial sites within England and Wales. It identifies individual substances and substance groups that may be released to air, water, land or produced as waste.

7.3.22 Considerable works have also been undertaken at Muntons and Fisons' maltings plant north of Bridlington. Work completed in 2000 has reduced the amount of organic matter entering Bridlington Bay, a source of concern to some.

7.3.23 The use of Tri-butyl Tin (TBT) as anti-fouling paint on fishing boats and other craft has been a cause for concern since the 1970's. The effects on gastropods such as dog whelks is widely researched and led to legislation being introduced in 1987 to ban the sale and use of TBT based products for boats under 25m in length, as well as fish cages. Certain areas of Bridlington Harbour, where scrubbing of hulls has taken place, are known to be effected but DEFRA do not permit dredging in these areas.



Spurn



7.4 POLICY AIMS:

- EN2. Investigate measures to address diffuse / widespread source pollution and to pursue measures to remedy this**
- EN3. To ensure that bathing water meets the highest standards feasible**
- EN4. To achieve the highest possible quality standards at bathing beaches, within resources available. The priority should be the most heavily used beaches.**
- EN5. To promote the use of Sustainable Urban Drainage Systems in new development**