



## Kent Coastal Network

### **Towards integration on the Kent Coast**

This topic paper is part of a KCC coordinated project to develop an Integrated Coastal Action Plan for Kent. The aim is to generate wider discussion and it is accompanied by a consultation response form.

**Title:** - Quality of the Water Environment

**Author:** - Robert Wise, Area Environmental Planning Team Leader, Environment Agency (Kent & East Sussex) is the steering group lead for Quality of the Water Environment.

### **Introduction**

The 350 miles of our coastline is one of our most important assets and a very marketable commodity. Protecting and improving our beaches, estuaries, fisheries and marine habitat is therefore important and beneficial to all of us. Our blue flag beaches and unique coastal habitat in combination with the recreational opportunities attract visitors to some of the most deprived areas of Kent. Improving the quality and diversity of our marine environment contributes to us achieving a prosperous economy for Kent.

The Water Framework Directive is a statutory process to understand and assess the quality of rivers, coastal waters and estuaries and identify collaborative measures which will improve quality and biodiversity. This is an ambitious, wide-ranging piece of legislation that challenges us to manage the whole water environment and all of its subtle, interrelated problems in co-ordination. The Environment Agency, together with a panel of sector representatives has produced draft River Basin Management Plans. The plans describe what everyone has to do to improve the water environment over the next 20 years. This consultation runs from 22 December 2008 until 22 June 2009.

This topic paper

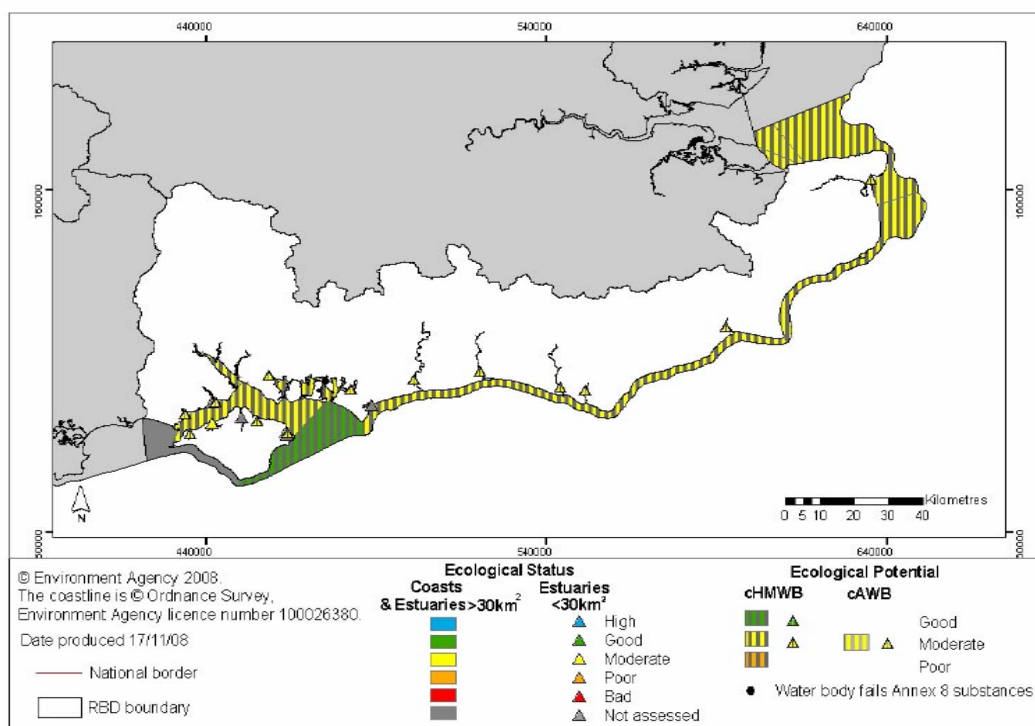
- Summarises the “Quality of the Water Environment” theme introducing the Water Framework Directive.
- Invites comment from representatives involved in this area of concern, the responses will be used to ensure a well informed and supported plan is developed.

## The Water Framework Directive

By understanding the current state of the water environment we can identify actions which will achieve improvements to both the water quality and habitat of our coastline. We need to manage the impacts of climate change, and accommodate significant growth in housing and other development. In viewing the whole water environment and tackling these issues jointly with coherency we maximise our collective resource and will increase our success.

This legislation includes rivers, estuaries, groundwater and coastal waters. Targeted assessment has defined most of our coastal waters as moderate ecological potential, as shown in the map below. The coastal waters are all classified as Heavily Modified due to coastal protection engineering, and as a result the overall target is to reach Good Ecological Potential.

## Southern River Basin Coastal Water Framework Classifications



The principal risks to water quality around our coasts are from:

- poorly planned development, which can lead to the loss or fragmentation of habitat and pressures on water quality and water resources;
- leaks and storm water discharges from sewage systems and private sewage treatment works;
- discharge of industrial waste containing chemicals and other pollutants;
- releasing contaminants from stirred up sediment during dredging and river maintenance for navigation;
- run-off from industrial estates, roads, driveways, car parks and car washing;
- land affected by contamination;

- use of fertilisers and pesticides, such as in parks, gardens, road verges and agriculture.

### **Integration of “Quality of the Water Environment” with other themes**

This theme is principally influenced by “Industry” and “Regeneration of Coastal Towns” themes. The speed of provision of infrastructure for growth and the regulatory approach that is taken all have direct influence on recreation, tourism and our local economic prosperity.

A number of sectors have responsibility for implementing measures that will contribute to lowering the impact of transport and the built environment. They include local government, the water industry, the construction industry and the Highways Agency.

### **Southern River Basin - Estuaries and coastal water bodies**

There are 17 coastal and 20 estuarine (or ‘transitional’) water bodies in the river basin district. Five (29 per cent) of our 17 coastal waters have been set an overall objective of ‘good’ for 2015, including Isle of Wight East, Sussex coastal waters and Kent North. None of our 20 estuarine waters will be in good overall status in 2015, though seven will be at good chemical status.

Our population concentrates pressures onto the coastline. Shorelines and estuaries have been physically altered – building towns and flood defences, and making space to navigate boats. There are therefore very few natural coastal and estuarine waters. We have also polluted our waters from run off and discharges. This pollution includes nutrients, bacteria at bathing water beaches and shellfish waters, and a legacy of chemicals in sediments.

Many of our physical modifications result from flood and coastal erosion management. Other uses of artificial and heavily modified waters are urban development, navigation and land drainage. Some measures have been identified to mitigate these impacts on ecology. More will be available in time for the final plan, when shoreline and catchment flood management plans have been adopted.

Nitrogen is a nutrient that causes an overgrowth of green seaweeds in many waters. This harms biodiversity, and can cause problems for recreation and navigation. Treating the problem is slow and expensive, and requires efforts to control run off from urban and rural land as well as improvements to sewage works. In some places, such as the Stour, we do not think that solving the problem by 2015 is technically feasible, as it isn’t clear what is causing the pollution.

We will improve sewage discharges and urban diffuse pollution to address eight Bathing Waters that are at risk of failing new Bathing Water Directive standards. There is also major investment planned to treat discharges that might otherwise affect the importance of our 25 Shellfish Waters.

We aim to achieve good chemical status in 59 per cent of coasts and 35 per cent of estuaries by 2015.

We have begun to monitor a broader range of elements in our coastal waters and estuaries. Over time, this will give us a more comprehensive picture of these waters, and help us direct action.

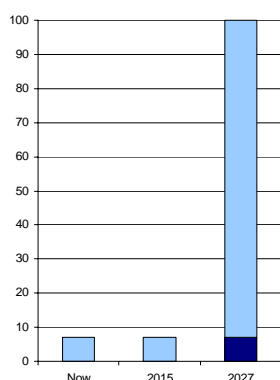


Figure 19 – Planned progress towards achieving good status and potential in estuaries and coasts

Natural estuary and coast ■  
 Artificial estuary and coast ■

### Medway and Swale Estuaries

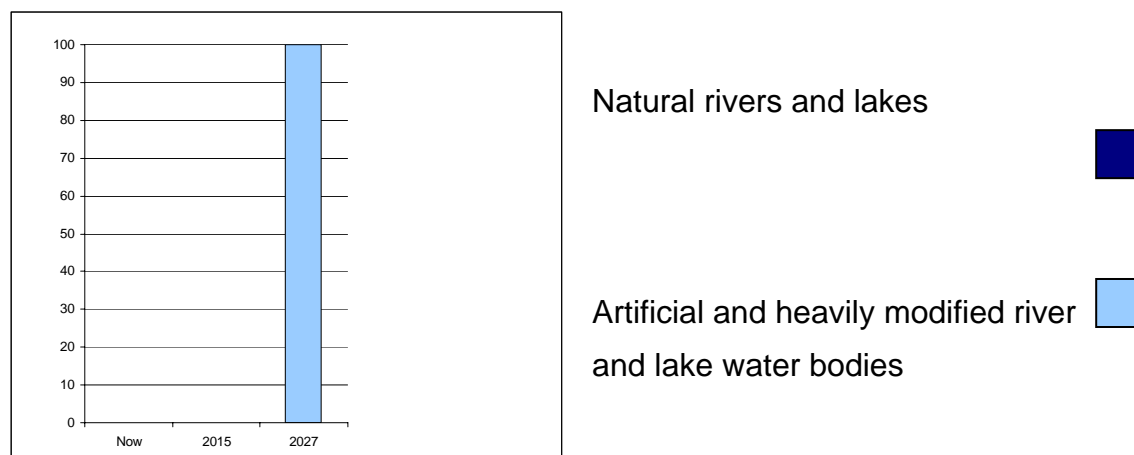
The Medway and Swale Estuaries are characterised by urban development, including Rochester and Gillingham and are home to industry and ports. Whitstable Bay is located at the mouth of the Swale, a typical Kent seaside town with an active fishing port and designated bathing waters. Murston Lakes connected to the upper Swale, were initially constructed for brickworks, later used for oyster rearing and are now part of Little Murston Nature Reserve. Allhallows Marshes, connecting to the outer Thames Estuary, lie within the North Kent Marshes. These areas provide a valuable habitat for many bird species and as such the majority is designated as a Special Protection Area (SPA).

Diffuse pollution from agricultural land resulting in high nutrient concentrations within the ground and surface waters is a key concern. Diffuse pollution from urban areas also leads to the release of specific harmful substances.

A major issue for these water bodies is physical modification to allow many uses including navigation, agriculture and flood defence. As a consequence, water bodies have been designated as candidate Heavily Modified Water Bodies (HMWB) due flood defence and ports / navigation, with the exception of Murston Lakes which are designated candidate Artificial Water Body (AWB). The status of HMWB / AWB dictates that the objective for this water body will be to achieve Good Ecological Potential (GEP). The increased need for capital dredging work represents an additional pressure for the Medway.

Continued development has been identified as a need within this catchment, particularly associated with the Key Government growth areas. Future development represents a further pressure on the water environment, but also offers opportunities to improve the physical environment via sustainable methods of planning and development.

## Planned progress towards achieving good status and potential in rivers in the Estuaries and Coastal waters catchment (percentage of water bodies)



### Policy Directions for “Quality of the Water Environment” on the Kent coast

Below are summarised actions for the coastal environment from the Southern and Thames Basin River Management Plan. The full reports can be found at [wfdconsultation.environment-agency.gov.uk/wfdcms/en/southeast/Intro.aspx](http://wfdconsultation.environment-agency.gov.uk/wfdcms/en/southeast/Intro.aspx) and [wfdconsultation.environment-agency.gov.uk/wfdcms/en/thames/Intro.aspx](http://wfdconsultation.environment-agency.gov.uk/wfdcms/en/thames/Intro.aspx)

#### Improving rural land management

- Land managers will benefit from agri-environment scheme funding, targeted at resource protection in those waters at risk from diffuse pollution.
- Improved farmland management will help reduce rural run-off, making sure bathing waters are safe.

#### Reducing the impact of transport and built environments

- Better understanding of where urban and green space management puts pressure on our, coasts and estuaries, in order to target improvements to pesticide management practice and urban drainage.
- The Green Blue and the British Marine Federation’s Environmental Code of Practice to promote pollution prevention and the conservation of the marine environment.
- Dredging is carried out in a way that is compatible with the achievement of Water Framework Directive objectives.

### **Improving wildlife habitats**

- Physical modifications for flood risk management and water supply;
- navigation impacts such as weirs, bank protection, dredging, bank erosion, river traffic;
- Fish will be able to swim more freely along our rivers and estuaries, as the result of addressing obstructions.
- Managed realignment leading to overall ecological improvement and greater flood resilience in these areas.

### **Addressing point source pollution**

- Water company investment will improve sewerage and sewage discharges at Margate, Broadstairs and Sandgate to safeguard against the risks of failing new Bathing Water Directive standards and result in bathing waters meeting stricter guideline standards and achieving blue flag beach status, so vital for our tourism.

The following questions are proposed for discussion, looking at WFD for the region

- **Have the right actions been identified?**
- **Can you help achieve the targets set?**