EA ANGLIAN BOX 15

Environment Agency

managing flood risk

East Suffolk Catchment Flood Management Plan

Summary of Scoping Report September 2006

We are the Environment Agency. It's our job to look after your environment a – for you, and for future generati

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Environment Agency
Kingfisher House
Goldhay Way, Orton Goldhay
Peterborough PE2 5ZR
Tel: 08708 506 506
Email: enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

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Contents

What this booklet tells you:

This booklet tells you about a Scoping Report we have recently published to highlight flood related issues in East Suffolk.

We are developing a Catchment Flood Management Plan (CFMP) for East Suffolk. This will be a high level strategic plan that will assess how flood risk might change and be managed over the next 50 to 100 years. The Scoping Report outlines our current understanding of flood risk in the East Suffolk CFMP area. It provides a broad understanding of flooding processes and how these may change in the future. Details of the timetable for producing the Final Plan are given on page 3.

This leaflet aims to:

- inform, and get responses from, interested groups or individuals about why and how flooding might occur and the impacts of it;
- obtain your views on how we intend to assess which flood management policies might be appropriate over the life of the CFMP.

In particular we would like your comments on:

- the possible future scenarios described on page 9;
- the draft CFMP objectives, which we will use to select appropriate flood risk management policies within the CFMP area.

You have until **8th December 2006** to return your comments using the feedback form at the end of this booklet. You will find questions on the form to assist you in making your response. If you would like to see the full Scoping Report, you can view this at any of the following libraries: Stowmarket, Ipswich (central), Woodbridge, Halesworth, Aldeburgh and Southwold.

Or if you would like your own copy on CD, please email us at esuffolkcfmp@environment-agency.gov.uk.

What is a Catchment Flood Management Plan (CFMP)?

A Catchment Flood Management Plan is a plan that develops long-term policies for sustainable flood risk management within a particular area

We are producing a CFMP for each major river or area in England and Wales. CFMPs look at flooding from all sources except for coastal flooding from the sea. This is considered in Shoreline Management Plans (SMPs).

CFMPs will identify the main factors influencing flood flows and flood risk, and will assess how these may change over time.

The Final Plan will outline sustainable flood risk management policies for the next 50 - 100 years. The policies will provide a balance between cost effectiveness, social needs and demands on land use for development and the environment. The CFMP will include a Strategic Environmental Assessment (SEA) that will look at how the policy options we propose might affect the environment.

It will seek to make sure that we provide a high level of protection and enhancement, wherever possible, to safeguard the environment for the future.

The policies will establish whether we should take action to allow flood risk to:

- increase in suitable areas
- be reduced
- remain at the current level.

The CFMP will not identify specific measures to manage flood risk but will identify where we should undertake further work.

Q Have we adequately explained what a Catchment Flood Management Plans is?

Brandeston Bridge, River Gipping

What is the Scoping Stage?

The Scoping Stage aims to present:

- an understanding of the sources, probability and consequences of flooding;
- a summary of past and present flood risk management measures;
- draft objectives to help us decide which flood risk management policies might be appropriate;
- the potential changes in land use management, urban growth and climate change that might affect the CFMP area in the future;
- an indication of the sensitivity of the CFMP area to future changes;
- proposed future scenarios to be tested in the next stage

Timetable for the East Suffolk CFMP

When	Milestone	Output
January 2006 - April 2006	Inception Stage	Initial data collection and understanding of the catchment. Engage with interested parties. Inception Report.
April 2006 - September 2006	Scoping Stage	Understand current flood risks and management. Identify draft opportunities and constraints. Identify draft scenarios and objectives. Scoping Report.
September 2006 - December 2006	Scoping Consultation	Consultation responses.
December 2006 - May 2007	Draft CFMP Stage	Finalise future scenarios. Develop opportunities and constraints. Select draft policies. Identify future strategies and studies. Draft CFMP Report.
May 2007 - July 2007	Draft CFMP Consultation	Consultation responses.
July 2007 - September 2007	Final CFMP	Agree and incorporate responses. Publish Final CFMP.

Catchment overview

The East Suffolk CFMP covers the Eastern part of Suffolk from Kessingland in the north down to Felixstowe in the South. The Western boundary is defined by the catchment boundaries of the rivers Gipping, Deben, Alde-Ore, Blyth, Lothingland Hundred and Belsted Brook. The eastern boundary extends to the North Sea coastline.

The CFMP area is made up of a number of separate watercourses that discharge independently to rivers, estuaries and the sea. Each watercourse has a separate catchment. For this CFMP, we have combined these to form a larger unit with a total area of 1,595km. The CFMP area is largely rural; it supports valuable agricultural industries and a range of important habitats and species. The main towns are: Ipswich, Stowmarket, Woodbridge, Halesworth, Kessingland and Southwold. Figure 1 shows the main features of the CFMP area.

Topography, geology, and geomorphologhy

The CFMP area is generally flat; most of the land is below 60m At Ordnance Datum (AOD). Relatively steep upper river reaches in the west, become flat towards the low coastal plains and estuaries in the east. Although some lowland river reaches in East Suffolk contain natural features, most river channels have been modified. Marine sands and gravels dominate northern and eastern parts of the CFMP area; chalk is more common to the west and in central locations.

Soils, land use and land management

Clay soils dominate the CFMP area which means that the East Suffolk catchments are prone to saturation and flashy river responses.

Over half of the CFMP area is Grade 3 land (good to moderate). Catchments are mainly rural with over 60% of the land managed as arable. Suffolk is an important producer of grain, sugar beet and vegetables. Vegetable and root crop production, turf growing and pig husbandry are the main types of land management towards the coast.

Environment and Heritage

The East Suffolk CFMP area contains a range of environmental and heritage sites. We are applying a Strategic Environmental Assessment (SEA) to the CFMP. The SEA will look at the potential environmental consequences of the flood risk management polices before they are approved.

We have identified the most important environmental "receptors" that may be at risk of flooding. We have identified where these receptors may be constrained or improved by flood risk management options.

Bailey Bridge, River Blyth

Farnham Bridge, River Alde

Heritage

Within the East Suffolk CFMP area there are:

- 153 Scheduled Ancient Monuments (SAMs), nine of these are at risk of flooding.
- 11 registered historic parks and gardens, four of these are at risk of flooding.
- 4,975 listed buildings, of which 230 are in areas at risk of flooding.

Wildlife

Within the East Suffolk CFMP area there are:

- Four Ramsar sites (wetlands of international importance)
- Six Special Protection Areas (SPA)
- Six Special Areas of Conservation (SAC)
- Five National Nature Reserves (NNR)
- 70 Sites of Special Scientific Interest (SSSI)
- 209 County Wildlife Sites (CWS)

Landscape

There are three Landscape Character Areas in the CFMP area:

- South Norfolk and High Suffolk Claylands
- South Suffolk and North Essex Claylands
- Suffolk Coast and Heaths

The Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) covers 403km^2 of coastline. It has a mixture of unique habitats and landscapes, and incorporates numerous protected species.

Water quality

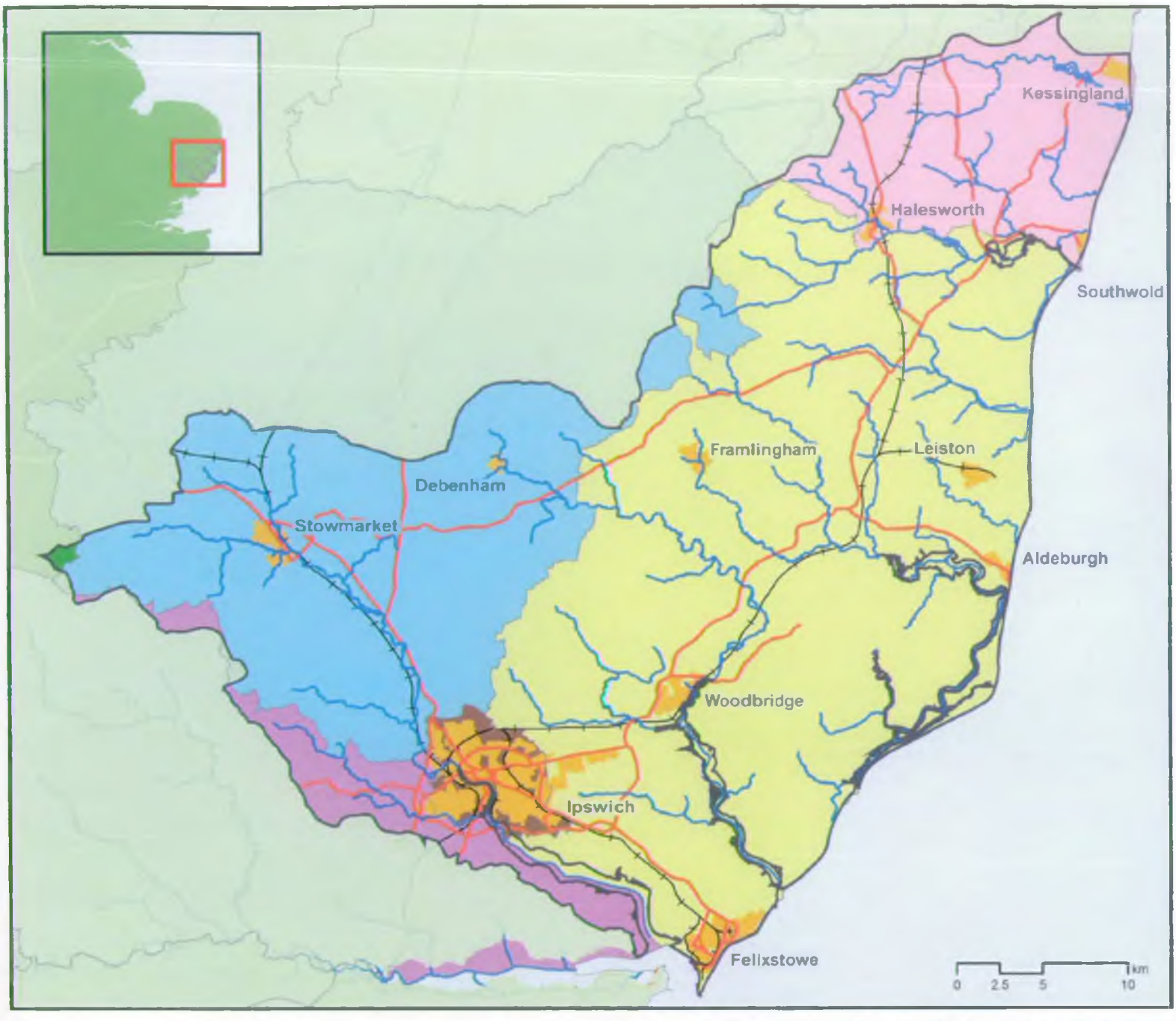
Much of the East Suffolk CFMP area has good to fairly good water quality.

The Water Framework Directive imposes a legal requirement to bring all waterbodies up to 'good' quality status by 2015. This will be a challenge; we will need to make sure that we do not compromise water quality when we adopt policies for the CFMP.

Tourism and Recreation

Tourism is an extremely important industry in East Suffolk and plays an important role in the local economy. The most popular recreational actives are walking, cycling, bird watching, water sports, boating and angling. It is important that the policies developed by the CFMP do not restrict the use of the environment, and where possible promotes its use and value.

Q Have we adequately described the important features of the East Suffolk catchments?



East Suffolk CFMP boundary
Main Rivers
Main Roads
Railway
Main Urban areas

District Council
Suffolk Coastal
Mid Suffolk
Waveney
Babergh
Ipswich
St. Edmundsbury

Figure 1 – The East Suffolk CFMP area

Current flood risks and management

We work with the Internal Drainage Boards, Local Authorities and Anglian Water in managing flood risk. Although we spend a significant amount each year on flood risk management, people, property and the environment remain at risk from flooding.

In East Suffolk the greatest source of flooding is from rivers and tides. Our flood map shows the areas at risk of flooding; you can look at this map on our website: www.environment-agency.gov.uk. Based on our flood map, for a 100-year event, tidal flooding represents 76 per cent of the total CFMP area at risk and river flooding represents 23 per cent. Areas at combined risk represent less than 1 per cent of the total CFMP area at risk of flooding.

River flooding is usually associated with winter storms. High intensity storms and prolonged rainfall events cause flooding because the geology and soils of East Suffolk are prone to saturation. Tidal flooding during extreme surge events is a significant threat in East Suffolk as coastal land and land surrounding the estuaries is low lying. The Lowestoft to Felixstowe Shoreline Management Plan (SMP) and Suffolk Estuarine Strategies cover most of the tidal flooding. However, in this CFMP we will consider tidal flood risk outside of the SMP and Estuarine Strategy boundaries.

Types of flood risk management within the catchment are:

- Pumped drainage - The Lothingland Hundred River drains to a pumping station south of Kessingland then out to sea. The Hollesley watercourse and Twin Banks watercourse are pumped to the River Ore south of Hollesley.
- Flood Storage area - this has been installed on the River Gipping upstream of Stowmarket to reduce peak flows.
- Management operations - there are numerous river and coastal defences throughout the CFMP area which are designed to protect against flood events of various sizes. We regularly maintain, monitor, and operate these defence structures. We also have an annual maintenance programme, which includes channel de-silting.
- Flood warning - most of the areas at risk of flooding are covered by our Flood Warning service. This aims to give two hours notice of the possible onset of flooding. However, we realise that, with some upper river reaches reacting very quickly to rainfall, we may not always be able to meet this target.

Flooding in Debenham, October 1993, taken by Mr P Carter

Q Have we adequately explained current flood risk and how we manage it?

Consequences of flooding

Flooding affects people, property and the environment. It has social, economic and environmental impacts.

Risks to people

Floods that happen with little warning, that generate fast and deep water flows, and that occur in areas of high population are of greatest risk to people. The greatest numbers of people at risk of flooding are in Ipswich where both river and tidal flooding could happen. Needham Market, Stowmarket and Debenham have high numbers of people at risk of river flooding. People are at greatest risk from tidal flooding in Felixstowe, Aldeburgh and Woodbridge.

Flooding can affect people either directly or indirectly, although certain groups are particularly vulnerable to flooding. These include the elderly, the long-term sick, lone parents and the financially deprived. Framlingham, Knodishall and Charsfield have high numbers of highly vulnerable people currently at risk from river flooding.

Risks to property and infrastructure

We estimate that under existing conditions, during a 100 year event, 2,146 properties are at risk of river flooding (this also included properties at risk from a 200 year tidal event in Ipswich). In addition, 2,332 properties are at risk of flooding from the sea in coastal towns and villages. Ipswich, Needham Market and Stowmarket have the greatest number of properties at risk of river flooding. Felixstowe, Aldeburgh and Woodbridge have the greatest number of properties at risk of tidal flooding.

Economic damage values represent losses caused by direct flooding of farmland and all types of property. Economic damages are greater in areas where more people live and where more properties are at risk of flooding. Our analysis suggests that the Gipping catchment would suffer greatest total economic losses from flooding. We estimate that under existing conditions, during a 100 year event, there would be a total of £140,545,000 property damages across the East Suffolk CFMP area.

Risks to the environment

Flooding poses direct and indirect risks to the natural and historic environment. Flooding of sensitive conservation areas or historical sites can cause immediate damage. Some areas may benefit from flooding, particularly floodplain habitats that would normally flood under 'natural' conditions. Many of the conservation areas at risk from flooding in the East Suffolk CFMP area are associated with estuaries and/or the coast. Tidal flooding is the greatest risk to these sites. The greatest risk to biodiversity from rivers is prolonged or frequent flooding. Flooding of salt water habitats with freshwater, and freshwater habitats with salt water, can cause long-lasting damage to sensitive animals and plants.

Flooding in Debenham, 1956, taken by Mr P Carter

Q Have we adequately recorded the social, economic and environmental impacts of flooding?

Possible future scenarios

In this CFMP, we must assess flooding conditions within the area over the next 50 to 100 years and compare this to the current situation.

Conditions in East Suffolk will not remain the same during the next 50 to 100 years. The processes and drivers that influence the way floods are generated, and the damage they cause will change in the future. In order to account for these changes we must begin to recognise what these changes are likely to be and how catchments are likely to respond.

Three factors which may increase future flood risk are:

- land use management
- urban expansion
- climate change.

Scenarios are a well established way of considering and describing future conditions, changes in catchment processes, and future levels of flood risk. The performance of various flood risk management policies will be tested against the future scenarios.

These future scenarios must be built from knowledge of the catchments, sensitivity to land use, climate change and from trends in the catchment.

Current knowledge suggests that further agricultural intensification and/or developments to the agricultural drainage system are unlikely. Therefore land management will not be taken forward as a scenario in the next stage of the CFMP.

Sensitivity testing showed that urbanisation does not have a significant impact at the catchment scale. However, urbanisation will have local impacts, particularly in the Gipping catchment.

In summary the future scenarios that we are proposing for the East Suffolk CFMP include:

- urban growth - low, medium, and high rates of urbanisation in the Gipping catchment;
- Climate change - low (5-10%), medium (10-20%), and high (20-30%) changes to peak flows.

These will be tested over a range of time periods.

Q Do you think we have identified the most appropriate scenarios?

Draft catchment objectives

The key objective of a CFMP is to develop complementary policies for long-term management of flood risk within the catchment, that take into account the likely impacts of changes in climate, the effects of land use and land management, deliver multiple benefits and contribute towards sustainable development.

We have developed draft objectives for the East Suffolk CFMP. These take into account the objectives of other interested groups within the CFMP area. The objectives will be finalised during the next stage of the CFMP. Once they are finalised, the objectives will be used to select the most appropriate flood risk management policies for specific units of the CFMP area.

In summary, the draft objectives for the East Suffolk CFMP are:

- To reduce flood risk to the built, rural and natural environment.
- To reduce flood related health risks and improve public awareness of flood warning and self help methods.
- To optimise joint use of the floodplain and river corridor for flood risk management, nature conservation and recreation functions.
- To manage flood risk so that Regional and Local Government development objectives can be achieved.
- To reduce flood risk to infrastructure and important services.
- To promote and protect land management practices that are beneficial for flood risk management, the rural economy and biodiversity.
- To protect/enhance and restore features of nature conservation interest including Biodiversity Action Plan (BAP) species and habitats (designated and non-designated sites).
- To protect, enhance and restore natural features and processes of the water environment for flood risk management, recreation and biodiversity benefit.
- To protect and enhance cultural heritage features, landscape character and visual amenity.
- To account for and manage the potential impacts of climate change.

Q Do you agree with these draft catchment objectives?

Q Should we consider other objectives?

Developing the CFMP

This consultation period may produce further information and comments that we can use in the draft CFMP. Once we are satisfied that we have taken account of all comments, we will produce the draft CFMP for consultation.

When we develop the draft CFMP, we will:

- review Scoping Stage consultation responses
- finalise future scenarios
- assess future flood risk
- develop opportunities and constraints
- identify policy options and policy units
- appraise policies
- select the preferred policies
- develop a monitoring and action plan
- produce the Draft CFMP
- issue the Draft CFMP for consultation.

Responses from the Draft CFMP consultation period will be incorporated into the Final CFMP. The Final CFMP will be published around two months after the end of the Draft CFMP consultation period.

Great Bealings, River Fynn

Notes

Feedback form

Thank you for taking the time to fill in this questionnaire.

Name: ..... Organisation: .....

Address: .....

..... E-mail: .....

Section 1

Please use this section to give us feedback on the contents of this summary document. You can also use this form to respond to the full Scoping Report.

1. Have we adequately explained what a Catchment Flood Management Plan is?

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2. Have we adequately described the important features of the East Suffolk catchments?

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3. Have we adequately explained current flood risk and how we manage it?

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4. Have we accurately recorded the social, economic and environmental impacts of flooding?

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5. Do you think we have identified the most appropriate scenarios?

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6. Do you agree with these draft catchment objectives?

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7. Should we consider other objectives?

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8. Any other comments, questions or feedback?

.....

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Section 2

Please use this section to give us feedback about how you have received information from us.

9. How did you receive the East Suffolk CFMP Summary Document?

☐ Paper copy by post ☐ CD ☐ Internet

10. Was the information easy to understand?

☐ Yes ☐ No

11. Was there enough information? ☐ Yes ☐ No

12. Would you prefer to have received the full Scoping Report report? ☐ Yes ☐ No

13. Was the format right for you? ☐ Yes ☐ No

If no, why? .....

.....

6. Are you confident that we will take your comments into account? ☐ Yes ☐ No

If no, why not? .....

.....

Please return completed forms to Lucy Harper East Suffolk CFMP Project Manager, Environment Agency, Kingfisher House, Goldhay Way, Orton Goldhay, Peterborough, Cambridgeshire, PE2 5ZR.

Comments can also be e-mailed to:
esuffolkcfmp@environment-agency.gov.uk

We look forward to receiving your comments on this current stage. However, when you respond please keep in mind that the CFMP is a high level document taking a strategic view at the catchment scale. It will not address local issues in detail or flooding from the sea.

Would you like to find out more about us, or about your environment?

Then call us on

08708 506 506 (Mon-Fri 8-6)

email

enquiries@environment-agency.gov.uk

or visit our website

www.environment-agency.gov.uk

incident hotline 0800 80 70 60 (24hrs)
floodline 0845 988 1188

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